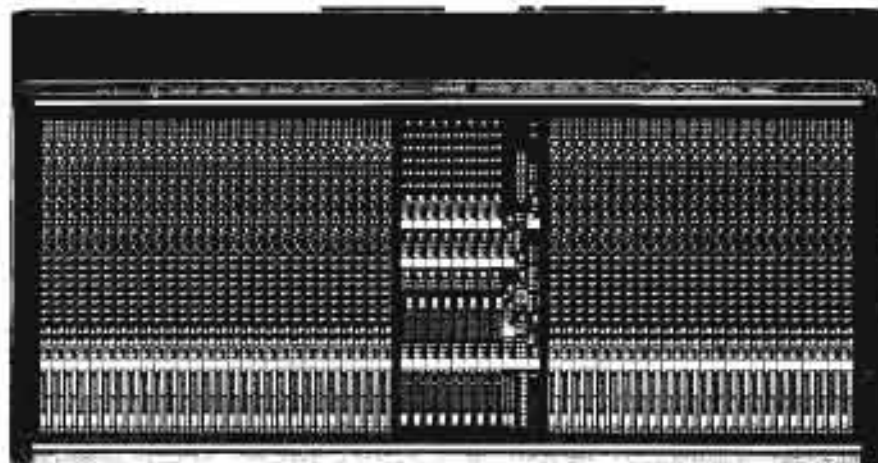


PROFESSIONAL AUDIO MIXING CONSOLE
PM4000
 POWER SUPPLY for PM4000 Series
PW4000

SERVICE MANUAL



PM4000-48



PW4000

■ **CONTENTS** (目次)

| | | | |
|---|----|--|--------|
| SPECIFICATIONS (総合仕様)..... | 2 | CHANGING THE FUNCTIONS WITH INTERNAL SWITCHES (内部切替スイッチによる機能変更)..... | 47 |
| BLOCK AND LEVEL DIAGRAM..... | 6 | IC BLOCK DIAGRAM (ICブロック図)..... | 63 |
| PM4000 PANEL LAYOUT (PM4000パネルレイアウト)..... | 8 | PM4000 INSPECTIONS (PM4000の検査)..... | 67/86 |
| PW4000 PANEL LAYOUT (PW4000パネルレイアウト)..... | 27 | PM4000 ADJUSTMENTS (PM4000の調整)..... | 79/99 |
| PM4000 DIMENSIONS (PM4000寸法図)..... | 28 | PW4000 INSPECTIONS AND ADJUSTMENTS (PW4000の検査と調整)..... | 84/104 |
| PW4000 DIMENSIONS (PW4000寸法図)..... | 29 | CIRCUIT BOARDS AND CIRCUIT DIAGRAMS (シート基板図と回路図)..... | 107 |
| CIRCUIT BOARD WIRING (基板結線図)..... | 30 | PARTS LIST | |
| REMOVING AND INSTALLING A MODULE (モジュールの取り外しと取り付け)..... | 46 | | |

LM 011118

19920501-5500000-24 19920501-7700000-40
 19920501-6600000-32 19920501-8800000-48

YAMAHA CORP.

HAMAMATSU, JAPAN
 1.55K-76152 © Printed in Japan '93.3

IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ SPECIFICATIONS (総合仕様)

PM4000 Mixing Console General Specifications

| | | |
|---|--|---|
| Total Harmonic Distortion (Master Output) | <0.1% (THD+N) | 20 Hz – 20 kHz @ +14 dBu, 600Ω |
| | <0.01% (2nd – 10th harmonics) | 20 Hz – 20 kHz @ +14 dBu, 600Ω |
| Frequency Response (Master Output) | 0 +1 dB, -3 dB | 20 Hz – 20 kHz @ +4 dBu, 600Ω |
| Hum & Noise (48 Channels) (20 Hz – 20 kHz) RS + 150Ω Input Gain = Max. Input Pad = OFF Input Sensitivity = -70 dB | -128 dB | Equivalent Input Noise |
| | -100 dB | Residual Output Noise |
| | -85 dB (89 dB S/N) | GROUP OUT Master fader at nominal level, all channel assign switches OFF |
| | -54 dB (58 dB S/N) | GROUP OUT Master fader at nominal level, one channel fader at nominal level |
| | -84 dB (88 dB S/N) | STEREO OUT Master fader at nominal level, all channel assign switches OFF |
| -94 dB (98 dB S/N) | MTRX OUT Master and Matrix mix controls at maximum level, all GROUP to MTRX switches OFF | |
| Crosstalk | -80 dB @ 1 kHz, -70 dB @ 10 kHz | adjacent inputs or input to output |
| Maximum Voltage Gain | 94 dB | CH IN to GROUP OUT/STEREO OUT (CH to ST)/MTRX OUT |
| | 104 dB | CH IN to stereo out (G to ST) |
| | 90 dB | CH IN to AUX OUT (PRE)/AUX ST OUT (PRE, LVL) |
| | 100 dB | CH IN to AUX OUT (POST)/AUX ST OUT (POST, LVL) |
| | 87 dB | CH IN to AUX ST OUT (PRE, PAN) |
| | 84 dB | CH IN to CH DIRECT OUT |
| | 104 dB | CH IN to MONITOR OUT (GROUP to MONITOR) |
| | 84 dB | CH IN to MONITOR OUT (INPUT CUE) |
| | 94 dB | ST IN (ST/L/R) to GROUP OUT |
| | 91 dB | ST IN (L+R) to GROUP OUT |
| | 87 dB | ST IN (ST/L/R) to AUX OUT (mono, PRE) |
| | 90 dB | ST IN (L/R) to AUX OUT (mono, PRE) |
| | 90 dB | ST IN (ST/L/R) to AUX ST OUT (stereo, PRE LVL) |
| | 87 dB | ST IN (L+R) to AUX ST OUT (stereo, PRE LVL) |
| | 87 dB | ST IN (ST/L/R) to AUX ST OUT (stereo, PRE, BAL) |
| | 84 dB | ST IN (L+R) to AUX ST OUT (stereo, PRE, BAL) |
| | 64 dB | TB IN to TB OUT |
| | 0 dB | SUB IN (MTRX) to MTRX OUT |
| 10 dB | SUB IN (Others) to OUT (Others) | |
| 10 dB | 2TR IN to MONITOR OUT | |
| Channel Equalization | ±15 dB maximum | HIGH 1k – 20 kHz (shelving/peaking, Q = 0.5 – 3) |
| | | HI-MID 0.4 k – 8 kHz (peaking, Q = 0.5 – 3) |
| | | LO-MID 80 – 1.6 kHz (peaking, Q = 0.5 – 3) |
| | | LOW 30 – 600 Hz (shelving/peaking, Q = 0.5 – 3) |
| Channel High Pass Filter | 12 dB/octave | Roll off below 20 – 400 Hz @ -3 dB points |
| Oscillator/Noise Generator | Switchable sine wave @ 100 Hz, 1 kHz, 10 kHz or pink noise | Frequency sweepable at x0.2 – 2.0 nominal; less than 1% THD at +4 dBu |
| CH Preamp & EQ Peak Indicators | Red LED | Built into each input and stereo-in module; turns on when pre-EQ level or post-EQ level reaches 3 dB below clipping |
| Channel LED Meter | 6 LEDs | Level meter built into each monaural and stereo input module |

| | | | |
|--|-----------------|--|--|
| VU Meters (0 VU = +4 dBu output) 24 or 32 channel consoles | 2 large meters | Illuminated meters: STEREO L,R | |
| | 12 small meters | Illuminated meters, all switchable: #1 – #4; GROUP (1 – 4) / MTRX (1 – 4) / AUX (1 – 4) #5 – #8; GROUP (5 – 8) / MTRX (5 – 8) / AUX (5 – 8) #9; AUX ST1 L / MONITOR A L (pre-MONITOR control) #10; AUX ST1 R / MONITOR A R (pre-MONITOR control) #11; AUX ST 2 L / TB #12; AUX ST 2 R / OSC | |
| 40 or 48 channel consoles | 16 small meters | Illuminated meters, all switchable: #1 – #8; GROUP (1 – 8) / MTRX (1 – 8) / AUX (1 – 8) #9; GROUP 1 / MTRX 1 / AUX ST1 L #10; GROUP 2 / MTRX 2 / AUX ST1R #11; GROUP 3 / MTRX 3 / AUX ST2L #12; GROUP 4 / MTRX 4 / AUX ST2R #13; GROUP 5 / MTRX 5 / MONITOR A L (pre) #14; GROUP 6 / MTRX 6 / MONITOR A R (pre) #15; GROUP 7 / MTRX 7 / TB #16; GROUP 8 / MTRX 8 / OSC | |
| VU Meter Peak Indicators | LED (red) | Built into each VU meter, the LED turns on when the pre-line amp level reaches 3 dB below clipping | |
| Phantom Power | +48 V dc | Available at balanced inputs (via 6.8 kΩ current limiting/isolation resistors) for powering condenser microphones; may be turned ON or OFF via rear-panel Phantom Master switch. When Master is ON, individual channels may be turned OFF or ON via +48V switches on the mono input, stereo input and talkback modules | |
| Dimensions (W x H x D) | 48 Channel | 2086 x 346 x 1121 mm | 82- ¹ / ₈ x 13- ⁵ / ₈ x 44- ¹ / ₈ inches |
| | 40 Channel | 1846 x 346 x 1121 mm | 72- ¹¹ / ₁₆ x 13- ⁵ / ₈ x 44- ¹ / ₈ inches |
| | 32 Channel | 1586 x 346 x 1121 mm | 62- ⁷ / ₁₆ x 13- ⁵ / ₈ x 44- ¹ / ₈ inches |
| | 24 Channel | 1346 x 346 x 1121 mm | 53 x 13- ⁵ / ₈ x 44- ¹ / ₈ inches |
| Weight | 48 Channel | 183 kg | 403 lbs. 7 oz |
| | 40 Channel | 161 kg | 354 lbs. 14 oz |
| | 32 Channel | 137 kg | 301 lbs. 15 oz |
| | 24 Channel | 115 kg | 253 lbs. 7 oz |

PW4000 Power Supply Specifications

| | | | | |
|----------------------------------|-------------------|--------------------------|--------------------------|--------|
| Power Requirements | Japan | 100 V, 50/60 Hz | 48 Channel | 1100 W |
| | | | 40 Channel | 1000 W |
| | | | 32 Channel | 900 W |
| | | | 24 Channel | 800 W |
| | CSA/UL General | 120 V, 60 Hz | 1500 VA | 1250W |
| | | 230/240 V, 50/60 Hz | | 1250W |
| DC Output Voltages | | | ±19V | 13 A |
| | | | +12V | 8 A |
| | | | +48 V | 0.7 A |
| Fuses | Main (x3) | | 6 A | 250 V |
| | Sub (x1) | | 2A | 250 V |
| Dimensions (W x H x D) | | 480.0 x 186.0 x 460.6 mm | 18.8 x 7.3 x 18.1 inches | |
| Weight | | 36 kg | 79.4 pounds | |

INPUT CHARACTERISTICS

| Connection | PAD | Gain Trim | Actual load Impedance | For use with Nominal | Input level (*3) | | | Connector in Mixer (*2) |
|--|-----|------------------|-----------------------|--------------------------------|-------------------|------------------|------------------|-------------------------|
| | | | | | Sensitivity (*4) | Nominal | Max before Clip | |
| CH IN 1 ~ [ch (*1)] ST CH IN 1 ~ 4ch | 0 | -70 | 3kΩ | 50Ω ~ 600Ω mics and 600Ω lines | -90 dB (0.025 mV) | -70 dB (0.25 mV) | -48 dB (3.09 mV) | XLR-3-31 type |
| | 30 | | | | -60 dB (0.775 mV) | -40 dB (7.75 mV) | -18 dB (97.6 mV) | |
| | 0 | -40 dB (7.75 mV) | | | -20 dB (77.5 mV) | +2 dB (0.976 V) | | |
| | 30 | -10 dB (245 mV) | | | +10 dB (2.45 V) | +32 dB (30.9 V) | | |
| SUB IN GROUP (1 ~ 8) STEREO (L, R) AUX (1 ~ 8) AUX ST1, 2 (L, R) CUE (L, R) MTRIX (1 ~ 8) | | | 10kΩ | 600Ω lines | -6 dB (388 mV) | +4 dB (1.23 V) | +26 dB (15.5 V) | XLR-3-31 type |
| | | | | | +4 dB (1.23 V) | | | |
| TALKBACK IN | -50 | | 3kΩ | 50 ~ 600Ω mics | -70 dB (0.25 mV) | -50 dB (2.45 mV) | -28 dB (30.3 mV) | XLR-3-31 type |
| | +4 | | | 600Ω lines | -16 dB (123 mV) | +4 dB (1.23 V) | +26 dB (15.5 V) | |
| INSERT IN CH 1 ~ [ch (*1)] ST CH 1 ~ 4ch GROUP (1 ~ 8) STEREO (L, R) AUX (1 ~ 8) AUX ST1, 2 (L, R) MTRIX (1 ~ 8) | | | 10kΩ | 600Ω lines | -16 dB (123 mV) | +4 dB (1.23 V) | +26 dB (15.5 V) | Phone Jack (TRS) |
| | | | | | -6 dB (388 mV) | | | |
| | | | | | +4 dB (1.23 V) | | | |
| | | | | | | | | |
| 2TR IN 1, 2 (L, R) | | | 10kΩ | 600Ω lines | -6 dB (388 mV) | +4 dB (1.23 V) | +26 dB (15.5 V) | XLR-3-31 type |

- NOTES: *1 PM4000 -24: 24 ch, -32: 32 ch, -40C: 40 ch, -48C: 48 ch
 *2 All XLR connectors are electronically balanced. Phone jacks are balanced with Tip = signal high (+), Ring = signal low (-), and Sleeve = ground.
 *3 In these specifications, when dB represents a specific voltage, 0 dB is referenced to 0.775 Vrms.
 *4 Sensitivity is the lowest level that will produce an output of +4 dB (1.23 V), or the nominal output level when the unit is set to maximum level.

OUTPUT CHARACTERISTICS

| Connection | Actual source Impedance | For use with Nominal | Output level (*3) | | Connector in Mixer (*2) |
|---|-------------------------|----------------------|-------------------|-----------------|-------------------------|
| | | | Nominal | Max before Clip | |
| GROUP OUT (1 ~ 8) STEREO OUT (L, R) MTRIX OUT (1 ~ 8) AUX OUT (1 ~ 8) AUX ST1, 2 OUT (L, R) TALKBACK OUT OSC OUT | 150 Ω | 600Ω lines | +4 dB (1.23 V) | +24 dB (12.3 V) | XLR-3-32 type |
| CH DIRECT OUT 1 ~ [ch (*1)] | 150 Ω | 600Ω lines | +4 dB (1.23 V) | +24 dB (12.3 V) | Phone Jack (TRS) |
| CH INSERT OUT 1 ~ [ch (*1)] ST CH INSERT OUT 1 ~ 4ch GROUP INSERT OUT (1 ~ 8) STEREO INSERT OUT (L, R) MTRIX INSERT OUT (1 ~ 8) AUX INSERT OUT (1 ~ 8) AUX ST1, 2 INSERT OUT (L, R) | 150 Ω | 10kΩ lines | +4 dB (1.23 V) | +24 dB (12.3 V) | Phone Jack (TRS) |
| PHONES OUT 1, 2 (L, R) | 15 Ω | 8Ω Phones | 75 mW | 150 mW | Phone Jack (STEREO) |
| | | 40Ω Phones | 65 mW | 150 mW | |

- NOTES: *1 PM4000 -24: 24 ch, -32: 32 ch, -40C: 40 ch, -48C: 48 ch
 *2 All XLR connectors are electronically balanced. Phone jacks are balanced with Tip = signal high (+), Ring = signal low (-), and Sleeve = ground. Phone Jacks (STEREO) are unbalanced.
 *3 In these specifications, when dB represents a specific voltage, 0 dB is referenced to 0.775 Vrms.

■入力仕様

| コネクション | PAD | GAIN Trim | 実効入力インピーダンス | ソースインピーダンス | 入力レベル ⁴ | | | 使用コネクタ ³ |
|-----------------------|-----|-----------|--------------|---|--------------------|----------------|----------------|---------------------|
| | | | | | 感度 ² | ノミナルレベル | MAX (クリップ時) | |
| MONO CH IN *1 ~*ch | 0 | -70 | 3k Ω | 50~600 Ω Mics & 600 Ω Lines | -90dB (0.025mV) | -70dB (0.25mV) | -48dB (3.09mV) | XLR-3-31 type |
| | 30 | | | | -60dB (0.775mV) | -40dB (7.75mV) | -18dB (97.6mV) | |
| STEREO CH IN 1~4ch | 0 | -20 | 10k Ω | 600 Ω Lines | -40dB (7.75mV) | -20dB (77.5mV) | +2dB (0.976V) | |
| | 30 | | | | -10dB (245mV) | +10dB (2.45V) | +32dB (30.9V) | |
| SUB IN | | | | | | | | |
| GROUP (1~8) | | | 10k Ω | 600 Ω Lines | -6dB (388mV) | +4dB (1.23V) | +26dB (15.5V) | XLR-3-31 type |
| STEREO (L, R) | | | | | | | | |
| AUX (1~8) | | | | | | | | |
| AUX ST1, 2 (L, R) | | | | | | | | |
| CUE (L, R) | | | | | | | | |
| MTRX (1~8) | | | 10k Ω | 600 Ω Lines | +4dB (1.23V) | +4dB (1.23V) | +26dB (15.5V) | XLR-3-31 type |
| TALKBACK IN | -50 | | 3k Ω | 50~600 Ω Mics | -70dB (0.25mV) | -50dB (2.45mV) | -28dB (30.9mV) | XLR-3-31 type |
| | +4 | | | 600 Ω Lines | -16dB (123mV) | +4dB (1.23V) | +26dB (15.5V) | |
| INSERT IN | | | | | | | | |
| CH ¹ 1~*ch | | | 10k Ω | 600 Ω Lines | -16dB (123mV) | +4dB (1.23V) | +26dB (15.5V) | Phones Jack (TRS) |
| ST CH 1~4ch | | | | | | | | |
| GROUP (1~8) | | | 10k Ω | 600 Ω Lines | -6dB (388mV) | +4dB (1.23V) | +26dB (15.5V) | Phones Jack (TRS) |
| STEREO (L, R) | | | | | | | | |
| AUX (1~8) | | | | | | | | |
| AUX ST1, 2 (L, R) | | | | | | | | |
| MTRX (1~8) | | | 10k Ω | 600 Ω Lines | +4dB (1.23V) | +4dB (1.23V) | +26dB (15.5V) | Phones Jack (TRS) |
| 2TR IN 1, 2 (L, R) | | | 10k Ω | 600 Ω Lines | -6dB (388mV) | +4dB (1.23V) | +26dB (15.5V) | XLR-3-31 type |

* 1 PM4000 - 24 : 24ch, - 32 : 32ch, - 40C : 40ch, - 48C : 48ch

* 2 規定出力レベル (+4dB = 1.23V) の出力を得るために必要な最小の入力レベル

* 3 全てのXLRコネクタおよびフォンジャックはバランスタイプ (T = +, R = -, S = GND)

* 4 0dB = 0.775Vrms

■出力仕様

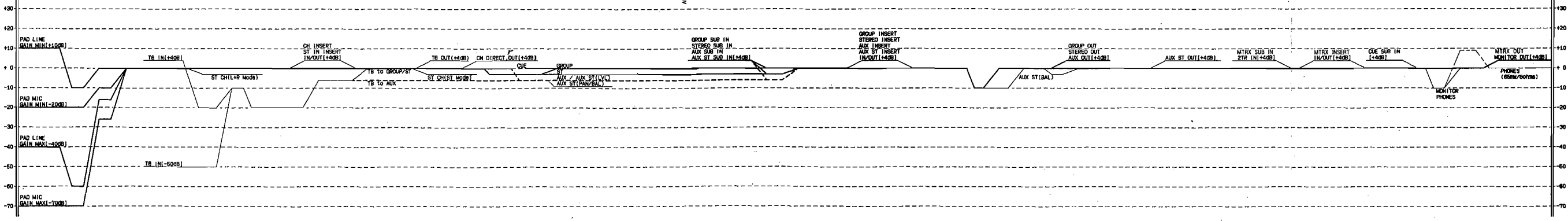
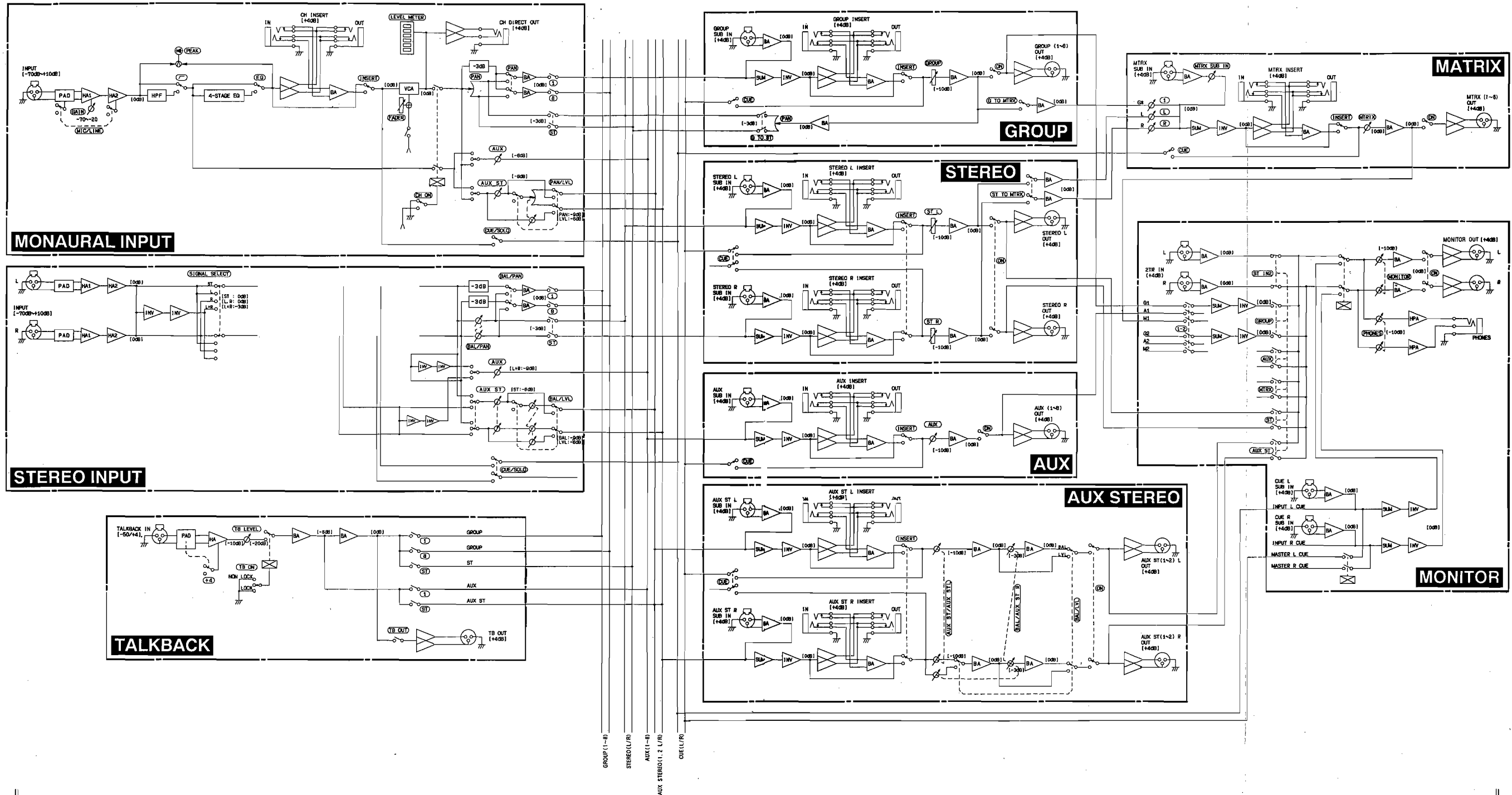
| コネクション | 実効ソースインピーダンス | ノミナルレベル時 | 出力レベル ³ | | 使用コネクタ |
|----------------------------------|--------------|--------------------|--------------------|---------------|----------------------|
| | | | ノミナルレベル | MAX (クリップ時) | |
| GROUP OUT (1~8) | 150 Ω | 600 Ω Lines | +4dB (1.23V) | +24dB (12.3V) | XLR-3-32 type |
| STEREO OUT (L, R) | | | | | |
| MTRX OUT (1~8) | | | | | |
| AUX OUT (1~8) | | | | | |
| AUX ST1, 2 OUT (L, R) | | | | | |
| MONITOR A, B OUT (L, R) | | | | | |
| TALKBACK OUT | | | | | |
| OSC OUT | | | | | |
| CH DIRECT OUT ¹ 1~*CH | 150 Ω | 600 Ω Lines | +4dB (1.23V) | +24dB (12.3V) | Phone Jack (TRS) |
| CH INSERT OUT ¹ 1~*CH | 150 Ω | 10k Ω Lines | +4dB (1.23V) | +24dB (12.3V) | Phone Jack (TRS) |
| ST CH INSERT OUT 1~4ch | | | | | |
| GROUP INSERT OUT (1~8) | | | | | |
| STEREO INSERT OUT (L, R) | | | | | |
| MTRX INSERT OUT (1~8) | | | | | |
| AUX INSERT OUT (1~8) | | | | | |
| AUX ST1, 2 INSERT OUT (L, R) | | | | | |
| PHONES OUT 1, 2 (L, R) | 150 Ω | 8 Ω Phones | 75mW | 150mW | Phones Jack (Stereo) |
| | | 40 Ω Phones | 65mW | 150mW | |

* 1 PM4000 - 24 : 24ch, - 32 : 32ch, - 40C : 40ch, - 48C : 48ch

* 2 全てのXLRコネクタおよびフォンジャックはバランスタイプ (T = +, R = -, S = GND)

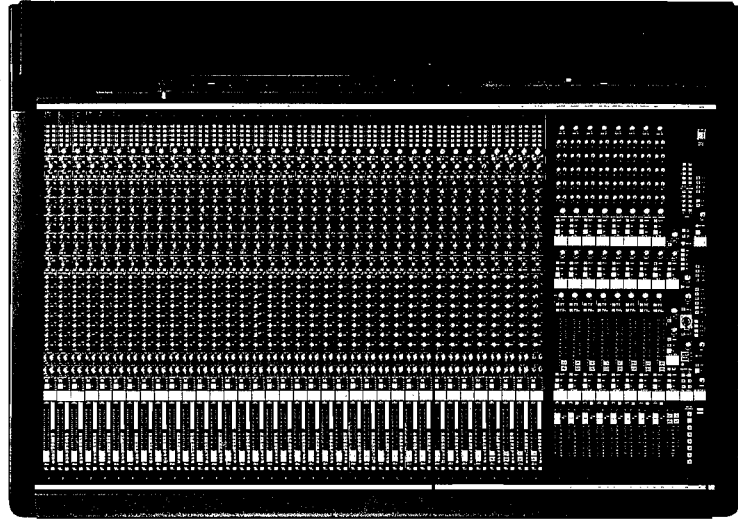
* 3 0dB = 0.775Vrms

BLOCK AND LEVEL DIAGRAM



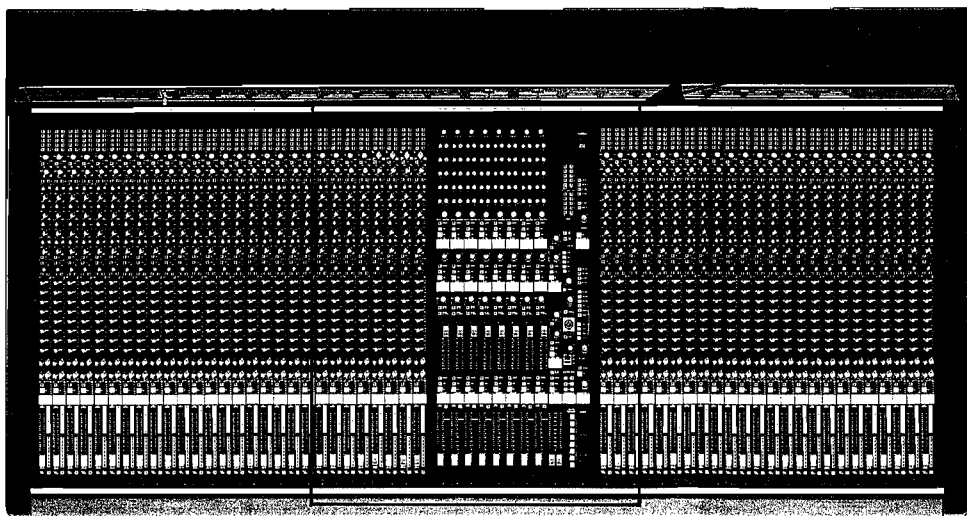
PM4000 PANEL LAYOUT (PM4000パネルレイアウト)

● PM4000-32/PM4000-24

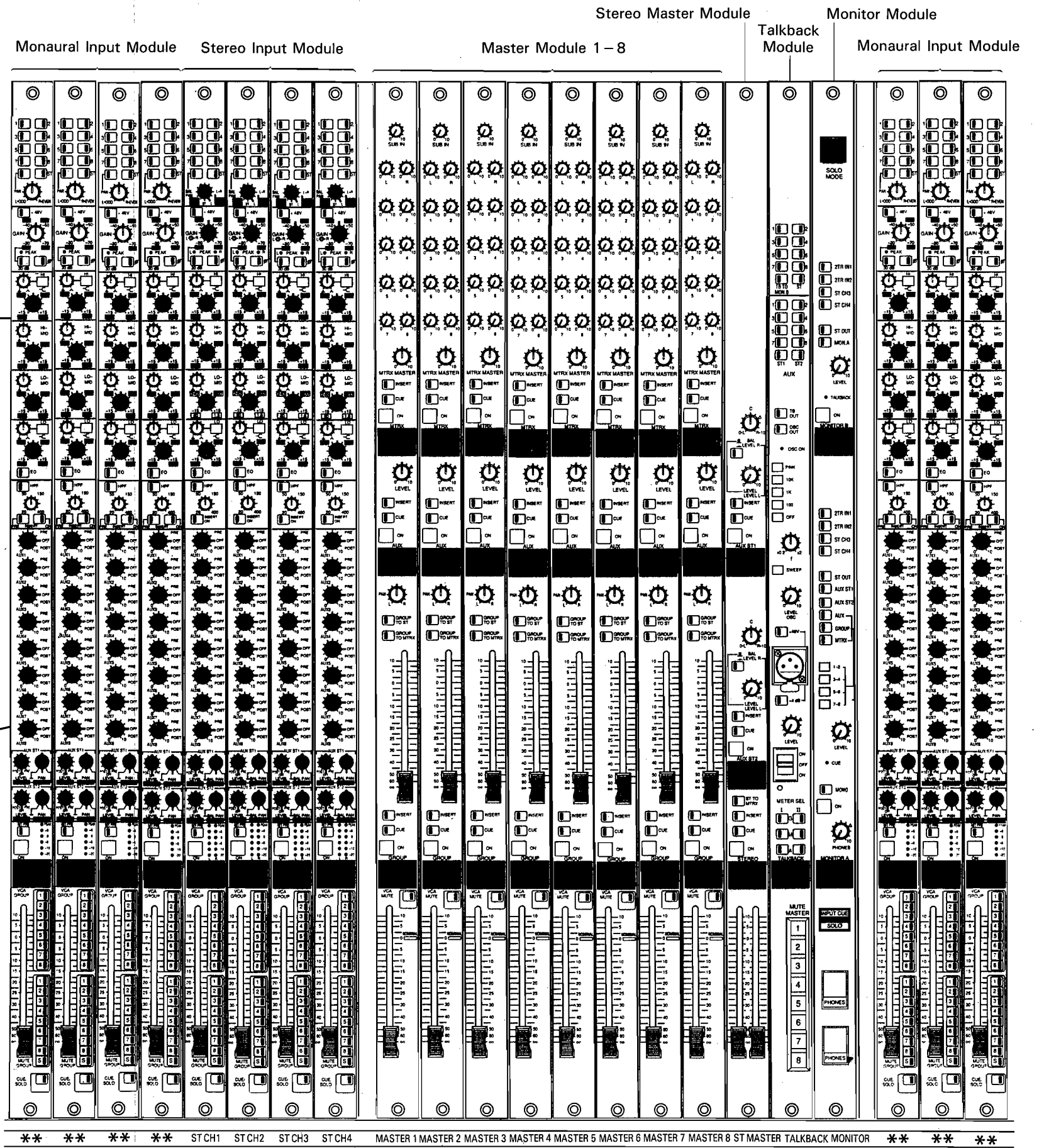


PM4000-32

● PM4000-48/PM4000-40

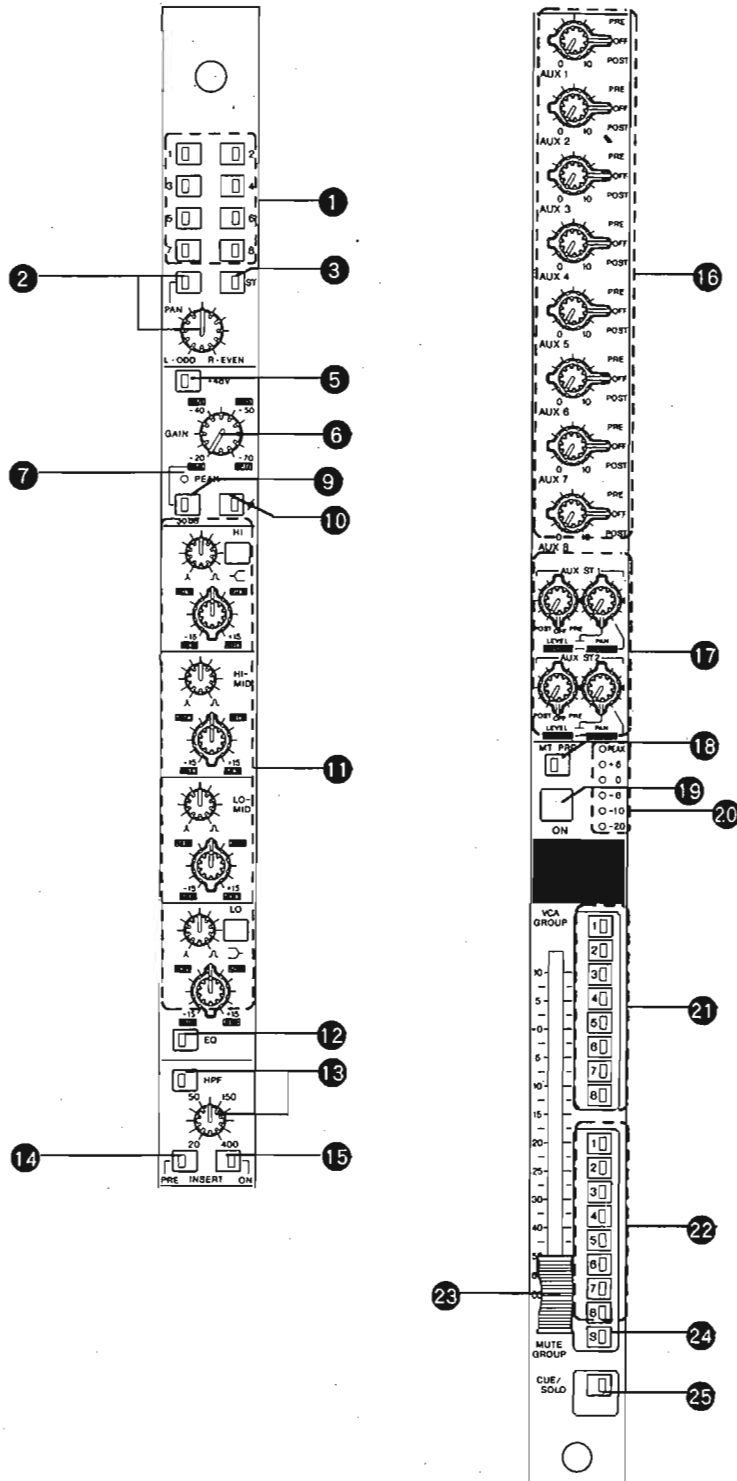


PM4000-48



■ FRONT PANEL (フロントパネル)

● Monaural Input Module (MONO INPUT モジュール)

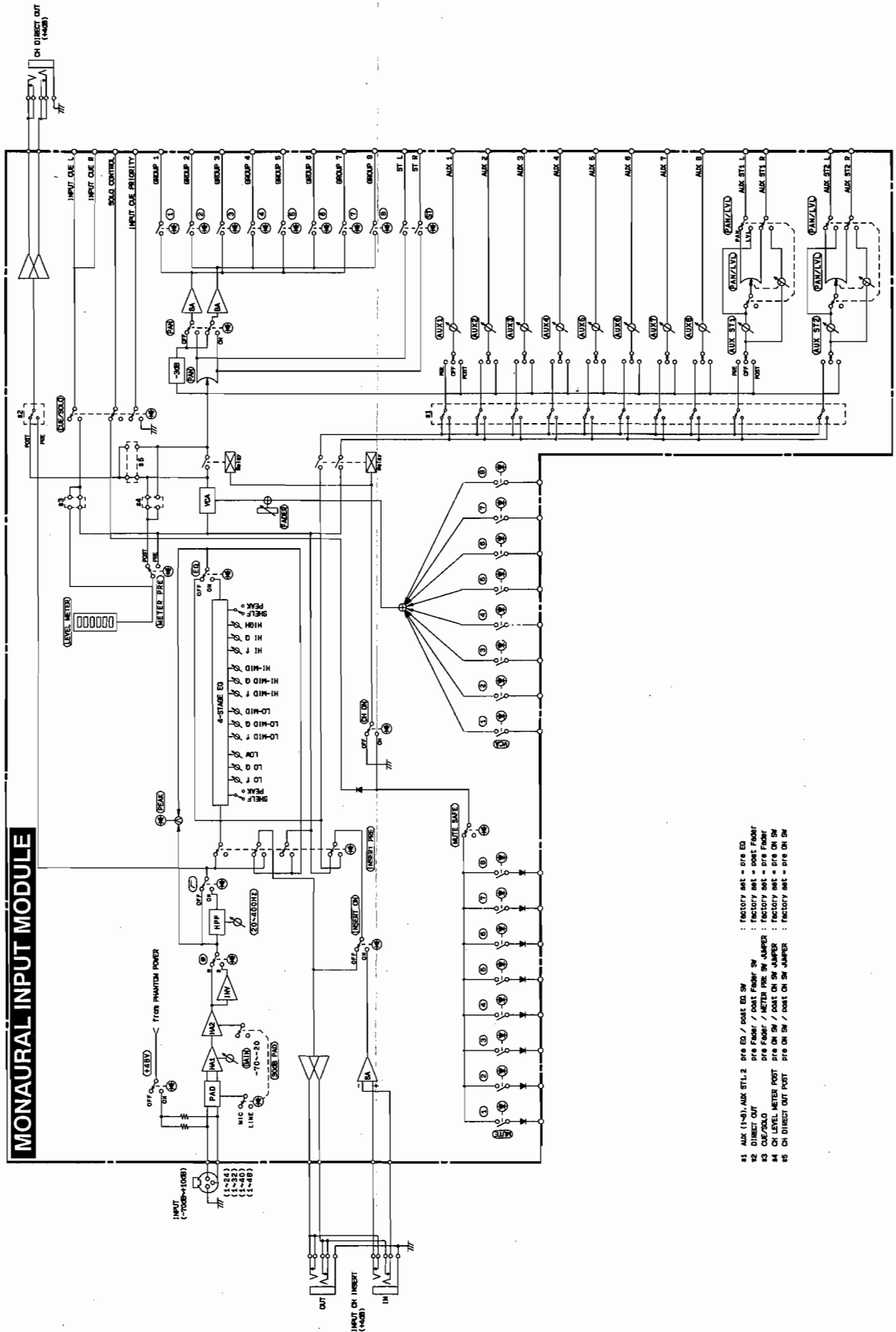


- ① 1 2 3 4 5 6 7 8 (ASSIGN switches)
- ② PAN (switch & rotary control)
- ③ ST (Stereo)
- ④ +48V
- ⑤ GAIN
- ⑥ PEAK
- ⑦ 30 dB (pad switch)
- ⑧ φ (Phase)
- ⑨ EQUALIZER
- ⑩ EQ (In/Out switch)
- ⑪ HPF (H.P. filter in/out switch and control)
- ⑫ INSERT PRE
- ⑬ INSERT ON
- ⑭ AUX 1-8 (Send level & Pre/Off/Post switches)
- ⑮ AUX ST1 & AUX ST2
- ⑯ MT PRE switch
- ⑰ ON switch (Channel On)
- ⑱ Channel level meter
- ⑲ VCA GROUP (Assign 1-8)
- ⑳ MUTE (Assign 1-8)
- ㉑ FADER
- ㉒ S (Mute safe)
- ㉓ CUE/SOLO

- ① GROUP OUT Assign (グループアウト選択) スイッチ
- ② PAN (パンポットON/OFF) スイッチ、コントロール
- ③ ST (STEREO OUT) 選択スイッチ
- ④ +48V (ファントム) スイッチ
- ⑤ GAIN (入力感度) コントロール
- ⑥ PEAKインジケータ
- ⑦ 30dB (パッドスイッチ)
- ⑧ φ (位相切り替え) スイッチ
- ⑨ イコライザー
- ⑩ EQ (EQ ON/OFF) スイッチ
- ⑪ HPF (ハイパスフィルタON/OFF) スイッチ、カットオフ周波数コントロール
- ⑫ INSERT PRE (チャンネルインサートPRE/POST EQ) スイッチ
- ⑬ INSERT (チャンネルインサートINのON/OFF) スイッチ
- ⑭ AUX 1~8 (AUXバス送出レベル/PRE,OFF,POST) コントロール/スイッチ
- ⑮ AUX ST1/ST2 (AUX STバス送出レベル) コントロール/スイッチ
- ⑯ MT PRE (チャンネルレベルメーターPRE/POST切替) スイッチ
- ⑰ ON (チャンネルON/OFF) スイッチ
- ⑱ CH LEVELメーター/PEAKインジケータ
- ⑲ VCA GROUP Assign (VCAグループ選択) スイッチ
- ⑳ MUTE GROUP Assign (ミュートグループ選択) スイッチ
- ㉑ チャンネルフェーダー (VCAコントロール)
- ㉒ "S" (ミュートセーフ) スイッチ
- ㉓ CUE/SOLO (モニター選択) スイッチ

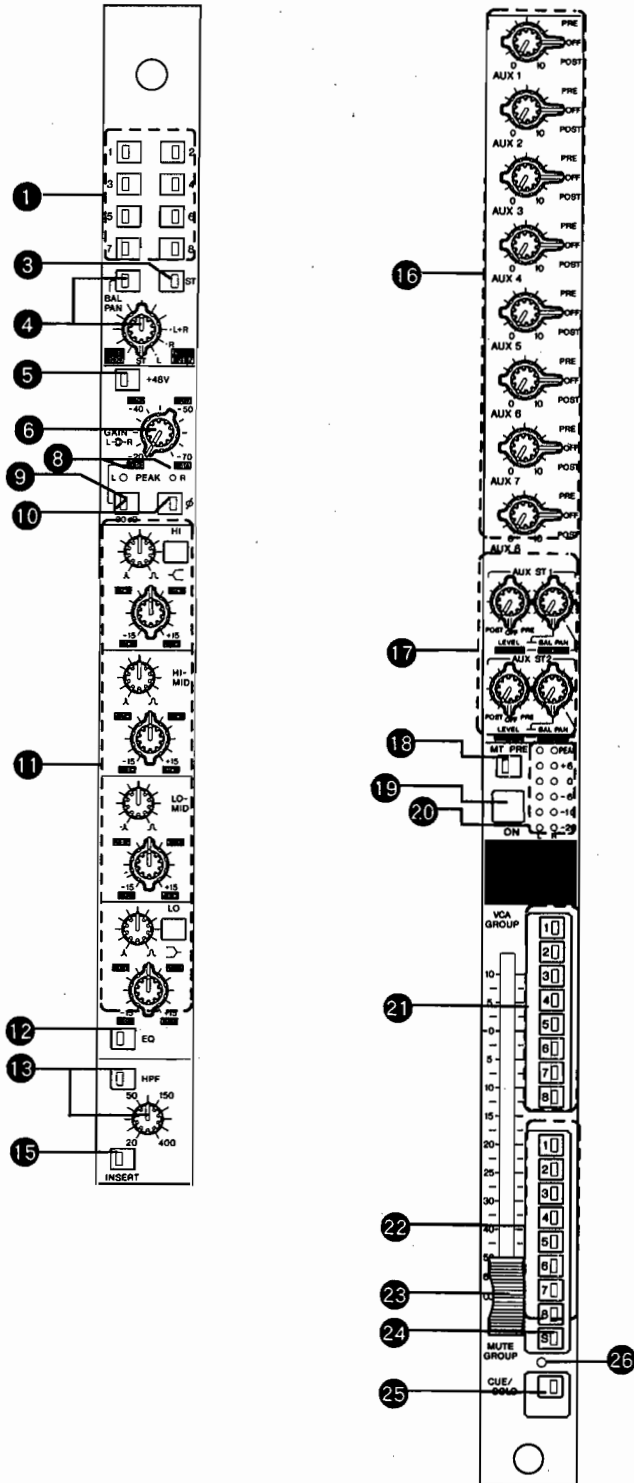
Feature numbers ④ and ⑧ are not used in this module.

(このモジュールでは、④、⑧は欠番になっています。)



- 11 AUX (1-9), AUX ST L, 2 ST R ED / POST ED SW : Factory set = ST R ED
- 12 DIRECT OUT ST R Fuser / Post Fuser SW : Factory set = Post Fuser
- 13 CHECK/ED ST R Fuser / Meter Pre SW Jumper : Factory set = ST R Fuser
- 14 LEVEL METER POST ST R Fuser / Meter Pre SW Jumper : Factory set = ST R Fuser
- 15 CH DIRECT OUT POST ST R SW SW / Post SW SW Jumper : Factory set = ST R SW

● Stereo Input Module (ST INPUTモジュール)

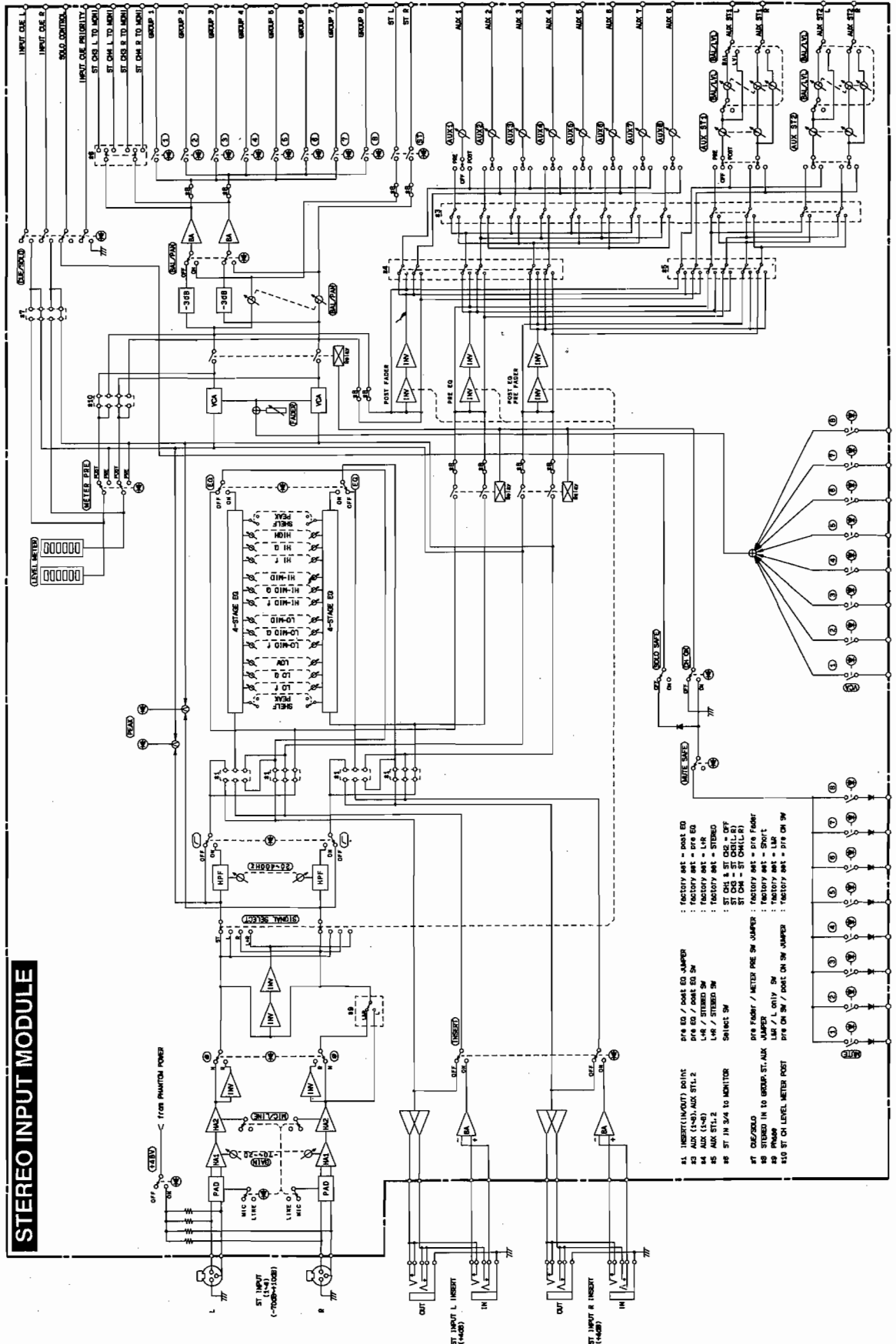


Feature numbers ②, ⑦, ⑩ are not used in this module.

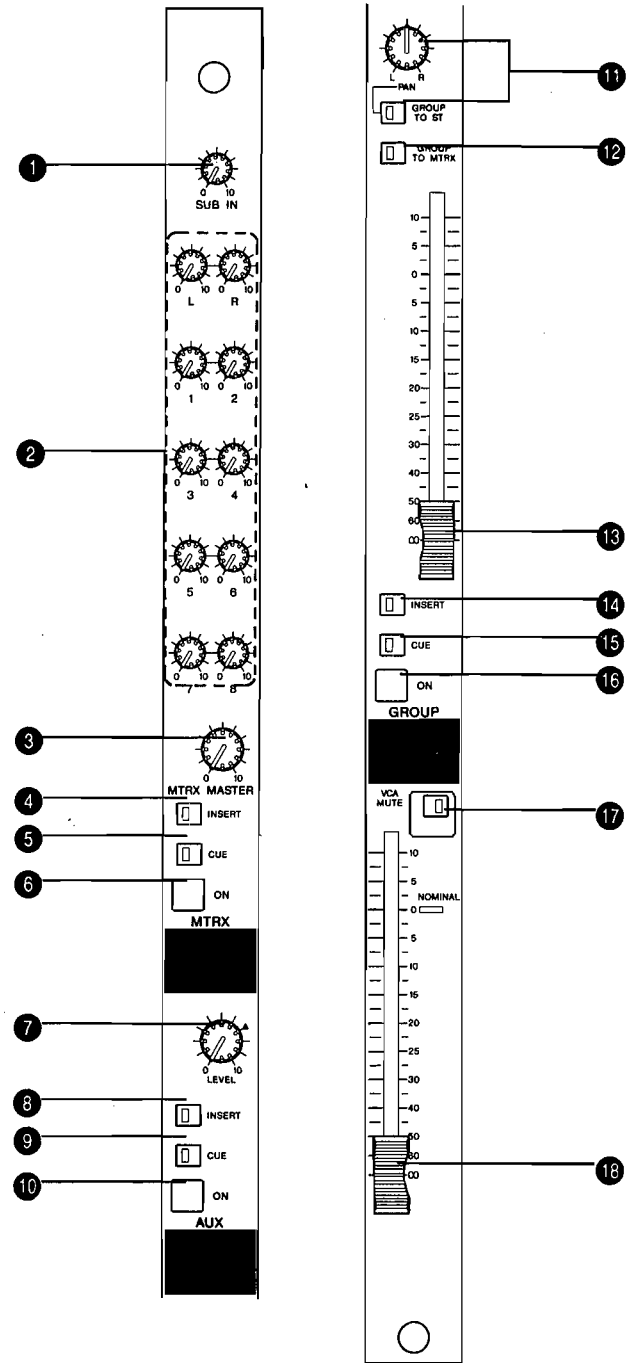
(このモジュールでは、②,⑦,⑩は欠番になっています。)

- ① 1 2 3 4 5 6 7 8 (ASSIGN switches)
- ③ ST (Stereo)
- ④ BAL/PAN (pushbutton switch), BAL/PAN (rotary control), ST-L-R-L+R (concentric rotary signal selector switch)
- ⑤ +48V
- ⑥ GAIN
- ⑧ L-PEAK-R
- ⑨ 30 dB (pad switch)
- ⑩ ∅ (Phase)
- ⑪ EQUALIZER
- ⑫ EQ (In/Out switch)
- ⑬ HPF (H.P. filter in/out switch and control)
- ⑭ INSERT ON
- ⑮ AUX 1-8 (Send level & Pre/Off/Post switches)
- ⑯ AUX ST1 & AUX ST2
- ⑰ MT PRE switch
- ⑱ ON switch (Channel On)
- ⑳ L, R level meters
- ㉑ VCA GROUP (Assign 1-8)
- ㉒ MUTE (Assign 1-8)
- ㉓ FADER
- ㉔ S (Mute safe)
- ㉕ CUE/SOLO
- ㉖ Solo mute defeat switch

- ① GROUP OUT Assign (グループアウト選択) スイッチ
- ③ ST (STEREO OUT) 選択スイッチ
- ④ BAL/PANスイッチ、コントロール、ST/L/R/L+Rシグナル切替スイッチ
- ⑤ +48V (ファントム) スイッチ
- ⑥ GAIN (入力感度) コントロール
- ⑧ L-PEAK-Rインジケータ
- ⑨ 30dB (パッドスイッチ)
- ⑩ ∅ (位相切り替え) スイッチ
- ⑪ イコライザー
- ⑫ EQ (EQ ON/OFF) スイッチ
- ⑬ HPF (ハイパスフィルタON/OFF) スイッチ、カットオフ周波数コントロール
- ⑭ INSERT (チャンネルインサートINのON/OFF) スイッチ
- ⑮ AUX 1~8 (AUXバス送出レベル/PRE/OFF/POST) コントロール/スイッチ
- ⑯ AUX ST1/ST2 (AUX STバス送出レベル) コントロール/スイッチ
- ⑰ MT PRE (チャンネルレベルメーターPRE/POST切替) スイッチ
- ⑱ ON (チャンネルON/OFF) スイッチ
- ⑳ CH LEVELメーター/PEAKインジケータ
- ㉑ VCA GROUP Assign (VCAグループ選択) スイッチ
- ㉒ MUTE GROUP Assign (ミュートグループ選択) スイッチ
- ㉓ チャンネルフェーダー (VCAコントロール)
- ㉔ "S" (ミュートセーフ) スイッチ
- ㉕ CUE/SOLO (モニター選択) スイッチ
- ㉖ SOLO SAFE (ソロ機能解除) スイッチ

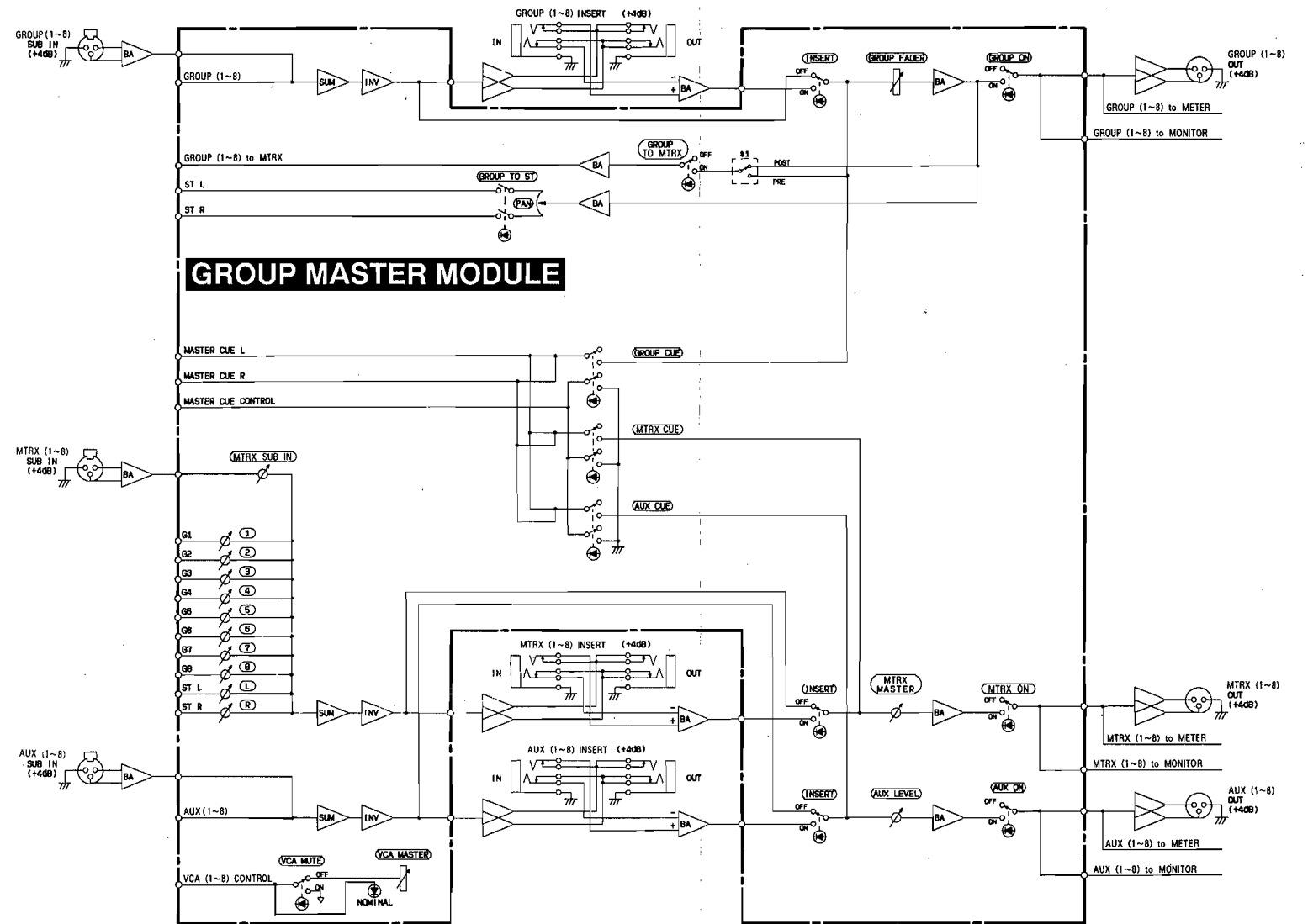


● Master Module 1-8 (GROUP MASTERモジュール)

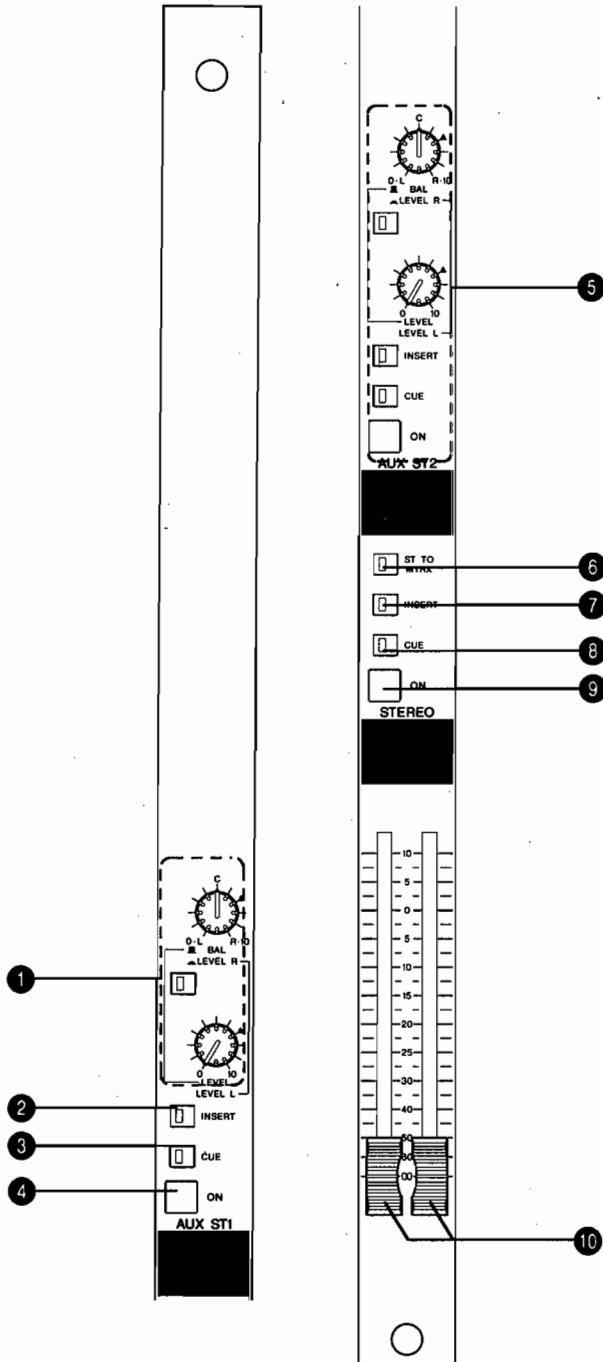


- ① SUB IN
- ② LR (Matrix mix level controls)/
1 2 3 4 5 6 7 8 (Matrix mix level controls)
- ③ MTRX MASTER
- ④ INSERT (Matrix insert)
- ⑤ CUE (Matrix cue)
- ⑥ ON (Matrix ON)
- ⑦ LEVEL (Aux send level)
- ⑧ INSERT (Aux insert)
- ⑨ CUE (Aux send cue)
- ⑩ ON (Aux On)
- ⑪ PAN (group to stereo bus)/GROUP-TO-ST
- ⑫ GROUP-TO-MTRX
- ⑬ GROUP MASTER FADER (Group Out Fader)
- ⑭ INSERT (Group insert)
- ⑮ CUE (Group cue)
- ⑯ ON (Group On)
- ⑰ VCA MUTE
- ⑱ VCA MASTER

- ① SUB IN (MTRX SUB IN入力レベル) コントロール
- ② L, R/1~8 (STEREO/GROUP) MTRXミックスコントロール
- ③ MTRX MASTER (MTRX OUT出力レベル) コントロール
- ④ INSERT (MTRXインサートON/OFF) スイッチ
- ⑤ CUE (MTRX CUE)スイッチ
- ⑥ MTRX ON (MTRX OUT出力ON/OFF) スイッチ
- ⑦ LEVEL (AUX OUT出力レベル) コントロール
- ⑧ INSERT (AUXインサートON/OFF) スイッチ
- ⑨ CUE (AUX CUE)スイッチ
- ⑩ ON (AUX OUT出力ON/OFF) スイッチ
- ⑪ PAN (パンポット) /GROUP TO STスイッチ
- ⑫ GROUP TO MTRXスイッチ
- ⑬ グループフェーダー (GROUP OUTマスターレベルコントロール)
- ⑭ INSERT (GROUPインサートON/OFF) スイッチ
- ⑮ CUE (GROUP OUT CUE) スイッチ
- ⑯ ON (GROUP OUT出力ON/OFFスイッチ)
- ⑰ VCA MUTE (VCAミュート機能) スイッチ
- ⑱ VCAマスターフェーダー

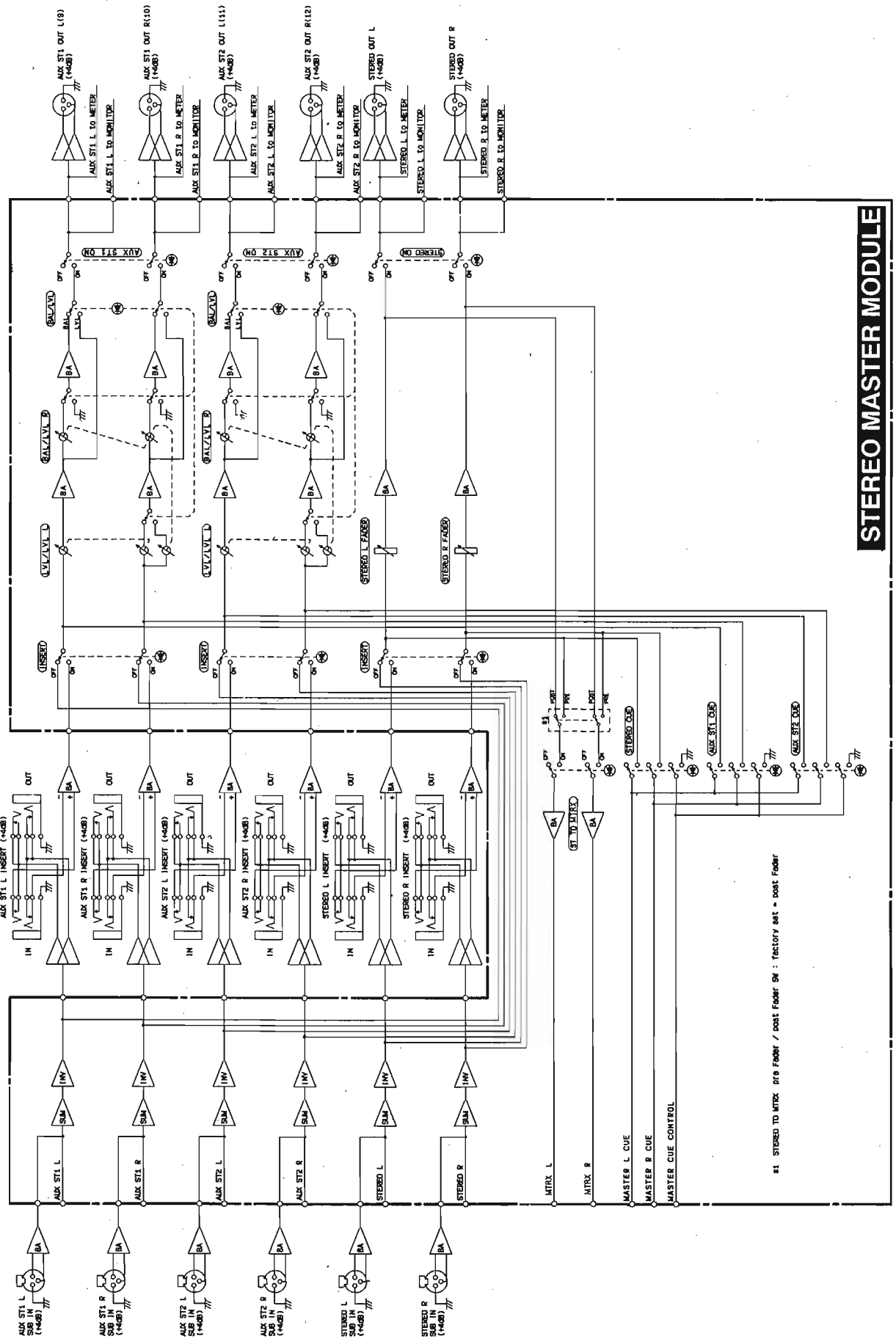


● Stereo Master Module (STEREO MASTERモジュール)



- ① BAL/LEVEL R and LEVEL/LEVEL L (rotary controls)/BAL/LEVEL (locking switch)
- ② INSERT (Aux 1 Stereo insert)
- ③ CUE (Aux 1 Stereo cue)
- ④ ON (Aux 1 Master On)
- ⑤ AUX 2 STEREO SEND MASTER SECTION
- ⑥ STEREO-TO-MTRX
- ⑦ INSERT (Stereo master insert)
- ⑧ CUE (Stereo master cue)
- ⑨ ON (Stereo master On)
- ⑩ Dual Fader

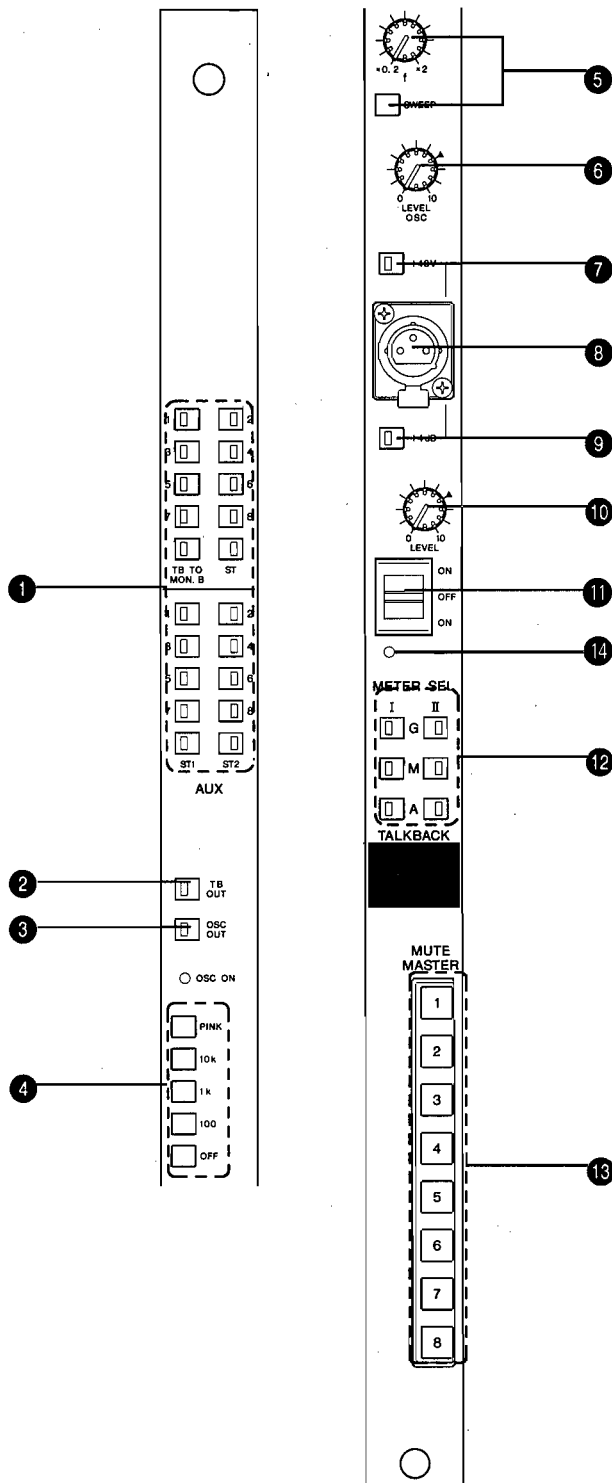
- ① BAL/LEVEL R, LEVEL/LEVEL L (AUX ST1 OUTバランス/R, L送出レベル) コントロールおよびBAL/LEVEL (バランス/レベル切替) スイッチ
- ② INSERT (AUX ST1インサートON/OFF) スイッチ
- ③ CUE (AUX ST1 CUE) スイッチ
- ④ ON (AUX ST1 OUT出力ON/OFF) スイッチ
- ⑤ AUX ST2マスターセクション
- ⑥ ST TO MTRXスイッチ
- ⑦ INSERT (STEREOインサートON/OFF) スイッチ
- ⑧ CUE (STEREO OUT CUE) スイッチ
- ⑨ ON (STEREO OUT出力ON/OFF) スイッチ
- ⑩ ステレオマスターフェーダー



STEREO MASTER MODULE

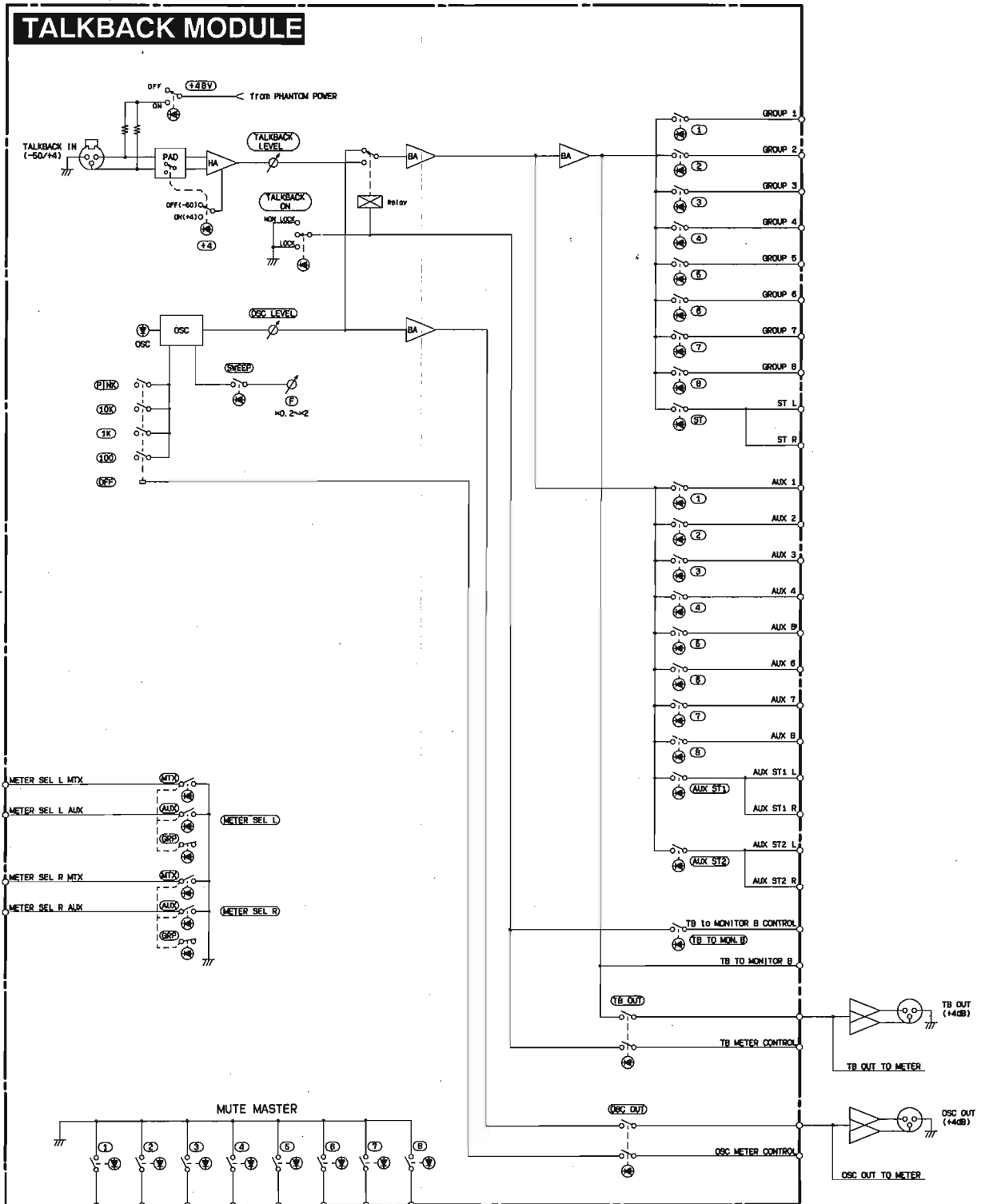
#1 STEREO TO MTRX pin Fader / post Fader SW : factory set - post Fader

● TB (Talkback) Module (TALKBACKモジュール)

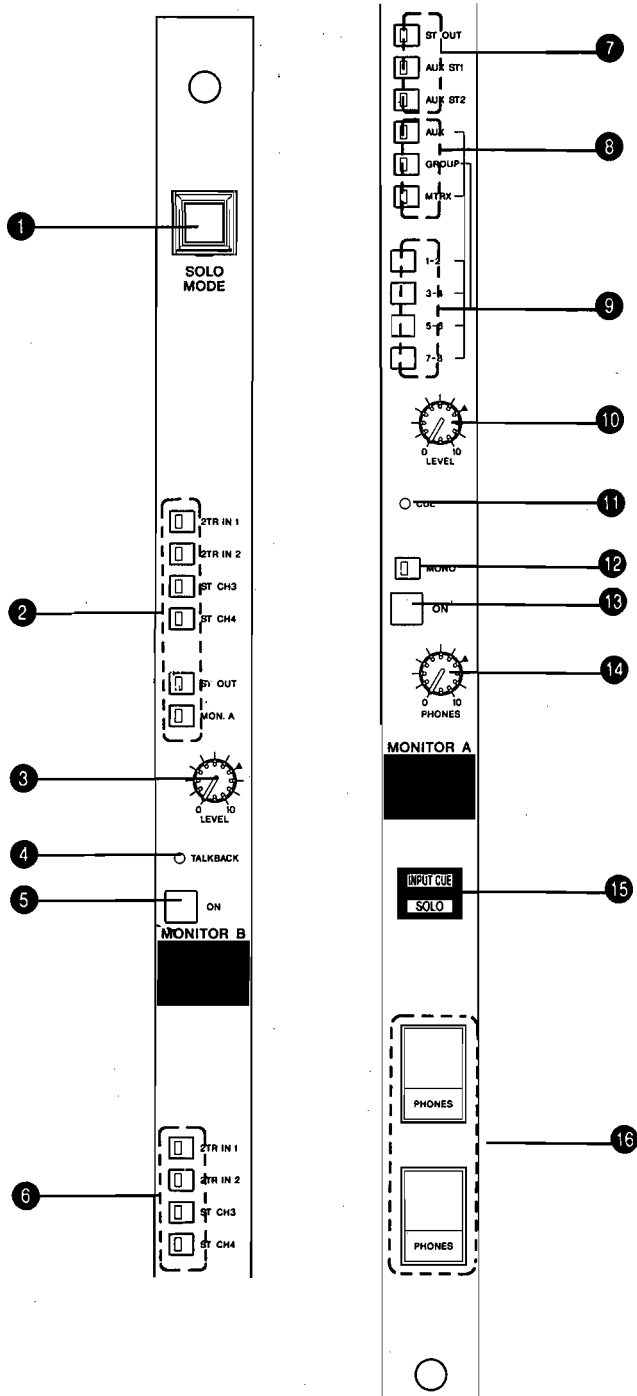


- ① 1 2 3 4 5 6 7 8 (TB/OSC To Group Bus Assign)/
TB-TO-MON.B/ST (Stereo)/AUX 1 2 3 4 5 6 7 8/
AUX ST 1 & ST 2
- ② TB OUT
- ③ OSC OUT
- ④ PINK 10K 1K 100 OFF
- ⑤ SWEEP (switch and rotary control)
- ⑥ LEVEL OSC
- ⑦ +48V
- ⑧ TB INPUT
- ⑨ +4 dB (attenuation pad)
- ⑩ LEVEL (TB Input)
- ⑪ TALKBACK ON (two-way lever switch and LED
indicator)
- ⑫ METER SEL (meter select switches)
- ⑬ MUTE MASTER
- ⑭ OSC ON

- ① TB/OSCアウトプット選択スイッチ
- ② TB OUT (TALKBACK OUT ON/OFF) スイッチ
- ③ OSC OUT (OSC OUT ON/OFF) スイッチ
- ④ OSCモード/周波数選択スイッチ
- ⑤ SWEEP (SWEEP ON/OFF) スイッチ/SWEEPコントロ
ール
- ⑥ LEVEL OSC (発振器出力レベル) コントロール
- ⑦ +48V (TALKBACK INPUTファントム) スイッチ
- ⑧ トークバックインプット端子
- ⑨ +4 (TALKBACK IN入力感度切替) スイッチ
- ⑩ LEVEL (TALKBACK INレベル) コントロール
- ⑪ ON/OFF/ON (TALKBACK ON/OFF/ON) スイッチ
- ⑫ METER SEL (メーターセレクト) スイッチ
- ⑬ MUTE MASTER (ミュートマスターON/OFF) スイッチ
- ⑭ OSC ONインジケーター

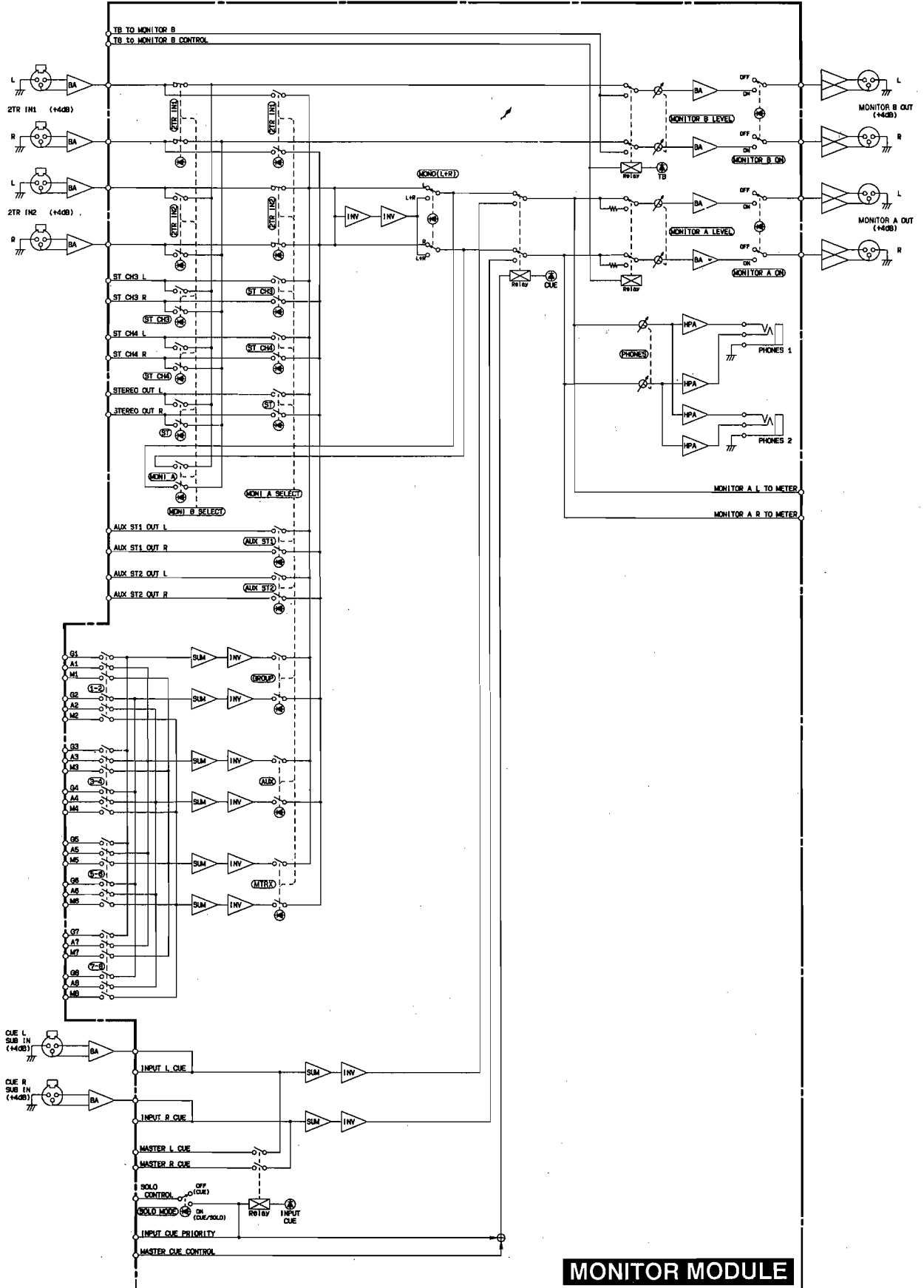


● Monitor Module (MONITORモジュール)



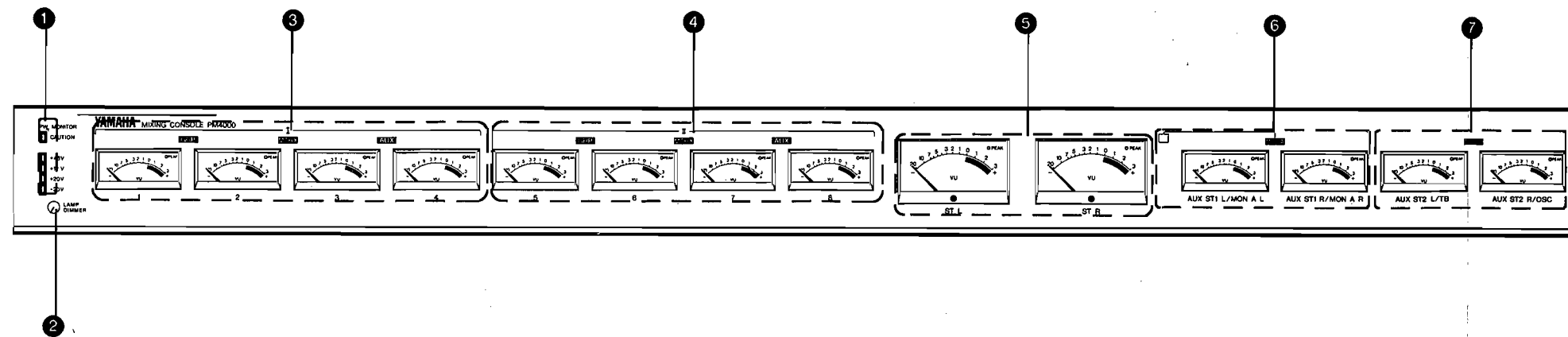
- ① SOLO MODE (switch)
- ② 2TR IN 1, 2TR IN 2, ST CH 3, ST CH 4, ST OUT, MON. A (Monitor B Source Select Switches)
- ③ LEVEL (Monitor B level control)
- ④ TALKBACK (Indicator)
- ⑤ ON switch (Monitor B On)
- ⑥ 2TR IN 1, 2TR IN 2, ST CH 3, ST CH 4 (Monitor A Source Select Switches)
- ⑦ ST OUT, AUX ST 1, AUX ST 2 (Monitor A Source Select Switches)
- ⑧ AUX, GROUP, MTRX (Monitor A Source Select Switches)
- ⑨ 1-2, 3-4, 5-6, 7-8 (Aux/Group/Mtrx bus group selectors)
- ⑩ LEVEL (Monitor A level control)
- ⑪ CUE (Indicator)
- ⑫ MONO (Monitor A mode)
- ⑬ ON (Monitor A On)
- ⑭ PHONES (Level control)
- ⑮ INPUT CUE/SOLO (LED status annunciators)
- ⑯ PHONES (Output jacks)

- ① SOLO MODE (ソロモード選択) スイッチ
- ② INPUT Assign (MONITOR Bインプット選択) スイッチ
- ③ LEVEL (MONITOR Bレベル) コントロール
- ④ TALKBACKインジケータ
- ⑤ ON (MONITOR B出力ON/OFF) スイッチ
- ⑥ INPUT Assign (MONITOR Aインプット選択) スイッチ
- ⑦ ST OUT/AUX ST1/AUX ST2 (モニターA インプット選択) スイッチ
- ⑧ AUX、GROUP、MTRX (モニターAインプット選択) スイッチ
- ⑨ 1-2、3-4、5-6、7-8 (AUX/GROUP/MTRXバス・グループ切替スイッチ)
- ⑩ LEVEL (MONITOR A出力レベルコントロール)
- ⑪ CUEインジケータ
- ⑫ MONO (MONITOR Aモノラル切替) スイッチ
- ⑬ ON (MONITOR A出力ON/OFF) スイッチ
- ⑭ PHONES (ヘッドフォンレベル) コントロール
- ⑮ INPUT CUE/SOLOインジケータ
- ⑯ PHONES (ヘッドフォンアウト)

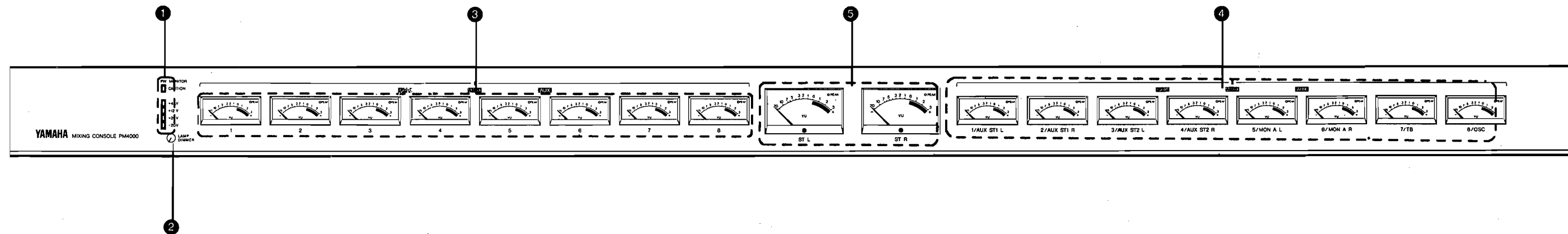


■ METER BRIDGE (メーターパネル)

- Meter Bridge for 24 or 32 Channel Mainframes
(PM4000-24, PM4000-32 RIGHT MASTERモデル)



- Meter Bridge for 40 or 48 Channel Mainframes
(PM4000-40C, PM4000-48C CENTER MASTERモデル)

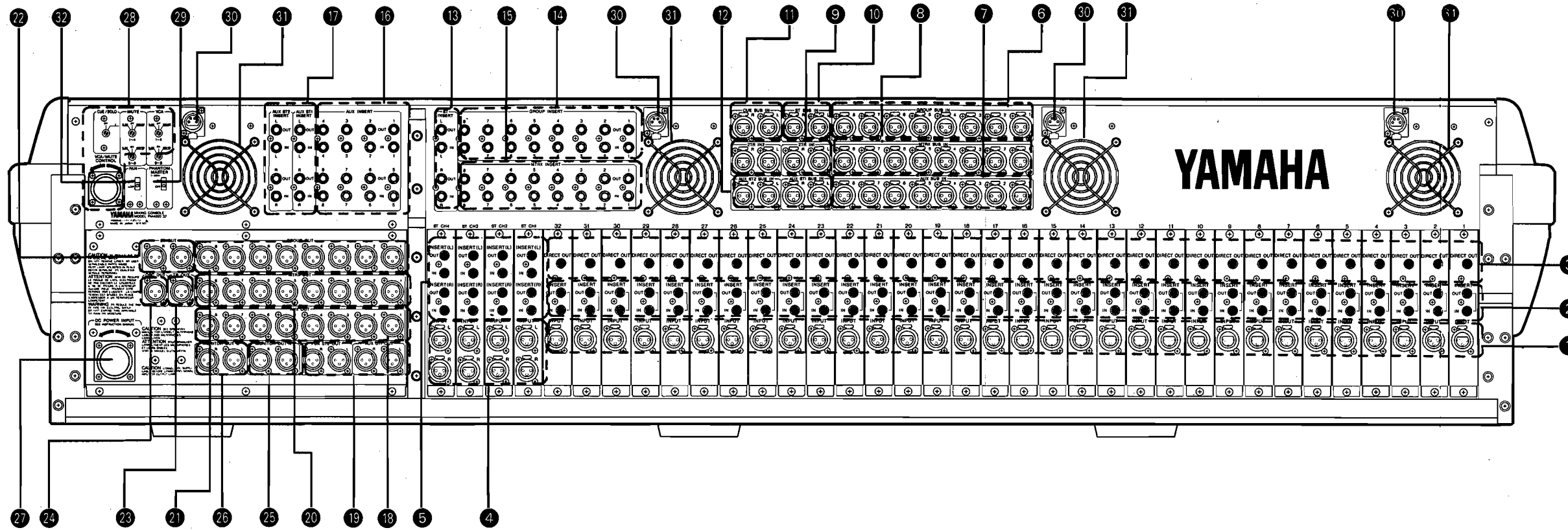


- ① PW MONITOR, +48, +12, +19, -19
(Power supply indicators)
- ② LAMP DIMMER
- ③ [I] GROUP/MTRX/AUXメーター、メーターモードインジケータ
- ④ [II] GROUP/MTRX/AUXメーター、メーターモードインジケータ
- ⑤ ST L, ST R (Stereo output meters)
- ⑥ AUX ST 1L, MON A L
AUX ST 1R, MON A R (meters and indicator)/
MON meter function switch
- ⑦ AUX ST 2 L, TB
AUX ST 2 R/OSC (meters and indicator)

- ① PW MONITOR (PW4000電源部モニター) インジケータ
- ② LAMP DIMMER (ランプ調光器)
- ③ [I] GROUP/MTRX/AUXメーター、メーターモードインジケータ
- ④ [II] GROUP/MTRX/AUXメーター、メーターモードインジケータ
- ⑤ STEREO VUメーター
- ⑥ AUX ST1/MON Aメーター、メーターモードインジケータ
- ⑦ AUX ST2/TB・OSCメーター、メーターインジケータ

■ REAR PANEL (リアパネル)

● Rear Panel for 32 Channel (PM4000-24, PM4000-32 RIGHT MASTERモデル)

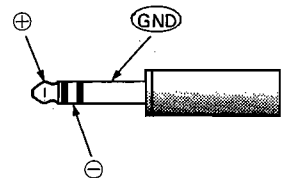


All XLR connectors and phone jacks are balanced.

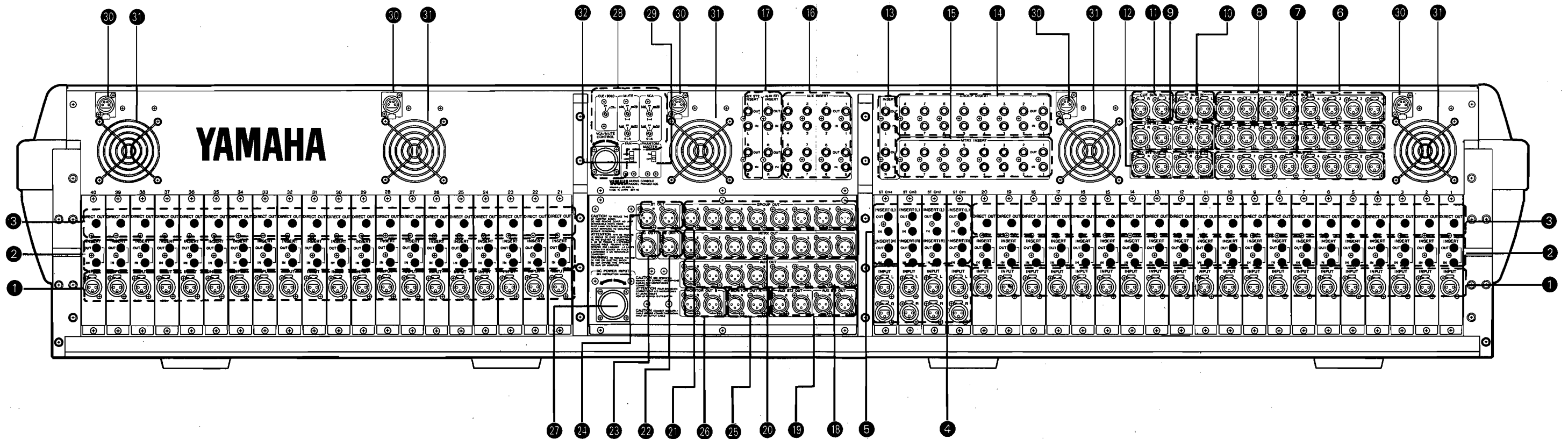
(キャノンおよびホーンジャックの入出力端子は、全て電子バランス方式になっています。)

| XLR | phone jack | signal |
|-------|------------|----------|
| pin 1 | S | GND |
| pin 2 | T | + (hot) |
| pin 3 | R | - (cold) |

1/4" phone plug (#110ホーンプラグ)



● Rear Panel for 40 Channel (PM4000-40C, PM4000-48C CENTER MASTERモデル)



PM4000/PW4000

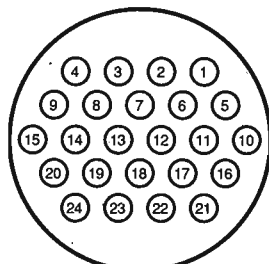
● Rear panel

- ① INPUT (connector)
- ② INSERT OUT, INSERT IN (Jacks)
- ③ DIRECT OUT (Jack)
- ④ INPUT L & INPUT R (connectors)
- ⑤ INSERT R OUT, INSERT R IN (Jacks)/
INSERT L OUT, INSERT L IN (Jacks)
- ⑥ GROUP SUB IN (1-8)
- ⑦ AUX SUB IN (1-8)
- ⑧ MTRX SUB IN (1-8)
- ⑨ 2 TR IN 1 (L, R)/2 TR IN 2 (L, R)
- ⑩ ST SUB IN (L, R)
- ⑪ CUE SUB IN (L, R)
- ⑫ AUX ST SUB IN 1 (L, R)/AUX ST SUB IN 2 (L, R)
- ⑬ ST INSERT L (IN, OUT)/ST INSERT R (IN, OUT)
- ⑭ GROUP INSERT 1-8 (IN, OUT)
- ⑮ MTRX INSERT 1-8 (IN, OUT)
- ⑯ AUX INSERT 1-8 (IN, OUT)
- ⑰ AUX ST INSERT 1 L & R (IN, OUT)/
AUX ST INSERT 2 L & R (IN, OUT)
- ⑱ AUX OUT (1-8)
- ⑲ AUX ST 1/ST 2 OUT (L, R)
- ⑳ MTRX OUT (1-8)
- ㉑ GROUP OUT (1-8)
- ㉒ STEREO OUT (L, R)
- ㉓ TB OUT
- ㉔ OSC OUT
- ㉕ MONITOR OUT A L, R
- ㉖ MONITOR OUT B L, R
- ㉗ DC POWER
- ㉘ VCA/MUTE CONTROL/
MUTE: SLAVE/OFF/MASTER (1-4, 5-8)
& CUE/SOLO On/Off MASTER/
VCA: SLAVE/OFF/MASTER (1-4, 5-8)
- ㉙ PHANTOM MASTER (+48V)
- ㉚ LAMP (4-pin XLR connector)
- ㉛ Cooling Fan
- ㉜ FAN (speed switch)

● リアパネル

- ① INPUTコネクタ
- ② INSERT IN/OUTジャック
- ③ DIRECT OUTジャック
- ④ ST CH INPUT (L,R) コネクタ
- ⑤ ST CH INSERT IN/OUT (L,R) ジャック
- ⑥ GROUP SUB IN (1~8)
- ⑦ AUX SUB IN (1~8)
- ⑧ MTRX SUB IN (1~8)
- ⑨ 2TR IN1/IN2 (L,R) コネクタ
- ⑩ ST SUB IN (L,R)
- ⑪ CUE SUB IN (L,R)
- ⑫ AUX ST SUB IN1/IN2 (L,R)
- ⑬ ST INSERT L/R (OUT,IN)
- ⑭ GROUP INSERT1~8 (OUT,IN)
- ⑮ MTRX INSERT1~8 (OUT,IN)
- ⑯ AUX INSERT1~8 (OUT,IN)
- ⑰ AUX ST1/ST2 INSERT L,R (OUT,IN)
- ⑱ AUX OUT1~8
- ⑲ AUX ST1/ST2 OUT (L,R)
- ⑳ MTRX OUT (1~8)
- ㉑ GROUP OUT (1~8)
- ㉒ ST OUT (L,R)
- ㉓ TB OUT
- ㉔ OSC OUT
- ㉕ MONITOR OUT A L,R
- ㉖ MONITOR OUT B L,R
- ㉗ DC POWER
- ㉘ VCA/MUTE CONTROL 端子、MASTER/OFF/SLAVE切替
スイッチ、CUE/SOLO OFF/CONNECT切替スイッチ
- ㉙ PHANTOM POWER MASTERスイッチ
- ㉚ LAMP (ランプ) コネクタ
- ㉛ 冷却ファン
- ㉜ FAN HIGH/LOW (冷却ファン切替) スイッチ

● VCA/MUTE Connector Pin Assignments (VCA/MUTE コネクターのピン配列)

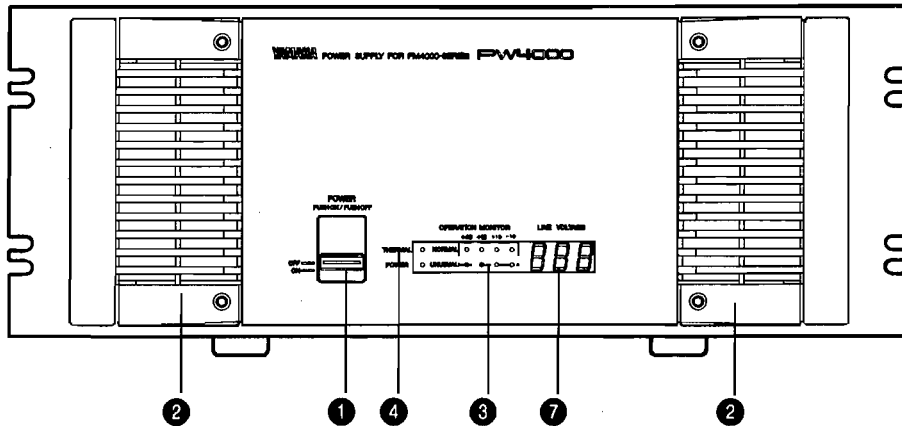


CONNECTOR PINS
(FEMALE)

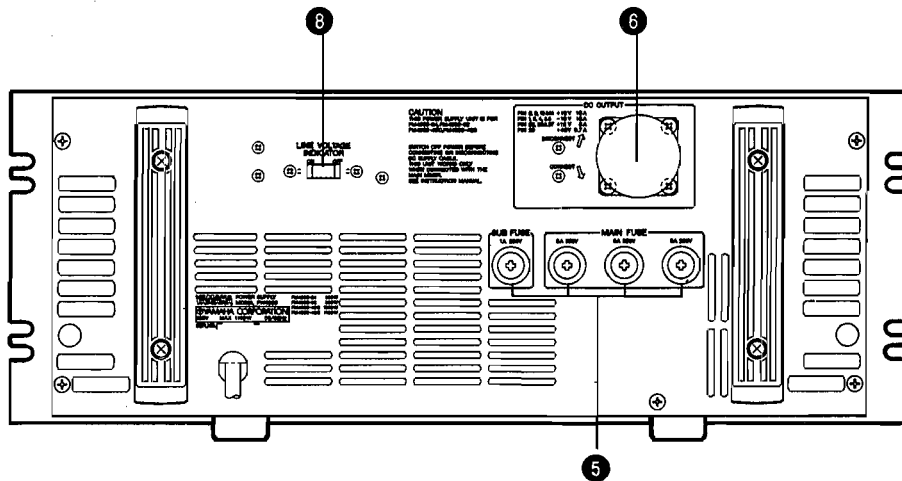
| PIN N° | FUNCTION | PIN N° | FUNCTION |
|--------|------------|--------|---------------|
| 1 | VCA EXT 1 | 13 | MUTE EXT 3 |
| 2 | VCA EXT 2 | 14 | MUTE EXT 4 |
| 3 | VCA EXT 3 | 15 | MUTE EXT 5 |
| 4 | VCA EXT 4 | 16 | MUTE EXT 6 |
| 5 | VCA EXT 5 | 17 | MUTE EXT 7 |
| 6 | VCA EXT 6 | 18 | MUTE EXT 8 |
| 7 | VCA EXT 7 | 19 | GND |
| 8 | VCA EXT 8 | 20 | GND |
| 9 | GND | 21 | GND |
| 10 | NC | 22 | INPUT CUE EXT |
| 11 | MUTE EXT 1 | 23 | SOLO EXT |
| 12 | MUTE EXT 2 | 24 | GND |

■ PW4000 PANEL LAYOUT (PW4000パネルレイアウト)

● Front Panel (フロントパネル)

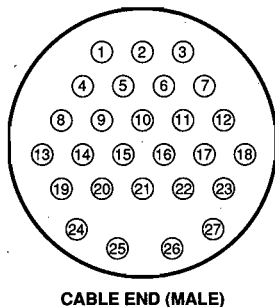


● Rear Panel (リアパネル)



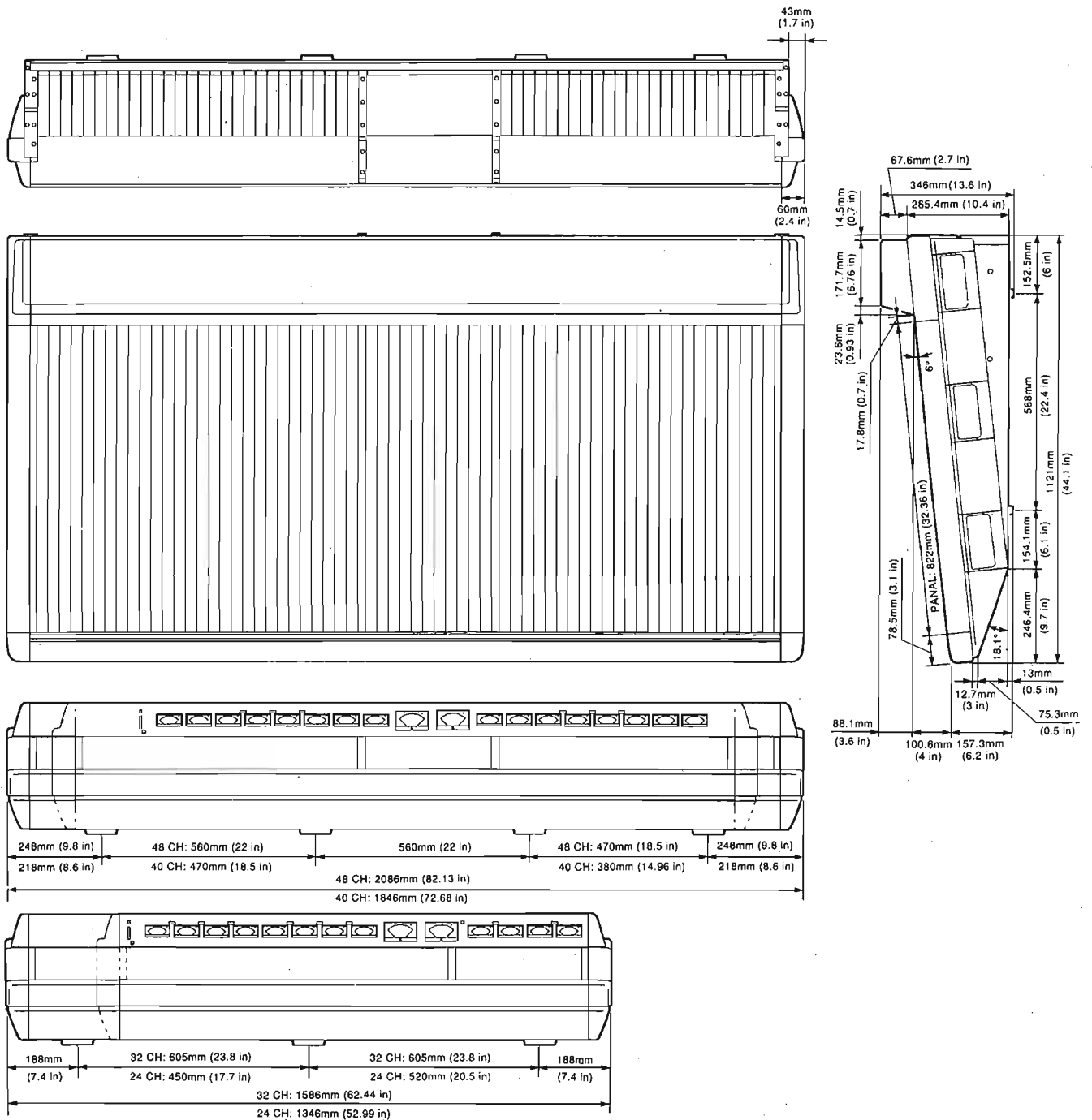
- | | |
|-----------------------------------|---------------------|
| ① POWER | ① POWER ON/OFFスイッチ |
| ② Grille | ② ファン用グリル |
| ③ Operation Monitor | ③ オペレーションモニター |
| ④ THERMAL (Indicator) | ④ THERMALインジケータ |
| ⑤ FUSES | ⑤ 電源ヒューズ |
| ⑥ DC OUTPUT (Umbilical Connector) | ⑥ DC OUTPUTコネクタ |
| ⑦ LINE VOLTAGE (LED Display) | ⑦ LINE VOLTAGE表示器 |
| ⑧ LINE VOLTAGE INDICATOR (Switch) | ⑧ LINE VOLTAGE (SW) |

● Umbilical Connector Pin Assignments (電源ケーブルのピン配列)

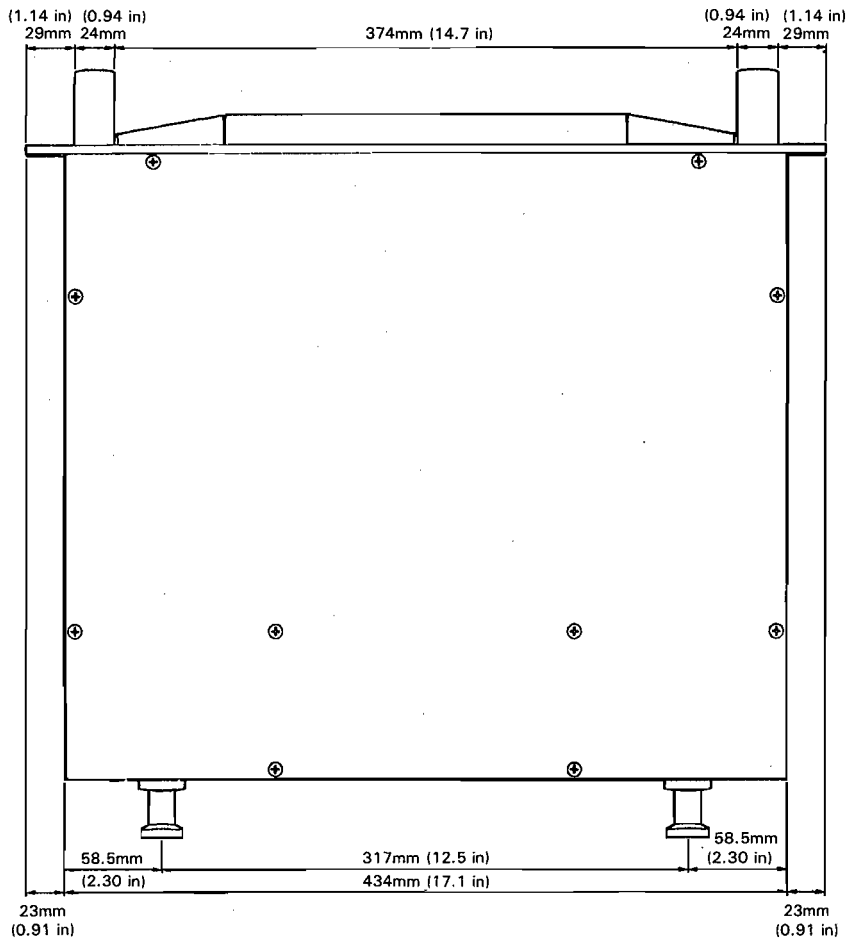
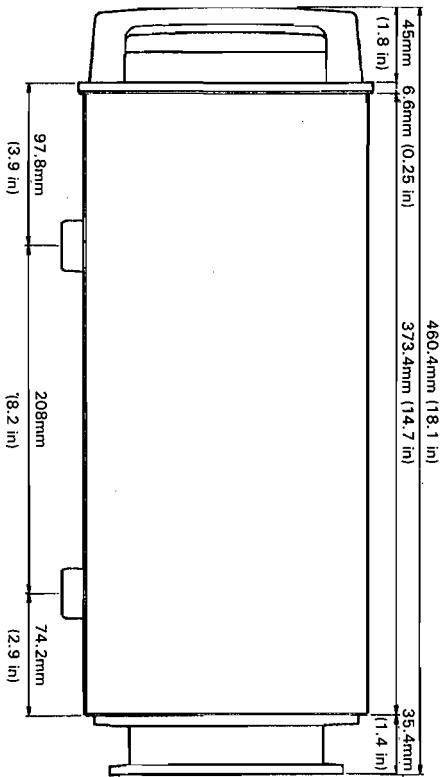
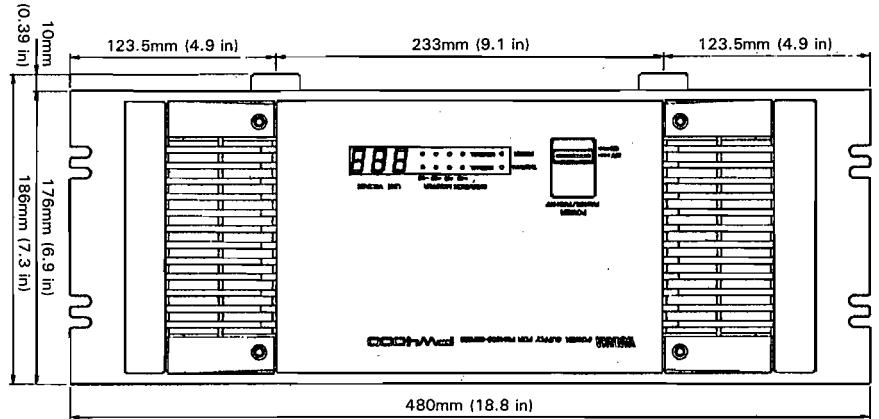


| PIN N° | FUNCTION | PIN N° | FUNCTION |
|--------|-----------|--------|----------------|
| 1 | -19V | 15 | ±19V GND |
| 2 | -19V | 16 | ±19V GND |
| 3 | FRAME GND | 17 | +12V GND |
| 4 | -19V | 18 | +12V GND |
| 5 | -19V | 19 | PM CAUTION (+) |
| 6 | FRAME GND | 20 | +48V |
| 7 | FRAME GND | 21 | +48V GND |
| 8 | +19V | 22 | +12V |
| 9 | +19V | 23 | +12V |
| 10 | ±19V GND | 24 | PW CAUTION (-) |
| 11 | ±19V GND | 25 | REMOTE |
| 12 | +12V GND | 26 | REMOTE |
| 13 | +19V | 27 | +12V |
| 14 | +19V | | |

PM4000 DIMENSIONS (PM4000寸法図)



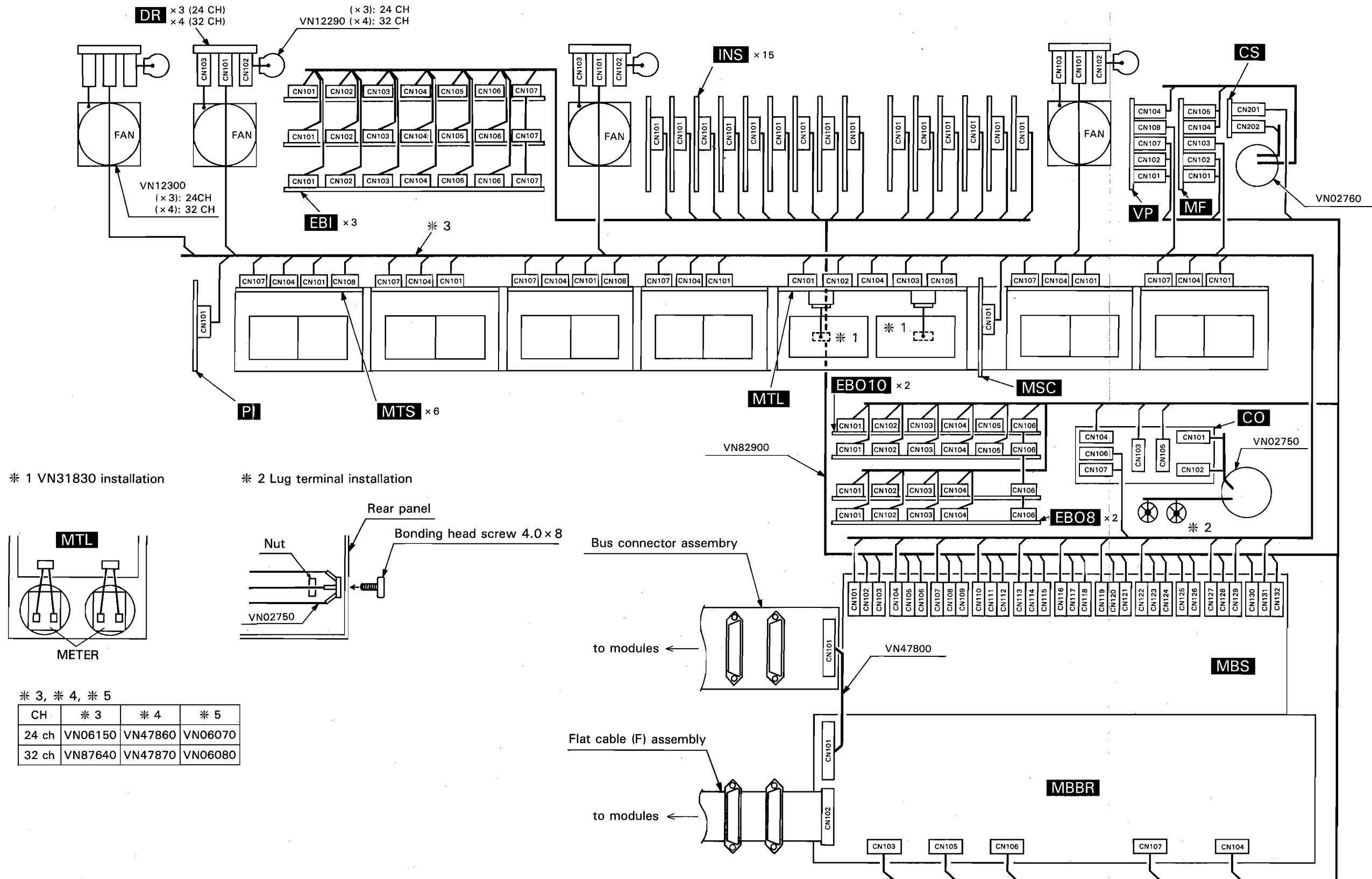
■ PW4000 DIMENSIONS (PW4000寸法図)



PM4000/PW4000

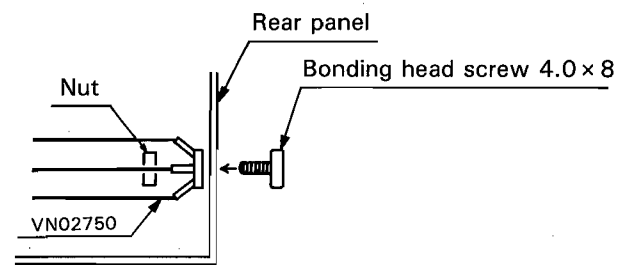
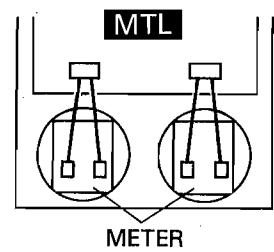
■ **CIRCUIT BOARD WIRING (基板結線図)**

● **PM4000-24, PM4000-32 Overall Assembly (総組立)**



* 1 VN31830 installation

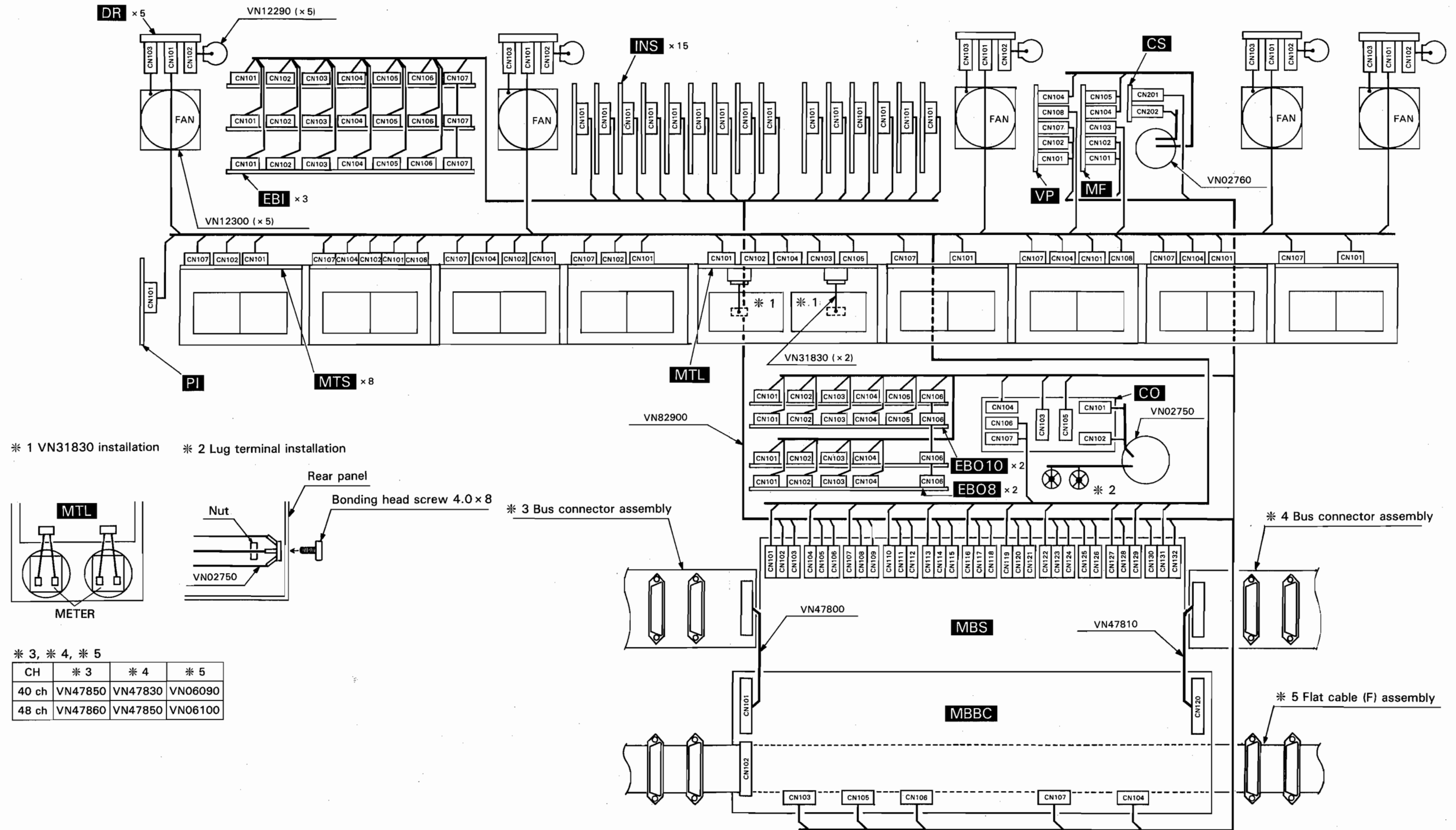
* 2 Lug terminal installation



* 3, * 4, * 5

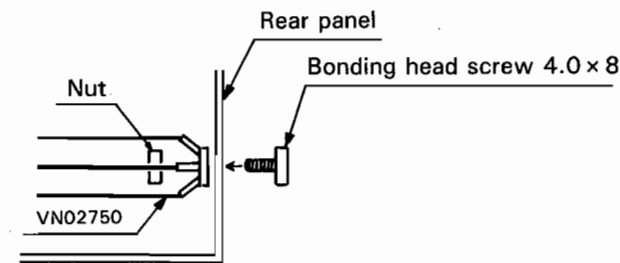
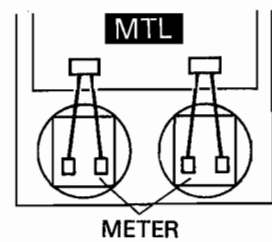
| CH | * 3 | * 4 | * 5 |
|-------|---------|---------|---------|
| 24 ch | VN06150 | VN47860 | VN06070 |
| 32 ch | VN87640 | VN47870 | VN06080 |

● PM4000-40C, PM4000-48C Overall Assembly (総組立)



* 1 VN31830 installation

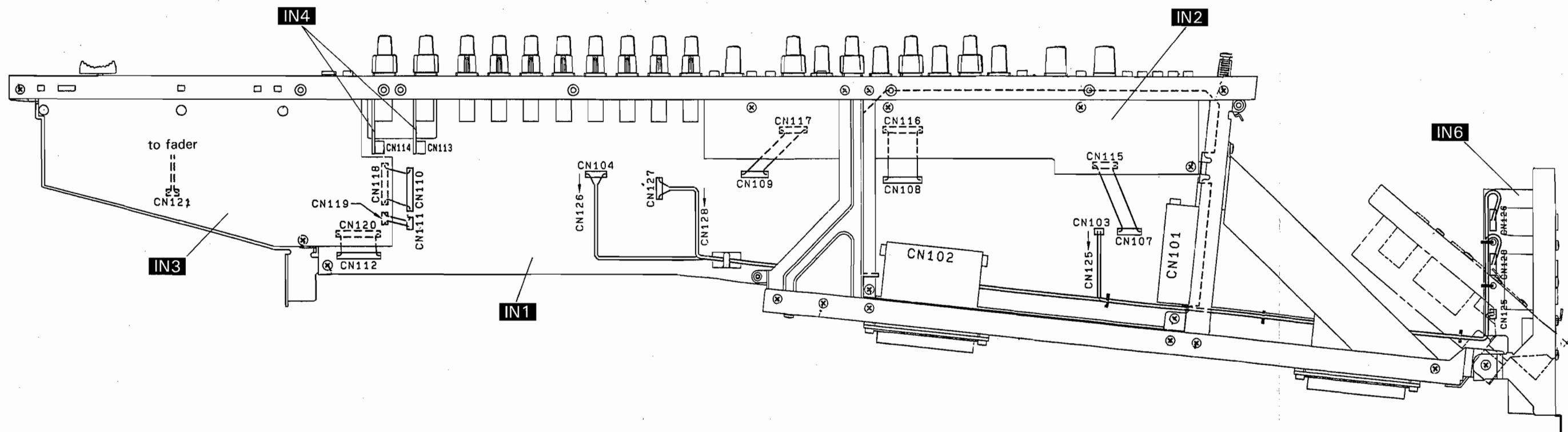
* 2 Lug terminal installation



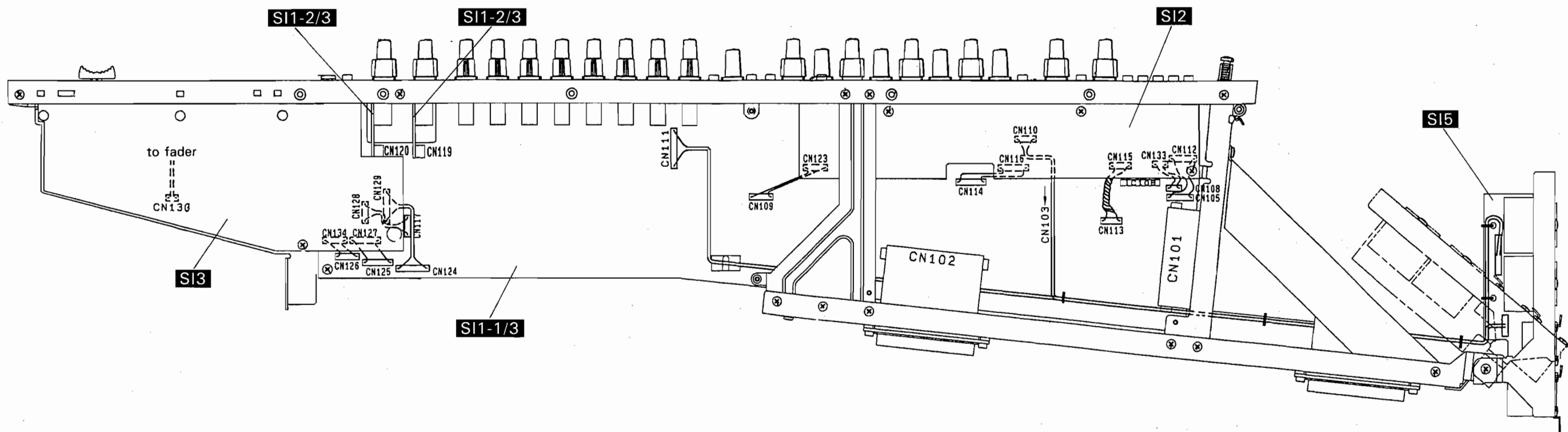
* 3, * 4, * 5

| CH | * 3 | * 4 | * 5 |
|-------|---------|---------|---------|
| 40 ch | VN47850 | VN47830 | VN06090 |
| 48 ch | VN47860 | VN47850 | VN06100 |

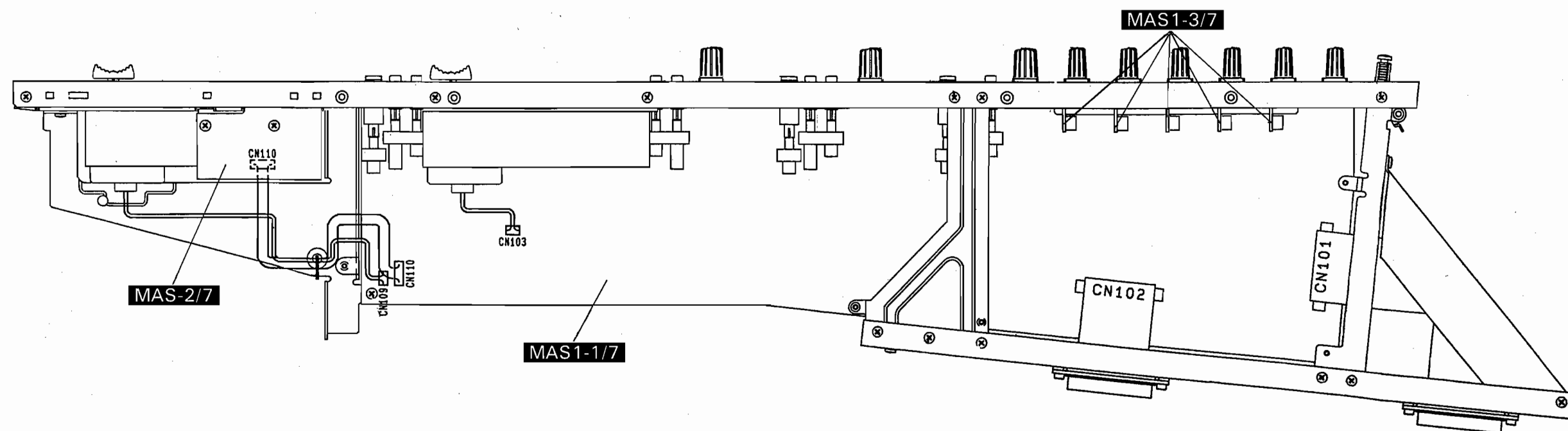
● Monaural Input Module (MONO INPUTモジュール)



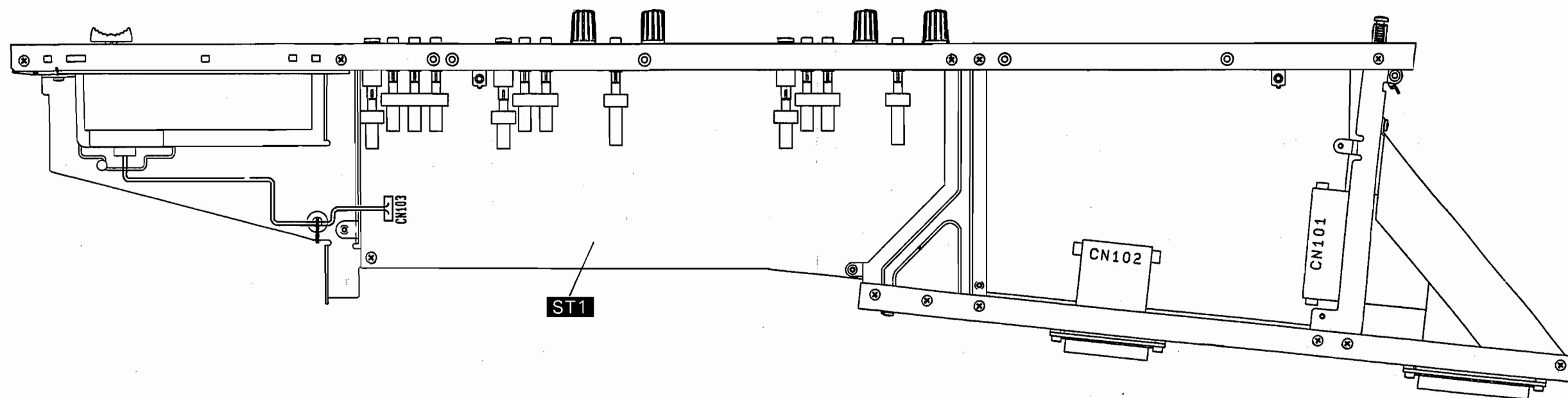
● Stereo Input Module (ST INPUTモジュール)



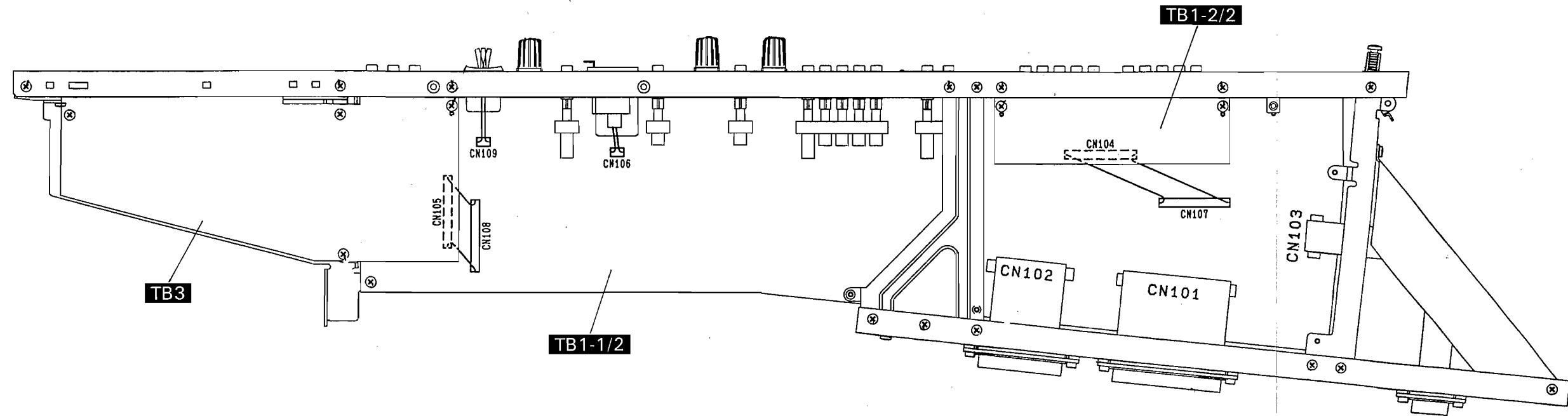
● Master Module 1-8 (GROUP MASTERモジュール)



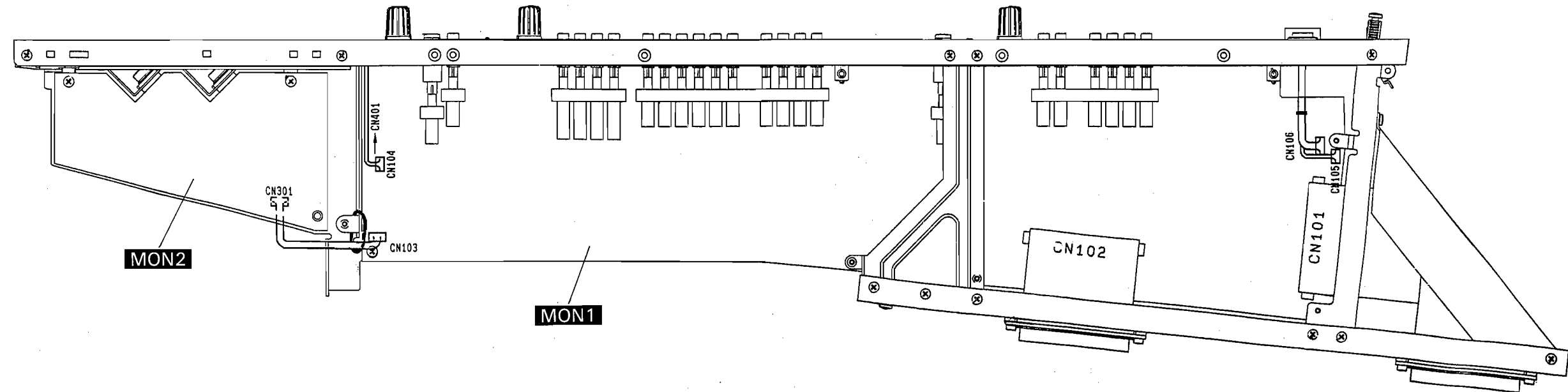
● Stereo Master Module (STEREO MASTERモジュール)



● Talkback Module (TALKBACKモジュール)



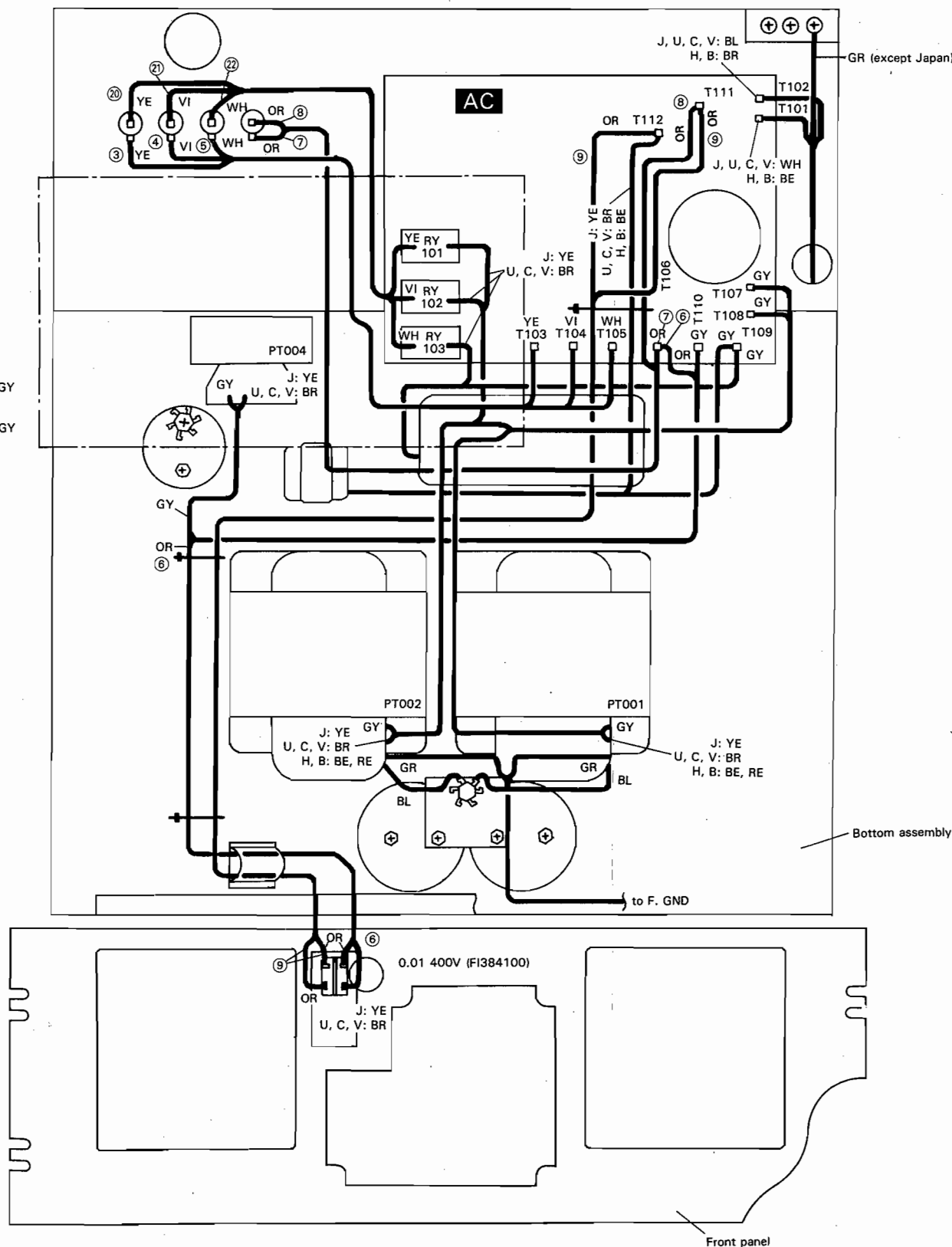
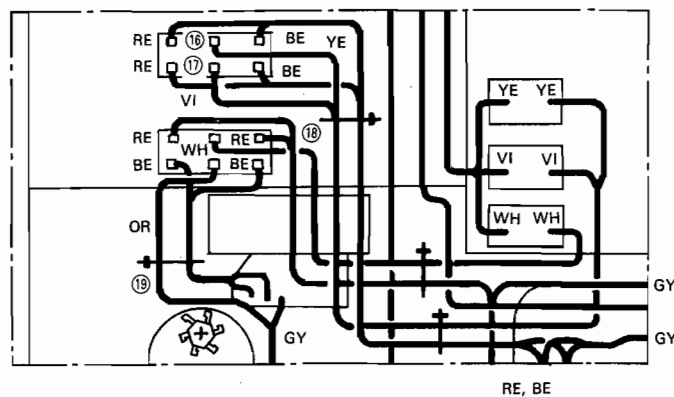
● Monitor Module (MONITORモジュール)



● PW4000 Overall Assembly — Primary (PW4000総組立-1次配線)

● Japanese, U.S. and Canadian models

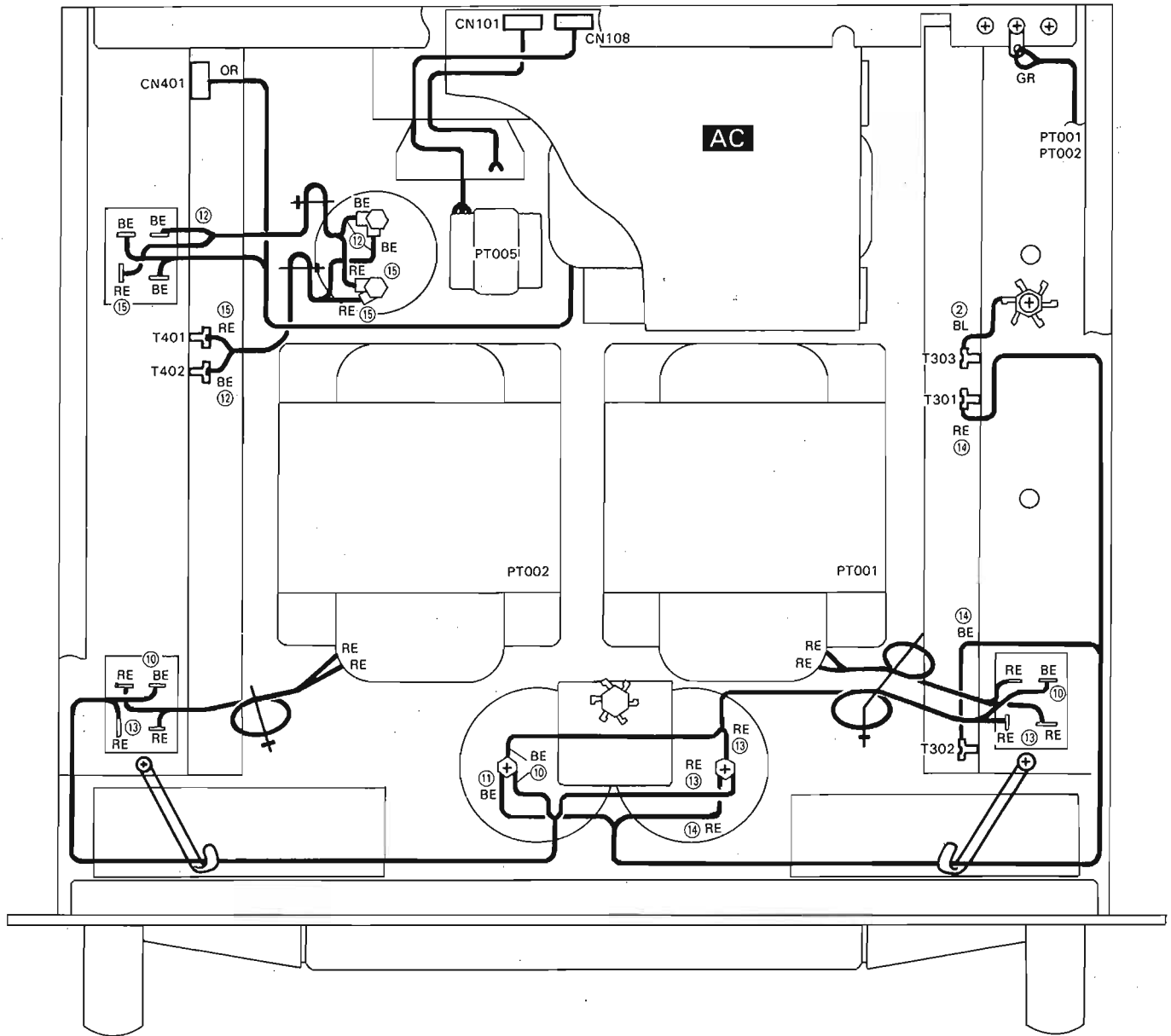
● North European and British models



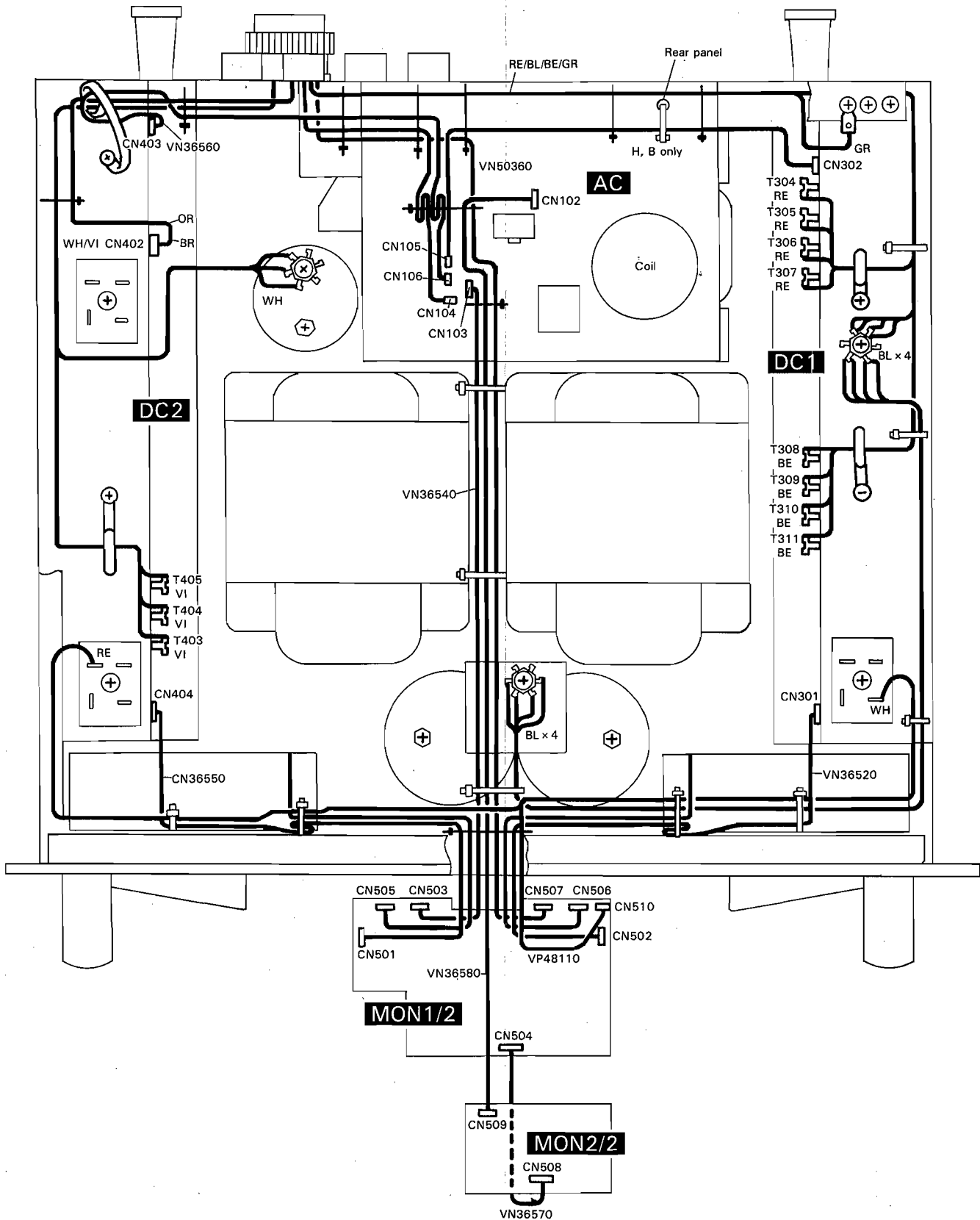
| NO. | DESTINATION | LENGTH | WIRE COLOR | PART NO. |
|-----|--|---------|------------|----------|
| ② | DC1 Right side P.T. plate | L = 50 | BL | VA16590 |
| ③ | T103 F001 | L = 290 | YE | VA16500 |
| ④ | T104 F002 | L = 290 | VI | VA16530 |
| ⑤ | T105 F003 | L = 390 | WH | VA16550 |
| ⑥ | T106 SW001 | L = 520 | OR | VA16490 |
| ⑦ | T106 F004 | L = 370 | OR | VA16490 |
| ⑧ | F004 T111 | L = 480 | OR | VA16490 |
| ⑨ | T111, T112 SW001 | L = 630 | OR | VA16490 |
| ⑩ | 68000 μ F DC4 | L = 420 | BE | VA16100 |
| ⑪ | 68000 μ F DC1 | L = 440 | BE | VA16100 |
| ⑫ | 10000 μ F, DC2 DC4 | L = 160 | BE | VA16100 |
| ⑬ | 68000 μ F DC4 | L = 420 | RE | VA16060 |
| ⑭ | 68000 μ F DC1 | L = 540 | RE | VA16060 |
| ⑮ | 10000 μ F, DC2 DC4 | L = 160 | RE | VA16060 |
| ⑯ | RY101 SW002 | L = 330 | YE | VA16500 |
| ⑰ | RY102 SW002 | L = 330 | VI | VA16530 |
| ⑱ | RY103 SW003 | L = 330 | WH | VA16550 |
| ⑲ | SW001 SW003 | L = 520 | OR | VA16490 |
| ⑳ | RY101 F001 | L = 200 | YE | VA16500 |
| ㉑ | RY102 F002 | L = 200 | VI | VA16530 |
| ㉒ | RY103 F003 | L = 200 | WH | VA16550 |
| ㉓ | Right side P.T. plate Electrolytic capacitor | L = 510 | BL | VA16590 |

* Wires listed above are not available as service parts.
(上記の束線は、補修用部品としては用意されていません。)

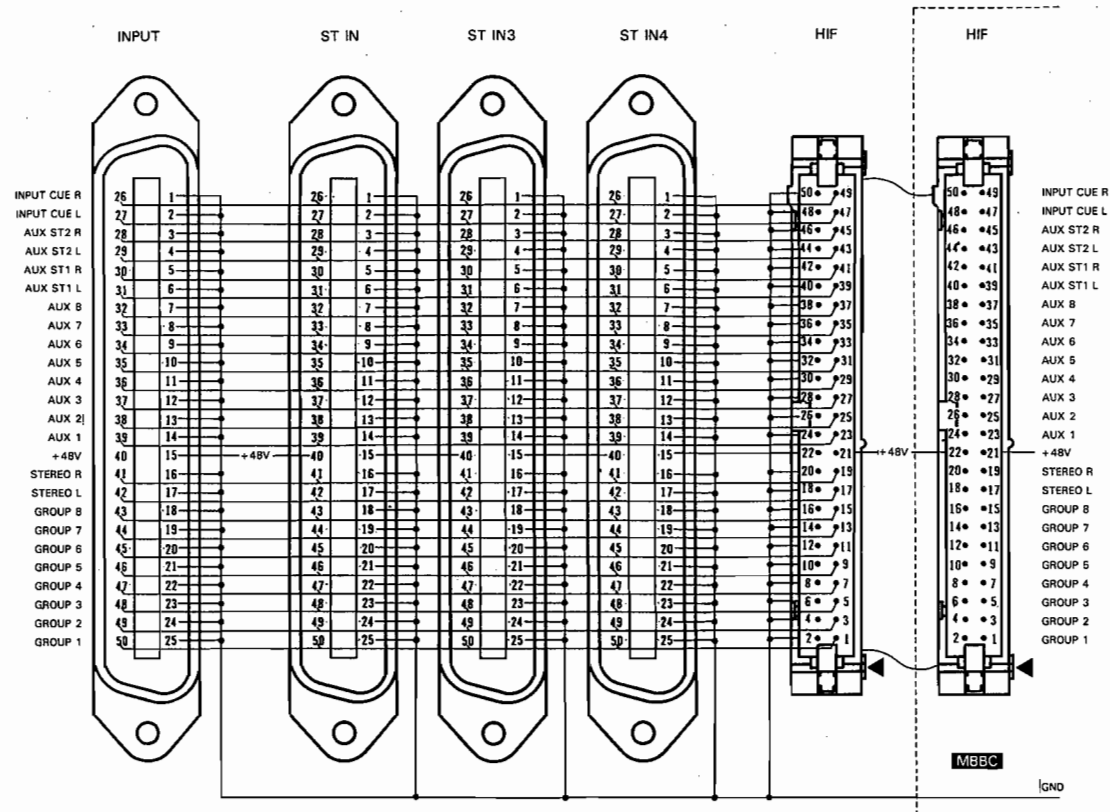
● PW4000 Overall Assembly — Secondary (PW4000総組立-2次配線)



● PW4000 Overall Assembly – Connectors (PW4000総組立-コネクタ配線)

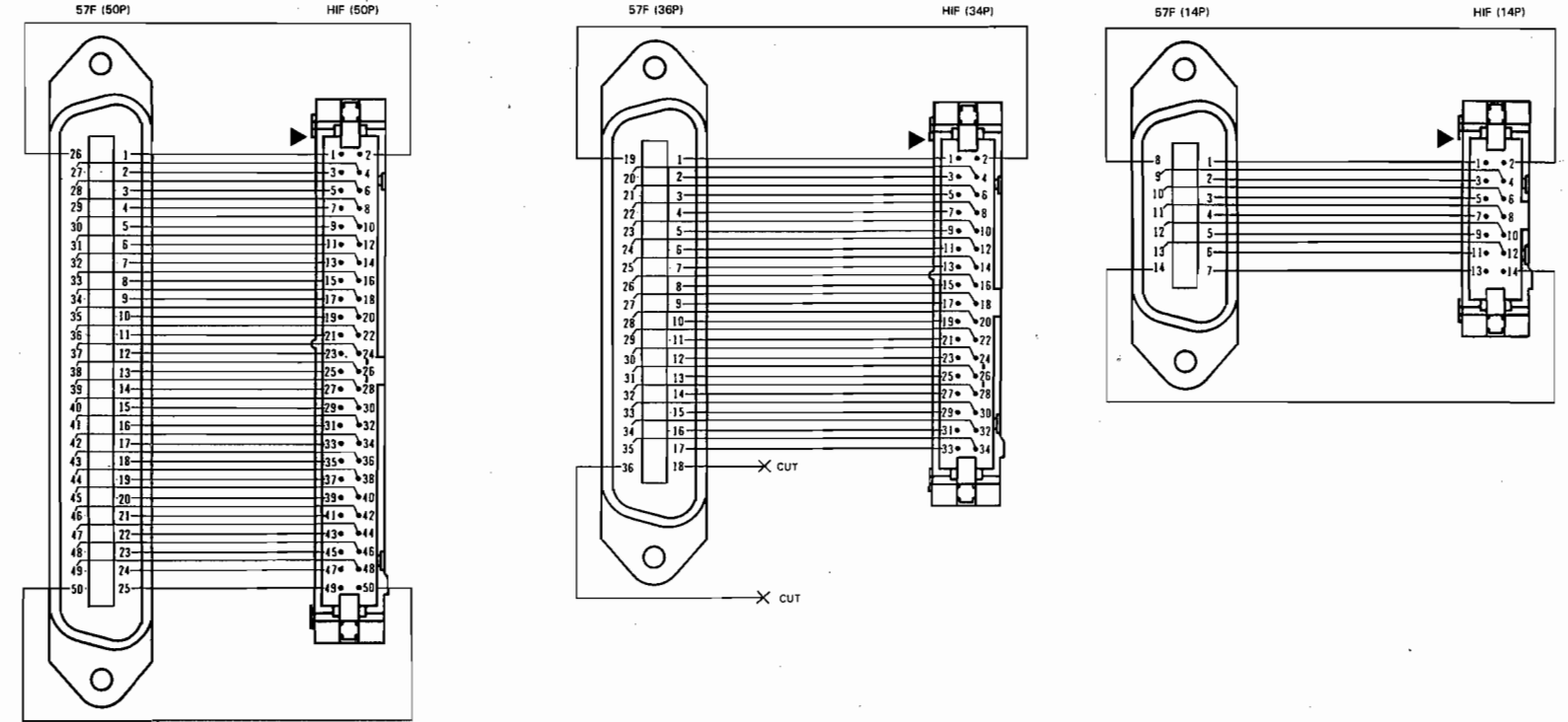


● SIGNAL bus connector (rear side) pin assignments

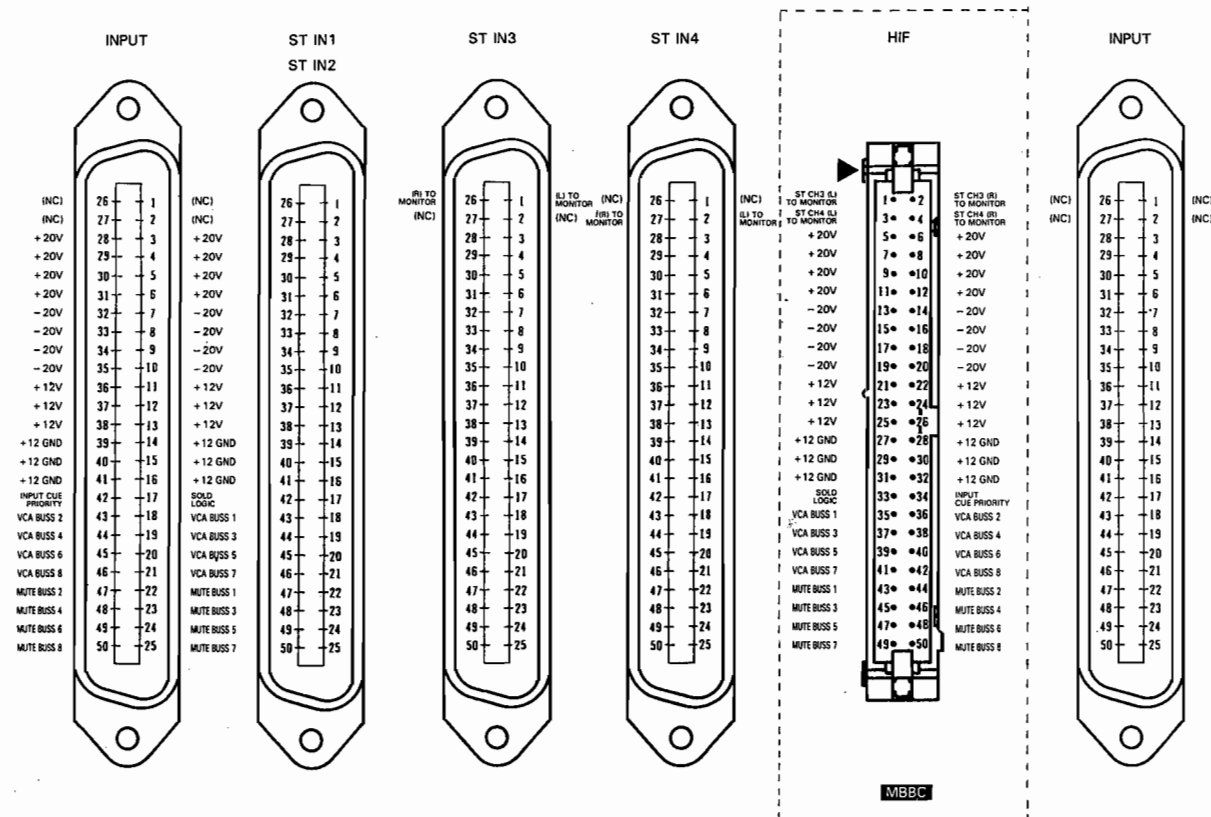


● Flat cable connector pin assignments

| TYPE | NADE | COLOR | REMARK |
|------|------------|-------|---------------------------|
| 57F | DDK | BLUE | BUS CONNECTOR RIBON CABLE |
| HIF | HIROSE | BLACK | USED ON BOARD/BOROTH SIDE |
| APX | MATSUSHITA | | |

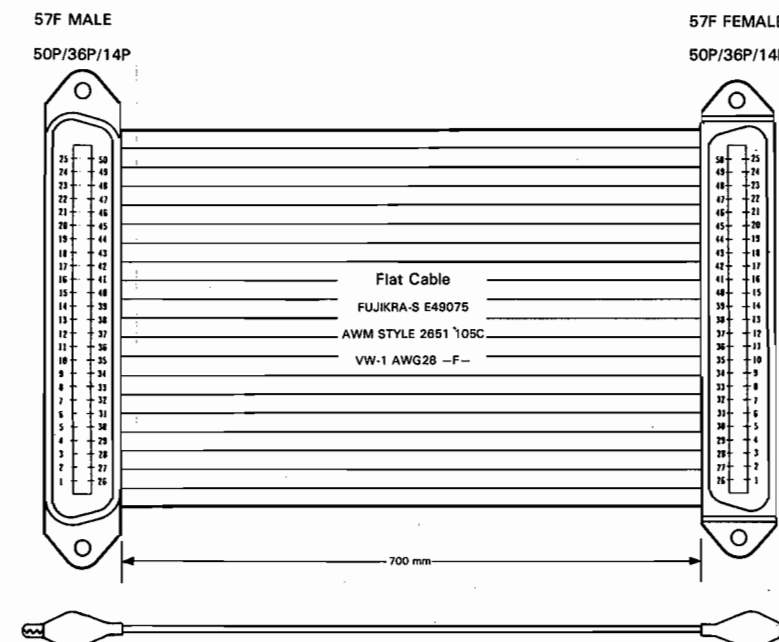


● DC control bus (front side) flat cable pin assignments



● PM4000 module extension cable for repair servicing

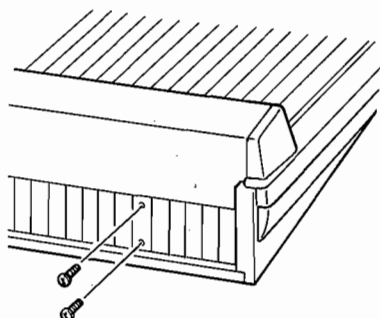
| | | | | | |
|---|------------|------------|---------|----------------|-----|
| 1 | 50P | Flat Cable | (700mm) | With Connector | × 2 |
| 2 | 36P | Flat Cable | (700mm) | With Connector | × 2 |
| 3 | 14P | Flat Cable | (700mm) | With Connector | × 1 |
| 4 | Short Wire | | (700mm) | With Clip | × 1 |



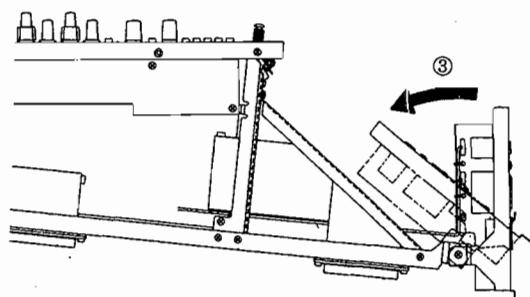
PW4000/PW4000

REMOVING AND INSTALLING A MODULE

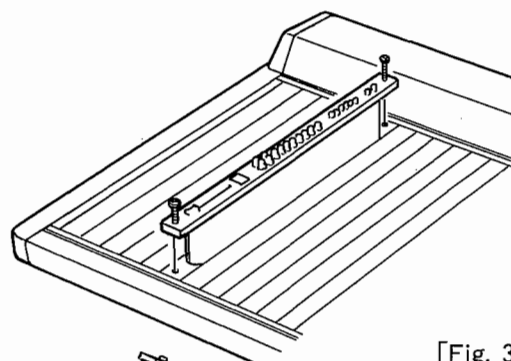
(モジュールの取り外しと取り付け)



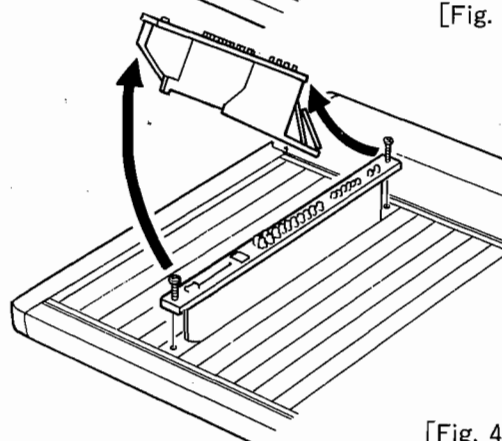
[Fig. 1]



[Fig. 2]



[Fig. 3]



[Fig. 4]

1. Turn the Power OFF first, before removing or installing a module.
2. Loosen the screws at the top and bottom of the rear panel input/output strip corresponding to the module being removed (except Master section modules). These screws are not retained so be sure to grasp them and set them aside for reinstallation of the module. [Fig. 1]
3. Loosen the retaining screws at the top and bottom of the module. These screws are retained in the module. [Fig. 3]
4. Lift up on the module's retaining screws (or you may also want to pull up gently on a control knob), and you will feel the two module connectors that join the connectors on the bottom of the console release. Then carefully lift the module out of the console. [Fig. 4]
5. Installation of a module should be done by reversing the order of this procedure. Work slowly to make sure that edge connectors mate properly.

NOTE: If you are moving a module to a different location in the mainframe, one which had housed no module or a different type of module, then you will have to also move the rear connector panel. Monaural and Stereo input modules may be placed anywhere in the frame, and you can exchange them freely (so long as you use the correct input/output connector panel on the rear). However, there should be no more than a total of 64 input channels per mainframe.

- ①モジュールを取りはずしたり、取り付けたりする前に、必ず電源をOFFにしてください。モジュール内部ICPが瞬断します。
- ②取りはずすモジュールのフロントパネル前・後2本の⊕ネジをゆるめます。
このネジはモジュール上面に抜け出さないような構造になっています。
- ③MASTERセクションの各モジュールは②のフロントパネル前後2本のネジのみで本体に取付けられていますが、MONO/ST INPUT モジュールでは、該当するモジュールのリアパネルの上・下2本の⊕ネジもはずします。この時リアパネルの上部が内側に倒れていることを確認してください。倒れない場合は軽く手で押し倒してください。
- ④②でゆるめた前後2本のフロントパネルのネジを指でつまみ、モジュールをコネクタがはずれるまで上方に引き上げます。
MASTERセクションの各モジュールは平行に引き上げると本体からはずれますが、MONO/ST INPUT モジュールは、モジュールの手前側を後方よりやや先に上に持ち上げ、リアパネルがメーターブリッジの下をくぐるようにしてモジュールを取りはずします。
- ⑤モジュールの取り付けは、この手順と逆に行ないます。モジュール下部のコネクタが正しく合っていることを確認しながら、確実にこなしてください。

ステレオインプットモジュールの増設

ステレオインプットモジュールの増設が可能です。標準装備のステレオインプットモジュールは4本ですが、モノラルインプットと置換えてトータルチャンネル数64まで増設することができます。置換えは一切のワイヤリングを必要とせず、モジュールを交換するのみでステレオモジュール機能を持たせることができます。

CHANGING THE FUNCTIONS WITH INTERNAL SWITCHES

(内部切替スイッチによる機能変更)

- **Mono Input Direct Out Jack: Pre-Fader or Post-Fader (switch) Pre-ON or Post-ON Switch (jumper)**

A slide switch in each input module permits the Direct Out point to be altered. As shipped, the console is set so that the Direct Out point is derived after the EQ and Fader (technically speaking, it comes after the VCA

which is controlled by the fader). If you wish the Direct Out to be Pre-EQ and Fader (actually pre-VCA), move the switch to the appropriate position, as illustrated.

As shipped, the direct out point comes ahead of the Channel ON switch, and is thus not affected by the Master Mute function. By changing internal jumpers, you can alter the Direct Out point to be Post-ON switch, also illustrated below.

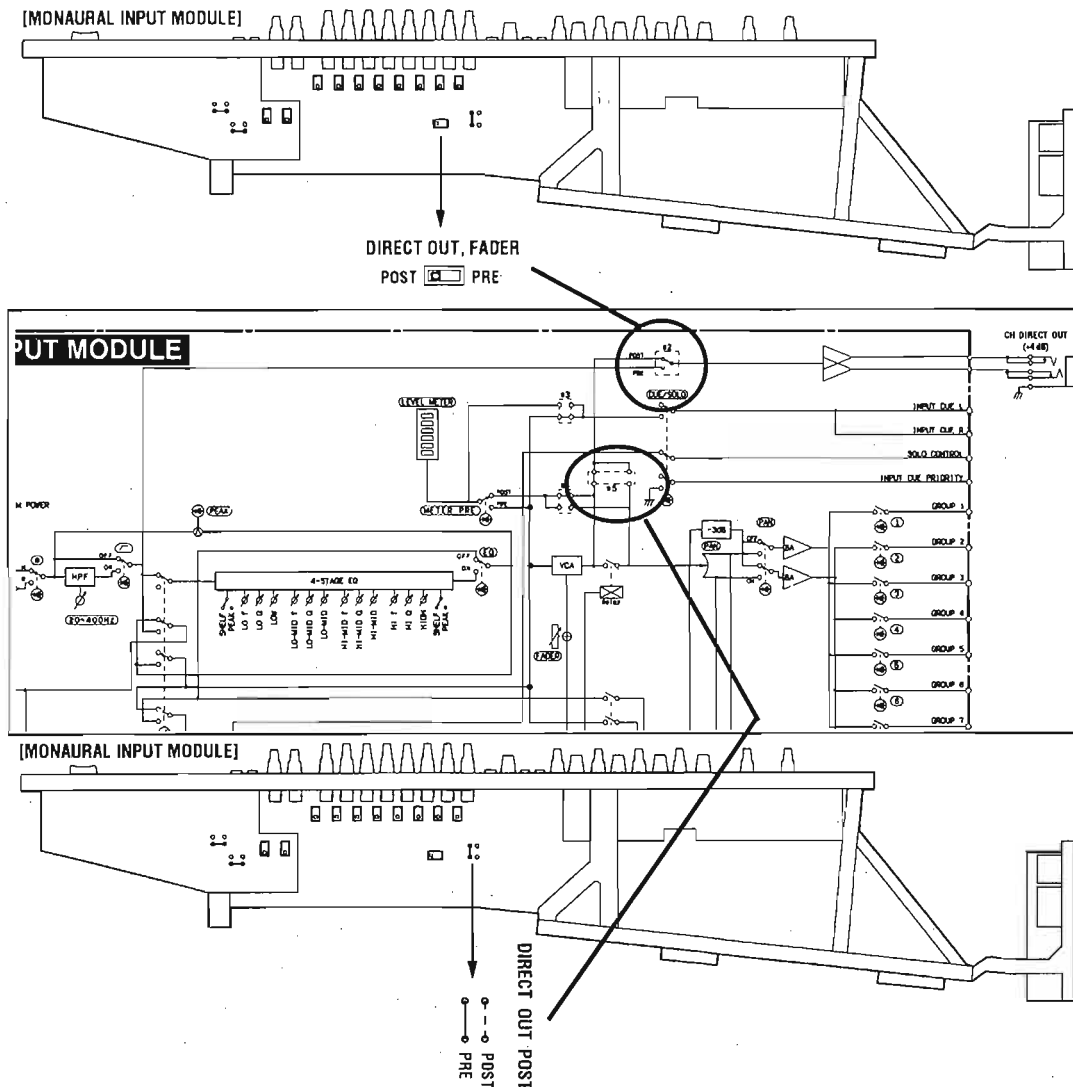
● MONO INPUT モジュール

DIRECT OUT の PRE EQ, PRE FADER/POST FADER

このスイッチにより、DIRECT OUT の出力を、プリ・イコライザー、プリ・フェーダーにするか、ポスト・フェーダーにするかを選択することができます。出荷時はポスト・フェーダーにセットされています。

DIRECT OUT の POST 位置での PRE ON SW/POST ON SW

このジャンパー線により、DIRECT OUT 信号取出しポイントをチャンネルONスイッチ前にするか、チャンネルONスイッチ後にするかを選択することができます。出荷時はプリ ON スイッチにセットされています。



Internal Switch Positions For Pre-Fader/EQ and Post-Fader/EQ Direct Out Point; Internal Jumpers for Direct Out Pre/Post Channel ON Switch; and Corresponding Block Diagram Location

● Mono Input Aux Sends: Pre Fader & EQ or Pre Fader/post EQ

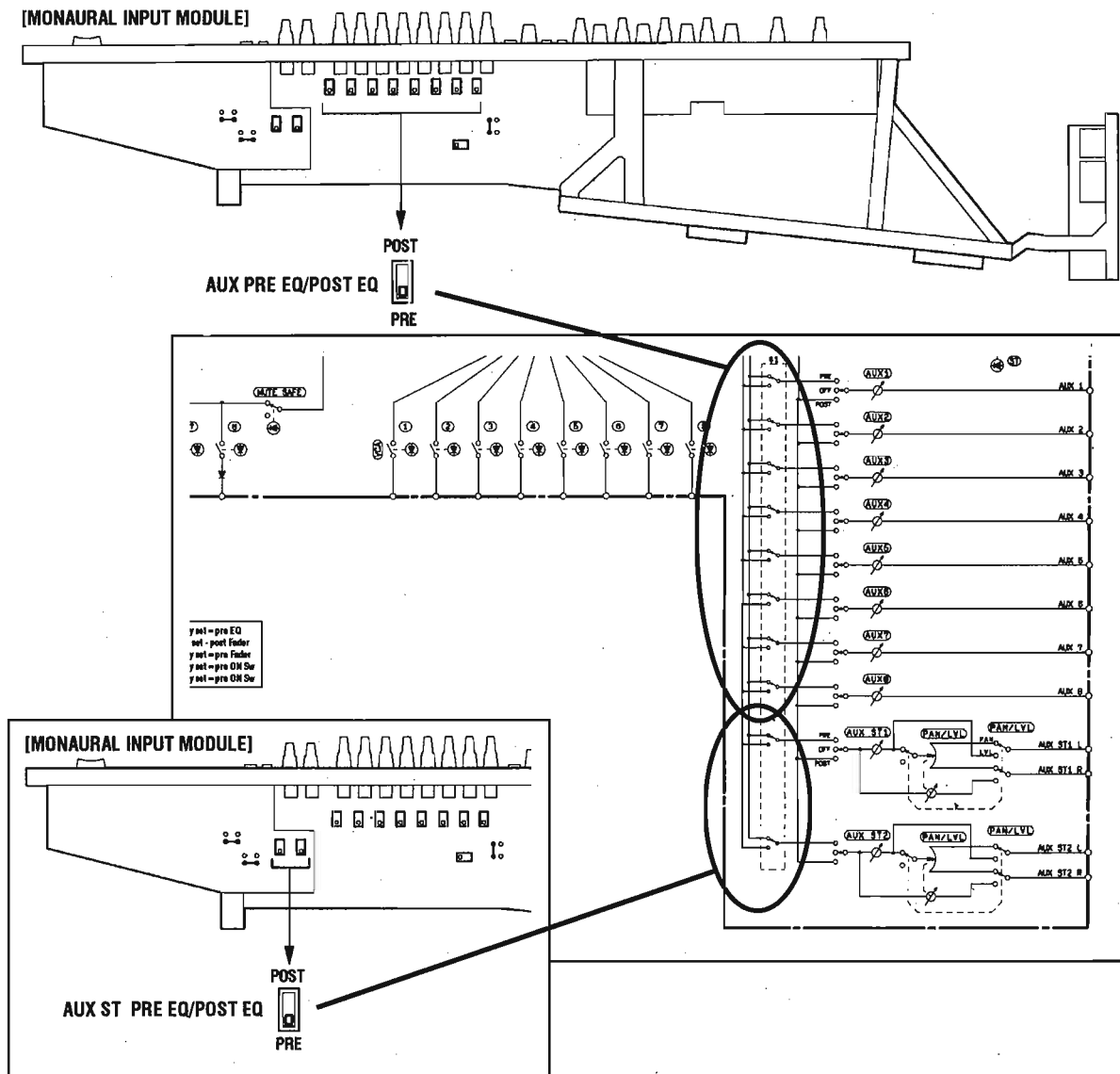
Ten slide switches in each input module permit each of the eight mono auxiliary sends and the two stereo aux sends to be altered. As shipped, the console is wired so that if the front-panel aux PRE/OFF/POST switch is set to PRE position, the aux send is derived ahead of the fader and equalizer (but after the high pass filter). This is useful for stage monitor work, for example,

where the channel EQ for the house may not be desired for the monitors, yet rumble-reducing filtering is desirable. On the other hand, suppose that one aux mix is used for a pre-fader effects send. In this case, it may be desirable to apply channel EQ to the send. The POST position would provide EQ, but would also cause the channel fader to affect the send, which is not desirable. To solve the problem, the switch for that aux send can be reset so that the PRE position remains pre-fader, but is taken after the EQ.

● MONO INPUTモジュール

AUX SEND のPRE EQ/POST EQ

このスイッチにより、AUX (1~8),AUX ST1/ST2 (L,R) 信号の各々のバスへの取出し位置を、プリ・イコライザーにするか、ポスト・イコライザーにするかを選択することができます。出荷時はプリ・イコライザーにセットされています。



Internal Switch Positions for Mono Input Module Pre-EQ and Post-EQ Aux Send, and Corresponding Block Diagram Locations: Slide the Switches Toward Front Panel to Select Post-EQ, Toward Rear of Module for Pre-EQ.

● **Mono Input Cue/Solo Switch: Pre-Fader or Follow MT PRE Switch**

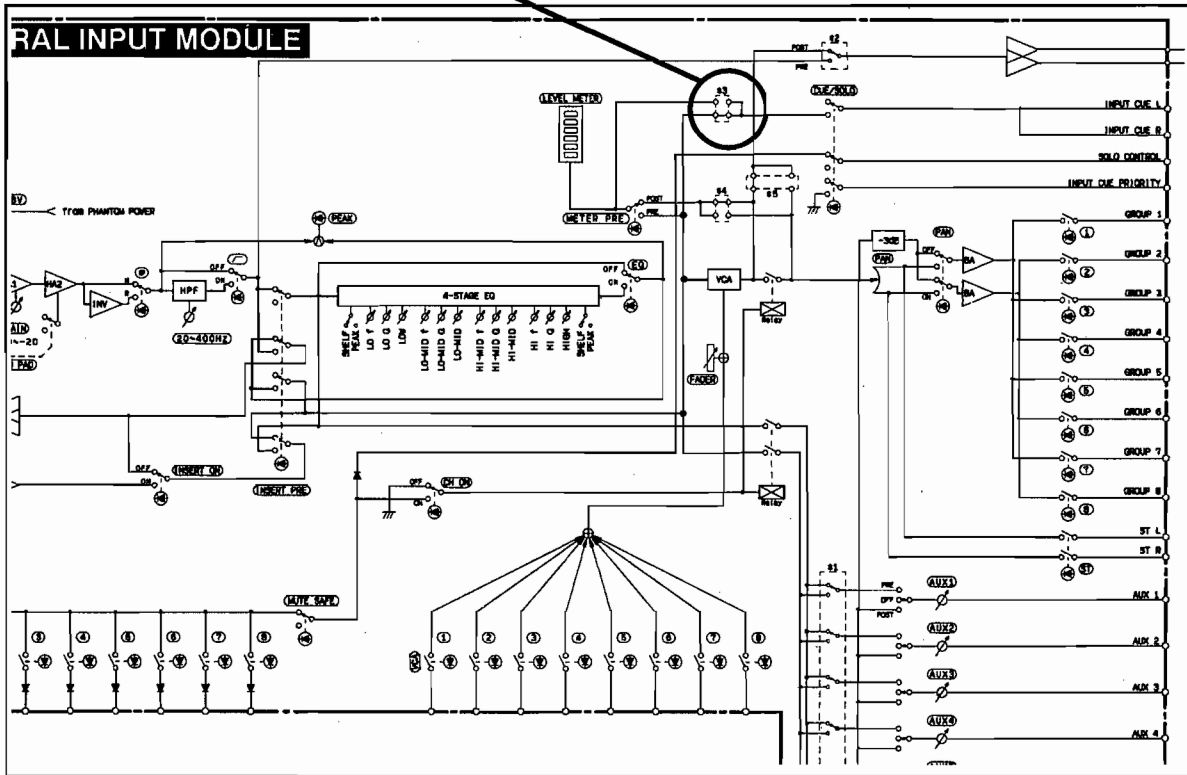
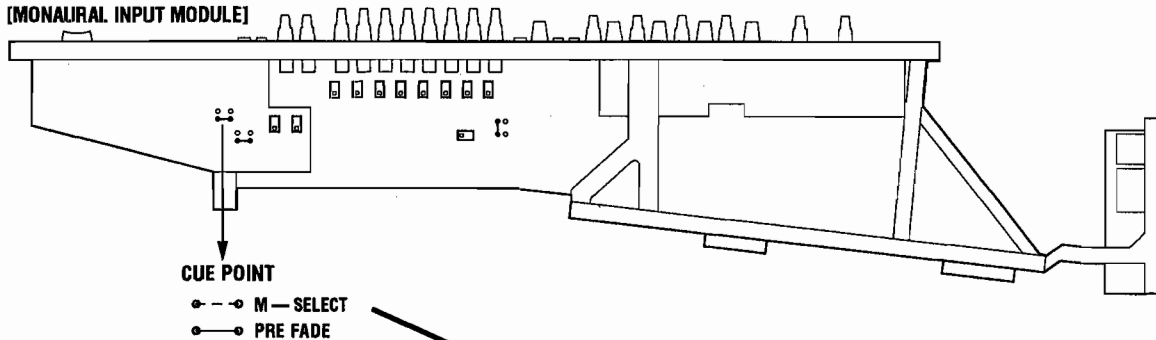
As shipped from the factory, the mono input channel CUE/SOLO switch applies signal to the left and right cue busses from a point which is derived just ahead of the channel fader (actually, just ahead of the fader-controlled VCA). However, an internal jumper in each mono input module enables this function to be altered

so that the take-off point for the cue/solo signal tracks the signal feed to the channel's LED level meter. In this way, the cue/solo feed will be post-fader (or post-VCA to be more exact) until the METER PRE switch is set to Pre mode; then it will be pre-fader. The channel's CUE output has left and right components, but both are derived from the same monaural signal. The switch positions are illustrated below.

● **MONO INPUT モジュール**

CUE入力 POINT の PRE FADER/follow MT スイッチ

このジャンパー線により、CUE入力ポイントをプリ・フェーダーにするか、メータースイッチ(MT PRE)のPRE,POSTの選択に一致しPRE,POST 選択可能とするかのいずれかを選ぶことができます。出荷時はプリ・フェーダーにセットされています。



Internal Switch Positions For Cue/Solo being Pre-Fader or tracking the METER PRE Switch on Monaural Input Module, and Corresponding Block Diagram Location.

PM4000/PW4000

● Stereo Input Cue/Solo Switch: Pre-Fader or Follow MT PRE Switch

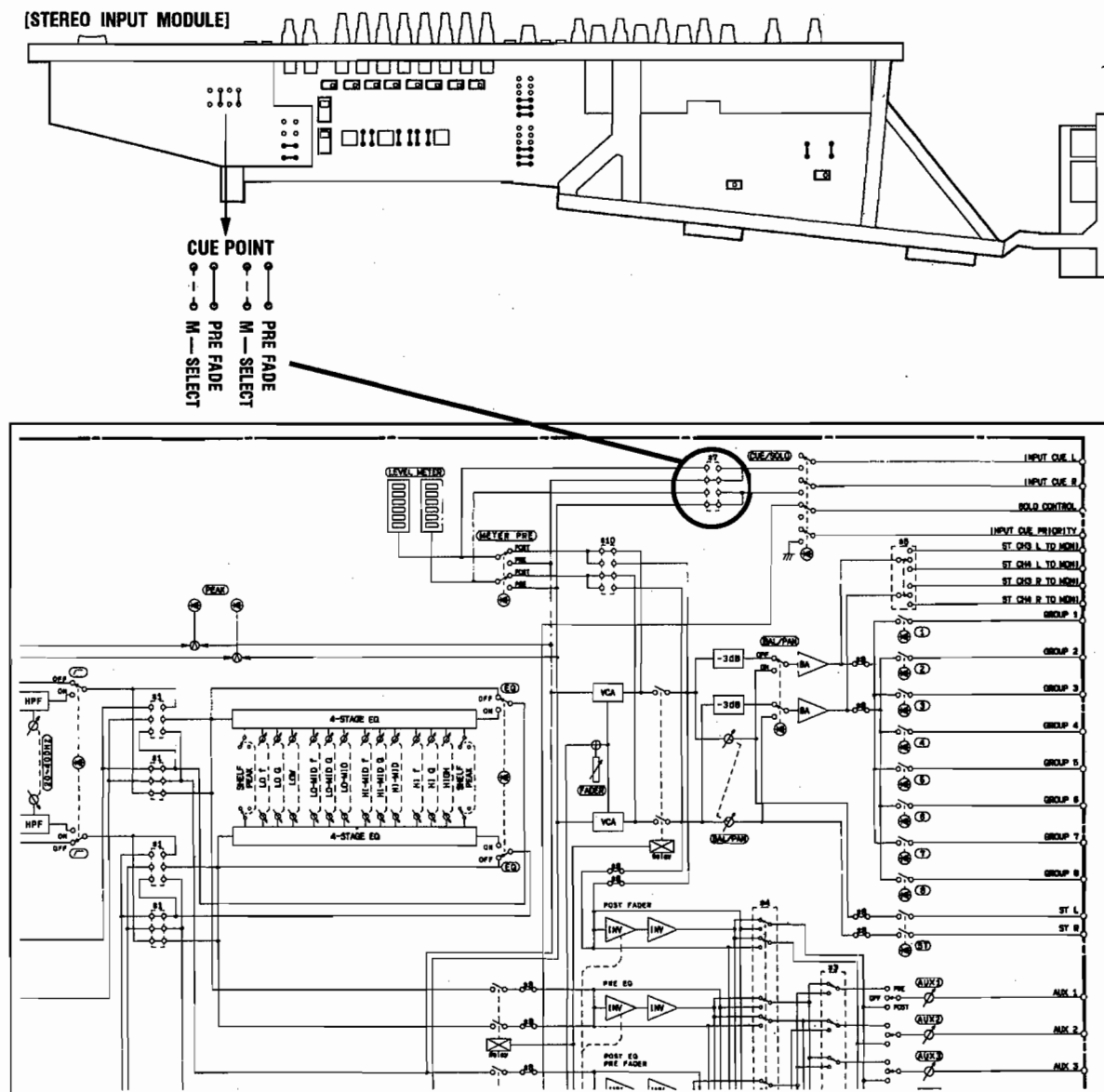
As shipped from the factory, the stereo channel CUE/SOLO switch applies signal to the left and right cue busses from a point which is derived just ahead of the channel fader (actually, just ahead of the fader-controlled VCA). However, an internal jumper in each stereo input module enables this function to be altered

so that the take-off point for the cue/solo signal tracks the signal feed to the channel's LED level meter. In this way, the cue/solo feed will be post-fader (or post-VCA to be more exact) until the METER PRE switch is set to Pre mode; then it will be pre-fader. The channel's CUE output has true stereo left and right components, derived from the discrete stereo input. The switch positions are illustrated below.

● ST INPUTモジュール

CUE入力POINT PRE FADER/follow MTスイッチ

このジャンパー線により、STEREO INPUTモジュールのCUE入力ポイントをプリ・フェーダーにするか、メータースイッチ (MT PRE) のPRE・POST選択に一致し、PRE・POST選択可能とするかのいずれかを選ぶことができます。出荷時はプリ・フェーダーにセットされています。



Internal Switch Positions For Cue/Solo being Pre-Fader or tracking the METER PRE Switch on Stereo Input Module, and Corresponding Block Diagram Location.

● **Mono & Stereo Input Channel MT PRE Switch: Pre- or Post-ON Switch**

Two jumpers in each mono input module (four on each stereo input module) permit the channel level meter's MT PRE switch function to be altered. As shipped, when the channel is set so that the meter is in

POST mode, the meter indicates the level after the Fader and the channel ON switch. By changing the jumpers as indicated, the POST function can be made to show the level after the Fader, but before the channel ON switch. This is useful for checking and adjusting the level even though the channel output is muted via a Master Mute function or the channel on/off switch.

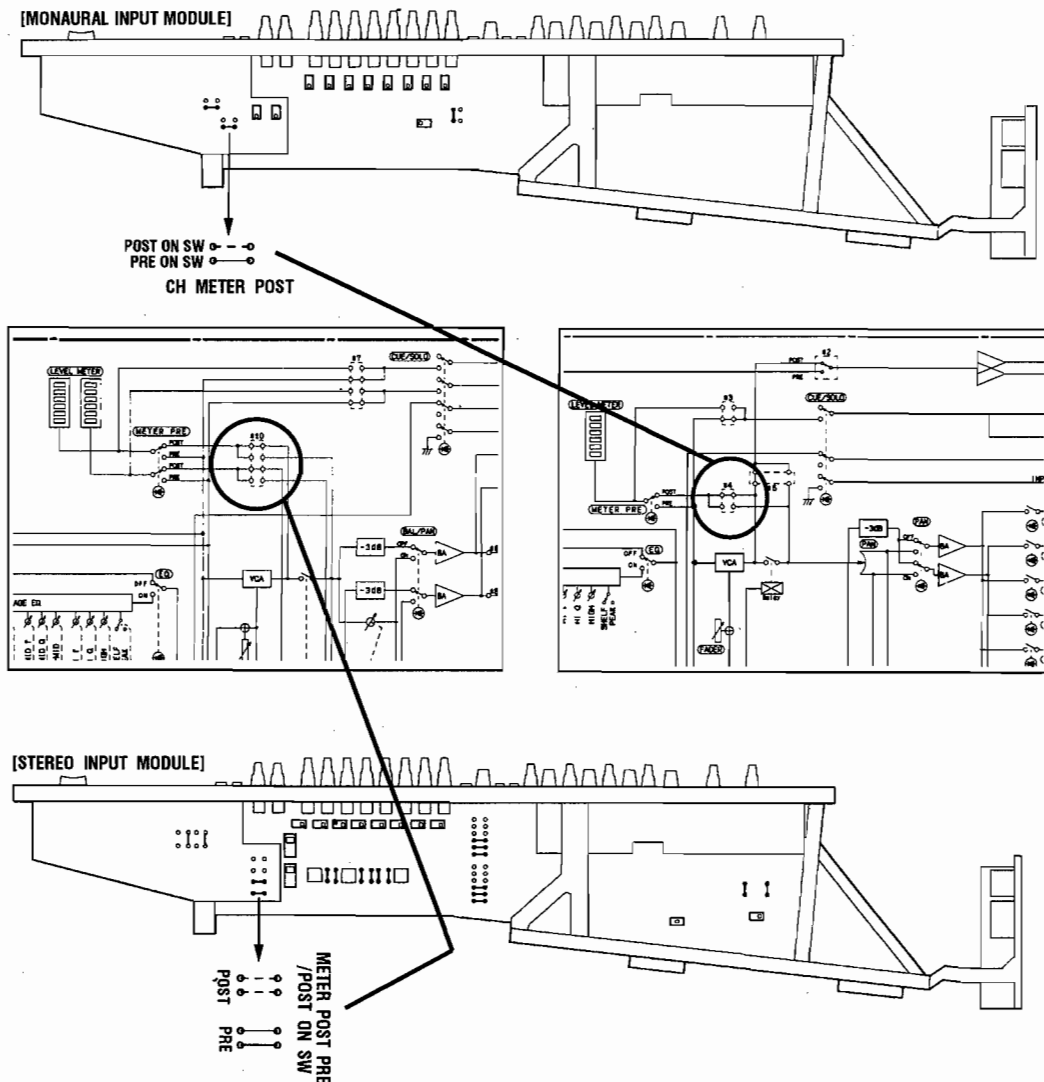
● **MONO & ST INPUT モジュール**

MT POST 位置での PRE ON SW/POST ON SW (MONO INPUTモジュール)

チャンネルレベルメーターの指示値はモジュールパネル面上のMT PREスイッチでプリ・フェーダーかポスト・フェーダーかを選択ができます。このジャンパー線でポスト・フェーダー時の信号検出位置を、チャンネルONスイッチ前にするか、チャンネルONスイッチ後にするかを選択することができます。出荷時はONスイッチの前にセットされています。

MT POST 位置での PRE ON SW/POST ON SW (ST INPUTモジュール)

MT PRE SWがPOST (OFF) の時このジャンパー線により、チャンネルレベルメーターの信号検出位置をチャンネルONスイッチ前にするか、チャンネルONスイッチ後にするかを選択することができます。出荷時はプリ ON スイッチにセットされています。



Internal Jumper Positions For MT PRE switch Post function Being Post Fader and Channel ON switch or Post Fader and Pre Channel ON switch, and Corresponding Block Diagram Location.

● Stereo Input Channel Insert In/Out Jacks: Pre-EQ or Post-EQ

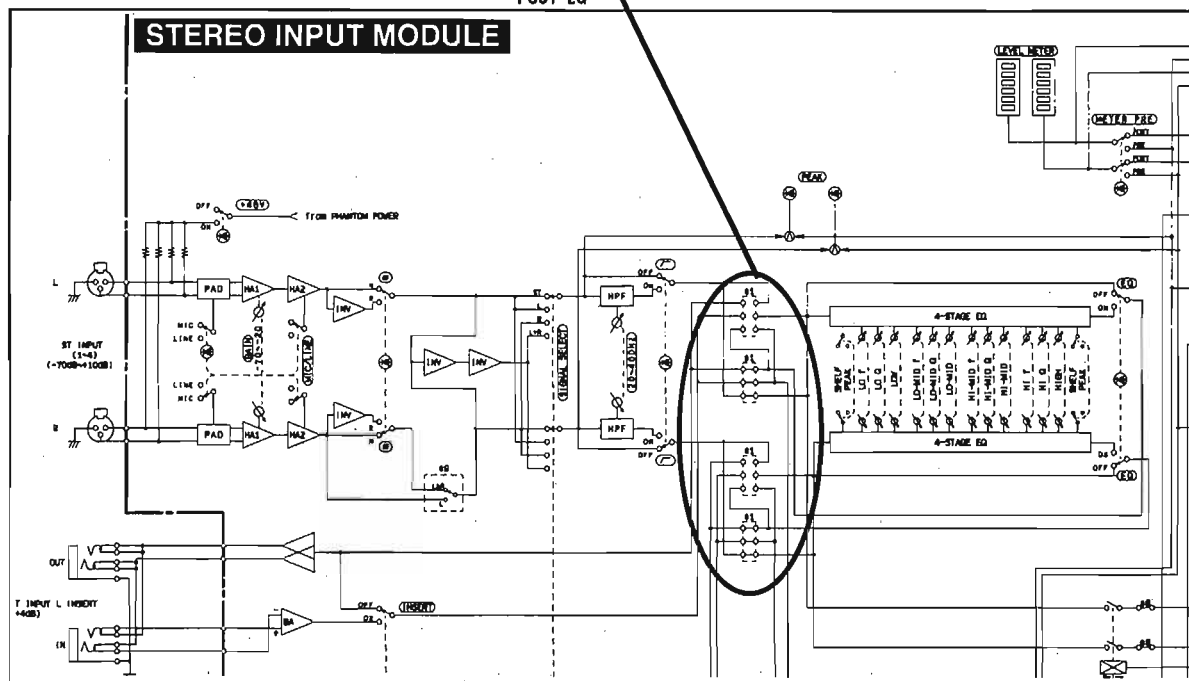
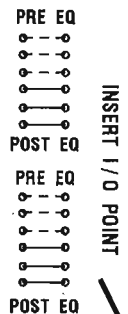
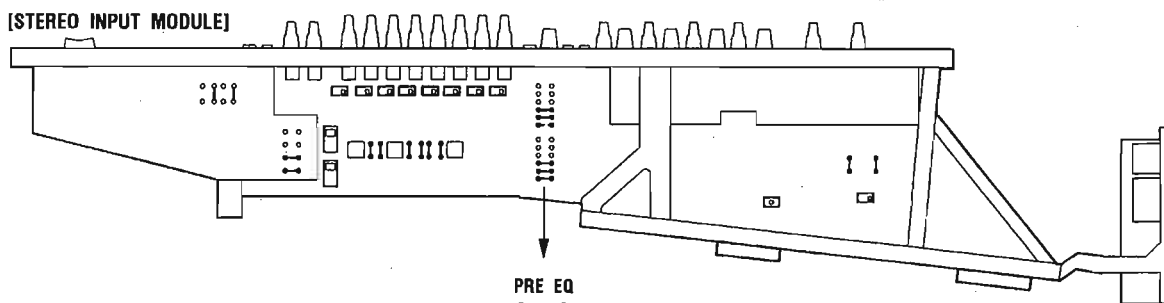
Four jumpers in each stereo input module permit the two pair of Insert In/Out points to be altered separately. As shipped, the console is set so that the Insert In/Out points come after the channel equalizer. This is useful,

for example, when one wishes to the send to the signal processor... for example, to apply the boost prior to compression. However, sometimes one wishes to equalize the return from a signal processor. In this case, the In/Out points can be switched to come before the channel equalizer. Move the jumpers to the appropriate position, as illustrated.

● ST INPUT モジュール

INSERT IN/OUT の PRE EQ/POST EQ

このジャンパー線により、INSERT IN/OUT 端子の信号入出力位置をプリ・イコライザーにするか、ポスト・イコライザーにするかを選択することができます。ジャンパー線はIN、OUT で各々3本ずつを移動することでポストからプリ・イコライザーに変更できます。但しIN、OUT を別個にプリ、ポストに設定することはできません。必ずIN、OUT を一緒にプリかポストにセットしてください。出荷時はポスト・イコライザーにセットされています。



Internal Jumper Positions For Pre-EQ and Post-EQ Insert In/Out Points on Stereo Input Module, and Corresponding Location on Block Diagram.

● **Stereo Input Channel Aux Sends:
Pre Fader & EQ or
Pre Fader/Post EQ**

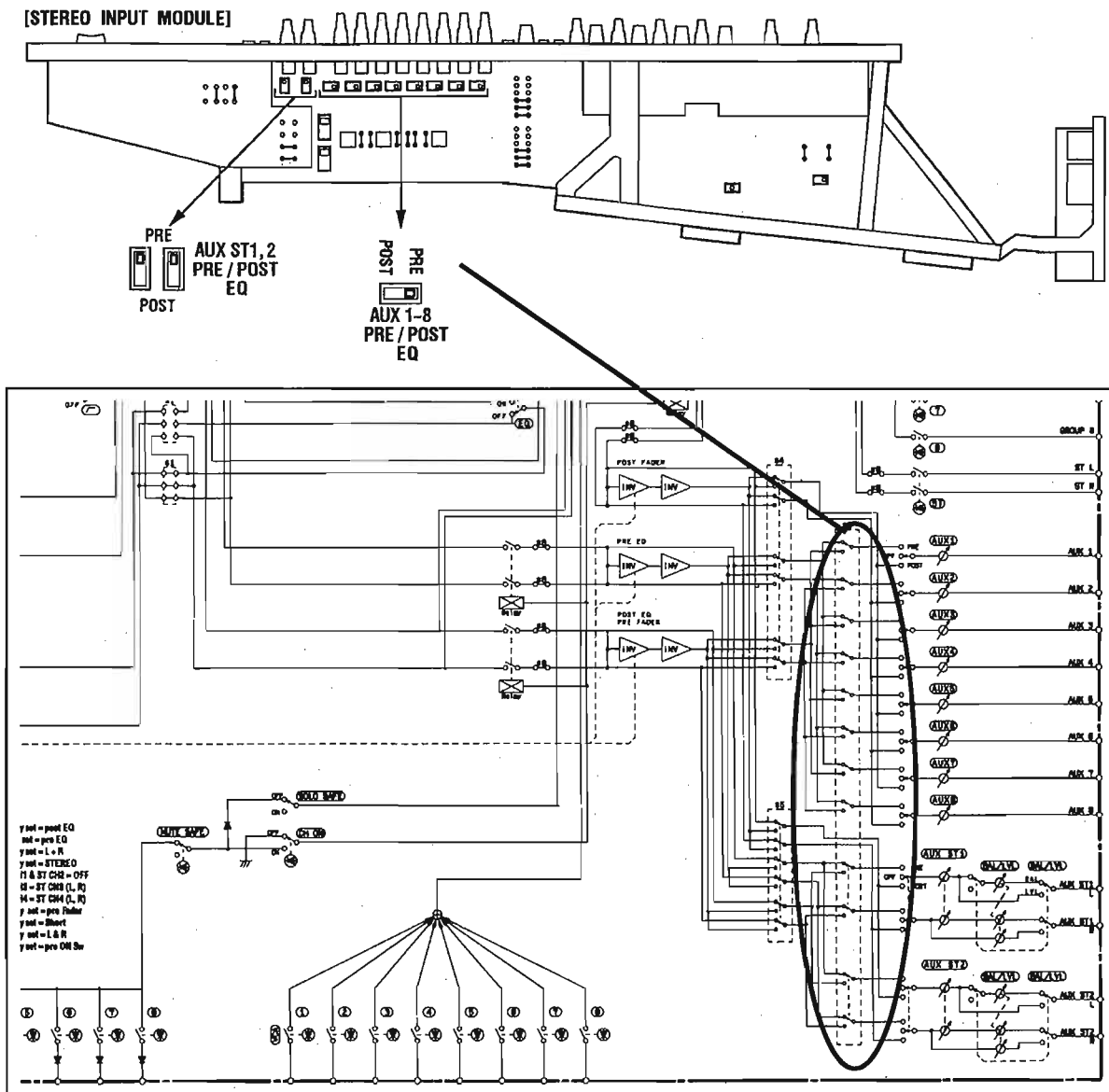
Eight slide switches in each stereo input module permit each of the eight mono auxiliary sends and to be altered. Two more switches perform the same function for the two stereo aux sends. As shipped, the console is wired so that if the front-panel aux PRE/OFF/POST

switch is set to PRE position, the aux send is derived ahead of the the fader and equalizer (but after the high pass filter). In situations where it is desirable to apply channel EQ to the send, the internal slide switch for that aux send can be reset so that the PRE position remains pre-fader, but is taken after the EQ. This is the same as the corresponding function on the mono input module.

● **ST INPUTモジュール**

AUX SENDのPRE EQ/POST EQ

このスイッチにより、AUX (1~8),AUX ST1/ST2 (L,R) 信号の各々のバスへの取出し位置を、プリ・イコライザーにするか、ポスト・イコライザーにするかを選択することができます。出荷時はプリ・イコライザーにセットされています。



Internal Switch Positions For Stereo Input Module Pre-EQ And Post-EQ Aux Sends, and the Corresponding Location on the Block Diagram.

● Stereo Input Channel Aux Sends 1-8: L+R Blend or Stereo Pairs

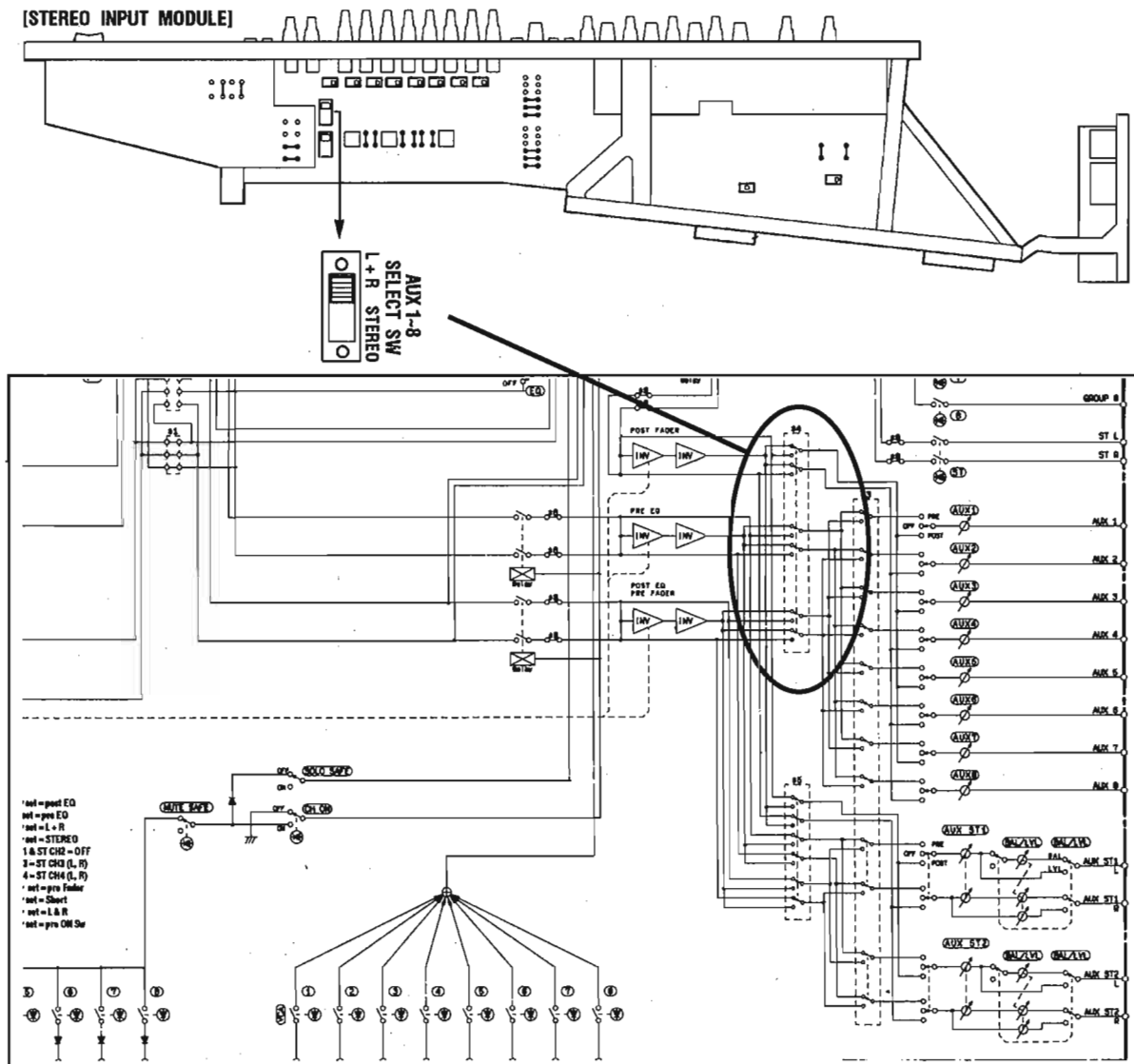
A single slide switch in each stereo input module changes the signal source for the Aux Sends 1 through 8 (without regard to pre or post status). As shipped, these Aux Sends each carry a mono combination of the left

and right inputs to the channel. Moving the switch changes the signal take-off points so that the odd-numbered Aux Sends derive signal from the channel's left input path, and the even-numbered Aux Sends derive signal from the channel's right input path.

● ST INPUTモジュール

L,R信号のAUXバス送出L+R/STEREO

このスイッチにより、L,R入力信号をL+Rにし、AUX (1~8) の全てのバスに同一信号を送出させるか、奇数バスにL信号を偶数バスにR信号を送出させ、STEREO信号のままにするかを選択することができます。出荷時はL+Rにセットされています。



Internal Switch Position For Stereo Input Module Aux Send 1 - 8 Mono Combine or Stereo Paired Signal Sourcing, and Corresponding Location on Block Diagram.

● Stereo Input Channel Stereo Aux Sends 1 & 2: L+R Blend or Stereo Pairs

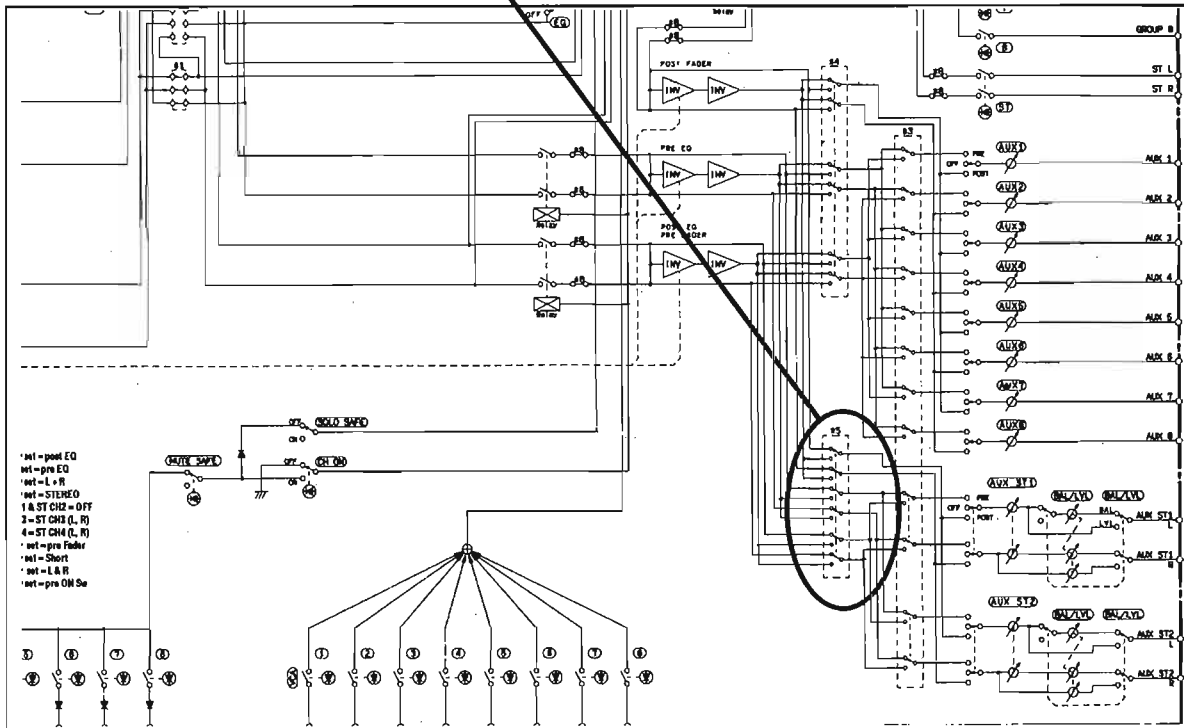
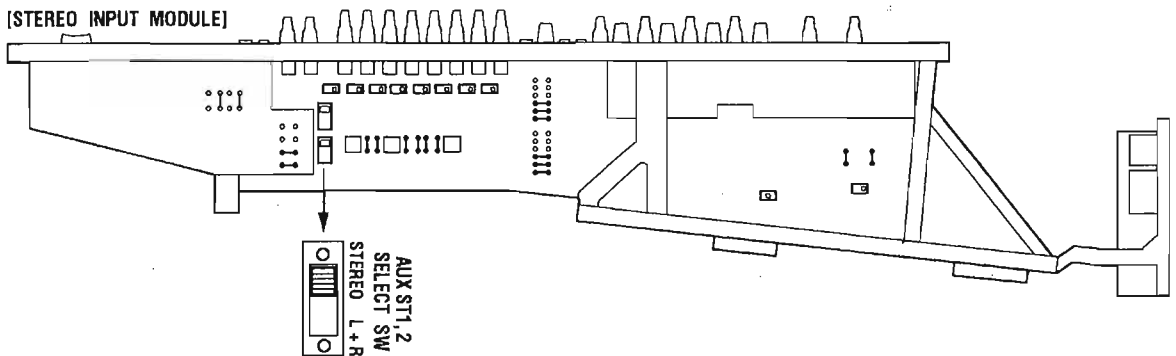
A slide switch in each stereo input module changes the signal source for the two stereo aux sends (without regard to pre or post status). As shipped, the two Stereo

Aux Sends each carry discrete left and right signals from the channel input. Moving the switch changes the signal take-off points so that the L and R sides of each stereo Aux Send both carry the same mono L+R combined signal (i.e. while the level applied to the L & R aux busses can be varied, the signal itself is the same).

● ST INPUTモジュール

L,R信号のAUX ST1/ST2 (L,R) バス送出STEREO/L + R

このスイッチにより、L,R入力信号をAUX ST1/ST2 (L,R) バスにSTEREO信号のまま送出させるか、L + Rとして送出させるかを選択することができます。出荷時はSTEREOにセットされています。



Internal Switch Position For Stereo Input Module ST Aux Send 1 & 2 Mono Combine or Stereo Paired Signal Sourcing, and Corresponding Location on Block Diagram.

PM4000/PW4000

● Stereo Input Channel Feed to Monitor Module ST IN 3 or ST IN 4

The Monitor module has provisions for selection and monitoring of signals assigned from the "Stereo In 3" and "Stereo In 4" modules. However, the stereo module numbers are arbitrarily designated; stereo modules can be located in just about any mainframe input module location, and more than one can contribute to the ST IN3 or ST IN4 monitor mix.

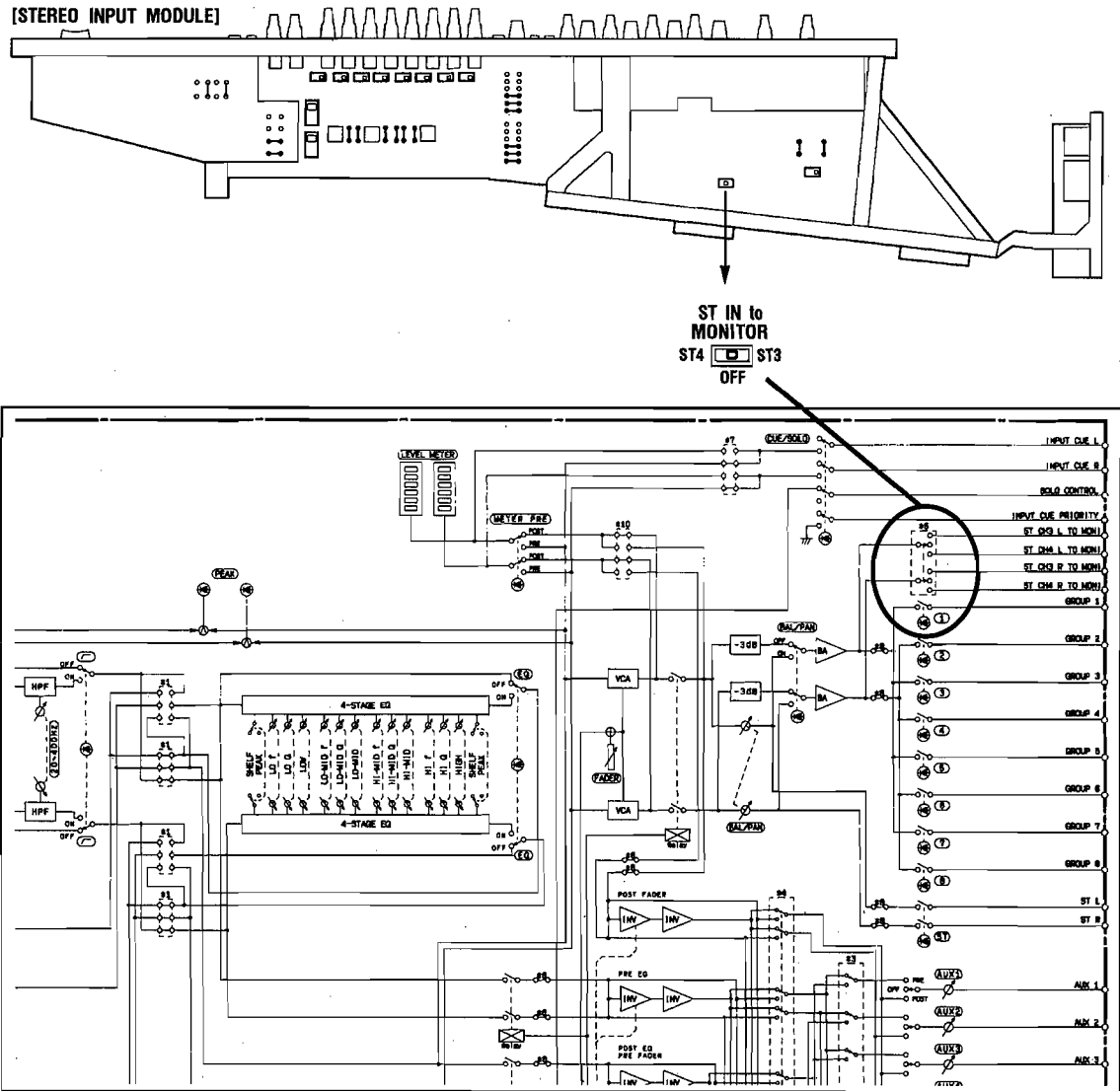
Determination of which stereo modules actually contribute to the monitors when the monitor module's ST IN3 or ST IN4 switch is engaged is dependent on the position of a slide switch in each stereo input module.

Locate the switch in the figure shown below and set it as shown so that a given module either does not contribute anything to these monitor busses, or so it contributes to ST IN3 or ST IN4 bus.

● ST INPUTモジュール

MONITOR ST CH3/ST CH4 送出セッティング

装着される STEREO INPUTモジュールの内2本のモジュール信号を、ステレオ信号でMONITORモジュールに送りモニターすることが可能です。MONITORモジュールのこれらの信号セレクトスイッチはST CH3、ST CH4と表示されています。ST CH3スイッチでモニターしたいSTEREO INPUTモジュールのプリセットスイッチはST3に、ST CH4でモニターしたいモジュールはST4にセットします。モニターしないモジュールはOFFにセットします。出荷時は4本のモジュールの左より3番目がST3に、4番目がST4に、1、2番はOFFにセットされています。モジュール交換時適切にセットすることが必要です。



Internal Switch Position For Stereo Input Module Signal Assigned to ST IN3, ST IN4 or neither Monitor Selection, and Block Diagram Location.

● **Phase Switch Function: Change Polarity of Both L and R inputs, or of L Only**

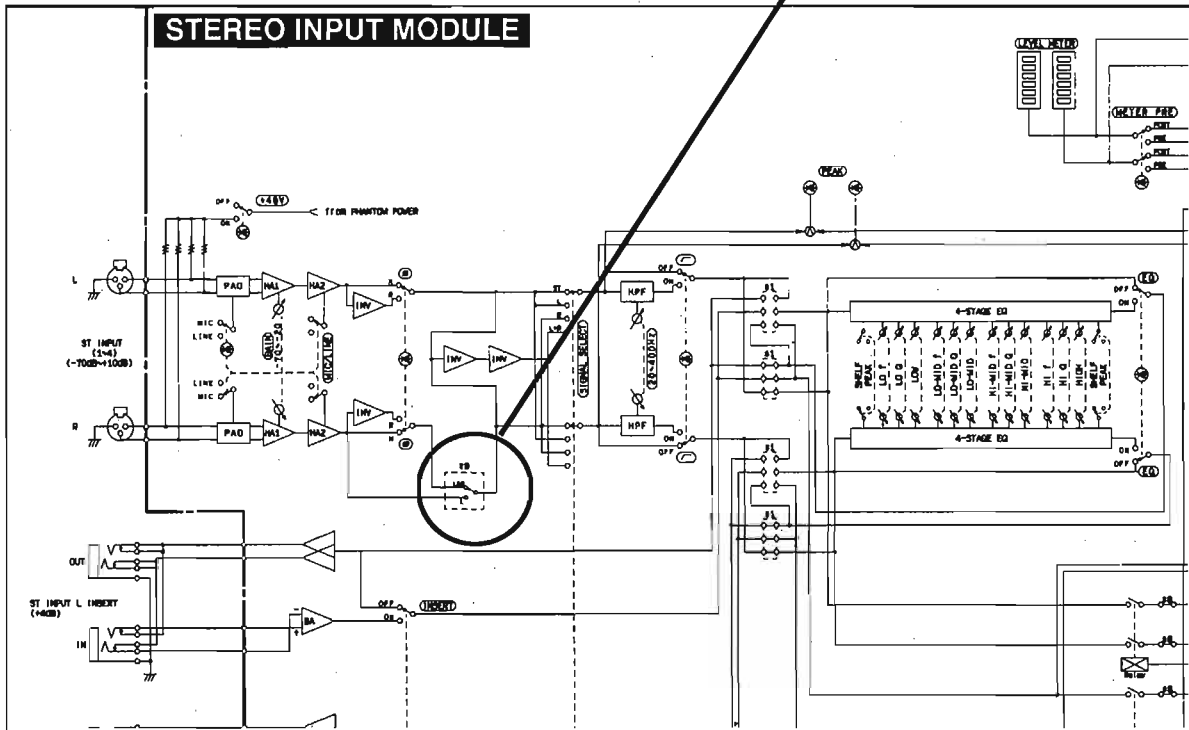
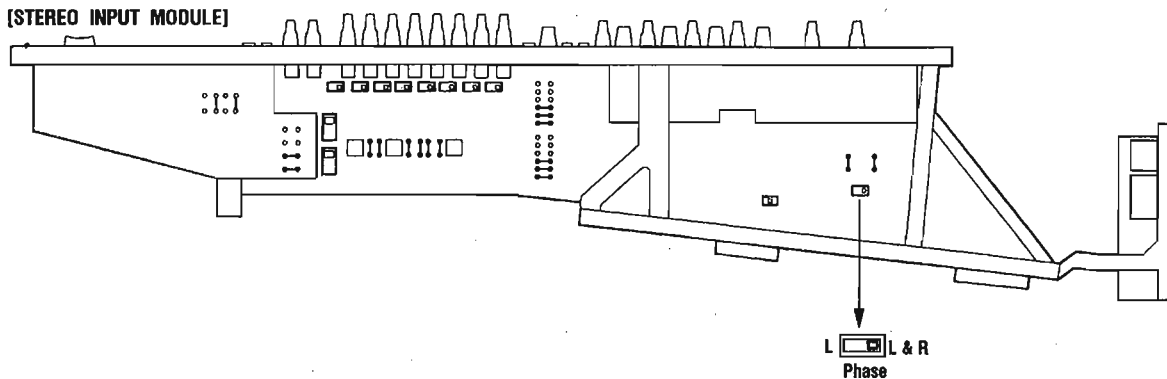
As shipped, the Stereo Input Module's Phase Switch (Ø) [8S], which is really a polarity switch, reverses the polarity of both the left and right inputs to the module.

If you wish to alter the polarity of the left input with respect to the right input, you must reset a switch on the module's circuit board. Once this switch is reset to the alternate position, then engaging the front panel Ø switch reverses polarity of the channel's left input only.

● **ST INPUT モジュール**

φの変更 L & R/L

このスイッチにより、STEREO INPUT モジュールのφ（位相反転）をL,R同時にするか、Lのみにするかを選択することができます。出荷時はL,R同時に位相が変わるようセットされています。



Internal Switch Position For Altering the Stereo Input Module Phase (Ø) Switch Function for Combined L & R Phase Change, or Change of L Input Only, and Block Diagram Location.

PM4000/PW4000

● Stereo Input Module: Output Enable Jumpers to Group, Stereo and Aux Busses

The stereo input module may be used as an effects return module. In this case, it could be disastrous if an incoming signal were to be assigned to the bus which is feeding the signal processor whose output is coming into the module. In other words, at the press of the wrong bus-assign button, there could be feedback that might shatter eardrums and shred loudspeakers. Careful operation can avoid this problem, but it cannot absolutely prevent it. Therefore, you may wish to disable a given stereo module's output to the group busses, the

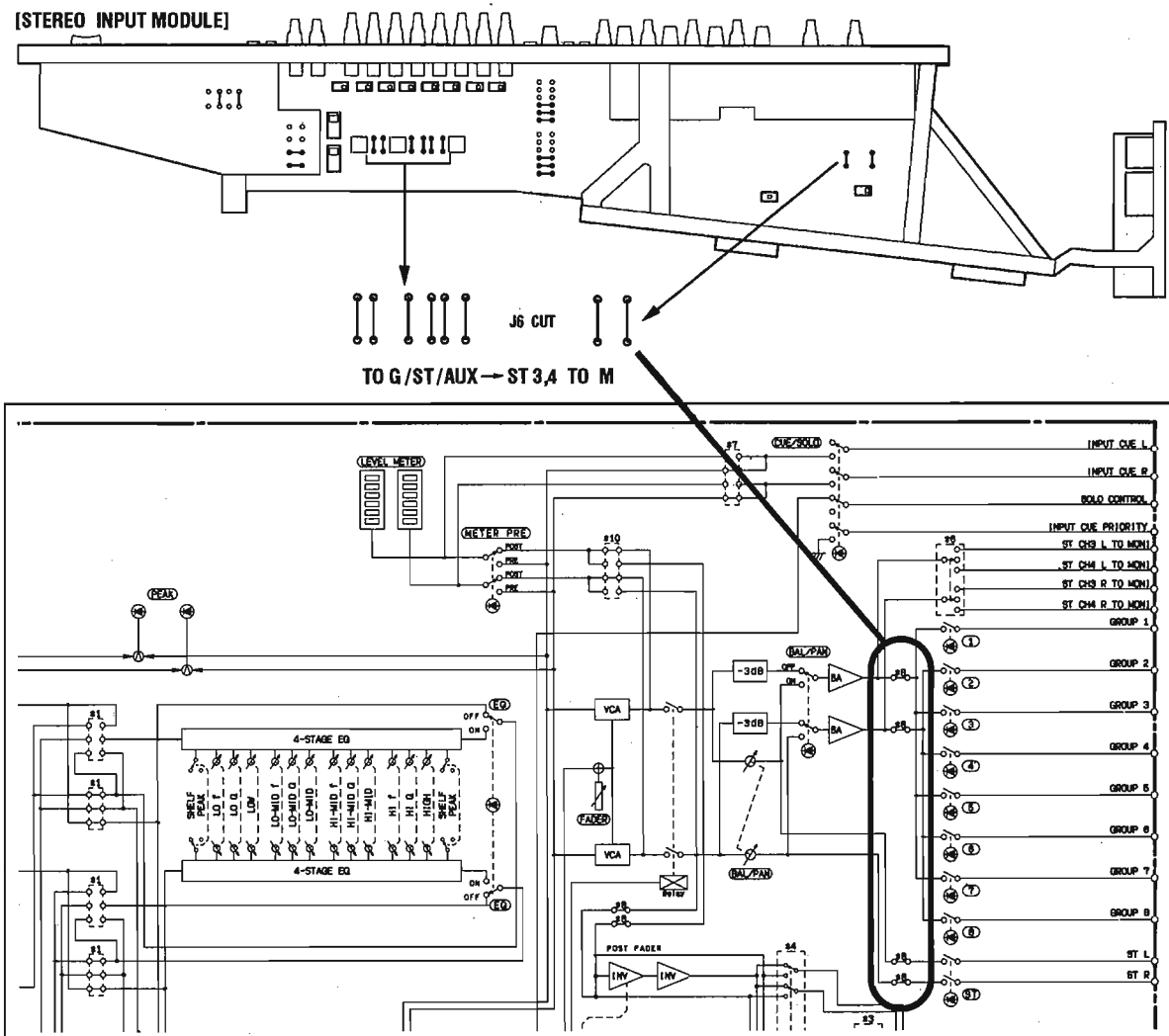
stereo bus, or the aux busses. As shipped from the factory, internal jumpers (headers) on the module carry the signals to these busses. You can "cut" one pair of jumpers to positively kill the module's output to the eight group busses by moving the header (two-pin clip) to the position which does not complete the circuit to the output; another pair of jumpers kill the output to the stereo bus; another three pair of jumpers kill the post-fader, pre-EQ and post-EQ feeds to the aux busses. These jumpers are identified in the figure illustrated below.

NOTE: Should you wish to reactivate a module's output to a given bus, you can always restore the jumpers so the are as originally shipped.

● ST INPUT モジュール

GROUPバス, STEREOバス, AUXバスへの信号送出カット

これらのジャンパー線をカットすることにより、STEREO INPUTモジュールの信号をGROUPバス, STEREOバス, AUXバスへ送出することを止め、STEREO INPUTモジュールをEFFECT RETURNモジュールとして使用することができます。(P56参照)



Internal Switch Positions For Pre- and Post- Group Master Fader Feeds to Mix Matrix, and Block Diagram Location.

● **Master Module: Group-to-Matrix Assigned Pre or Post Group Master Fader**

A slide switch in each master module permits the module's group send to the mix matrix to be altered. As shipped, the console is preset so that when the GROUP-TO-MTRX switch is on, the matrix is fed signal after the Group Master Fader (but before the GROUP ON/off switch). The internal switch in each of these modules can be repositioned so that the matrix is fed before the Group Master Fader.

In the factory preset configuration, the matrix follows the group mix. If one group, for example, is used for vocals, another for keyboards, etc., then all vocals going to all matrix outputs can be adjusted with one Group Master Fader... all Keyboards going to all matrix outputs can be adjusted with another Group Master Fader, etc. Suppose, however, that you plan to feed a

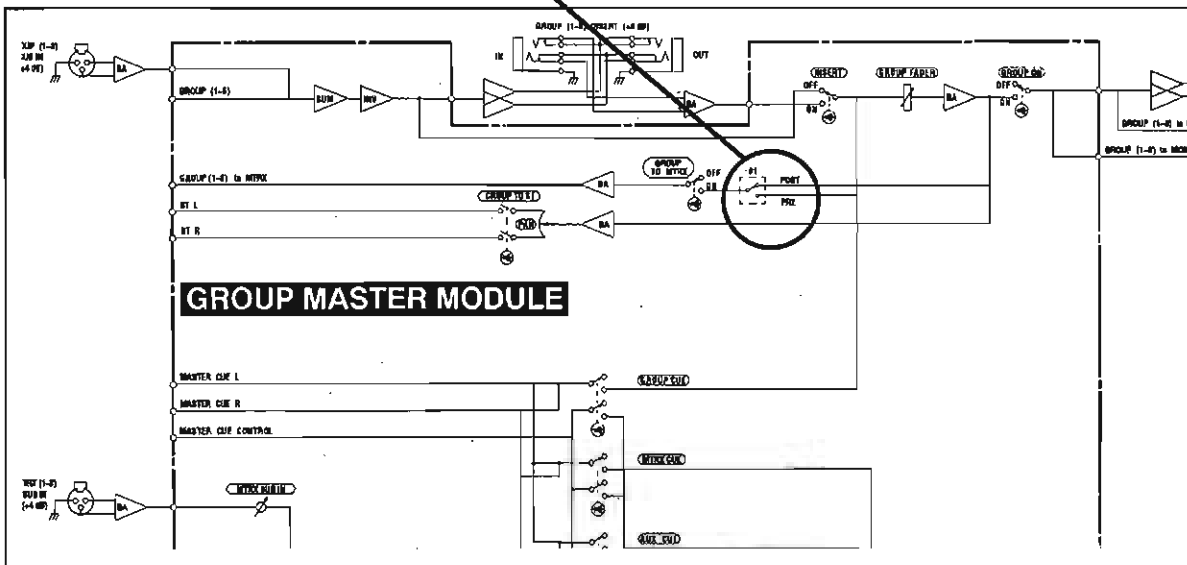
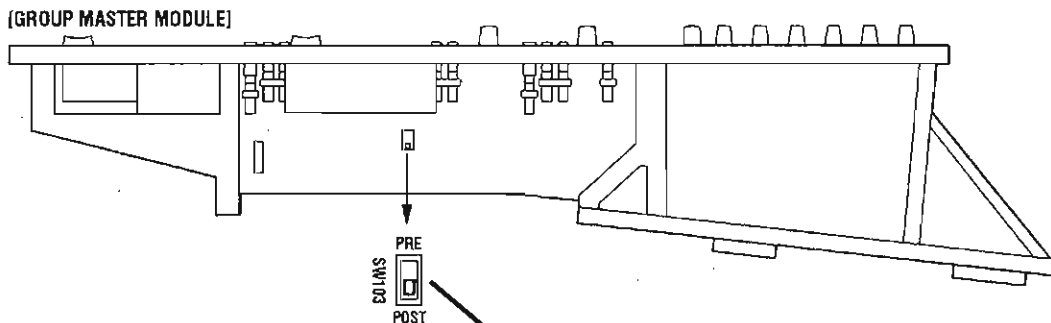
stereo house mix from the eight subgroups, yet you need as many as eight additional mono or five stereo mixes.

The mix matrix alone allows for only one stereo and six mono mixes, or a total of four stereo mixes. A greater number of mixes can be obtained by selecting the alternate (pre-Group Master Fader) switch positions. In that case, you can assign the Group Outputs to the stereo bus via the GROUP-TO-ST switch [40] and the adjacent PAN pot [41]; the Group Master Faders will serve as submasters for this stereo mix, and the Stereo Master Fader will control the mixed output. At the same time, the matrix controls on each master module will provide an 8:1 mix of the same groups; that matrix channel's #1 - #8 mix controls will serve as submasters, and the MTRX MASTER [31] will control the mixed output. (Do not turn up the L and R controls in the matrix, since these would be redundant here). In this way, you can obtain one stereo and eight mono mixes, five stereo mixes, or some combination thereof all with independent submaster and master controls.

● **GROUP MASTERモジュール**

GROUP TO MTRX信号POST FADER/PRE FADER

このスイッチにより、GROUP TO MTRX信号の取出し位置を、プリ・グループフェーダーにするか、ポスト・グループフェーダーにするかを選択することができます。出荷時はポスト・グループフェーダーにセットされています。



Internal Switch Position For Pre- and Post- Group Master Fader Feed to Mix Matrix, and Block Diagram Location.

PM4000/PW4000

● **Stereo Master to Matrix ST Bus:
Pre or Post ST Master Fader**

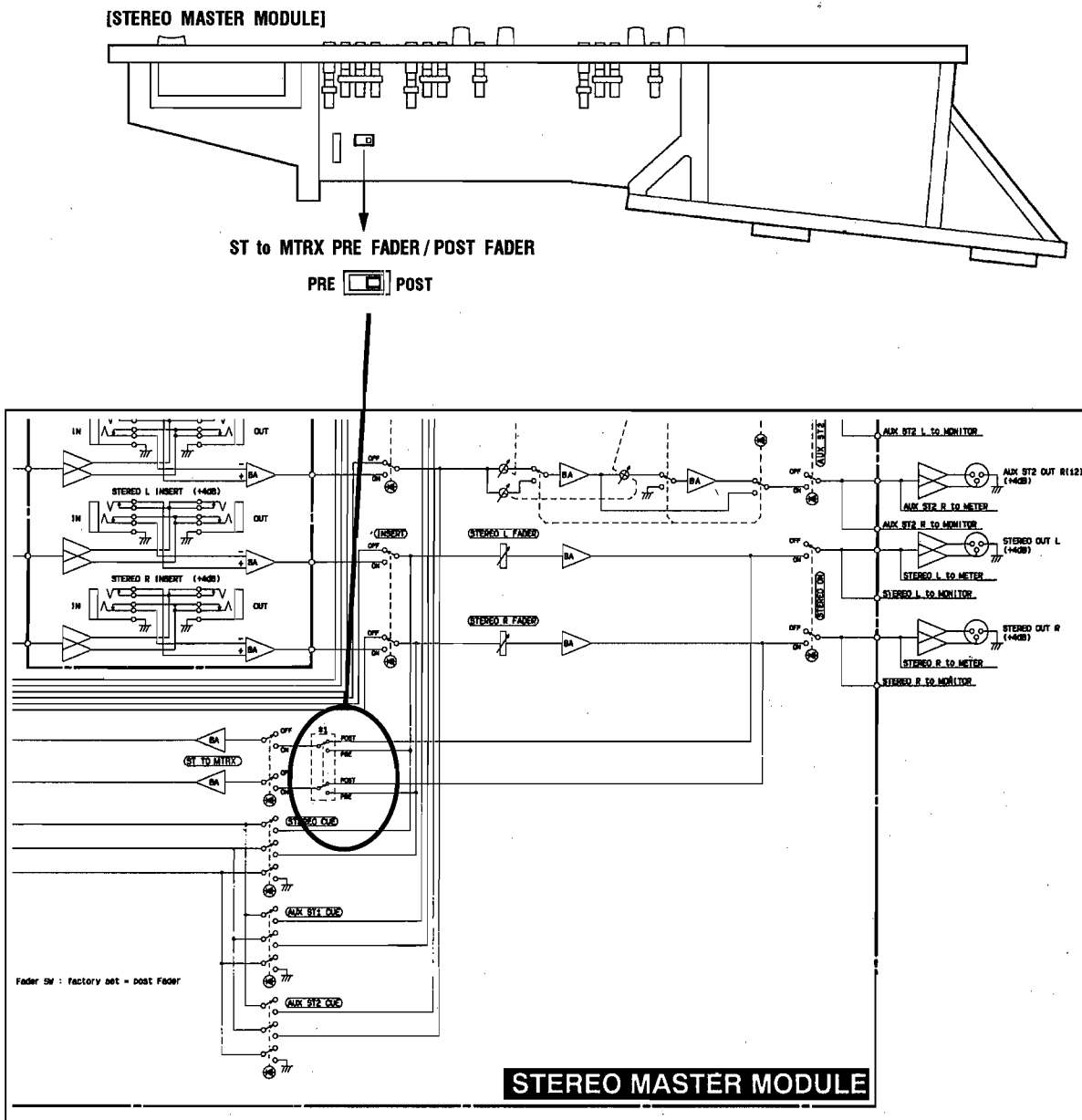
A slide switch in Stereo Master module enables the signal applied to the matrix stereo bus from that module to be derived from two different points. As shipped, the switch is preset so the matrix is fed its

signal after the Stereo Master fader [58] so that adjustments in the stereo output also affect the feed to the matrix. The internal switch can be repositioned so that the matrix is fed pre Stereo Master fader. In this way, the stereo output can be used for one feed, and it can be remixed in the matrix to create other stereo feeds.

● **STEREO MASTERモジュール**

ST TO MTRX信号POST FADER/PRE FADER

このスイッチにより、ST TO MTRX信号の取出し位置を、プリ・ステレオマスターフェーダーにするか、ポスト・ステレオマスターフェーダーにするかを選択することができます。出荷時はポスト・ステレオマスターフェーダーにセットされています。



Internal Switch Positions For Pre- and Post-Stereo Master Fader Feeds to Mix Matrix, and Block Diagram Location.

Installation of Optional Input Transformers

The PM4000 standard input module is equipped with a balanced, differential input preamplifier for the XLR connector. That preamp, along with some circuitry for the resistive attenuation pads, is located on a small printed circuit board that "piggy back" mounts to the module's main circuit board. Refer to Figure A.

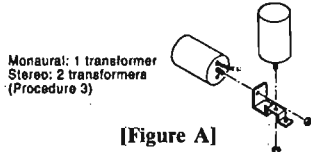
The modification kit contains a replacement circuit board for the original differential preamplifier, and a separate input transformer. In order to install the kit, the following steps must be performed.

1. Shut off the power to the console.
2. Remove the Monaural (Stereo) input modules to be connected to input transformers.
3. Install the transformer onto the included fitting with the nut as shown in Figure B.
4. Being careful with the wiring, unfasten Angle H of the module by removing the two small flat head screws and the two small bind screws.

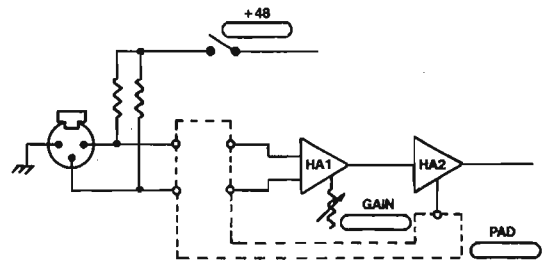
5. From the inside of Angle H, insert the two small M3 screws provided, and attach the transformer fitting. (Figure C)
6. Reset Angle H to its original position.
7. Pass all the wiring through the slit in Angle R.
8. Solder the transformer wiring to the new input transformer board. (Figure D)
9. Remove the present input transformer board, and replace with the new transformer board.
10. Reinstall the input module into the console mainframe.

The above completes the procedures for installation of an input transformer. Check the Fader and PAD signals to verify the installation. For a Stereo input module, up to 2 input transformers can be installed.

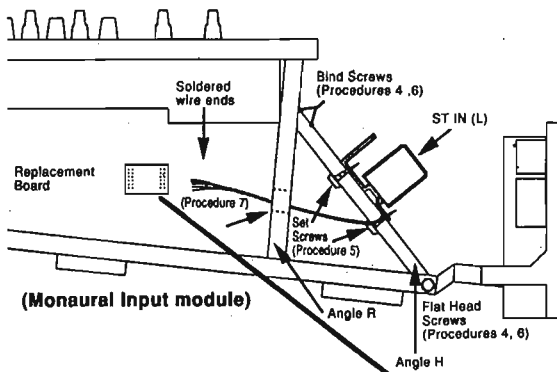
* Be careful that the wiring does not protrude from the module. Damage could result when the module is extracted.



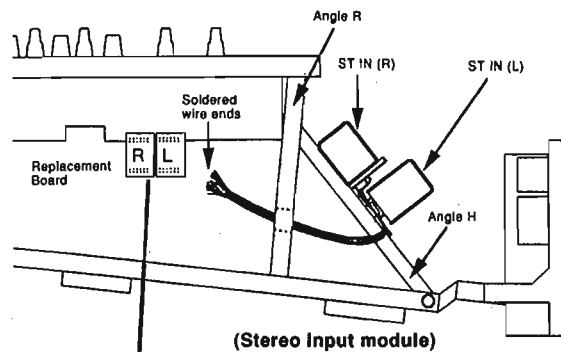
[Figure A]



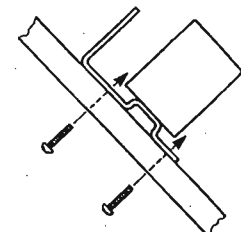
[Figure A] THIS PORTION OF CIRCUIT IS REPLACED WITH IT4000 TRANSFORMER



(Monaural Input module)

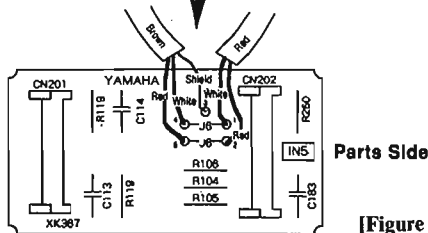


(Stereo Input module)



Enlargement (Procedure 5)

[Figure C]



Parts Side

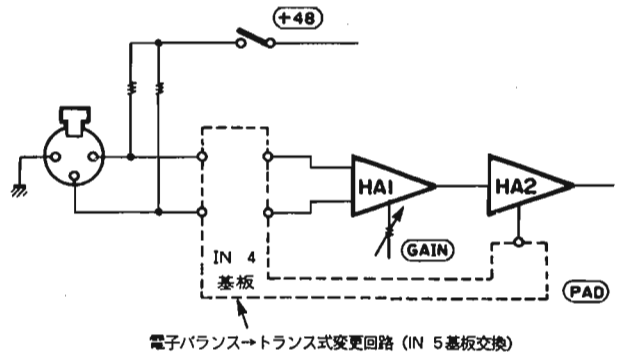
[Figure D]

Optional Input Transformer Installation

●入力トランス（オプション）の取り付け

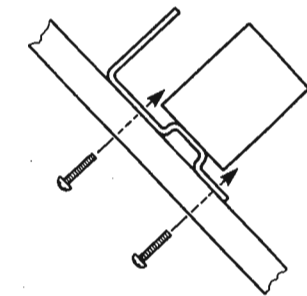
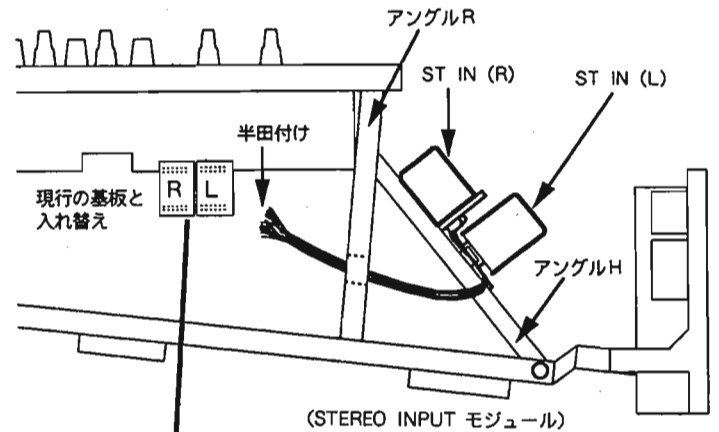
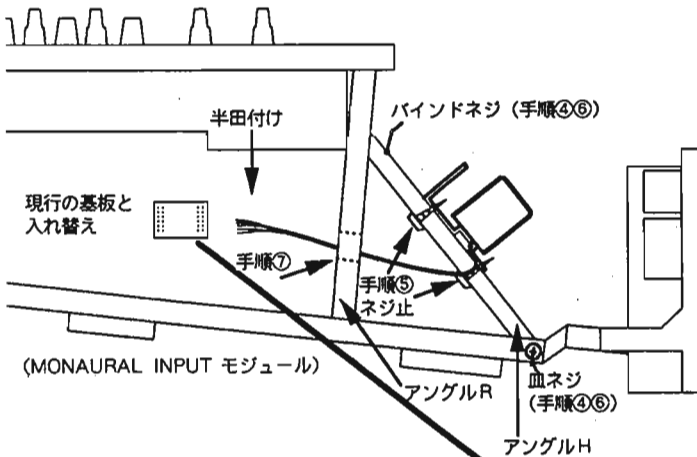
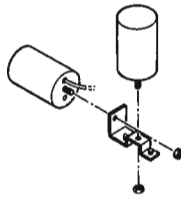
PM4000のINPUTモジュールは電子バランスとなっています。通常使用状態において、アイソレーションに関する問題は何か心配することはありませんが、トランスフォーマーによるアイソレーションを希望する方のための、オプションとしてIT4000を用意しています。この改造キットには、交換用基板・入力トランスフォーマー・トランス金具・取り付け用ネジが入っています。キットの取り付けは、次の手順に従って行ってください。

●入力トランスの取り付け位置

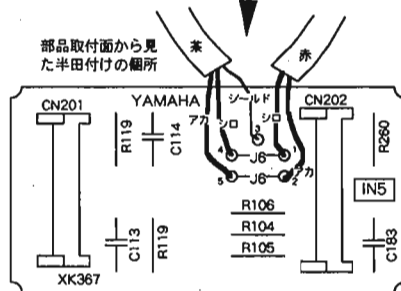


※トランス式に変更することにより入力インピーダンスが変わります。(62~64ページの“特性図”参照)
 電子バランス = 3kΩ
 トランス入力 = 1kΩ

手順③
 モノラルは1個
 ステレオは2個
 取り付け



手順⑥拡大図



●取り付け手順

- ①コンソールの電源を切ります。
- ②入力トランスを取りつける MONAURAL/STEREO INPUT モジュールを取りはずします。
- ③IT4000に同梱のトランス金具にトランスをナットで取り付けます。
- ④モジュールのアングルHを外します。皿小ネジ2本、バインド小ネジ2本をはずす。
 この時、リアパネルに通っている線材に気を付けて外してください。
- ⑤トランス金具の孔と、アングルHに設けられている2つの孔を合わせてアングルHの内側からM3小ネジ2本で取り付けます。次に、トランスの線材をアングルHの角孔に通します。
- ⑥アングルHを元通りに取り付けます。
- ⑦トランスの線材をモジュールのアングルRにあいているスリットに通します。

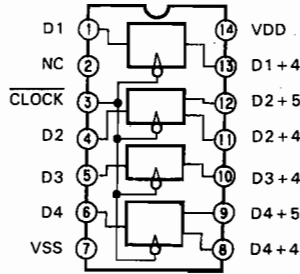
- ⑧IT4000に同梱の基板と、トランスの線材を半田付けします。半田付け位置は図を参照してください。
- ⑨現行基板を引き抜き取りはずし、その位置にトランス線に取り付けた新しい基板を差し替えます。

以上で取り付けは完了ですが、信号を入力して、位相やPADの機能を確認してください。
 STEREO INPUTモジュールにはIT4000入力トランスを2個取り付けることが可能です。その際2個目のIT4000に同梱のトランス金具は不要になります。

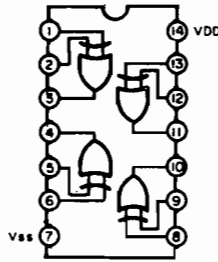
※モジュールの取りはずし・取り付けの際に断線の恐れがありますので、線材はモジュールの幅よりはみ出さないように処理してください。

IC BLOCK DIAGRAM (ICブロック図)

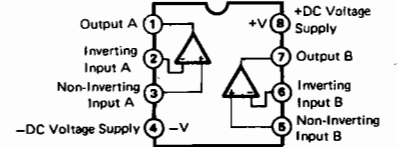
- **TC4006BP (IG001680)**
18-Stage Static Shift Register



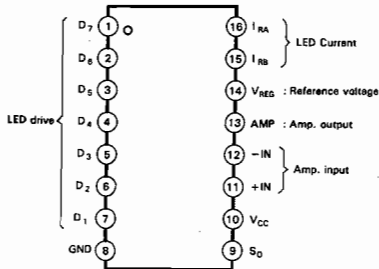
- **TC4030BP (IG001790)**
Quad Exclusive-OR Gate



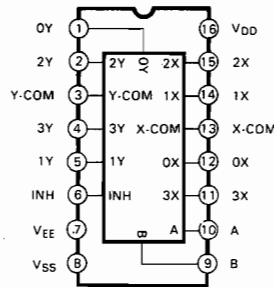
- **NJM2041D-D (IG069200)**
- **NE5532P (IG102500)**
- **NJM2904 (IG093700)**
Dual Operational Amplifier



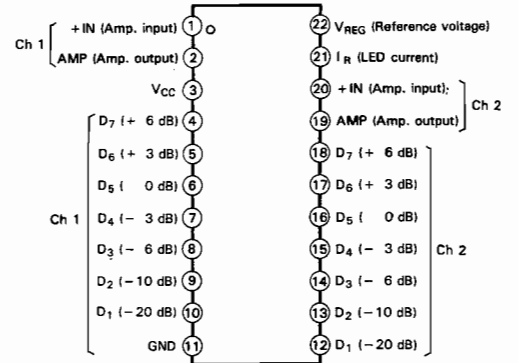
- **IR2E19 (IG136600)**
LED Driver



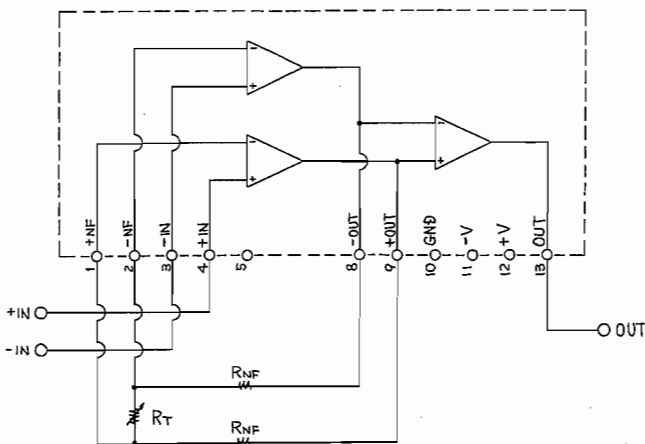
- **TC4052BP (XA053A00)**
Differential 4-Channel Multiplexer/Demultiplexer



- **IR2E28 (XK259A00)**
LED Driver

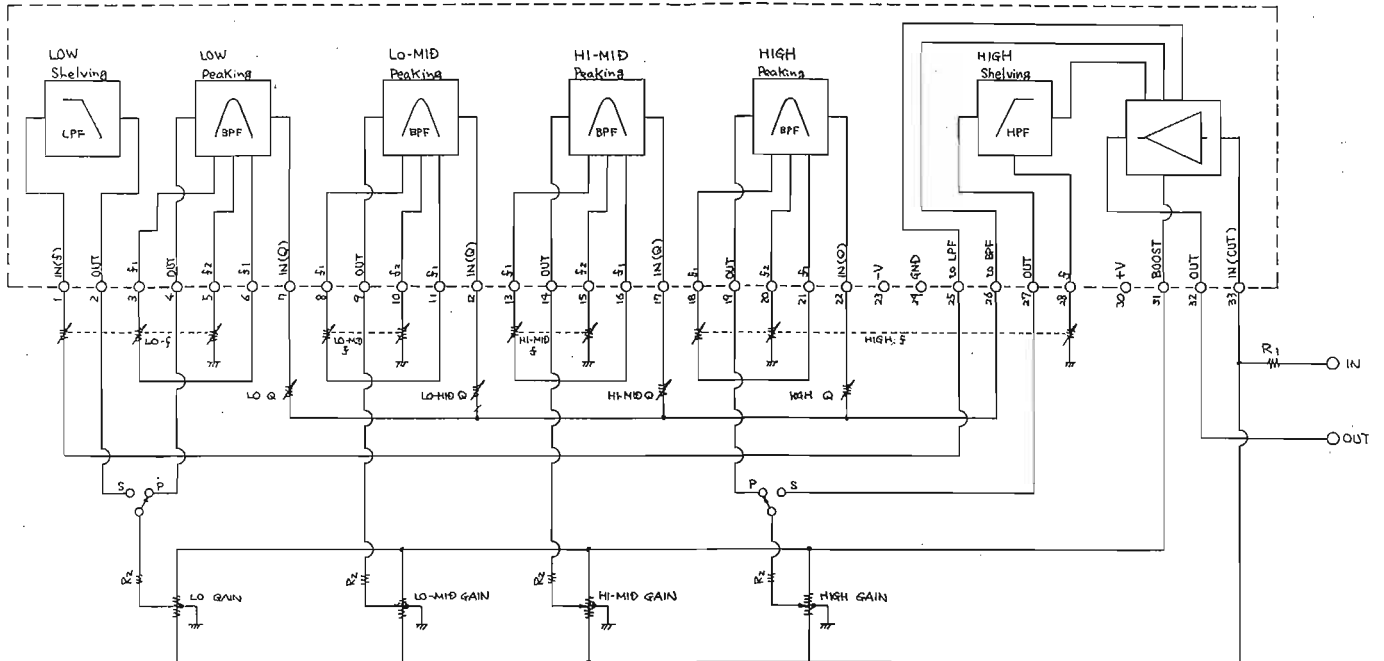


- **917090 (XK866A00)**
HA



$$GAIN = 20 \times \log \left(1 + \frac{2 \times R_{NF}}{R_T} \right)$$

• 911308 (XK867B00)
PEQ



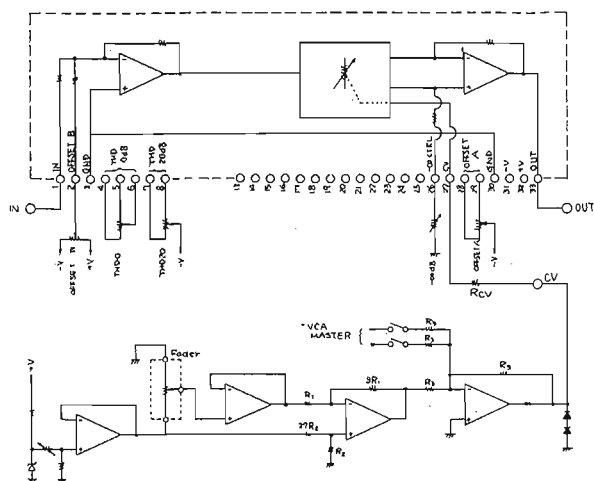
$$Q = (VRQ[k\Omega] + 6.8)/20.4$$

$$EQ \text{ MAX GAIN} = 20 \times \log ((R1 + R2)/R2)$$

$$EQ f = 1/(2 \times \pi \times R \times C) \quad [R = 2700 + VRf [\Omega], C = 0.1\mu, 0.036\mu, 0.0075\mu, 0.003\mu F]$$

LO LO-MID HI-MID HIGH

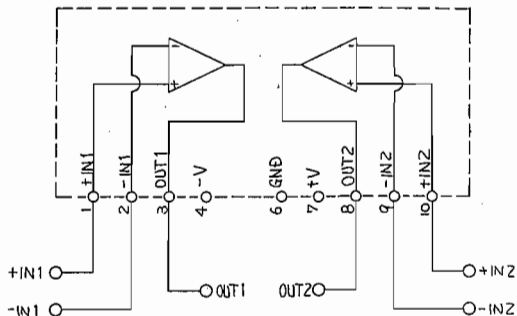
• 917089 (XK868C00)
VCA



- (1) CV Fader MAX CV = -0.5 ± 0.01V
VCA GROUP SW all OFF
- (2) OFFSET ① Fader MIN → OUT DC = V∞
* repeat ② Fader 0dB → OUT DC = V∞ ± 10mV (OFFSET A)
 ③ Fader MAX
 VCA GROUP 1 SW ON (VCA MASTER Fader MAX)
 → OUT DC = V∞ ± 10mV (OFFSET B)
- (3) THD IN 0dB 1kHz INPUT
* repeat ① Fader 0dB → THD ≤ 0.01% <MIN> (THD 0)
 ② Fader MAX
 VCA GROUP 1 SW ON (VCA MASTER Fader MAX)
 → THD ≤ 0.01% <MIN> (THD20)
- (4) -∞dB IN +20dB 1kHz INPUT
 ① Fader MIN → OUT AC ≤ -90dB (-∞dB)

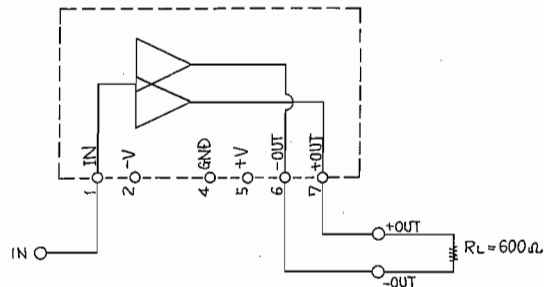
| | | |
|----------|------------|---------|
| VCA GAIN | Rcv = 5K | -20dB/V |
| | ∴ CV = -1V | +20dB |
| | CV = 0V | 0dB |
| | CV = +1V | -20dB |

• 917038 (XK870A00)
EBI



GAIN = -4.1dB

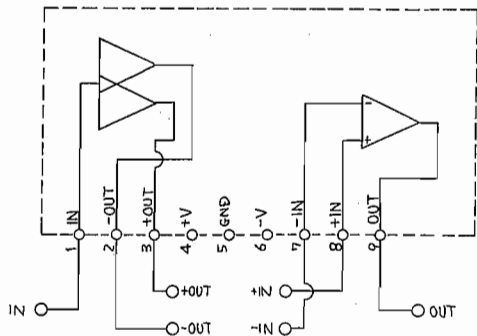
• 917040 (XK871A00)
EBO



GAIN (Bal : $R_L = 600$) = 4.3dB
 GAIN (-OUT short : $R_L = 600$) = 3.9dB
 GAIN (+OUT short : $R_L = 600$) = 4.0dB

* $R_L = 10K$
 GAIN (Bal) = 5.3dB
 GAIN (-OUT short) = 4.8dB
 GAIN (+OUT short) = 4.9dB

• 911306 (XK872A00)
INS



(1) IN → +OUT
-OUT

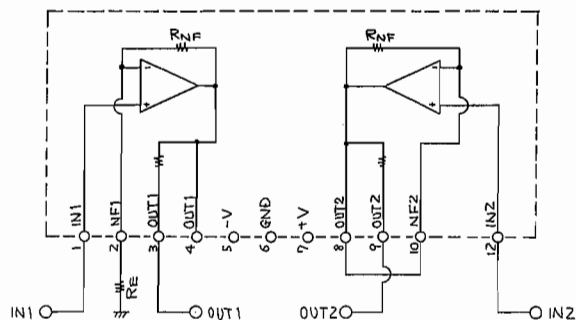
GAIN (Bal : $R_L = 10K$) = 4.3dB
 (-OUT short : $R_L = 10K$) = 3.9dB
 (+OUT short : $R_L = 10K$) = 3.9dB

(2) +IN
-IN → OUT

GAIN = -4.1dB

(3) IN → OUT
GAIN = 0.2dB

• 917037 (XK873A00)
BA



(1) IN1 → OUT1

$$GAIN = 20 \times \log \left(1 + \frac{R_{NF}}{R_E} \right)$$

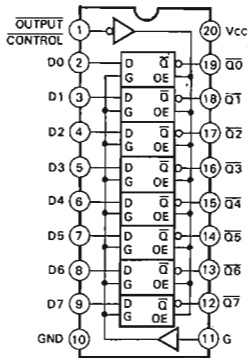
$$\therefore R_{NF} = 11K$$

$$GAIN = 20 \times \log (1 + 11K/R_E)$$

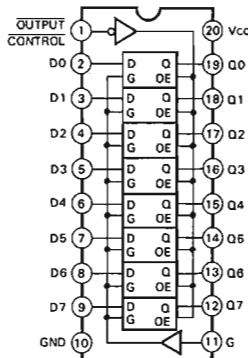
(2) IN2 → OUT2

0dB Buffer Amp

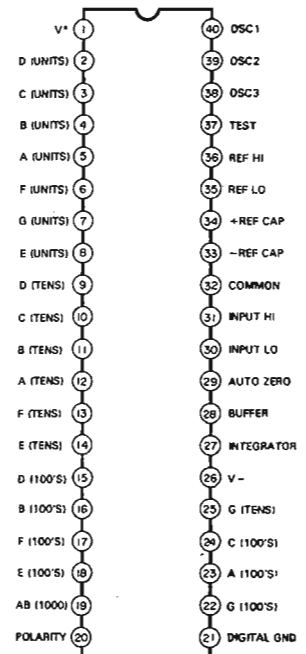
- **SN74HC563N** (IR0563500)
Octal 3-State D-Latches (Inverted)



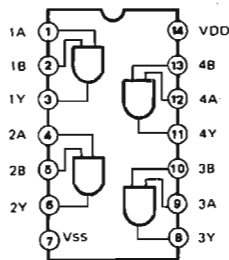
- **SN74HC573N** (IR0573500)
Octal 3-State D-Latches



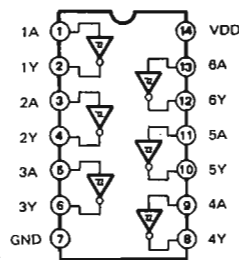
- **NJU9202BD** (XK882A00)
LED Drive, Analog to Digital Converter



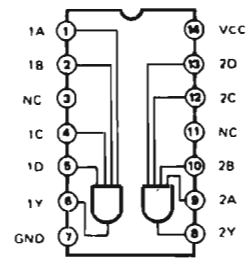
- **SN74HC08N** (IR000850)
Quad 2 Input AND



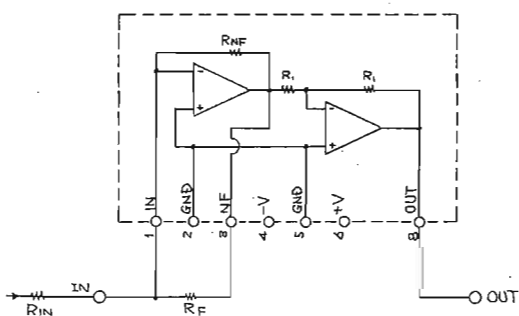
- **SN74HC14N** (IR001450)
Hex Inverter



- **SN74HC21N** (IR002150)
Dual 4 Input AND



- **917091** (XK869A00)
SUM



$$GAIN = 20 \times \log \left(\frac{R_{NF}}{R_{IN} \times 1 + \frac{R_{NF}}{R_F}} \right)$$

$$\therefore R_{NF} = 56K$$

$$GAIN = 20 \times \log \left(\frac{56K}{R_{IN}(1 + 56K/R_F)} \right)$$

$$* R_F = \infty$$

$$GAIN = 20 \times \log (56K/R_{IN})$$

■ PM4000 INSPECTIONS

1. PREPARATIONS

- 1) Connect the PM4000 and a PW4000 via the supplied DC power supply cable.
- 2) Unless specified, an applied signal should be a sine wave of 1 kHz, -80 dBs and the impedance of the signal source should be 150 ohms.

The load resistance of each output terminal should be as follows:

PHONES (L, R) 8 ohms (greater than 5 W)

All INSERT OUT 10 kohms

Other outputs 600 ohms

- 3) The signal level referred to in this specifications is 0 dBs = 0.775 V.

- 4) Unless specified, controls and switches must be set as follows:

• CH INPUT (1-24, 32, 40, 48)

ASSIGN switch ON during measurement only, OFF at all other times.

PAN switch OFF

+48V switch OFF

PAN control CENTER

GAIN trim MAX (-70 dB)

PAD (30dB) switch OFF

φ switch OFF (Positive phase)

EQ (HI, HI-MID, LO-MID, LO)

LEVEL control CENTER

FREQ control MIN

Q control CENTER

ON switch OFF

(HI, LO)

SHELF switch OFF (PEAK)

HPF FREQ control MIN

HPF switch OFF

INSERT ON switch ON during measurement only, OFF at all other times.

INSERT PRE switch OFF (POST)

AUX 1-8

LEVEL control MAX

PRE/OFF/POST switch PRE or POST during measurement only, OFF at all other times.

AUX ST 1, 2

LEVEL (LEVEL L) control MAX

PAN (LEVEL R) control CENTER

PRE/OFF/POST switch PRE or POST during measurement only, OFF at all other times.

LEVEL/PAN switch PAN

METER PRE switch OFF (POST)

ON switch ON for measuring CH only, OFF for all others.

VCA GROUP (1-8) switch OFF

MUTE GROUP (1-8) switch OFF

MUTE SAFE switch OFF

CUE/SOLO switch ON for measuring CH only, OFF for all others.

Fader MAX

- STEREO INPUT (1, 2)
 - ASSIGN switch ON during measurement only, OFF at all other times.
 - PAN switch OFF
 - +48V switch OFF
 - PAN control CENTER
 - INPUT SELECTOR switch ST
 - GAIN trim MAX (-70dB)
 - PAD (30dB) switch OFF
 - § switch OFF (Negative phase)
 - EQ (HI, HI-MID, LO-MID, LO)
 - LEVEL control CENTER
 - FREQ control MIN
 - Q control CENTER
 - ON switch OFF
 - (HI, LO)
 - SHELF switch OFF (PEAK)
 - HPF FREQ control MIN
 - HPF switch OFF
 - INSERT ON switch ON during measurement only, OFF at all other times.
 - AUX 1-8
 - LEVEL control MAX
 - PRE/OFF/POST switch PRE or POST during measurement only, OFF at all other times.
 - AUX ST 1,2
 - LEVEL (LEVEL L) control MAX
 - BAL PAN (LEVEL R) control CENTER
 - PRE/OFF/POST PRE or POST during measurement only, OFF at all other times.
 - LEVEL/BAL PAN switch BAL PAN
 - METER PRE switch OFF (POST)
 - ON switch ON for measuring CH only, OFF for all others.
 - VCA GROUP (1-8) switch OFF
 - MUTE GROUP (1-8) switch OFF
 - MUTE SAFE switch OFF
 - CUE/SOLO switch ON for measuring CH only, OFF for all others.
 - Fader MAX
- MASTER
 - GROUP (1-8)
 - PAN control CENTER
 - GROUP TO ST switch ON during measurement only, OFF at all other times.
 - GROUP TO MATRIX switch ON during measurement only, OFF at all other times.
 - INSERT switch ON during measurement only, OFF at all other times.
 - CUE switch ON during measurement only, OFF at all other times.
 - ON switch ON during measurement only, OFF at all other times.
 - Fader MAX
 - STEREO
 - ST TO MATRIX switch ON during measurement only, OFF at all other times.
 - INSERT switch ON during measurement only, OFF at all other times.
 - CUE switch ON during measurement only, OFF at all other times.
 - ON switch ON during measurement only, OFF at all other times.
 - L Fader MAX
 - R Fader MAX

MATRIX

| | |
|--------------------------|--|
| SUB IN control | ON during measurement only, OFF at all other times. |
| MATRIX MIX control | MAX during measurement only, MIN at all other times. |
| MASTER control | MAX |
| INSERT switch | ON during measurement only, OFF at all other times. |
| ON switch | ON during measurement only, OFF at all other times. |

AUX

| | |
|---------------------|---|
| LEVEL control | MAX |
| INSERT switch | ON during measurement only, OFF at all other times. |
| ON switch | ON during measurement only, OFF at all other times. |

AUX ST (1, 2)

| | |
|-------------------------------|---|
| BAL (LEVEL R) control | CENTER |
| LEVEL switch | OFF |
| LEVEL (LEVEL L) control | MAX |
| INSERT switch | ON during measurement only, OFF at all other times. |
| CUE switch | ON during measurement only, OFF at all other times. |
| ON switch | ON during measurement only, OFF at all other times. |

MONITOR A

| | |
|----------------------|---|
| SELECT switch | ON during measurement only, OFF at all other times. |
| LEVEL control | MAX |
| MONO switch | OFF |
| ON switch | ON during measurement only, OFF at all other times. |
| PHONES control | MAX |

MONITOR B

| | |
|---------------------|---|
| SELECT switch | ON during measurement only, OFF at all other times. |
| LEVEL control | MAX |
| ON switch | ON during measurement only, OFF at all other times. |

TALKBACK

| | |
|-------------------------|---|
| ASSIGN switch | ON during measurement only, OFF at all other times. |
| OUT switch | ON during measurement only, OFF at all other times. |
| OSC OUT switch | OFF |
| OSC switch | OFF |
| OSC FREQ control | MIN |
| SWEEP switch | OFF |
| OSC LEVEL control | MAX |
| +48V switch | OFF |
| +4dB switch | OFF (- 50 dB) |
| TB LEVEL control | MAX |
| ON/OFF/ON switch | ON during measurement only, OFF at all other times. |

Others

| | |
|----------------------------------|---|
| VCA MASTER Fader (1-8) | MAX |
| VCA MUTE (1-8) switch | ON during measurement only, OFF at all other times. |
| MUTE MASTER (1-8) switch | ON during measurement only, OFF at all other times. |
| METER SELECT switch | 1 : G, 2 : A |
| MON.A switch (24, 32 only) | OFF |
| SOLO switch | OFF |
| PHANTOM MASTER switch | OFF |
| VCA CONTROL switch (1-4) | OFF |
| VCA CONTROL switch (5-8) | OFF |
| MUTE CONTROL switch (1-4) | OFF |
| MUTE CONTROL switch (5-8) | OFF |
| CUE SOLO CONTROL switch | OFF |
| FAN LOW/HIGH switch | LOW |

2. GAIN

In status 1, the output level should be within the range given in Tables 2-1 to 2-7.

Table 2-1 Input Terminal [INPUT CH 1 to 24, 32, 40, 48] Units: dBs

| INPUT LEVEL | GAIN VR | 30dB PAD | INSERT OUT | DIRECT OUT | GROUP OUT (1-8) | STEREO OUT(L, R) | MONI A OUT (L, R) |
|-------------|---------|----------|------------|------------|-----------------|------------------|-------------------|
| -80 | MAX | OFF | -6±2 | +4±2 | +14±2 | +14±2 | +4±2 *2 |
| -50 | MAX | ON | — | — | +14±2 *1 | — | — |
| -30 | MIN | OFF | — | — | +14±2 *1 | — | — |

*1 Measuring can be performed at either one of the output terminals of GROUP OUT (1 to 8).

*2 CUE switch should be turned ON.

The difference in level between INPUT (CH 1 to 24, 32, 40, 48) of each output should be less than 2 dB. The difference in level between GROUP OUT (1 to 8), STEREO OUT (L,R), and MONI A OUT (L,R) should be less than 2 dB.

Table 2-2 Input Terminal [INPUT CH 1 to 24, 32, 40, 48] Units: dBs

| INPUT LEVEL | GAIN VR | 30dB PAD | AUX & AUX ST PRE/OFF POST SW | AUX ST (1, 2) | | AUX OUT (1-8) | AUX ST (1, 2) OUT (L, R) |
|-------------|---------|----------|------------------------------------|------------------|-------------|---------------|-----------------------------|
| | | | | CH | MASTER | | |
| | | | | LEVEL/ PAN SW | LEVEL SW | | |
| -30 | MIN | OFF | PRE | PAN | OFF | +10±2 | +7±2 |
| -30 | MIN | OFF | POST | PAN | OFF | +20±2 *1 | +17±2 *1 |
| -30 | MIN | OFF | PRE | LEVEL | ON | — | +10±2 *2 |

*1 Measuring can be performed at either one of the output terminals of AUX OUT (1 to 8) and one of AUX ST OUT (1, 2), (L, R).

*2 Maximize the channel PAN R and MASTER BAL R controls.

The difference in level between AUX OUT (1 to 8), AUX ST OUT (1, 2), (L, R) should be less than 2 dB.

Table 2-3 Input Terminal [ST-INPUT 1 to 4 (L, R)] *1 Units: dBs

| INPUT LEVEL | GAIN VR | 30dB PAD | SELECT SW | INSERT OUT | GROUP OUT (1-8) | STEREO OUT (L, R) | MONI A OUT (L, R) |
|-------------|---------|----------|-----------|------------|-----------------|-------------------|-------------------|
| -80 | MAX | OFF | ST | -6±2 | +14±2 | +14±2 | +4±2 |
| -50 | MAX | ON | ST | — | +14±2 *2 | — | — |
| -30 | MIN | OFF | ST | — | +14±2 *2 | — | — |
| -30 | MIN | OFF | L | — | +14±2 *3 | — | — |
| -30 | MIN | OFF | R | — | +14±2 *4 | — | — |
| -30 | MIN | OFF | L+R | — | +17±2 *5 | — | — |

*1 Apply a signal to stereo L input when outputs are obtained at 1, 3, 5, 7, L.

When outputs are obtained at 2, 4, 6, 8, R, apply a signal to stereo R input.

*2 Measure at GROUP OUT (1, 2).

*3 Apply a signal to stereo L input and measure at GROUP OUT (1).

*4 Apply a signal to stereo R input and measure at GROUP OUT (1).

*5 Apply same signals to stereo L and R inputs and measure at GROUP OUT (1).

The difference in level between ST-INPUT (1, 2), (L, R) and INPUT (CH 1 to 24, 32, 40, 48) should be less than 2 dB.

The difference in level between GROUP OUT(1 to 8), AUX OUT (1 to 8), STEREO OUT (L, R) and MONI A OUT (L, R) should be less than 2 dB.

Table 2-4 Input Terminal [ST-INPUT 1 to 4 (L, R)] *1 Units: dBs

| INPUT LEVEL | SELECT SW | GAIN VR | 30dB PAD | AUX & AUX ST | AUX ST ST-IN | AUX OUT (1-8) | AUX ST (1, 2) OUT (L, R) |
|-------------|-----------|---------|----------|-----------------|--------------|---------------|--------------------------|
| | | | | PRE/OFF POST SW | LEVEL/BAL SW | | |
| -40 | ST | MIN | OFF | PRE | BAL PAN | +3±2 | -3±2 |
| -40 | ST | MIN | OFF | POST | BAL PAN | +13±2 *2 | +7±2 *2 |
| -40 | ST | MIN | OFF | PRE | LEVEL | — | 0±2 *3 |
| -40 | L | MIN | OFF | PRE | LEVEL | 0±2 *1 | 0±2 *1*3 |

- *1 Apply same signals to stereo L and R inputs.
- *2 Measuring can be performed at either one of the output terminals of AUX OUT (1 to 8) and one of AUX ST OUT (1, 2), (L, R).
- *3 Maximize the channel PAN/LEVEL R and MASTER BAL/LEVEL R controls.

The difference in level between AUX OUT (1 to 8), AUX ST OUT (1, 2), (L, R) should be less than 2 dB.

Table 2-5 Input Terminal [TB IN] Units: dBs

| INPUT TERMINAL | INPUT LEVEL | GROUP OUT (1-8) | STEREO OUT (L, R) | AUX OUT (1-8) | AUX ST (1-2) (L, R) | MON.B (L, R) | TB OUT |
|----------------|-------------|-----------------|-------------------|---------------|---------------------|--------------|--------|
| TB IN | -60 | +14±2 | +14±2 | +14±2 | +14±2 | +14±2 *1 | +4±2 |

- *1 TB to MONI B switch should be turned ON.

The difference in output levels between each output should be less than 2 dB.

Table 2-6 Output Terminal [MONITOR A] Units: dBs

| INPUT TERMINAL | SELECT SW | INPUT LEVEL | OUTPUT TERMINAL | OUTPUT LEVEL |
|--------------------|---------------------|-------------|------------------|--------------|
| 2TR IN 1 (L, R) | 2TR IN 1 | +4.0 | MONITOR A (L, R) | +14±2 *2 |
| 2TR IN 2 (L, R) | 2TR IN 2 | +4.0 | MONITOR A (L, R) | +14±2 *2 |
| ST CH3 (L, R) *1 | ST CH3 | -30.0 | MONITOR A (L, R) | +14±2 *2 |
| ST CH4 (L, R) *1 | ST CH4 | -30.0 | MONITOR A (L, R) | +14±2 *2 |
| STEREO SUB IN | ST OUT | -6.0 | MONITOR A (L, R) | +14±2 *2 |
| AUX ST1 SUB IN | AUX ST1 | -6.0 | MONITOR A (L, R) | +14±2 *2 |
| AUX ST2 SUB IN | AUX ST2 | -6.0 | MONITOR A (L, R) | +14±2 *2 |
| AUX (1-8) SUB IN | AUX (1-2~7-8) *3 | -6.0 | MONITOR A (L, R) | +14±2 *2 |
| GROUP (1-8) SUB IN | GROUP (1-2~7-8) *3 | -6.0 | MONITOR A (L, R) | +14±2 *2 |
| MATRIX (1-8)SUB IN | MATRIX (1-2~7-8) *3 | +4.0 | MONITOR A (L, R) | +14±2 *2 |
| STEREO SUB IN | (ST CUE ON) | +4.0 | MONITOR A (L, R) | +14±2 *2 |

- *1 Minimize the GAIN control and turn PAD to off.
- *2 At this time, turn on the MONO switch, and confirm that the output level should be -3 dB, with the level when MONO is off as the reference.
When same signals are applied to the L and R inputs, the output level should be +3 dB, with the level when MONO is off as the reference.
- *3 Do not simultaneously turn on two or more switches of '1-2' to '7-8'.
- *4 When TB and TB to MON.B swiches are simultaneously turned on, output levels given in Table 2-6 should be -7 ±1 dB, with the level when two switches are off as the reference. (Measuring should be performed in one of the conditions described above.)

The difference in levels between L and R outputs should be less than 2 dB.

Table 2-7 Output Terminal [MONITOR B]

Units: dBs

| INPUT TERMINAL | SELECT SW | INPUT LEVEL | OUTPUT TERMINAL | OUTPUT LEVEL |
|------------------|----------------|-------------|------------------|--------------|
| 2TR IN 1 (L, R) | 2TR IN 1 | +4.0 | MONITOR B (L, R) | +14±2 |
| 2TR IN 2 (L, R) | 2TR IN 2 | +4.0 | MONITOR B (L, R) | +14±2 |
| ST CH3 (L, R) *1 | ST CH3 | -30.0 | MONITOR B (L, R) | +14±2 |
| ST CH4 (L, R) *1 | ST CH4 | -30.0 | MONITOR B (L, R) | +14±2 |
| ST SUB IN | ST OUT | -6.0 | MONITOR B (L, R) | +14±2 |
| — | MON A *2 | — | MONITOR B (L, R) | +14±2 |
| TB IN | TB TO MON B *3 | -6.0 | MONITOR B (L, R) | +14±2 |

*1 Minimize the GAIN control and turn PAD to off.

*2 Set the level of MONITOR A within one of the range given in Table 2-6.

*3 The output can be obtained only when the TB and TB to MON.B switches are simultaneously turned on.

Measuring can be performed when +4 switch of TB IN is turned on.

The difference in level between L and R outputs should be less than 2 dB.

Table 2-8 Input Terminal [INSERT]

Units: dBs

| INPUT TERMINAL | INPUT LEVEL | GROUP OUT (1-8) | STEREO OUT (L, R) | AUX OUT (1-8) | AUXST1, 2 OUT (L, R) | MATRIX OUT (1-8) |
|-----------------------|-------------|-----------------|-------------------|---------------|----------------------|------------------|
| CH (1-24, 32, 40, 48) | -6 | +14±2 *1 | — | — | — | — |
| ST-IN (1-4) (L, R) | -6 | +14±2 *2 | — | — | — | — |
| GROUP (1-8) | +4 | +14±2 | — | — | — | — |
| STEREO (L, R) | +4 | — | +14±2 | — | — | — |
| AUX (1-8) | +4 | — | — | +14±2 | — | — |
| AUX ST (1, 2) (L, R) | +4 | — | — | — | +14±2 | — |
| MATRIX (1-8) | +4 | — | — | — | — | +4±2 |

*1 Measuring can be performed at either one of the output terminals of GROUP OUT (1 to 8).

*2 Measuring can be performed at either two of the output terminals (odd, even) of GROUP OUT (1 to 8).

The difference in level between INPUT (CH 1 to 24, 32, 40, 48) of each output should be less than 2 dB.

The difference in level between ST-INPUT (CH 1 to 4), (L, R) should be less than 2 dB.

The difference in level between GROUP OUT (1 to 8), STEREO OUT (L,R), AUX OUT (1 to 8), AUX ST (1, 2), (L, R) and MTRX OUT (1 to 8) should be less than 2 dB.

Table 2-9 Input Terminal [SUBIN]

Units: dBs

| INPUT TERMINAL | INPUT LEVEL | GROUP OUT (1-8) | STEREO OUT (L, R) | AUXOUT (1-8) | AUXST1, 2 OUT (L, R) | MATRIX OUT (1-8) | MONI A (L, R) |
|------------------|-------------|-----------------|-------------------|--------------|----------------------|------------------|---------------|
| GROUP (1-8) | +4 | +14±2 | — | — | — | — | — |
| STEREO (L, R) | +4 | — | +14±2 | — | — | — | — |
| AUX (1-8) | +4 | — | — | +14±2 | — | — | — |
| AUXST1, 2 (L, R) | +4 | — | — | — | +14±2 | — | — |
| MATRIX (1-8) | +4 | — | — | — | — | +4±2 | — |
| CUE (L, R) *1 | +4 | — | — | — | — | — | +14±2 |

*1 Either one of the CUE switches should be turned ON.

The output level of $+4 \pm 2$ dBs can be obtained at each INSERT OUT.
 The difference in level between GROUP OUT (1 to 8), STEREO OUT (L,R), AUX OUT (1 to 8), AUX ST (1, 2), (L, R), MTRX OUT (1 to 8) and CUE (L, R) should be less than 2 dB.

Table 2-10

| | |
|-------------------|---------------|
| MONI A OUT (L, R) | PHONES (L, R) |
| +4 dBs | 0 ± 2 dBs |

The PHONES output given in Table 2-10 should be obtained when the output level of MONI A OUTPUT is +4 dBs.

The difference in level between PHONES L and R outputs should be less than 2 dB.

3. FREQUENCY CHARACTERISTICS

If the applied signal frequencies are 20 Hz, 20 kHz in status 1, the output level of each output terminal should be within $0 +1/-3$ dB with the level at 1 kHz used as reference.

When the applied signal frequency is 20 Hz, the PHONES output level should be within -2 ± 2 dB.

4. EQ CHANGE CHARACTERISTICS

When the EQ controls of CH-INPUT and ST-INPUT are operated in status 1, the output level of each frequency obtained in GROUP OUT (1) should fall within the range given in Table 4-1 to Table 4-4, with the output level when the control is set as a reference in the middle.

If an output level is more or less than the rated range, vary the frequency of the applying signal within ± 20 %. If this output level is within the rated value given in Tables, then it is acceptable.

When a signal is applied to stereo R input, measure at GROUP OUT (2).

Table 4-1 [HI] Units: dB

| GAIN | FREQ | Q | SHELF | 1kHz | 5kHz | 20kHz |
|------|------|-----|-------|-------------|-------------|-------------|
| MIN | MIN | MIN | OFF | -15 ± 2 | — | — |
| MAX | MAX | MIN | OFF | — | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MIN | ON | — | — | $+12 \pm 2$ |
| MAX | MAX | MAX | OFF | — | $+10 \pm 2$ | — |

Table 4-2 [HI-MID] Units: dB

| GAIN | FREQ | Q | 400Hz | 2kHz | 8kHz |
|------|------|-----|-------------|-------------|-------------|
| MIN | MIN | MIN | -15 ± 2 | — | — |
| MAX | MAX | MIN | — | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MAX | — | $+10 \pm 2$ | $+15 \pm 2$ |

Table 4-3 [LO-MID] Units: dB

| GAIN | FREQ | Q | 80Hz | 400Hz | 1.6kHz |
|------|------|-----|-------------|-------------|-------------|
| MIN | MIN | MIN | -15 ± 2 | — | — |
| MAX | MAX | MIN | — | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MAX | — | $+10 \pm 2$ | $+15 \pm 2$ |

Table 4-3 [LO] Units: dB

| GAIN | FREQ | Q | SHELF | 30Hz | 160Hz | 600Hz |
|------|------|-----|-------|-------------|-------------|-------------|
| MIN | MIN | MIN | OFF | -15 ± 2 | — | — |
| MAX | MAX | MIN | OFF | — | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MIN | ON | — | — | $+12 \pm 2$ |
| MAX | MAX | MAX | OFF | — | $+10 \pm 2$ | $+15 \pm 2$ |

5. HPF CHANGE CHARACTERISTICS

In status 1, if the HPF switches of CH-INPUT are switched on and HPF-f controls in CH-INPUT and ST-INPUT are operated, the output level of GROUP OUT (1) should be within the range given in Table 5, with the level when HPF is off as the reference.

Table 5

| HPF FREQ | 20Hz | 400Hz |
|----------|------------|------------|
| MIN | -3 ± 2 | — |
| MAX | — | -3 ± 2 |

When a signal is applied to stereo R input, measure at GROUP OUT (2).

6. SEPARATION

In status 1, if the PAN and assign 1-2 switch of the measured CH-INPUT and ST-INPUT are switched on and PAN control is rotated fully counterclockwise and the output level of GROUP OUT (1) is set at +20 dBs, the leakage level to GROUP OUT (2) should be less than -50 dBs.

Also, if the PAN control is rotated fully clockwise and if the output level of GROUP OUT (2) is set at +20 dBs, the leakage level to GROUP OUT (1) should be less than -50 dBs.

Inspection of leakage between STEREO OUT L-R can be performed in a similar manner.

Apply same signals to stereo R and L inputs when measuring ST-INPUT.

7. VCA MUTING

In status 1, apply a signal of -50 dBs to each input terminal of INPUT (CH 1 to 24, 32, 40, 48) and minimize the FADER controls, and confirm that the output level of each DIRECT OUT should be less than -75 dBs.

Also, apply a signal of -50 dBs to ST-INPUT (L, R) and minimize the FADER controls, the output levels of GROUP OUT (1, 2) should be less than -63 dBs.

Inspection of leakage between STEREO OUT L-R can be performed in a similar manner.

When a signal is applied to stereo L input, measure at GROUP OUT (1).

When applied to stereo R input, measuring can be performed at GROUP OUT (2).

8. PEAK LED LIGHT-UP LEVEL (METER)

When the MT PRE switches are turned on and signals have been applied to each of CH-INPUT and ST-INPUT in status 1, each LED of channel level meter should light up within the range given in Table 8.

Table 8

| INSERT OUT | -20 | -10 | -6 | 0 | 6 | PEAK |
|-------------|-------------|------------|------------|------------|-------------|---------------|
| INPUT LEVEL | -16 ± 2 | -6 ± 2 | -2 ± 2 | $+4 \pm 2$ | $+10 \pm 2$ | $+23.5 \pm 2$ |

9. DISTORTION FACTOR

Minimize the GAIN control and set each of FADER and level controls in CH-INPUT (1) and MASTER at the NOMINAL POSITION in status 1. When a +14 dBs output is obtained at each output terminal of GROUP OUT (1 to 8), STEREO OUT (L, R), AUX OUT (1 to 8), AUX ST (1, 2), (L, R), MONITOR (A, B), (L, R) and TB OUT, the distortion factor should be less than 0.01 %.

When an output of 0 dBs is obtained at each terminal of PHONES (1, 2), (L, R), the distortion factor obtained at each terminal should be less than 0.7 %.

10. MAXIMUM OUTPUT

When a +24 dBs output is obtained at each output terminal of GROUP OUT (1 to 4), STEREO OUT (L, R), AUX OUT (1 to 8), AUX ST (1, 2), (L, R), MTRX OUT (1 to 8), MONI (A, B), (L, R) and TB OUT in status 1, confirm that the distortion factor should be less than 1 %.

Also, the distortion factor should be less than 1 % when +20 dBs is obtained at each output terminal of AUX OUT 3, 4.

When an output of +3 dBs is obtained at each terminal of the PHONES (1, 2), (L, R), the distortion factor obtained at each terminal should be less than 1 %.

11. VU Meter

When +4 dBs output is obtained at each output of GROUP OUT (1 to 8), STEREO OUT (L, R), AUX OUT (1 to 8), AUX ST (1, 2), (L, R), MONI A OUT (L, R), MATRIX OUT (1 to 8), TB OUT and OSC OUT in status 1, the indication on the VU meter should be within 0 ± 1 VU. When the meter selector switch is changed over to each output, the VU meter indication should be within 0 ± 1 VU.

If the indication is not within 0 ± 1 VU, adjust VR101 and VR102 on the pcb so that the indication is within the rated value.

Also, the built-in red PEAK LED should light up when the output is $+23.5 \pm 2$ dBs.

12. NOISE LEVEL

When the HOT, COLD of each input terminal of CH-INPUT and ST-INPUT is shorted with an 150 ohms in status 1, the noise level at GROUP OUT (1) should be less than -34 dBs.

* If the noise level is more than -34 dBs, find the noise level by input conversion. If this noise level is less than -128 dBs, then it is acceptable.

* When a signal is applied to stereo R input, measure at GROUP OUT (2).

13. RESIDUAL NOISE

Set the FADER and AUX level controls of all CH-INPUT and ST-INPUT at MIN in status 1 and turn the assign switch off and turn the ON switch of each output of MASTER on. In this state, when MASTER FADER and MASTER level controls have been set at maximum or minimum, the noise level should fall within the levels shown in Table 13.

Table 13 Residual Noise Units: dBs

| GROUP & STEREO FADER AUX & CUE VOLUME | GROUP OUT (1-8) | STEREO OUT (L, R) | AUX OUT (1-8) | AUX ST OUT (L, R) | MATRIX OUT (1-8) | MONI A OUT (L, R) |
|--|-----------------------|-------------------------|---------------------|-------------------------|------------------------|-------------------------|
| MAXIMUM | -75 | -74 | -71 | -71 | -94 | -73 *1 |
| MINIMUM | -100 | -100 | -100 | -99 | -100 | -100 |

*1 Turn MATRIX CUE switch on.

14. PHASE

The signal phase applied to each input terminal and the signal phase obtained at each output terminal should be the same. And check that the applied signal to each input terminal and the signal obtained at each output terminal should be in negative phase when the PHASE SW of CH-INPUT or ST-INPUT is switched on.

* Pin polarity of balanced type input / output terminal

| | |
|-----------------|--------------|
| (XLR type) | (PHONE type) |
| PIN 1: GND | T: HOT (+) |
| PIN 2: HOT (+) | R: COLD (-) |
| PIN 3: COLD (-) | S: GND. |

15. OSCILLATOR

Turn on TB OUT, OSC OUT and "10kHz" switches in status 1, the output levels of TB OUT and OSC OUT are $+14 \pm 2$ dBs. Check for the same at "1kHz", "100Hz" and "PINK".

At this time, check that the distortion rates of "10kHz", "1kHz" and "100Hz" should be less than 1 %.

Check that the output levels and frequencies of TB OUT and OSC OUT are within the range given in Table 15, when the SWEEP switch and OSC FREQ control are changed.

Table 15

| OSC SW | OSC FREQ volume | | | | SWEEP SW. OFF |
|--------|-----------------|-------------------------|-------------|-------------------------|-------------------------|
| | MIN | | MAX | | |
| | LEVEL (dB) | FREQ. (Hz) | LEVEL (dB) | FREQ. (Hz) | |
| 10kHz | $+14 \pm 2$ | $2\text{kHz} \pm 20\%$ | $+14 \pm 2$ | $20\text{kHz} \pm 20\%$ | $10\text{kHz} \pm 20\%$ |
| 1kHz | $+14 \pm 2$ | $200\text{Hz} \pm 20\%$ | $+14 \pm 2$ | $2\text{kHz} \pm 20\%$ | $1\text{kHz} \pm 20\%$ |
| 100Hz | $+14 \pm 2$ | $20\text{Hz} \pm 20\%$ | $+14 \pm 2$ | $200\text{Hz} \pm 20\%$ | $100\text{Hz} \pm 20\%$ |

The OSC ON LED indicator should lit until the OSC switch is turned off.

16. CUE

Check that the INPUT CUE and CUE LED indicators should light up when either one of the CUE switches of CH-INPUT and ST-INPUT is turned on. Also, if the CUE/SOLO OFF/CONNECT switch is turned to CONNECT and pin 22 of the EXT CONTROL connector is short-circuited to ground, INPUT CUE and CUE LED indicators should light up.

Check that INPUT CUE and CUE LED indicators go off when the CUE/SOLO OFF/CONNECT switch is turned to OFF. At this time, the signal from MASTER CUE switch is muted.

When either one of CUE switches in MASTER is turned on, only the CUE LED should be lit.

17. SOLO MODE

Check that the SOLO MODE and SOLO LED indicators flash when the SOLO MODE switch is turned on. When the ON switches of all CH-INPUTs and ST-INPUTs are turned on, and either one of the CUE switches of CH-INPUT or ST-INPUT is switched on, the ON LED with switch that has been turned on should remain lit, and the other ON LEDs should go off. At this stage, the signal from the module with the ON LED that has been turned off should be cut off.

Check that the same result can be obtained when the CUE/SOLO OFF/CONNECT switch is turned to CONNECT and pin 23 of the EXT CONTROL connector is shorted to ground.

When the SOLO SAFE switch in ST-INPUT is turned on, the ON LED should be on even if the another CUE switch is turned on.

When the SOLO SAFE switch is turned off, the ON LED should go off.

18. VCA CONTROL

When only one of the VCA GROUP switches (1 to 8) in each of CH-INPUT and ST-INPUT is turned on under condition in status 1, the output level of GROUP OUT (1) is $+10 \pm 2$ dB with the level when the switch is off as the reference.

Check that when all of VCA MASTER (1 to 8) faders are minimized and only one of the VCA GROUP switches (1 to 8) in each CH-INPUT and ST-INPUT is turned on, the output level of GROUP OUT (1) is less than -80 dB, with the level when the switch is off as the reference.

The NOMINAL LED should light up within the range of 0 ± 1 dB on the panel scale.

19. MUTE CONTROL

Turn on the ON switch in all CH-INPUTs and ST-INPUTs.
 And, turn on a switch of MUTE MASTER (1 to 8) switches, and turn on the same number switch of MUTE (1 to 8) of CH-INPUT or ST-INPUT is turned on, check that the ON LED of that number module should go off.
 At this time, the signal should be muted from the module whose ON LED has gone off.
 When the MUTE SAFE switch is turned on under this condition, MUTE should be canceled.

20. EXTERNAL VCA CONTROL

When VCA CONTROL switches (1-4) and (5-8) are set at MASTER, and each of the VCA MASTER faders (1 to 8) is operated, the output within the range given in Table 20 should be obtained at each VAC BUS terminal of the EXTERNAL CONTROL connector.
 Check that the output in the range of 0 ± 0.5 V can be obtained, regardless of the VCA MASTER fader when the VCA CONTROL switches are turned to SLAVE. And, when they are set to OFF, it is released.

Table 20

| VCA MASTER FADER | VOLTAGE |
|------------------|-------------------|
| MAX | $+0.5 \pm 0.05$ V |
| MIN | less than -9 V |

21. EXTERNAL MUTE CONTROL

Turn each ON switch of CH-INPUT (1 to 8) on, and turn on the MUTE switch matching the appropriate channel number. And, set the MUTE CONTROL switches (1-4) and (5-8) to SLAVE.
 When each of the MUTE buses (1 to 8) of the MUTE CONTROL connector is successively short-circuited to ground, that the corresponding grounded channel is muted.
 When the MUTE CONTROL switches (1-4) and (5-8) are set to SLAVE, the INPUT module should not be muted even if the MUTE MASTER switch is turned on.

22. PHANTOM

Connect a load resistance (10 kohms, 1 W or greater) between the input connector pins 1 and 2 of each CH-INPUT, ST-INPUT and TB, and short pins 2 and 3.
 When the PHANTOM MASTER has been switched on, and +48V switch of each module is turned on, a voltage of $+35 \pm 3$ V should be obtained at both ends of the load resistance.

23. LAMP POWER SUPPLY

When the load resistance (3 kohms, 5 W or greater) is connected between the XLR connector pins 3 and 4, and the LAMP DIMMER is operated, the voltage at both ends of the load resistance should be within the range given in the Table 23.

| LAMP DIMMER | VOLTAGE |
|-------------|---------------|
| MAX | $+11 \pm 1$ V |
| MIN | $+2 \pm 1$ V |

24. FAN SPEED SWITCH

When the FAN switch is switched to LOW/HIGH, the operating speed of the mounted cooling fans is set at LOW/HIGH.

25. POWER INDICATOR

Check that +12V, +20V, -20V and +48V LED indicators light up green in status 1, When the PHANTOM MASTER is turned on, the color of the +48V LED should change to red.

Check that when the POWER switch is turned on, the PW CAUTION LED lights up red just a second, and then goes right back off.

26. POWER SUPPLY VOLTAGE FLUCTUATION

Even a fluctuation of $\pm 10\%$ in the rated power supply voltage should pose no problems in the operations.

27. MEASURING EQUIPMENT

- * The balanced output type oscillator is to be used.
- * The output impedance of the oscillator should be less than 10 ohms.
- * The input impedance of the oscilloscope and the level meter should be more than 100 kohms.
- * Noise level should be measured using a 12.7 kHz, -6 dB/oct. low-pass filter.
- * We recommend that balanced input type measuring instruments are to be used.

PM4000 ADJUSTMENTS

1. MONAURAL INPUT MODULE AND STEREO INPUT MODULE

1-1. PREPARATIONS

- 1) Connect the PM4000 and a PW4000 via the supplied DC power supply cable.
- 2) The signal level referred to in this specifications is 0 dBs = 0.775 V.
- 3) Unless specified, controls and switches must be set as follows:

ASSIGN switch OFF
 PAN switch OFF
 +48V switch OFF
 PAN control CENTER
 INPUT SELECTER switch ST (STEREO INPUT only)
 GAIN trim MIN
 PAD (30dB) switch OFF
 ϕ switch OFF (positive phase)
 EQ (HI, HI-MID, LO-MID, LO)
 LEVEL control CENTER
 FREQ control MIN
 Q control CENTER
 ON switch OFF
 (HI, LO)
 SHELF switch OFF (PEAK)
 HPF FREQ control MIN
 HPF switch OFF
 INSERT ON switch OFF
 INSERT PRE switch OFF (POST)
 AUX 1-8
 LEVEL control MAX
 PRE/OFF/POST switch OFF
 AUX ST 1, 2
 LEVEL (LEVEL L) control MAX
 PAN (LEVEL R) control CENTER
 PRE/OFF/POST switch OFF
 LEVEL/PAN switch PAN
 METER PRE switch ON
 ON switch ON
 VCA GROUP (1-8) switch OFF
 MUTE GROUP (1-8) switch OFF
 MUTE SAFE switch OFF
 CUE/SOLO switch ON
 Fader MAX
 Internal switch Set at the "▼" mark

1-2. STEP 1: VCA STANDARD VOLTAGE ADJUSTMENT

Adjust the trimmer potentiometer so that the voltage is $-0.5 \pm 0.01V$ at test point T102, under the conditions given in 1-1.

Table 1-2

| MODULE | Measure at | Voltage | Trimmer potentiometer for adjustment |
|----------------|------------|------------------|--------------------------------------|
| MONAURAL INPUT | TP102 | $-0.5 \pm 0.01V$ | VR126 of IN3 board |
| STEREO INPUT | TP102 | $-0.5 \pm 0.01V$ | VR125 of SI3 board |

1-3. STEP 2: VCA OFFSET ADJUSTMENT

Set the fader to "∞", apply no signal, and adjust the trimmer potentiometer so that the voltage at each test point falls within the range shown in Table 1-3.

Table 1-3

| MODULE | Measure at | Voltage | Trimmer potentiometer for adjustment |
|----------------|------------|--------------|--------------------------------------|
| MONAURAL INPUT | TP101 | 0 ± 5 mV | VR132 of IN1 board |
| STEREO INPUT | TP101 | 0 ± 5 mV | VR132 of S11 board |
| | TP201 | 0 ± 5 mV | VR332 of S11 board |

1-4. STEP 3: VCA OFFSET A ADJUSTMENT (When GAIN is 0 dB.)

Set the fader to "0", apply no signal, and adjust the trimmer potentiometer so that the voltage at each test point falls within the range shown in Table 1-4.

Table 1-4

| MODULE | Measure at | Voltage | Trimmer potentiometer for adjustment |
|----------------|------------|---------------|--------------------------------------|
| MONAURAL INPUT | TP101 | 0 ± 10 mV | VR128 of IN1 board |
| STEREO INPUT | TP101 | 0 ± 10 mV | VR128 of S11 board |
| | TP201 | 0 ± 10 mV | VR328 of S11 board |

1-5. STEP 4: VCA OFFSET B ADJUSTMENT (When GAIN is +20 dB.)

Set the fader to "10", apply 0.5 ± 10 mV DC to VCA CONTROL 1 terminal from an external device, and turn on the VCA GROUP ASSIGN 1 switch. Adjust the trimmer potentiometer so that the voltage at each test point falls within the range shown in Table 1-5.

Table 1-5

| MODULE | Measure at | Voltage | Trimmer potentiometer for adjustment |
|----------------|------------|---------------|--------------------------------------|
| MONAURAL INPUT | TP101 | 0 ± 10 mV | VR131 of IN1 board |
| STEREO INPUT | TP101 | 0 ± 10 mV | VR131 of S11 board |
| | TP201 | 0 ± 10 mV | VR331 of S11 board |

Repeat the adjustment to both OFFSET A and OFFSET B until both adjusted values are satisfied. A 0.5 ± 10 mV can be applied via the VCA control bus of the MASTER module which the inspection and adjustment has been performed.

1-6. STEP 5: DISTORTION ADJUSTMENT (When GAIN is 0 dB.)

Set the GAIN control to MIN, turn on the channel ON switch, set PAN to OFF, and turn "1" or "2" of ASSIGN switch on.

Adjust the input signal level so that the output signal level is +20 dB at the output terminal as shown in Table 1-6. Set the fader to "0", and adjust the trimmer potentiometer so that the distortion rate obtained at each output is the value shown in Table 1-6.

Table 1-6

| MODULE | Measure at | Distortion rate | Trimmer potentiometer for adjustment |
|----------------|------------|-----------------|--------------------------------------|
| MONAURAL INPUT | TP103 | The best value | VR129 of IN1 board |
| STEREO INPUT | TP103 | The best value | VR129 of S11 board |
| | TP203 | The best value | VR329 of S11 board |

1-7. STEP 6: DISTORTION ADJUSTMENT (When GAIN is + 20 dB.)

Under the conditions given in 1-6, adjust the input signal level so that the output signal level is + 20 dB at the output terminal as shown in Table 1-7.

Set the fader to "10", apply 0.5 ± 10 mV DC to VCA CONTROL 1 terminal from an external device, and turn on the VCA GROUP ASSIGN 1 switch. Adjust the trimmer potentiometer so that the distortion rate obtained at each output is the value shown in Table 1-7.

Table 1-7

| MODULE | Measure at | Distortion rate | Trimmer potentiometer for adjustment |
|----------------|------------|-----------------|--------------------------------------|
| MONAURAL INPUT | TP103 | The best value | VR130 of IN1 board |
| STEREO INPUT | TP103 | The best value | VR130 of SI1 board |
| | TP203 | The best value | VR330 of SI1 board |

Repeat the adjustment so that the distortion rate is 0.01% or less when GAIN is 0 dB and also when GAIN is +20B.

A 0.5 ± 10 mV can be applied via the VCA control bus of the MASTER module which the inspection and adjustment has been performed.

1-8. STEP 7: VCA MUTING

Set the GAIN control to MIN, and set the input signal level to 0 dBs and set the fader to "∞ (infinite)". Adjust the trimmer potentiometer so that the waveform amplitude of the output signal obtained at the output terminal shown in Table 1-8 is the minimum, at this point.

Table 1-8

| MODULE | Measure at | Trimmer potentiometer for adjustment |
|----------------|------------|--------------------------------------|
| MONAURAL INPUT | TP103 | VR132 of IN1 board |
| STEREO INPUT | TP103 | VR132 of SI1 board |
| | TP203 | VR332 of SI1 board |

1-9. LED (METER, PEAK) LIGHTING LEVEL

Turn on the MTR PRE switch to apply the signal, under the conditions given in 1-1, and adjust the trimmer potentiometer so that the LED "0" lights up when the output level of INSERT OUT is + 4 dBs. Check that LED "0" goes off when the input signal level is decreased by 1 dB.

Table 1-9

| MODULE | Output terminal | Trimmer potentiometer for adjustment |
|----------------|-----------------|--------------------------------------|
| MONAURAL INPUT | INSERT OUT | VR125 of IN3 board |
| STEREO INPUT | INSERT OUT L | VR126 of SI3 board |
| | INSERT OUT R | VR127 of SI3 board |

(Load resistance of the INSERT OUT terminal should be 10 kohms or higher.)

2. TALKBACK MODULE

2-1. PREPARATIONS

- 1) Connect the PM4000 and a PW4000 via the supplied DC power supply cable.
- 2) The signal level referred to in this specifications is 0 dBs = 0.775 V.
- 3) Unless specified, controls and switches must be set as follows:
 - ASSIGN switch ON during measurement only, OFF at all other times.
 - TB OUT switch ON
 - OSC OUT switch ON
 - OSC switch OFF
 - OSC FREQ control MIN
 - SWEEP switch OFF
 - OSC LEVEL control MAX
 - +48V switch OFF
 - +4dB switch OFF (-50 dB)
 - TB LEVEL control MAX
 - ON/OFF/ON switch ON during measurement only, OFF at all other times.
 - METER SELECT switch 1 : G 2 : A
 - MUTE MASTER switch (1-8) OFF

2-2. Oscillator

Adjust the trimmer potentiometer so that the distortion rate of GROUP 1 terminal output signal is 1% or less (which is the minimum) when the TB ASSIGN switch (GROUP 1) and "1kHz" switch are turned on under the conditions given in 2-1. Then, adjust the trimmer potentiometer VR204 so that the output level is 10 ± 0.5 dBs.

Adjust the trimmer potentiometer VR201 so that the output signal level is 10 ± 0.5 dBs when the "PINK" switch is turned on, under the conditions given.

3. MASTER MODULE

3-1. PREPARATIONS

- 1) Connect the PM4000 and a PW4000 via the supplied DC power supply cable.
- 2) The signal level referred to in this specifications is 0 dBs = 0.775 V.
- 3) Unless specified, controls and switches must be set as follows:
 - GROUP (1-8)
 - PAN control CENTER
 - GROUP TO ST switch ON during measurement only, OFF at all other times.
 - GROUP TO MATRIX switch ON during measurement only, OFF at all other times.
 - INSERT switch ON during measurement only, OFF at all other times.
 - CUE switch ON during measurement only, OFF at all other times.
 - ON switch ON during measurement only, OFF at all other times.
 - Fader MAX
 - MATRIX
 - SUB IN control MAX during measurement only, MIN at all other times.
 - MATRIX MIX control MAX during measurement only, MIN at all other times.
 - MASTER control MAX
 - INSERT switch ON during measurement only, OFF at all other times.
 - ON switch ON during measurement only, OFF at all other times.
 - AUX
 - LEVEL control MAX
 - INSERT switch ON during measurement only, OFF at all other times.
 - ON switch ON during measurement only, OFF at all other times.
 - Internal switch Set at the "▼" mark.

3-2. VCA CONTROL

Set the VCA MASTER fader to MAX under the condition given in 3-1.

Adjust the trimmer potentiometer VR401 on the MAS1 circuit board so that the voltage at test point TP101 (VCA CONTROL MASTER) falls within $+0.5 \pm 0.01$ V.

When the VCA MASTER fader is set to MIN, the voltage at TP101 should be less than -9 V.

Check that the NOMINAL LED lights up when the voltage obtained at TP101 falls within 0 ± 60 mV.

The voltage becomes -9 V or less when the VCA MUTE switch is turned on.

■ PW4000 INSPECTIONS AND ADJUSTMENTS

1. LINE VOLTAGE DISPLAY ADJUSTMENT

Check that only the LINE VOLTAGE display is operating when the LINE VOLTAGE INDICATOR switch on the rear panel is turned on, and the power switch is off.

Insert a screwdriver through the adjustment hole located at the lower left of the front panel, and adjust the trimmer potentiometer VR501 on the MON circuit board so that the LINE VOLTAGE display is within $\pm 1V$ of the primary power supply voltage value.

Turn off the LINE VOLTAGE INDICATOR switch when the adjustment is complete.

At this point, check that all the displays have gone off.

2. NO-LOAD CHECK

Connect the short testing connector (TX800290) to the DC OUTPUT terminal of PW4000, then turn on the power supply.

Check the followings.

- 1) Both the left and right fans should start rotating 1 to 3 seconds after the LINE VOLTAGE display appears.
- 2) The LEDs (green) +48, +12, +19, and -19 that indicate OPERATE status should light up 6 ± 2 seconds after the power supply is turned on.

3. THERMAL DISPLAY AND FAN OPERATING CHECKING

When the connector is removed from CN601 on the AC circuit board, with the short testing connector (TX800290) connected to the DC OUTPUT terminal of PW4000, check that the THERMAL LED (red) lights up and that the fan's rotation speed increases.

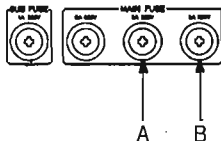
When the connector is connected to CN601, check that the THERMAL LED (red) goes off and that the fan's rotation speed decreases.

4. OPEN INSPECTION CIRCUIT CHECKING

Connect the short testing connector (TX800290) to the DC OUTPUT terminal of the PW4000, and remove the center fuse (A in the illustration) (there are three main fuses on the rear panel; be sure to remove the center one), then turn on the power supply.

At this point, the LEDs (Green) +48, +12, +19, and -19 that indicate OPERATE status should light up right away, then go off 1 to 5 seconds later.

Put the center fuse back in, remove the fuse on the right side of the three main fuses (B in the illustration), then check that the same results are obtained from the above inspection steps.



After the inspection is completed, put the removed fuse back in.

NOTE: If this inspection is carried out with the PM4000 main unit connected, current exceeding the fuse's capacity will flow through the fuse, which could weaken or deteriorate the fuse. If you have mistakenly performed the inspection with the PM4000 main unit connected, be sure to replace the fuse with a new one.

5. OUTPUT VOLTAGE ADJUSTMENT WHEN RATED VOLTAGE IS APPLIED OR WHEN VOLTAGE IS DECREASED

After connecting PM4000 and PW4000 via the supplied DC power supply cable, set the primary power supply voltage to the rated value by using an AC voltage adjuster.

Turn VR301 (LOW, ADJ) on the DC1 circuit board, and VR401 (LOW, ADJ) and VR403 (48V, ADJ) on the DC2 circuit board clockwise all the way to the end.

Under this condition, adjust each output voltage using the method shown in Table 1.

NOTE: (LOW, ADJ), (LOW, ADJ) and (48V, ADJ) are the printed indications on the surface of the board.

Table 1

| Measurement point | Voltage value | Trimmer potentiometer for adjustment |
|-------------------|-----------------|--------------------------------------|
| + 19 (DC1 board) | + 18.1 ± 0.05 V | VR302 (20V.ADJ) of DC1 board |
| + 12 (DC2 board) | + 12.1 ± 0.05 V | VR402 (12V.ADJ) of DC2 board |
| + 48 (DC2 board) | + 48 ± 2 V | Check only |

Next, set the primary power supply voltage to 70% of the rated value by using the AC voltage adjuster.

Under this condition, adjust each output voltage using the method shown in Table 2.

As you turn the trimmer potentiometer counterclockwise from the fully clockwise position, remember that the voltage value will stay almost constant, then suddenly decrease. Also, check that the ripple voltage becomes lower than the specified value. (Although the ripple voltage is higher than the specified value before the adjustment, it should decrease to below the specified value after the adjustment.)

While making this adjustment, do not move the trimmer potentiometers VR302 and VR402, which were used for the adjustment shown in Table 1. If you have changed the settings of these resistors, redo the adjustment shown in Table 1.

Table 2

| Measurement point | Voltage value | Ripple voltage | Trimmer potentiometer for adjustment |
|-------------------|---|----------------|--------------------------------------|
| + 19 (DC1 board) | A value 0.5 V lower than the result obtained by making the adjustment given in Table 1. | 3 mVp-p | VR301 (LOW.ADJ) of DC1 board |
| - 19 (DC1 board) | Voltage checking is unnecessary. | 3 mVp-p | Check only the ripple. |
| + 12 (DC2 board) | A value 0.3 V lower than the result obtained by making the adjustment given in Table 1. | 3 mVp-p | VR401 (LOW.ADJ) of DC2 board |
| + 48 (DC2 board) | A value 2.0 V lower than the result obtained by making the adjustment given in Table 1. | 3 mVp-p | VR403 (48V.ADJ) of DC2 board |

Finally, return the primary power supply voltage to the rated value, and check that the voltage at each terminal is within the range shown in Table 3. Also check that the ripple voltage is 3mVp-p or less.

Table 3

| Measurement point | Voltage value | Ripple voltage |
|-------------------|----------------|-----------------|
| + 19 (DC1 board) | + 18.1 ± 0.3 V | 3 mVp-p or less |
| - 19 (DC1 board) | - 18.1 ± 0.3 V | 3 mVp-p or less |
| + 12 (DC2 board) | + 12.1 ± 0.3 V | 3 mVp-p or less |
| + 48 (DC2 board) | + 48 ± 2 V | 3 mVp-p or less |

6. CAUTION LED LIGHTING CHECK

When the connector is removed from CN104 on the AC circuit board, with PM4000 and PW4000 connected to each other via the supplied DC power supply cable, check that the PW CAUTION LED (red) of PM4000 lights up. Check that the LEDs (Green) +48, +12, +19, and -19 indicating OPERATE status of the PW4000 go off, and that the LED (red) indicating CAUTION status lights up, 2 ± 2 seconds after the PW CAUTION LED (red) lights up.

■ PM4000の検査

1. 準備

- ・コンソール本体と電源(PW4000)を付属接続ケーブルで接続します。
- ・指定のない場合、加える信号は1kHz、-80dBsの正弦波とし、信号源インピーダンスは150Ωとします。また、各出力端子の負荷抵抗は下記の通りです。

PHONES(L,R) : 8Ω (5W以上)

全てのINSERT OUT : 10kΩ

その他出力 : 600Ω

※本検査において取り扱う信号のレベルは、0dBs=0.775Vとします。

- ・特に指定のない場合、ツマミ類は以下のように設定しておいて下さい。

・ CH INPUT(1-24,32,40,48)

ASSIGN switch 測定時のみON、他はOFF

PAN switch OFF

+48V switch OFF

PAN control CENTER

GAIN trim MAX(-70dB)

PAD(30dB) switch OFF

f switch OFF(正相)

EQ(HI,HI-MID,LO-MID,LO)

LEVEL control CENTER

FREQ control MIN

Q control CENTER

ON switch OFF

(HI,LO)

SHELF switch OFF(PEAK)

HPF FREQ control MIN

HPF switch OFF

INSERT ON switch 測定時のみON、他はOFF

INSERT PRE switch OFF(POST)

AUX 1-8

LEVEL control MAX

PRE/OFF/POST switch 測定時のみPREまたはPOST、他はOFF

AUX ST 1,2

LEVEL(LEVEL L) control MAX

PAN(LEVEL R) control CENTER

PRE/OFF/POST switch 測定時のみPREまたはPOST、他はOFF

LEVEL/PAN switch PAN

METER PRE switch OFF(POST)

ON switch 測定CHのみON、他はOFF

VCA GROUP (1-8) switch OFF

MUTE GROUP (1-8) switch OFF

MUTE SAFE switch OFF

CUE/SOLO switch 測定CHのみON、他はOFF

Fader MAX

• STEREO INPUT(1,2)

| | |
|--------------------------|-----------------------|
| ASSIGN switch | 測定時のみON、他はOFF |
| PAN switch | OFF |
| +48V switch | OFF |
| PAN control | CENTER |
| INPUT SELECTER switch | ST |
| GAIN trim | MAX(-70dB) |
| PAD(30dB) switch | OFF |
| ϕ switch | OFF(正相) |
| EQ(HI,HI-MID,LO-MID,LO) | |
| LEVEL control | CENTER |
| FREQ control | MIN |
| Q control | CENTER |
| ON switch | OFF |
| (HI,LO) | |
| SHELF switch | OFF(PEAK) |
| HPF FREQ control | MIN |
| HPF switch | OFF |
| INSERT ON switch | 測定時のみON、他はOFF |
| AUX 1-8 | |
| LEVEL control | MAX |
| PRE/OFF/POST switch | 測定時のみPREまたはPOST、他はOFF |
| AUX ST 1,2 | |
| LEVEL(LEVEL L) control | MAX |
| BAL PAN(LEVEL R) control | CENTER |
| PRE/OFF/POST | 測定時のみPREまたはPOST、他はOFF |
| LEVEL/BAL PAN switch | BAL PAN |
| METER PRE switch | OFF(POST) |
| ON switch | 測定CHのみON、他はOFF |
| VCA GROUP (1-8) switch | OFF |
| MUTE GROUP (1-8) switch | OFF |
| MUTE SAFE switch | OFF |
| CUE/SOLO switch | 測定CHのみON、他はOFF |
| Fader | MAX |

• MASTER

GROUP(1-8)

| | |
|------------------------|---------------|
| PAN control | CENTER |
| GROUP TO ST switch | 測定時のみON、他はOFF |
| GROUP TO MATRIX switch | 測定時のみON、他はOFF |
| INSERT switch | 測定時のみON、他はOFF |
| CUE switch | 測定時のみON、他はOFF |
| ON switch | 測定時のみON、他はOFF |
| Fader | MAX |

STEREO

| | |
|---------------------------|---------------|
| ST TO MATRIX switch | 測定時のみON、他はOFF |
| INSERT switch | 測定時のみON、他はOFF |
| CUE switch | 測定時のみON、他はOFF |
| ON switch | 測定時のみON、他はOFF |
| L Fader | MAX |
| R Fader | MAX |

MATRIX

| | |
|--------------------------|----------------|
| SUB IN control | 測定時のみMAX、他はMIN |
| MATRIX MIX control | 測定時のみMAX、他はMIN |
| MASTER control | MAX |
| INSERT switch | 測定時のみON、他はOFF |
| ON switch | 測定時のみON、他はOFF |

AUX

| | |
|---------------------|---------------|
| LEVEL control | MAX |
| INSERT switch | 測定時のみON、他はOFF |
| ON switch | 測定時のみON、他はOFF |

AUX ST(1,2)

| | |
|------------------------------|---------------|
| BAL(LEVEL R) control | CENTER |
| LEVEL switch | OFF |
| LEVEL(LEVEL L) control | MAX |
| INSERT switch | 測定時のみON、他はOFF |
| CUE switch | 測定時のみON、他はOFF |
| ON switch | 測定時のみON、他はOFF |

MONITOR A

| | |
|----------------------|---------------|
| SELECT switch | 測定時のみON、他はOFF |
| LEVEL control | MAX |
| MONO switch | OFF |
| ON switch | 測定時のみON、他はOFF |
| PHONES control | MAX |

MONITOR B

| | |
|---------------------|---------------|
| SELECT switch | 測定時のみON、他はOFF |
| LEVEL control | MAX |
| ON switch | 測定時のみON、他はOFF |

TALKBACK

| | |
|-------------------------|---------------|
| ASSIGN switch | 測定時のみON、他はOFF |
| OUT switch | 測定時のみON、他はOFF |
| OSC OUT switch | OFF |
| OSC switch | OFF |
| OSC FREQ control | MIN |
| SWEEP switch | OFF |
| OSC LEVEL control | MAX |
| +48V switch | OFF |

- +4dB switch OFF(-50dB)
- TB LEVEL control MAX
- ON/OFF/ON switch 測定時のみON、他はOFF

Others

- VCA MASTER Fader (1-8) MAX
- VCA MUTE (1-8) switch 測定時のみON、他はOFF
- MUTE MASTER (1-8) switch 測定時のみON、他はOFF
- METER SELECT switch 1 : G、2 : A
- MON.A switch (24,32 only) OFF
- SOLO switch OFF
- PHANTOM MASTER switch OFF
- VCA CONTROL switch (1-4) OFF
- VCA CONTROL switch (5-8) OFF
- MUTE CONTROL switch (1-4) OFF
- MUTE CONTROL switch (5-8) OFF
- CUE SOLO CONTROL switch OFF
- FAN LOW/HIGH switch LOW

2. 利得

(1)の状態、各出力端子には(表2-1~表2-7)の範囲内の出力レベルが得られることを確認します。

表2-1 入力端子 [INPUT CH1-24,32,40,48]

[単位 : dBs]

| 入力 レベル | GAIN VR | 30dB PAD | INSERT OUT | DIRECT OUT | GROUP OUT(1-8) | STEREO OUT(L,R) | MONI A OUT (L,R) |
|-----------|------------|-------------|---------------|---------------|-------------------|--------------------|---------------------|
| -80 | MAX | OFF | -6±2 | +4±2 | +14±2 | +14±2 | +4±2*2 |
| -50 | MAX | ON | ---- | ---- | +14±2*1 | ---- | ---- |
| -30 | MIN | OFF | ---- | ---- | +14±2*1 | ---- | ---- |

*1 GROUP OUT(1-8)のいずれか一つの出力端子にて測定すること。

*2 CUE switchをONすること。

- ・各出力のINPUT(CH1-24,32,40,48)間のレベル差が、2dB以内であること。
- ・GROUP OUT(1-8)間、STEREO OUT(L,R)間、およびMONI A OUT(L,R)間のレベル差が、2dB以内であること。

表2-2 入力端子 [INPUT CH1-24,32,40,48]

[単位 : dBs]

| 入力 レベル | GAIN VR | 30db PAD | AUX& AUX ST PRE/OFF PSOT SW | AUX ST(1,2) | | AUX OUT(1-8) | AUX ST(1,2) OUT(L,R) |
|-----------|------------|-------------|--------------------------------------|-------------|--------|-----------------|-------------------------|
| | | | | CH | MASTER | | |
| -30 | MIN | OFF | PRE | PAN | OFF | +10±2 | +7±2 |
| -30 | MIN | OFF | POST | PAN | OFF | +20±2*1 | +17±2*1 |
| -30 | MIN | OFF | PRE | LEVEL | ON | ---- | +10±2*2 |

*1 AUX OUT(1-8)のいずれか一つ、およびAUX ST OUT(1,2)(L,R)のいずれか一つの出力端子にて測定すること。

*2 CHのPAN LEVEL volume RとMASTERのBAL LEVEL R volumeをMAXにして、測定すること。

- ・AUX OUT(1-8)間、AUX ST OUT(1-2)(L,R)間のレベル差が、2dB以内であること。

表2-3 入力端子 [ST-INPUT 1-4(L,R)] *1

[単位 : dBs]

| 入力レベル | GAIN VR | 30dB PAD | SELECT SW | INSERT OUT | GROUP OUT(1-8) | STEREO OUT(L,R) | MONI A OUT (L,R) |
|-------|---------|----------|-----------|------------|----------------|-----------------|------------------|
| -80 | MAX | OFF | ST | -6±2 | +14±2 | +14±2 | +4±2 |
| -50 | MAX | ON | ST | ---- | +14±2*2 | ---- | ---- |
| -30 | MIN | OFF | ST | ---- | +14±2*2 | ---- | ---- |
| -30 | MIN | OFF | L | ---- | +14±2*3 | ---- | ---- |
| -30 | MIN | OFF | R | ---- | +14±2*4 | ---- | ---- |
| -30 | MIN | OFF | L+R | ---- | +17±2*5 | ---- | ---- |

*1 出力が(1,3,5,7,L)の場合は、ST-INPUT(L)から信号を印加すること。

出力が(2,4,6,8,R)の場合は、ST-INPUT(R)から信号を印加すること。

*2 GROUP OUT(1,2)にて測定すること。

*3 ST-INPUT(L)から信号を印加し、GROUP OUT(1)にて測定すること。

*4 ST-INPUT(R)から信号を印加し、GROUP OUT(1)にて測定すること。

*5 ST-INPUT(L,R)から同じ信号を印加し、GROUP OUT(1)にて測定すること。

- ・各出力のST-INPUT(1-2)(L,R)間のレベル差、およびINPUT(CH1-24,32,40,48)間のレベル差が、2dB以内であること。
- ・GROUP OUT(1-8)間、AUX OUT(1-8)間、STEREO OUT(L,R)間およびMONI A OUT(L,R)間の出力レベル差が、2dB以内であること。

表2-4 入力端子 [ST-INPUT 1-4(L,R)] *1

[単位 : dBs]

| 入力レベル | SELECT SW | GAIN VR | 30dB PAD | AUX& AUX ST | AUX ST ST-IN | AUX OUT(1-8) | AUX ST(1,2) OUT(L,R) |
|-------|-----------|---------|----------|-----------------|--------------|--------------|----------------------|
| | | | | PRE/OFF PSOT SW | LEVEL/BAL SW | | |
| -40 | ST | MIN | OFF | PRE | BAL PAN | +3±2 | -3±2 |
| -40 | ST | MIN | OFF | POST | BAL PAN | +13±2*2 | +7±2*2 |
| -40 | ST | MIN | OFF | PRE | LEVEL | ---- | 0±2*3 |
| -40 | L | MIN | OFF | PRE | LEVEL | 0±2*1 | 0±2*1*3 |

*1 ST-INPUT(L,R)から同じ信号を加えること。

*2 AUX OUT(1-8)のいずれか一つ、およびAUX ST(1,2)(L,R)のいずれか一つの出力端子にて測定すること。

*3 CHのPAN/LEVEL volume Rと、MASTERのBAL/LEVEL R volumeは、MAXにて測定すること。

- ・AUX OUT(1-8)間、AUX ST OUT(1-2)(L,R)間のレベル差が、2dB以内であること。

表2-5 入力端子 [TB IN]

[単位 : dBs]

| 入力端子 | 入力レベル | GROUP OUT(1-8) | STEREO OUT(L,R) | AUX OUT (1-8) | AUX ST(1-2) (L,R) | MON.B (L,R) | TB OUT |
|-------|-------|----------------|-----------------|---------------|-------------------|-------------|--------|
| TB IN | -60 | +14±2 | +14±2 | +14±2 | +14±2 | +14±2*1 | +4±2 |

- *1 TB to MONI B switchをONすること。
- ・各出力間のレベル差が、2dB以内であること。

表2-6 出力端子 [MONITOR A]

[単位 : dBs]

| 入力端子 | SELECT SW | 入力レベル | 出力端子 | 出力レベル |
|-------------------|-------------------|-------|----------------|---------|
| 2TR IN 1(L,R) | 2TR IN 1 | +4.0 | MONITOR A(L,R) | +14±2*2 |
| 2TR IN 2(L,R) | 2TR IN 2 | +4.0 | MONITOR A(L,R) | +14±2*2 |
| ST CH3(L,R)*1 | ST CH3 | -30.0 | MONITOR A(L,R) | +14±2*2 |
| ST CH4(L,R)*1 | ST CH4 | -30.0 | MONITOR A(L,R) | +14±2*2 |
| STEREO SUB IN | ST OUT | -6.0 | MONITOR A(L,R) | +14±2*2 |
| AUX ST1 SUB IN | AUX ST1 | -6.0 | MONITOR A(L,R) | +14±2*2 |
| AUX ST2 SUB IN | AUX ST2 | -6.0 | MONITOR A(L,R) | +14±2*2 |
| AUX(1-8)SUB IN | AUX(1-2~7-8)*3 | -6.0 | MONITOR A(L,R) | +14±2*2 |
| GROUP(1-8)SUB IN | GROUP(1-2~7-8)*3 | -6.0 | MONITOR A(L,R) | +14±2*2 |
| MATRIX(1-8)SUB IN | MATRIX(1-2~7-8)*3 | +4.0 | MONITOR A(L,R) | +14±2*2 |
| STEREO SUB IN | (ST CUE ON) | +4.0 | MONITOR A(L,R) | +14±2*2 |

- *1 GAIN control : MINそしてPAD : OFFにセットすること。
- *2 このときにMONO SWをONすると、出力レベルがMONO SWがOFFのときを基準として3dB下がることを確認します。またL,R共に同一信号を加えたときは、出力レベルがMONO SWがOFFのときを基準として3dB上がることを確認します。
- *3 (1-2)~(7-8)のSWは、同時に複数のSWをONしないこと。
- *4 “TB”switchと“TB to MON.B”switchを同時にONしたとき、上表の出力レベルが、SWがOFFのときを基準として7±1dBs下がることを確認します。
(上の条件のどれか一つで確認すること。)
- ・(L,R)間のレベル差が、2dB以内であること。

表2-7 出力端子 [MONITOR B]

| 入力端子 | SELECT SW | 入力レベル | 出力端子 | 出力レベル |
|---------------|---------------|-------|----------------|-------|
| 2TR IN 1(L,R) | 2TR IN 1 | +4.0 | MONITOR B(L,R) | +14±2 |
| 2TR IN 2(L,R) | 2TR IN 2 | +4.0 | MONITOR B(L,R) | +14±2 |
| ST CH3(L,R)*1 | ST CH3 | -30.0 | MONITOR B(L,R) | +14±2 |
| ST CH4(L,R)*1 | ST CH4 | -30.0 | MONITOR B(L,R) | +14±2 |
| ST SUB IN | ST OUT | -6.0 | MONITOR B(L,R) | +14±2 |
| ---- | MON A*2 | ---- | MONITOR B(L,R) | +14±2 |
| TB IN | TB TO MON B*3 | -6.0 | MONITOR B(L,R) | +14±2 |

- *1 GAIN control : MINそしてPAD : OFFにセットすること。
 - *2 MONITOR Aを表2.6のいずれか一つの状態にすること。
 - *3 “TB”Switchと“TB to MON.B”Switchを同時にONしたときのみ出力されること。またTB INの“+4”SwitchをONした状態で測定すること。
- ・(L,R)間のレベル差が、2dB以内であること。

表2-8 入力端子 [INSERT]

[単位 : dBs]

| 入力端子 | 入力レベル | GROUP OUT(1-8) | STEREO OUT(L,R) | AUX OUT(1-8) | AUXST1,2 OUT(L,R) | MATRIX OUT(1-8) |
|-------------------|-------|----------------|-----------------|--------------|-------------------|-----------------|
| CH(1-24,32,40,48) | -6 | +14±2*1 | ---- | ---- | ---- | ---- |
| ST-IN(1-4)(L,R) | -6 | +14±2*2 | ---- | ---- | ---- | ---- |
| GROUP(1-8) | +4 | +14±2 | ---- | ---- | ---- | ---- |
| STEREO(L,R) | +4 | ---- | +14±2 | ---- | ---- | ---- |
| AUX(1-8) | +4 | ---- | ---- | +14±2 | ---- | ---- |
| AUX ST(1,2)(L,R) | +4 | ---- | ---- | ---- | +14±2 | ---- |
| MATRIX(1-8) | +4 | ---- | ---- | ---- | ---- | +4±2 |

- *1 GROUP(1-8)のいずれか一つの出力端子で測定すること。
 - *2 GROUP(1-8)のいずれか二つ(ODD,EVEN)の出力端子で測定すること。
- ・各出力のINPUT(CH1-24,32,40,48)間のレベル差が、2dB以内であること。
- ・各出力のST-INPUT(CH1-4)(L,R)間のレベル差が、2dB以内であること。
- ・GROUP(1-8)間、STEREO(L,R)間、AUX(1-8)間、AUX ST(1,2)(L,R)間、MATRIX(1-8)間のレベル差が、2dB以内であること。

表2-9 入力端子 [SUB IN]

[単位 : dBs]

| 入力端子 | 入力レベル | GROUP OUT(1-8) | STEREO OUT(L,R) | AUXOUT (1-8) | AUXST1,2 OUT(L,R) | MATRIX OUT(1-8) | MONI A (L,R) |
|---------------|-------|----------------|-----------------|--------------|-------------------|-----------------|--------------|
| GROUP(1-8) | +4 | +14±2 | ---- | ---- | ---- | ---- | ---- |
| STEREO(L,R) | +4 | ---- | +14±2 | ---- | ---- | ---- | ---- |
| AUX(1-8) | +4 | ---- | ---- | +14±2 | ---- | ---- | ---- |
| AUXST1,2(L,R) | +4 | ---- | ---- | ---- | +14±2 | ---- | ---- |
| MATRIX(1-8) | +4 | ---- | ---- | ---- | ---- | +4±2 | ---- |
| CUE(L,R)*1 | +4 | ---- | ---- | ---- | ---- | ---- | +14±2 |

- *1 いずれかのCUE switchをONすること。
- ・各INSERT OUTには、+4±2dBsの出力レベルが得られること。
- ・GROUP(1-8)間、STEREO(L,R)間、AUX(1-8)間、AUX ST(1,2)(L,R)間、MATRIX(1-8)間、CUE(L,R)間のレベル差が、2dB以内であること。

表2-10

| MONI A OUT(L,R) | PHONES(L,R) |
|-----------------|-------------|
| +4dBs | 0±2dBs |

- ・MONI A OUTに指定出力レベルを得たときのPHONESの出力レベルを規定します。
- ・L,R間レベル差が、2dB以内であること。

3. 周波数特性

(1)の状態、加える信号の周波数を20Hz・20kHzとしたとき、各出力端子で得られる出力信号のレベルが、1kHzを基準として 0 ± 1 dBの範囲内にあることを確認します。ただし、PHONESの20Hzは -2 ± 2 dBの範囲内にあること。

4. EQ変化特性

(1)の状態、INPUTモジュールおよびST-INPUTモジュールのLO、LO-MID、HI-MID、HIをそれぞれ動かしたとき、GROUP OUT(1)に得られる各周波数における出力レベルが、センタークリック位置の出力レベルを基準として(表4-1~4-4)の範囲内であることを確認します。

指定した周波数で出力レベルが下表の範囲内に入らない場合は、周波数を変化させたときに下表の出力レベルが得られることを確認します。このとき、周波数変化は、指定波数の $\pm 20\%$ の範囲内であること。

・ST-INPUT(R)入力の場合、GROUP OUT(2)の出力を測定すること。

表4-1 [HI]

[単位：dB] 表4-2 [HI-MID]

[単位：dB]

| GAIN | FREQ | Q | SHELF | 1kHz | 5kHz | 20kHz | GAIN | FREQ | Q | 400Hz | 2kHz | 8kHz |
|------|------|-----|-------|-------------|-------------|-------------|------|------|-----|-------------|-------------|-------------|
| MIN | MIN | MIN | OFF | -15 ± 2 | ---- | ---- | MIN | MIN | MIN | -15 ± 2 | ---- | ---- |
| MAX | MAX | MIN | OFF | ---- | $+1 \pm 2$ | $+15 \pm 2$ | MAX | MAX | MIN | ---- | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MIN | ON | ---- | ---- | $+12 \pm 2$ | MAX | MAX | MAX | ---- | $+10 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MAX | OFF | ---- | $+10 \pm 2$ | ---- | | | | | | |

表4-3 [LO-MID]

[単位：dB] 表4-4 [LO]

[単位：dB]

| GAIN | FREQ | Q | 80Hz | 400Hz | 1.6kHz | GAIN | FREQ | Q | SHELF | 30Hz | 160Hz | 600Hz |
|------|------|-----|-------------|-------------|-------------|------|------|-----|-------|-------------|-------------|-------------|
| MIN | MIN | MIN | -15 ± 2 | ---- | ---- | MIN | MIN | MIN | OFF | -15 ± 2 | ---- | ---- |
| MAX | MAX | MIN | ---- | $+1 \pm 2$ | $+15 \pm 2$ | MAX | MAX | MIN | OFF | ---- | $+1 \pm 2$ | $+15 \pm 2$ |
| MAX | MAX | MAX | ---- | $+10 \pm 2$ | $+15 \pm 2$ | MAX | MAX | MIN | ON | ---- | ---- | $+12 \pm 2$ |
| MAX | MAX | MAX | ---- | $+10 \pm 2$ | $+15 \pm 2$ | MAX | MAX | MAX | OFF | ---- | $+10 \pm 2$ | $+15 \pm 2$ |

5. HPF変化特性

(1)の状態、HPF SWをONし、INPUTおよびST-INPUTモジュールのHPF f controlを動かしたとき、GROUP OUT(1)の出力レベルが、HPF SWがOFFのときのレベルを基準として(表5)の範囲内であることを確認します。

表5

| HPF FREQ | 20Hz | 400Hz |
|----------|------------|------------|
| MIN | -3 ± 2 | ---- |
| MAX | ---- | -3 ± 2 |

・ST-INPUT(R)入力の場合は、GROUP OUT(2)の出力を測定すること。

6. セパレーション

(1)の状態、INPUTおよびST-INPUTの各モジュールのPAN switchおよびASSIGN SW 1,2をONし、さらにPAN controlを反時計方向に回しきり、GROUP OUT(1)の出力レベルを+20dBsとしたとき、GROUP OUT(2)への漏れレベルが-50dBs以下であることを確認します。

また、PAN controlを時計方向に回しきり、GROUP OUT(2)の出力レベルを+20dBsとしたとき、GROUP OUT(1)への漏れレベルが-50dBs以下であることを確認します。

なお、STEREO OUT(L,R)間の漏れについても同様に検査して下さい。

・ST-INPUTのときは、L,Rに同じ信号を加えること。

7. VCA絞り切り

(1)の状態、INPUT CH1-24,32,40,48の各モジュールの入力レベルを-50dBsにセットし、FADERの位置をMINに合わせたとき、各DIRECT OUTの出力レベルが-75dBs以下であることを確認します。

また、ST-INPUT 1-4(L,R)の各モジュールの入力レベルを-50dBsにセットし、FADERの位置をMINに合わせたとき、GROUP OUT(1,2)の出力レベルが-63dBs以下であることを確認します。

ただし、ST-INPUT(L)から信号を加えた場合は、GROUP OUT(1)にて測定すること。

また、ST-INPUT(R)から信号を加えた場合は、GROUP OUT(2)にて測定すること。

8. LED(METER,PEAK)点灯レベル

(1)の状態MT PRE SWをONし、INPUTおよびST-INPUTの各モジュールの入力に信号を加えたとき、各LEDが点灯する入力レベルが(表8)の範囲内であることを確認します。

表8

| INSERT OUT | -20 | -10 | -6 | 0 | 6 | PEAK |
|------------|-------|------|------|------|-------|---------|
| 入力レベル | -16±2 | -6±2 | -2±2 | +4±2 | +10±2 | +23.5±2 |

9. 歪率

(1)の状態、GAIN volumeをMINとし、INPUT(CH1)およびMASTERの各VR、FADERをNominal Positionとし、GROUP OUT(1-8)、STEREO OUT(L,R)、AUX OUT(1-8)、AUX ST1,2 OUT(L,R)、MONI A OUT(L,R)、MATRIX OUT(1-8)、MOMITOR(A,B) OUT(L,R)、TB OUTの各出力端子に+14dBsの出力が得られたときの歪率が、0.01%以下であることを確認します。

また、次の測定は各端子ごとに行ってください。

PHONES(L,R)、(1,2)端子に0dBsの出力が得られたときの歪率が、0.7%以下であることを確認します。

10. 最大出力

(1)の状態、GROUP OUT(1-4)、STEREO OUT(L,R)、AUX OUT(1-8)、AUX ST1,2 OUT(L,R)、MATRIX OUT(1-8)、MOMITOR(A,B) OUT(L,R)、TB OUTの各出力端子に+24dBs、歪率1%以下の出力が得られることを確認します。

また、次の測定は各端子ごとに行ってください。

PHONES(L,R)、(1,2)端子に+3dBs、歪率1%以下の出力が得られることを確認します。

11. VU METER

(1)の状態、GROUP OUT(1-8)、STEREO OUT(L,R)、AUX OUT(1-8)、AUX ST1,2 OUT(L,R)、MONI A OUT(L,R)、MATRIX OUT(1-8)、TB OUT、OSC OUTの各出力レベルを+4dBsとしたとき、各VU METERの指示が0±1VU以内であることを確認します。

METER SELECT SWを各出力に切り替えたときも、各VU METERの指示が0±1VU以内であることを確認します。

- ・VU METERの指示が範囲内がない場合は、MTシート内の半固定抵抗によってVU METERの指示が0±1VU以内となるように調整して下さい。

またPEAK LED(赤)が、出力レベルが+23.5±2dBsの範囲内で点灯することを確認します。

12. ノイズレベル

(1)の状態、INPUTおよびST-INPUTモジュールの入力端子を150Ωで短絡したとき、GROUP OUT(1)で得られるノイズレベルが-34dBs以下であることを確認します。

- ・ノイズレベルが-34dBs以上の場合は、入力換算でのノイズレベルを求めて、その結果が-128dBs以下であれば可とします。
- ・ST-INPUT(R)入力の場合は、GROUP OUT(2)の出力を測定すること。

13. 残留ノイズ

(1)の状態、全てのINPUTおよびST-INPUTモジュールのFADER、AUX VRをMIN、ASSIGN SWをOFFにし、MASTERモジュール各出力のON SWをONにします。

このとき、MASTER FADER、MASTER VRを最大または最小にしたときのノイズレベルが、(表13)のレベル以下であることを確認します。

表13 残留ノイズレベル

[単位 : dBs]

| GROUP&STEREO FADER AUX&CUE VOLUME | GROUP OUT (1-8) | STEREO OUT (L,R) | AUX OUT (1,8) | AUX ST OUT (L,R) | MATRIX OUT (1,8) | MONI A OUT (L,R) |
|--------------------------------------|-----------------------|------------------------|---------------------|------------------------|------------------------|------------------------|
| MAX(最大) | -75 | -74 | -71 | -71 | -94 | -73*1 |
| MIN(最小) | -100 | -100 | -100 | -99 | -100 | -100 |

*1 MATRIX CUE switchをONすること。

14. 位相

(1)の状態、各入力端子に加えられた信号と各出力端子で得られる信号の位相が、同相であることを確認します。

またINPUT、ST-INPUTのφ switchをONしたときは、逆相になることを確認します

- ・バランス型入出力端子のピン配置

| | |
|--------------------|----------------|
| [キャノン端子] | [フォーン端子] |
| pin 1GND | T+(HOT) |
| pin 2+(HOT) | R-(COLD) |
| pin 3-(COLD) | SGND |

15. 発振器

(1)の状態、TB OUT SW、OSC OUT SWおよび“10kHz”SWをONしたとき、TB OUTおよびOSC OUT端子には出力レベル+14±2dBsの信号が得られることを確認します。

(“1kHz”、“100Hz”、“PINK”も同様)

このとき、“10kHz”、“1kHz”、“100Hz”の歪率が、1%以下であることを確認します。

またSWEEP SW ON、OSC FREQ volume を変化させたとき、TB OUTおよびOSC OUTの出力レベルと周波数が、(表15)の範囲内であることを確認します。

表15

| OSC SW | OSC FREQ volume | | | | SWEEP SW. OFF |
|--------|-----------------|-----------|---------|-----------|------------------|
| | MIN | | MAX | | |
| | レベル(dB) | 周波数(Hz) | レベル(dB) | 周波数(Hz) | |
| 10kHz | +14±2 | 2kHz±20% | +14±2 | 20kHz±20% | 10kHz±20% |
| 1kHz | +14±2 | 200Hz±20% | +14±2 | 2kHz±20% | 1kHz±20% |
| 100Hz | +14±2 | 20Hz±20% | +14±2 | 200Hz±20% | 100Hz±20% |

- ・ OSC SWを“OFF”にしない限り、OSC ON LEDが点灯していること。

16. CUE

INPUTおよびST-INPUTモジュールのCUE SWのいずれかを一つでもONしたときに、“INPUT CUE”&“CUE”LEDが点灯することを確認します。

また、CUE/SOLO OFF/CONNECT SWをCONNECT側にし、リアパネルのEXT CONTROL CONNECTOR の22ピン端子をGNDと短絡したときも同様の結果が得られ、OFF側にしたときは“INPUT CUE”&“CUE”LEDは消灯することを確認します。

このとき、MASTER部のCUE SWからの信号は遮断されること。

MASTER部のCUE SWのいずれか一つをONしたときは、“CUE”LEDのみが点灯すること。

17. SOLO MODE

SOLO MODE SWをONしたときは、“SOLO MODE”&“SOLO”LEDが点滅することを確認します。

全てのINPUTおよびST-INPUTモジュールのON SWをONし、INPUTおよびST-INPUTモジュールのCUE SWのいずれかをONしたとき、SWをONしたモジュールの“ON”LEDのみが点灯したままとなり、他のモジュールの“ON”LEDは全て消灯すること。

このとき、“ON”LEDが消灯したモジュールからの信号は遮断されること。

また、CUE/SOLO OFF/CONNECT SWをCONNECT側にし、リアパネルEXT CONTROL CONNECTOR の23ピン端子をGNDと短絡したときも、同様の結果が得られること。

ST-INPUTモジュールのSOLO SAFE SWをONしたとき、他のCHのCUEをONしても“ON”LEDは消灯しないこと。

SOLO SAFE SWをOFFしたときは、“ON”LEDが消灯すること。

18. VCA CONTROL

(1)の状態、各INPUTおよびST-INPUTモジュールのVCA GROUP SW 1~8のうちの一つだけをONしたとき、GROUP OUT(1)端子の出力レベルがSWがOFFのときを基準として、それぞれ $+10 \pm 2\text{dB}$ の範囲内であることを確認します。

また VCA MASTER FADER 1~8を全てMINとし、各INPUTおよびST-INPUTのVCA GROUP SW 1~8を一つだけONしたとき、GROUP OUT(1)端子の出力レベルがSWがOFFのときを基準として、それぞれ -80dB 以下であることを確認します。

また“NOMINAL”LEDは、パネル目盛の $0 \pm 1\text{dB}$ の範囲内で点灯すること。

19. MUTE CONTROL

全てのINPUTおよびST-INPUTモジュールのON SWをONします。

MUTE MASTER SW(1-8)と、INPUTまたはST-INPUTモジュールのMUTE SW(1-8)において、同番号のSWを共にONしたとき、そのモジュールの“ON”LEDが消灯すること。

このとき、“ON”LEDが消灯したモジュールからの信号は遮断されること。

また、この状態でMUTE SAFE SWをONすると、MUTEが解除されること。

20. EXTERNAL VCA CONTROL

VCA CONTROL SW(1-4)&(5-8)をMASTER側にセットし、各VCA MASTER FADER(1-8)を変化させたとき、リアパネルのEXTERNAL CONTROLのVCA BUSSの各端子には(表20)範囲内の電圧が得られることを確認します。

SLAVE側にセットしたときは、VCA MASTER FADERに無関係に $0 \pm 0.5\text{V}$ の範囲内の信号が得られること。また、OFFにセットしたときは開放となります。

表20

| VCA MASTER FADER | 電圧 |
|------------------|-------------------------|
| MAX | $+0.5 \pm 0.05\text{V}$ |
| MIN | -9V 以下 |

21. EXTERNAL MUTE CONTROL

INPUTモジュール(1-8)のON SWをONし、CH Noと同じ番号のMUTE SWをONします。

MUTE CONTROL SW(1-4)&(5-8)を、SLAVE側にセットします。

リアパネルのMUTE CONTROL CONNECTORの各MUTE(1-8)バスをGNDと短絡したとき、対応するモジュールがMUTEされることを確認します。

また、MUTE CONTROL SW(1-4)&(5-8)がSLAVE側にセットされているときは、MUTE MASTER SWをONさせてもINPUTモジュールがMUTEされないこと。

22. PHANTOM(+48V)

各INPUT、ST-INPUTおよびTBモジュールの入力コネクタのピン①-②間に、 $10\text{k}\Omega$ (1W以上)の負荷抵抗を接続し、ピン②-③間を短絡します。

PHANTOM MASTER SWをONし、各INPUT、ST-INPUTおよびTBモジュールの+48V SWをONしたとき、負荷抵抗両端に $+35 \pm 3\text{V}$ の電圧が得られることを確認します。

23. ランプ出力(24CH - 3ヶ所、32CH - 4ヶ所、40CH - 5ヶ所、48CH - 5ヶ所)

ランプ出力コネクタのピン③-④間に $3k\Omega$ (5W以上)の負荷抵抗を接続しLAMP DIMMER controlを変化させたとき、抵抗の両端の電圧が(表23)の範囲内であることを確認します。

表23

| LAMP DIMMER | 電圧 |
|-------------|--------------|
| MAX | +11 \pm IV |
| MIN | +2 \pm IV |

24. ファンスイッチ

FAN SWをHIGH/LOWに切り換えたとき、FANの回転がHIGH/LOWに切り替わることを確認します。

25. パワーインジケータの点灯確認

(1)の状態、+12V、+20V、-20V、+48VのLEDが緑色で点灯することを確認します。

このとき、PHANTOM MASTERをONしたときに+48VのLEDが赤色の点灯に変わることを確認します。

電源をONしたときは、PW CAUTIONのLEDが一瞬赤色に点灯し、すぐに消灯することを確認します。

26. 電源電圧変動

電源電圧を規定の $\pm 10\%$ の範囲で変化させても、動作に異常のないことを確認します。

27. 測定器

- ・発振器はバランス出力型で、出力インピーダンスは 10Ω 以下のこと。
- ・オシロスコープ、レベル計などの入力インピーダンスは、 $100k\Omega$ 以上のこと。
- ・ノイズレベルは、 $12.7kHz$ 、 $-6dB/OCT$ のローパスフィルターを使用して測定すること。
- ・測定器は、バランス入力型を用いること。

■ PM4000の調整

1. MONAURAL INPUTモジュールとSTEREO INPUTモジュール

1-1 準備

・PM4000本体と電源(PW4000)を付属の接続ケーブルで接続します。

※本検査において取り扱う信号のレベルは、0dBs=0.775Vとします。

・特に指定のない場合、ツマミ類は以下のように設定しておいて下さい。

| | |
|--------------------------|--------------------|
| ASSIGN switch | OFF |
| PAN switch | OFF |
| +48V switch | OFF |
| PAN control | CENTER |
| INPUT SELECTER switch | ST(STEREO INPUTのみ) |
| GAIN trim | MIN |
| PAD (30dB) switch | OFF |
| f switch | OFF(正相) |
| EQ (HI,HI-MID,LO-MID,LO) | |
| LEVEL control | CENTER |
| FREQ control | MIN |
| Q control | CENTER |
| ON switch | OFF |
| (HI,LO) | |
| SHELF switch | OFF(PEAK) |
| HPF FREQ control | MIN |
| HPF switch | OFF |
| INSERT ON switch | OFF |
| INSERT PRE switch | OFF(POST) |
| AUX 1-8 | |
| LEVEL control | MAX |
| PRE/OFF/POST switch | OFF |
| AUX ST 1,2 | |
| LEVEL(LEVEL L) control | MAX |
| PAN(LEVEL R) control | CENTER |
| PRE/OFF/POST switch | OFF |
| LEVEL/PAN switch | PAN |
| METER PRE switch | ON |
| ON switch | ON |
| VCA GROUP (1-8) switch | OFF |
| MUTE GROUP (1-8) switch | OFF |
| MUTE SAFE switch | OFF |
| CUE/SOLO switch | ON |
| Fader | MAX |
| Internal switch | ▼印 |

1-2 STEP 1 : VCA基準電圧調整

1-1項の状態、テストポイントT102で $-0.5 \pm 0.01V$ の電圧が得られるように半固定抵抗で調整します。

表I-2

| モジュール | 測定端子 | 電圧値 | 調整用半固定抵抗 |
|----------------|-------|------------------|---------------|
| MONAURAL INPUT | TP102 | $-0.5 \pm 0.01V$ | VR126(IN3シート) |
| STEREO INPUT | TP102 | $-0.5 \pm 0.01V$ | VR125(SI3シート) |

1-3 STEP 2 : OFFSET調整

無信号入力として調整を行います。

フェーダーを“∞”の位置とし、各テストポイントで表I-3に示した範囲の電圧が得られるように半固定抵抗で調整して下さい。

表I-3

| モジュール | 測定端子 | 電圧値 | 調整用半固定抵抗 |
|----------------|-------|--------------|---------------|
| MONAURAL INPUT | TP101 | $0V \pm 5mV$ | VR132(INIシート) |
| STEREO INPUT | TP101 | $0V \pm 5mV$ | VR132(SIIシート) |
| | TP201 | $0V \pm 5mV$ | VR332(SIIシート) |

1-4 STEP 3 : OFFSET A調整 (GAIN 0dBのとき)

フェーダーを“0”の位置とし、各テストポイントで表I-4に示した範囲の電圧が得られるように半固定抵抗で調整して下さい。

表I-4

| モジュール | 測定端子 | 電圧値 | 調整用半固定抵抗 |
|----------------|-------|---------------|---------------|
| MONAURAL INPUT | TP101 | $0V \pm 10mV$ | VR128(INIシート) |
| STEREO INPUT | TP101 | $0V \pm 10mV$ | VR128(SIIシート) |
| | TP201 | $0V \pm 10mV$ | VR328(SIIシート) |

1-5 STEP 4 : OFFSET B調整 (GAIN +20dBのとき)

フェーダーを“10”の位置とし、外部より $0.5V \pm 10mV$ の直流電圧をVCA CONTROL 1端子に加え、VCA GROUP ASSGIN 1スイッチをONします。そして、各テストポイントで表I-5に示した範囲の電圧が得られるように半固定抵抗で調整して下さい。

表I-5

| モジュール | 測定端子 | 電圧値 | 調整用半固定抵抗 |
|----------------|-------|---------------|---------------|
| MONAURAL INPUT | TP101 | $0V \pm 10mV$ | VR131(INIシート) |
| STEREO INPUT | TP101 | $0V \pm 10mV$ | VR131(SIIシート) |
| | TP201 | $0V \pm 10mV$ | VR331(SIIシート) |

OFFSET Aの調整値とOFFSET Bの調整値の両方を満足するまで、両方の調整を繰り返し行って下さい。
 なお、調整の際に加える $0.5V \pm 10mV$ の直流電圧は、VCA MASTER電圧調整が完了しているMASTERモジュールのVCAコントロールバスを經由して、供給を受けることができます。

1-6 STEP 5 : GAIN 0dBのときの歪率調整

GAINコントロールをMINにセットし、チャンネルONスイッチをON、PANをOFF、ASSIGNスイッチの1または2をONします。

そして、表1-6に示した測定端子にて得られる出力信号のレベルが、+20dBとなるように入力信号のレベルを調整します。

フェーダーを“0”の位置とし、各出力で得られる歪率が表1-6に示した値となるように半固定抵抗で調整して下さい。

表1-6

| モジュール | 測定端子 | 歪率 | 調整用半固定抵抗 |
|----------------|-------|-----|---------------|
| MONAURAL INPUT | TP103 | 最良値 | VR129(INIシート) |
| STEREO INPUT | TP103 | 最良値 | VR129(SIIシート) |
| | TP203 | 最良値 | VR329(SIIシート) |

1-7 STEP 6 : GAIN +20dBのときの歪率調整

1-6項の状態、表1-7に示した測定端子にて得られる出力信号のレベルが+20dBとなるように、入力信号のレベルを調整します。

フェーダーを“10”の位置とし、外部より $0.5V \pm 10mV$ の直流電圧をVCA CONTROL 1端子に加えてVCA GROUP ASSGIN 1スイッチをONします。そして、各出力で表1-7に示した値の歪率が得られるように半固定抵抗で調整して下さい。

表1-7

| モジュール | 測定端子 | 歪率 | 調整用半固定抵抗 |
|----------------|-------|-----|---------------|
| MONAURAL INPUT | TP103 | 最良値 | VR130(INIシート) |
| STEREO INPUT | TP103 | 最良値 | VR130(SIIシート) |
| | TP203 | 最良値 | VR330(SIIシート) |

GAIN 0dBのときの歪率とGAIN 20dBのときの歪率が、共に0.01%以下になるまで両方の調整を繰り返して行って下さい。

なお、調整の際に加える $0.5V \pm 10mV$ の直流電圧は、VCA MASTER電圧調整が完了しているMASTERモジュールのVCAコントロールバスを經由して、供給を受けることができます。

1-8 STEP 7 : VCA絞り切り調整

GAINコントロールをMINとし、加える入力信号のレベルを0dBsにセットし、フェーダーを“∞”の位置に合わせます。このとき、表1-8に示した出力端子にて得られる出力信号の波形の振幅が最小となるように半固定抵抗で調整して下さい。

表1-8

| モジュール | 測定端子 | 調整用半固定抵抗 |
|----------------|-------|---------------|
| MONAURAL INPUT | TP103 | VR132(IN1シート) |
| STEREO INPUT | TP103 | VR132(SIIシート) |
| | TP203 | VR332(SIIシート) |

1-9 LED(METER、PEAK)点灯レベル

1-1の状態でもTR PREスイッチをONして信号を加え、INSERT OUTの出力レベルが+4dBsのときに“0”のLEDが点灯するように半固定抵抗で調整して下さい。

また、入力信号のレベルを1dB下げたとき、“0”のLEDが消灯することを確認して下さい。

表1-9

| モジュール | 出力端子 | 調整用半固定抵抗 |
|----------------|---------------|---------------|
| MONAURAL INPUT | INSERT OUT | VR125(IN3シート) |
| STEREO INPUT | INSERT OUT(L) | VR126(SI3シート) |
| | INSERT OUT(R) | VR127(SI3シート) |

(INSERT OUT端子の負荷抵抗は、10kΩ以上とします)

2. TALKBACKモジュール

2-1 準備

- ・PM4000本体と電源(PW4000)を付属の接続ケーブルで接続します。
- ※本検査において取り扱う信号のレベルは、0dBs≒0.775Vとします。
- ・特に指定のない場合、ツマミ類は以下のように設定しておいて下さい。
 - ASSIGN switch測定時のみON、他はOFF
 - TB OUT switchON
 - OSC OUT switchON
 - OSC switchOFF
 - OSC FREQ controlMIN
 - SWEEP switchOFF
 - OSC LEVEL controlMAX
 - +48V switchOFF
 - +4dB switchOFF(-50dB)
 - TB LEVEL controlMAX
 - ON/OFF/ON switch測定時のみON、他はOFF
 - METER SELECT switch1 : G 2 : A
 - MUTE MASTER switch (1-8)OFF

2-2 発振器

2-1の状態、TB ASSIGNスイッチ(GROUP 1)と“1kHz”スイッチをONしたとき、GROUP 1端子の出力信号の歪率が1%以下で最小となるように半固定抵抗VR203で調整して下さい。次に、出力レベルが $10 \pm 0.5\text{dBs}$ となるように半固定抵抗VR204で調整して下さい。

この状態で、“PINK”スイッチをONしたときの出力信号のレベルが $10 \pm 0.5\text{dBs}$ となるように半固定抵抗VR201で調整して下さい。

3. MASTERモジュール

3-1 準備

- ・PM4000本体と電源(PW4000)を付属の接続ケーブルで接続します。
- ※本検査において取り扱う信号のレベルは、 $0\text{dBs}=0.775\text{V}$ とします。
- ・特に指定のない場合、ツマミ類は以下のように設定しておいて下さい。

GROUP (1-8)

PAN controlCENTER
 GROUP TO ST switch.....測定時のみON、他はOFF
 GROUP TO MATRIX switch測定時のみON、他はOFF
 INSERT switch測定時のみON、他はOFF
 CUE switch測定時のみON、他はOFF
 ON switch測定時のみON、他はOFF
 FaderMAX

MATRIX

SUB IN control測定時のみMAX、他はMIN
 MATRIX MIX control.....測定時のみMAX、他はMIN
 MASTER controlMAX
 INSERT switch測定時のみON、他はOFF
 ON switch測定時のみON、他はOFF

AUX

LEVEL controlMAX
 INSERT switch測定時のみON、他はOFF
 ON switch測定時のみON、他はOFF
 Internal switch▼印

3-2 VCA CONTROL

3-1の状態、VCA MASTER FADERをMAXにしたとき、TP101(VCA CONTROL MASTER)で得られる電圧が $+0.5 \pm 0.01\text{V}$ となるように、MAS1シートの半固定抵抗VR401で調整して下さい。また、VCA MASTER FADERをMINにしたときは、TP101の電圧が -9V 以下となることを確認して下さい。

NOMINAL LEDがTP101で得られる電圧が $0 \pm 60\text{mV}$ の範囲で点灯することを確認します。また、VCA MUTEスイッチをONしたとき、TP101の電圧が -9V 以下であることを確認します。

■ PW4000の検査と調整

1. LINE VOLTAGE表示の調整

電源スイッチOFFの状態、リアパネルのLINE VOLTAGE INDICATORスイッチをONしたとき、LINE VOLTAGEの表示のみが動作していることを確認します。

フロントパネル左下の調整穴よりドライバーを挿入し、LINE VOLTAGEの表示が一次電源電圧値 $\pm 1V$ の範囲になるようにMONシートの半固定抵抗VR501を調整します。

調整が終了したら、LINE VOLTAGE INDICATORスイッチをOFFにしておきます。

また、このとき全ての表示が消灯していることを確認します。

2. 無負荷チェック

テスト用のショートコネクタ(TX800290)をPW4000のDC OUTPUT端子に接続してから、電源スイッチをONします。

以下の項目について確認します。

- 1) LINE VOLTAGEが表示された後、1~3秒後に左右のファンが回転しはじめること。
- 2) 電源スイッチ投入後、 6 ± 2 秒後にOPERATE状態を示す+48、+12、+19、-19のLED(緑)が点灯すること。

3. THERMAL表示とファンの動作チェック

テスト用のショートコネクタ(TX800290)をPW4000のDC OUTPUT端子に接続した状態で、ACシートのCN601からコネクタを抜いたとき、THERMALのLED(赤)が点灯してファンの回転数が上がることを確認します。

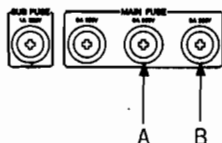
次に、CN601にコネクタを接続したときは、THERMALのLED(赤)が消灯してファンの回転数が下がることを確認します。

4. オープン検出回路チェック

テスト用のショートコネクタ(TX800290)をPW4000のDC OUTPUT端子に接続し、リアパネルにある3本のMAIN FUSEの内の中央のヒューズ(図中のA)を抜いた状態で電源スイッチをONします。

このとき、OPERATE状態を示す+48、+12、+19、-19のLED(緑)が一度点灯した後、1~5秒後に消灯することを確認します。

次に、抜いたヒューズを元に戻し、MAIN FUSEの内の右側のヒューズ(図中のB)を抜いて検査したときも同様の結果が得られることを確認します。



この検査が終了したら、抜いたヒューズを元に戻しておいて下さい。

注意：この検査をPM4000本体を接続した状態で行うと、ヒューズの容量以上の電流がヒューズ流れてヒューズを劣化させる可能性があるため、間違ってもPM4000本体を接続した状態で検査を実行した場合は、ヒューズを未使用のものと交換して下さい。

5. 定格電圧時および減電圧時の出力電圧調整

PM4000とPW4000を付属の電源ケーブルで接続した後、一次電源電圧をスライダックを使って定格値に設定します。

次に、DC1シートのVR301(LOW.ADJ)とDC2シートのVR401(LOW.ADJ)とVR403(48V.ADJ)を時計方向に回し切ります。

この状態で、各出力電圧を表1に示す方法で調整します。

注意：(LOW.ADJ)、(LOW.ADJ)、(48V.ADJ)は基板の表面印刷の表示です。

表1

| 測定点 | 電圧値 | 調整用半固定抵抗 |
|---------------|-------------|-----------------------|
| +19端子(DC1シート) | +18.1±0.05V | DC1シートのVR302(20V.ADJ) |
| +12端子(DC2シート) | +12.1±0.05V | DC2シートのVR402(12V.ADJ) |
| +48端子(DC2シート) | +48±2V | 確認のみ |

次に、一次電源電圧をスライダックを使って定格値の70%に設定します。

この状態で、各出力電圧を表2に示す方法で調整します。

調整用半固定抵抗を、時計方向回し切った状態から半時計方向へゆっくり回していくと、しばらくの間は同じ電圧値を示しますが、急に電圧が下がっていくので注意しながら半固定抵抗を回して下さい。また、リップル電圧が規定値以下であることも確認して下さい。(調整する前は規定値以上のリップルがでていますが、調整後には規定値以下のリップルとなります。)

なお、この調整に際して、表1に示した調整に使用した半固定抵抗VR302とVR402は動かさないで下さい。これらの半固定抵抗を動かしてしまった場合は、表1の調整をやり直して下さい。

表2

| 測定点 | 電圧値 | リップル電圧 | 調整用半固定抵抗 |
|---------------|-------------------|--------|-----------------------|
| +19端子(DC1シート) | 表1での調整結果より0.5V低い値 | 3mVp-p | DC1シートのVR301(LOW.ADJ) |
| -19端子(DC1シート) | 電圧値の確認は不要 | 3mVp-p | リップルの確認のみ |
| +12端子(DC2シート) | 表1での調整結果より0.3V低い値 | 3mVp-p | DC2シートのVR401(LOW.ADJ) |
| +48端子(DC2シート) | 表1での調整結果より2.0V低い値 | 3mVp-p | DC2シートのVR403(48V.ADJ) |

最後に、一次電源電圧を定格値に戻したとき、各端子で得られる電圧が表3に示した値の範囲内にあり、リップルが3mVp-p以下であることを確認します。

表3

| 測定点 | 電圧値 | リップル電圧 |
|---------------|------------|----------|
| +19端子(DC1シート) | +18.0±0.3V | 3mVp-p以下 |
| -19端子(DC1シート) | -18.0±0.3V | 3mVp-p以下 |
| +12端子(DC2シート) | +12.0±0.3V | 3mVp-p以下 |
| +48端子(DC2シート) | +48±2V | 3mVp-p以下 |

6. CAUTION LEDの点灯チェック

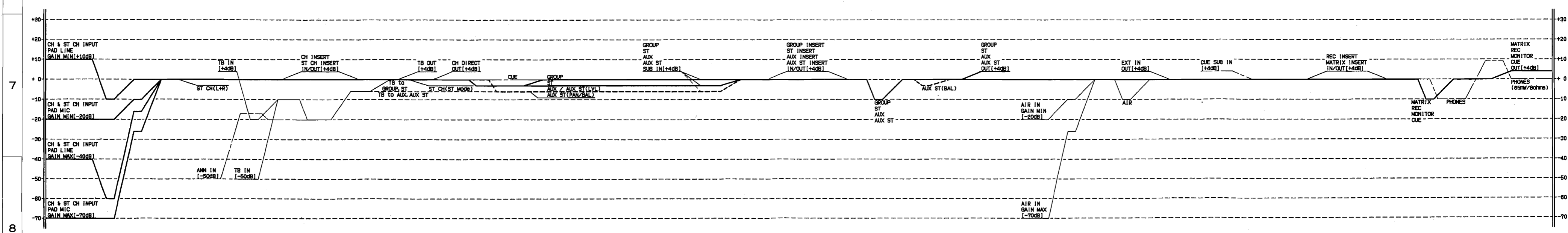
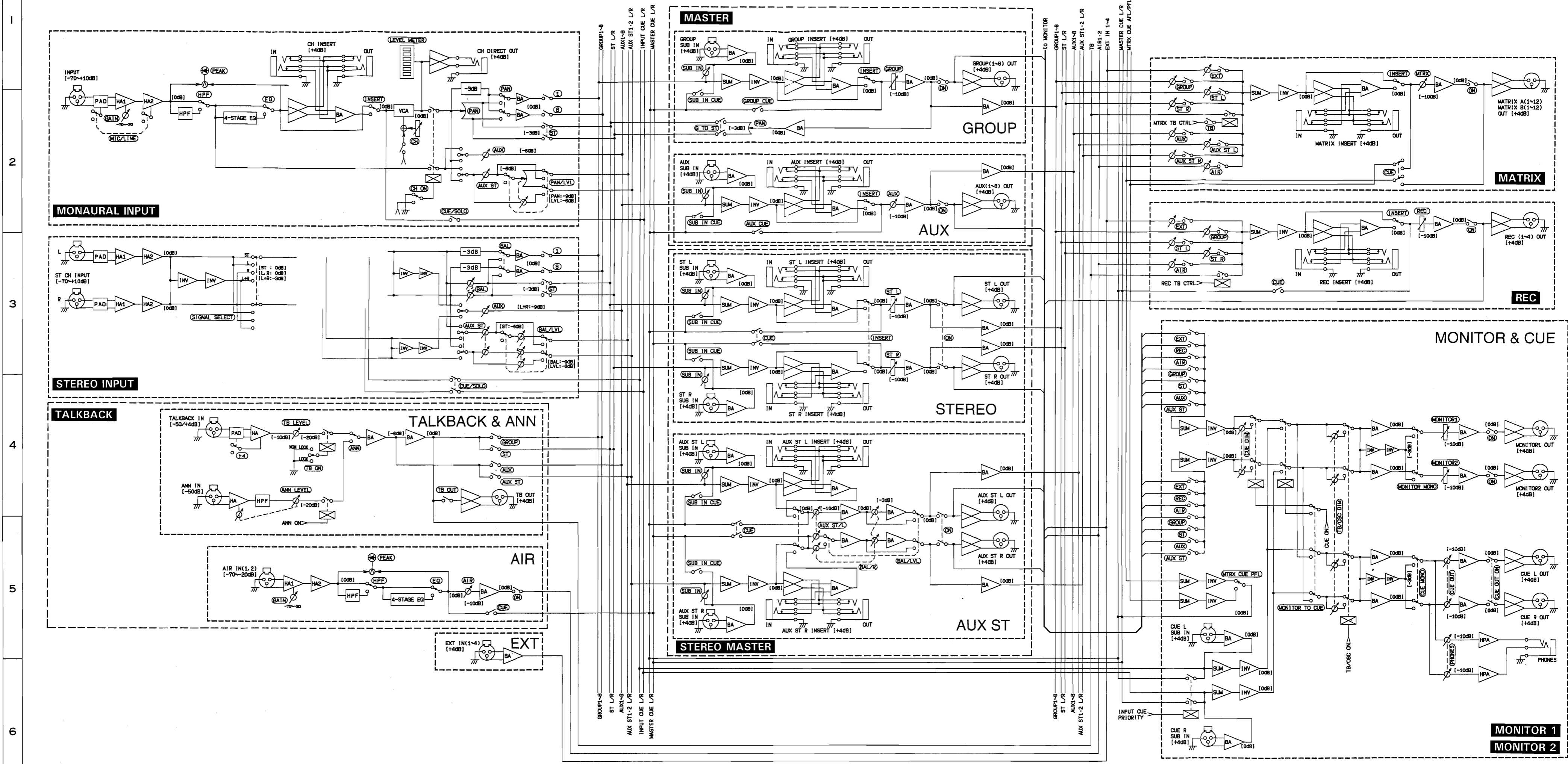
PM4000とPW4000を付属の電源ケーブルで接続した状態で、ACシートのCN104からコネクタを抜いたとき、PM4000のPW CAUTION LED(赤)が点灯することを確認します。PW CAUTION LED(赤)が点灯してから 2 ± 2 秒後に、PW4000のOPERATE状態を示す+14、+12、+19、-19のLED(緑)が消灯し、CAUTION状態を示すLED(赤)が点灯することを確認します。

■ CIRCUIT BOARDS & CIRCUIT DIAGRAMS (シート基板図&回路図)

● CONTENTS(目次)

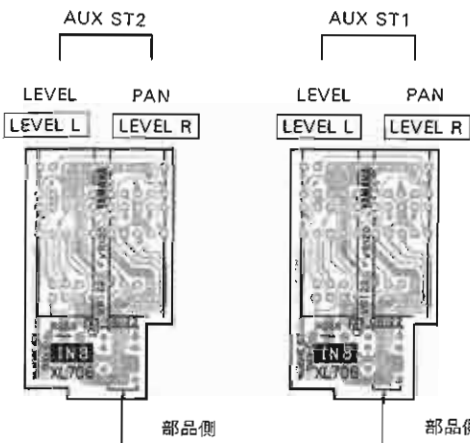
| | |
|---|-----------|
| PM4000 BLOCK & LEVEL DIAGRAM | page C 1 |
| MONAURAL INPUT MODULE (IN1,IN2,IN3,IN4,IN5,IN6) | page C 2 |
| STEREO INPUT MODULE (SI1,SI2,SI3,SI5,IN5)..... | page C 6 |
| MASTER MODULE (MAS1) | page C 12 |
| STEREO MASTER MODULE (ST1) | page C 14 |
| TALKBACK MODULE (TB1,TB3) | page C 16 |
| MONITOR MODULE (MON1,MON2) | page C 20 |
| REAR PANEL (U) ASSEMBLY (CS,DR,EBI,INS,MF,VP) | page C 24 |
| REAR (MAS) ASSEMBLY (CO,EBO) | page C 26 |
| METER ASSEMBLY (PI,MTS1,MSC,MTL) | page C 28 |
| CONNECTORS | page C 32 |
| PM4000-24 & PM4000-32 CONNECTOR CONNECTION 1/2 | page C 33 |
| PM4000-24 & PM4000-32 CONNECTOR CONNECTION 2/2 | page C 34 |
| PM4000-40 & PM4000-48 CONNECTOR CONNECTION 1/2 | page C 35 |
| PM4000-40 & PM4000-48 CONNECTOR CONNECTION 2/2 | page C 36 |
| POWER SUPPLY PW4000 (AC, DC1, DC2, MON) | page C 37 |
| PW4000 BLOCK DIAGRAM | page C 38 |
| AC CIRCUIT DIAGRAM | page C 39 |
| DC1 CIRCUIT DIAGRAM | page C 40 |
| DC2 CIRCUIT DIAGRAM | page C 41 |
| MON CIRCUIT DIAGRAM | page C 42 |

■ ブロック & レベルダイアグラム

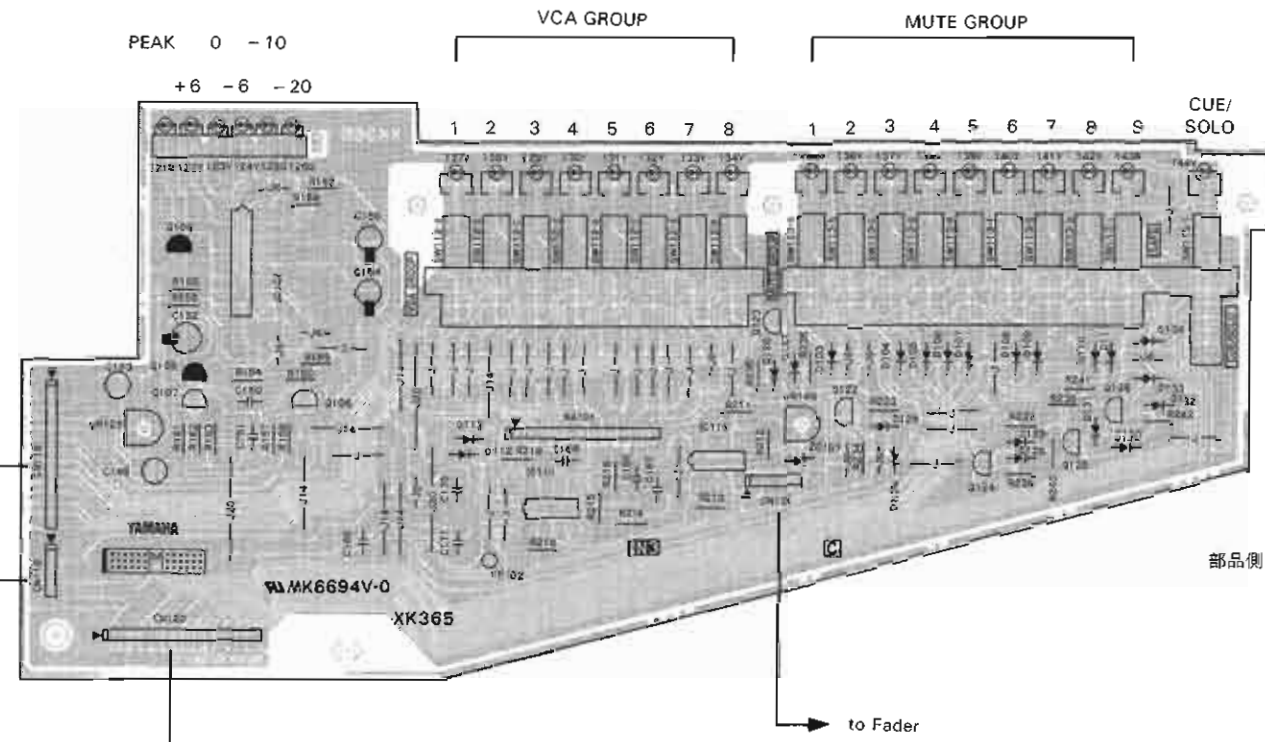


MONAURAL INPUT MODULE (IN1, IN2, IN3, IN5, IN6, IN8)

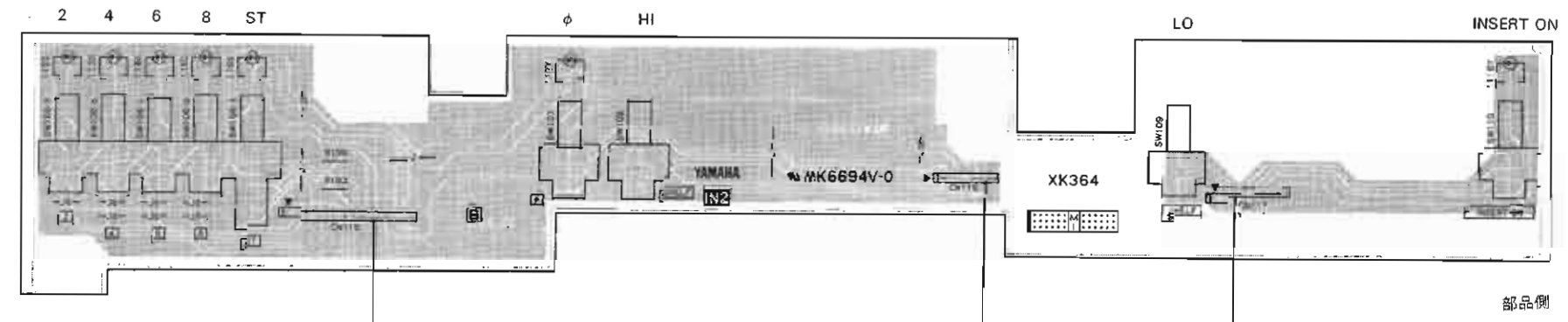
● IN8シート



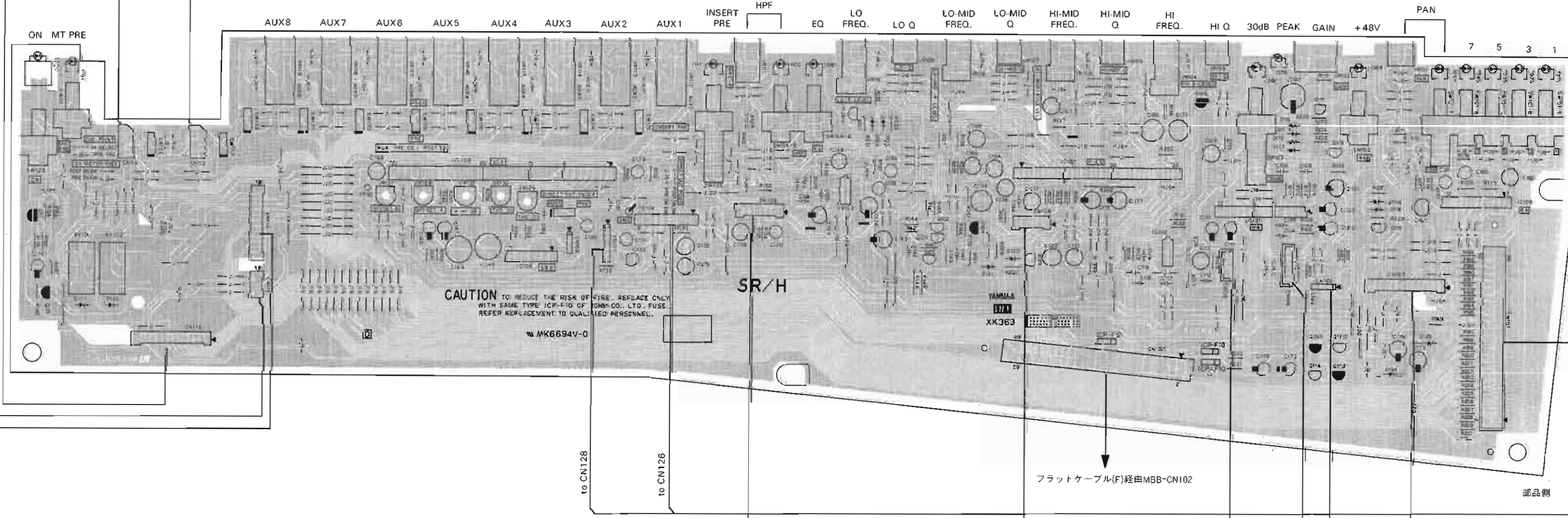
● IN3シート



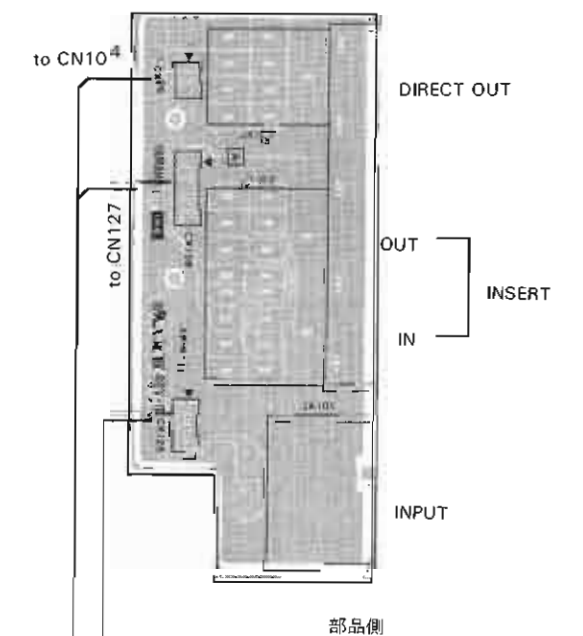
● IN2シート



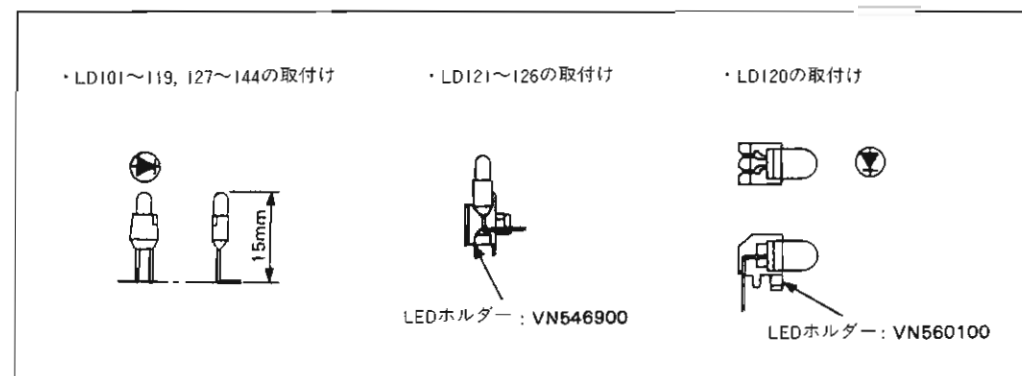
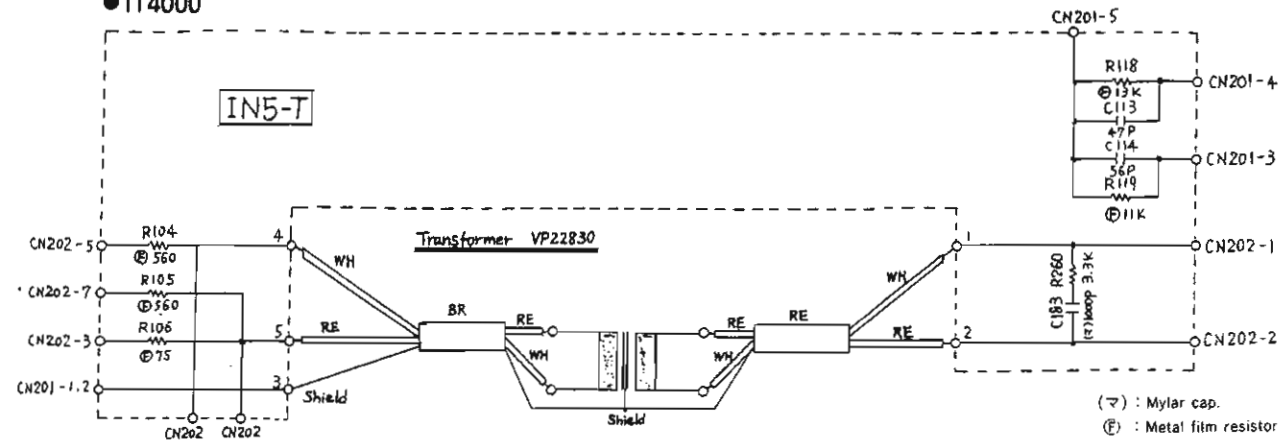
● IN1シート



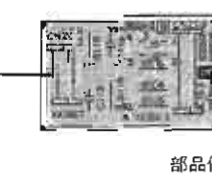
● IN6シート



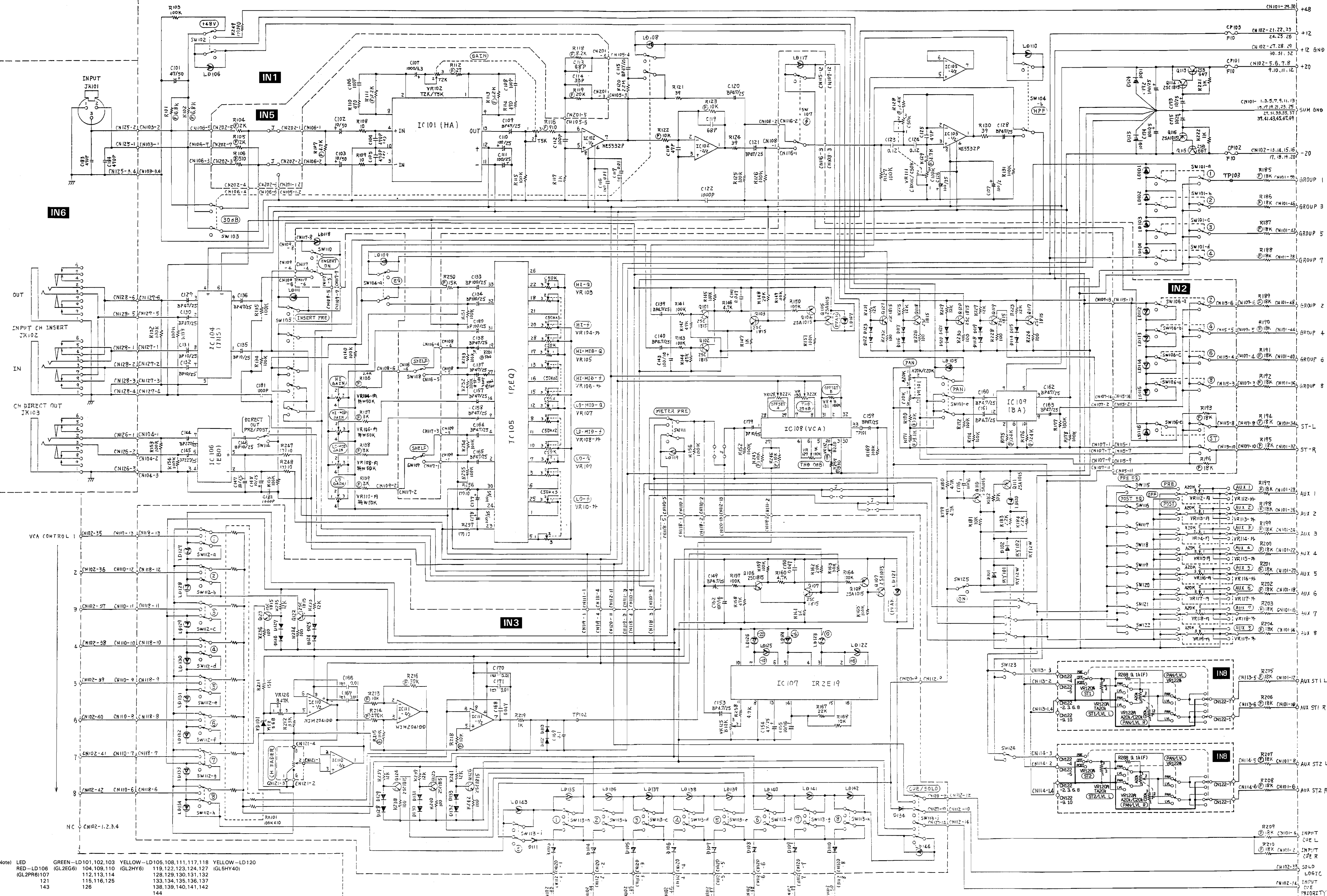
● IT4000



● IN5シート



- 3NA-VN02410 ▲ : IN1
- 3NA-VN02420 ▲ : IN2
- 3NA-VN02430 ▲ : IN3
- 3NA-VP50780 ▲ : IN8
- 3NA-VN02500 : IN5
- 3NA-VN02460 ▲ : IN6



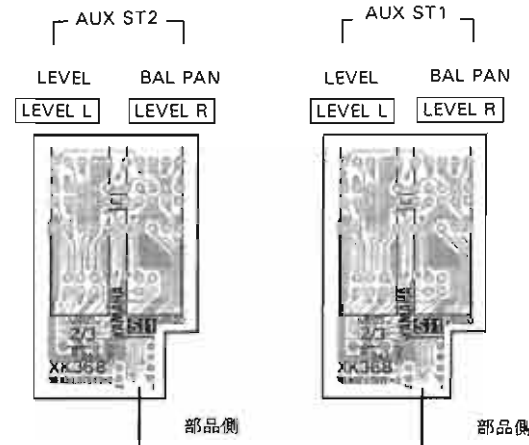
Note1 LED GREEN-LD101,102,103 YELLOW-LD105,108,111,117,118 YELLOW-LD120
 RED-LD106 (GL2EG6) 104,109,110 (GL2HY6) 119,122,123,124,127 (GL5HY40)
 IGL2PR6)107 112,113,114 128,129,130,131,132
 121 115,116,125 133,134,135,136,137
 143 126 138,139,140,141,142
 144

NOTE)
 (±): Ceramic cap.
 (7): Flame proof carbon resistor
 (M): Mylar cap.
 (R): Metal film resistor

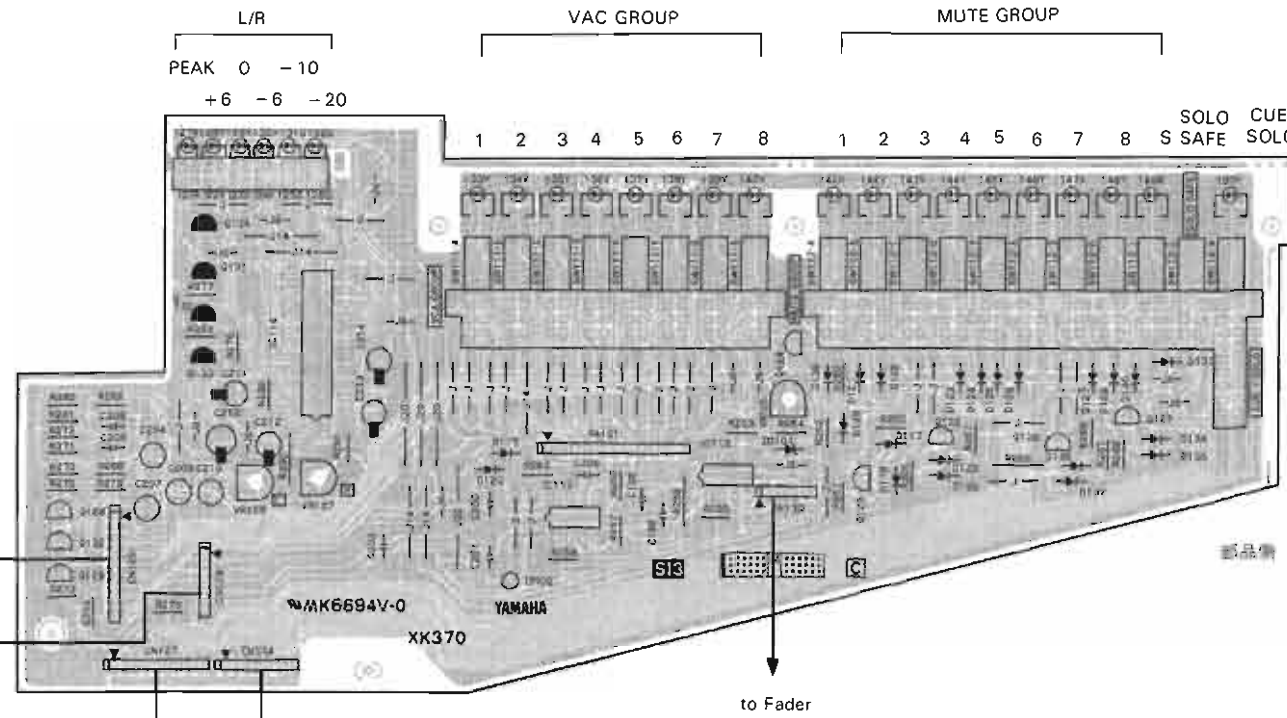
KEC-91905, KEC-91962

STEREO INPUT MODULE (SI1, SI2, SI3, SI5, IN5)

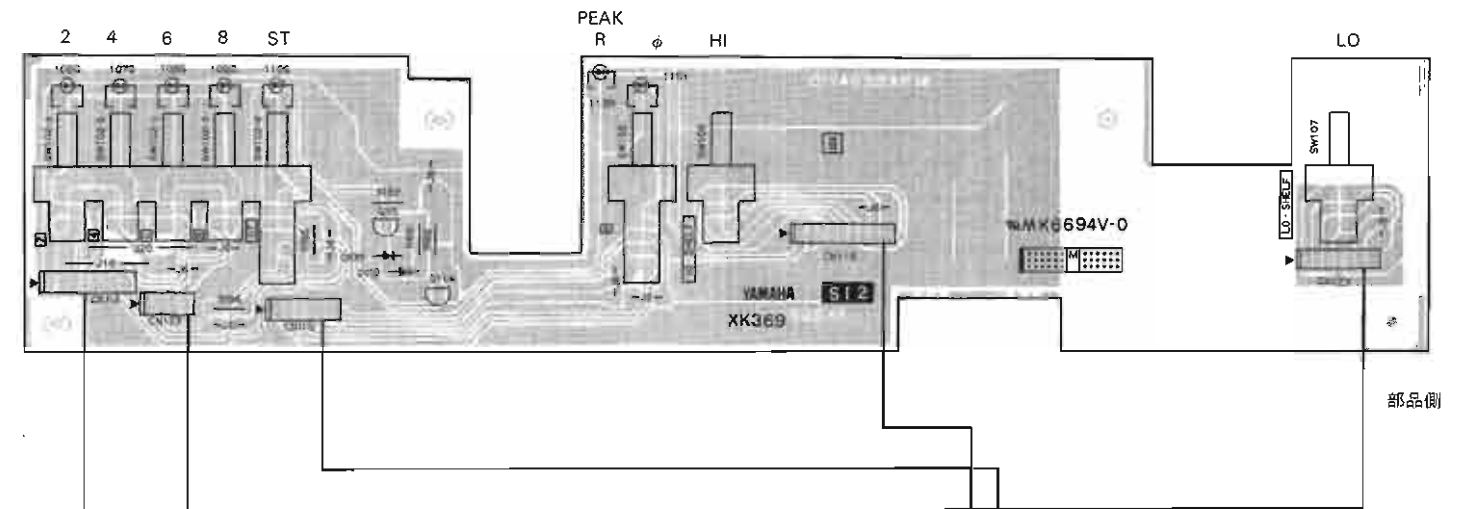
●SI1-2/3シート



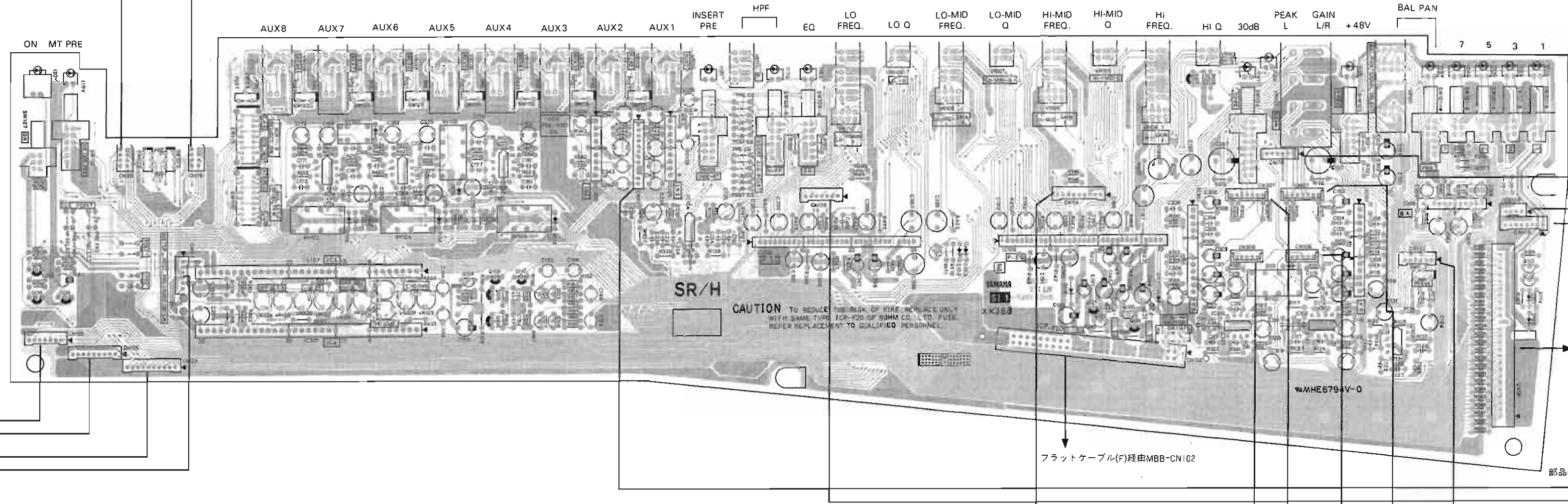
●SI3シート



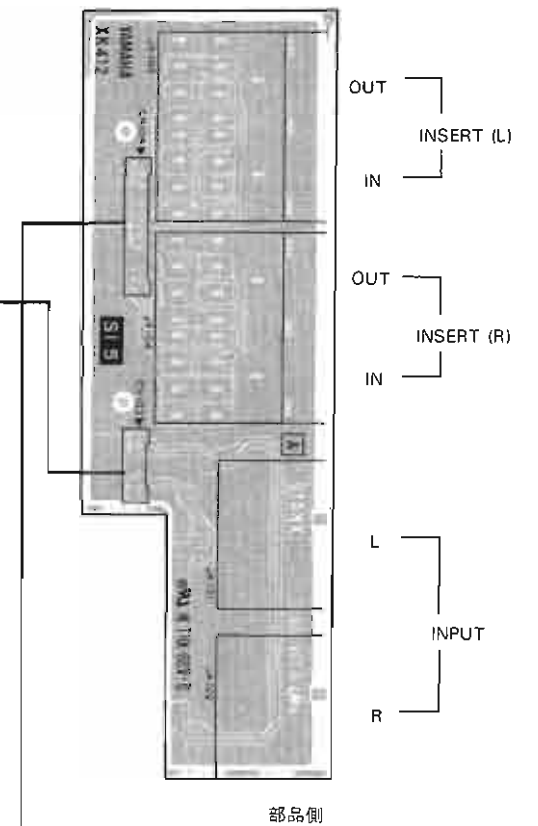
●SI2シート



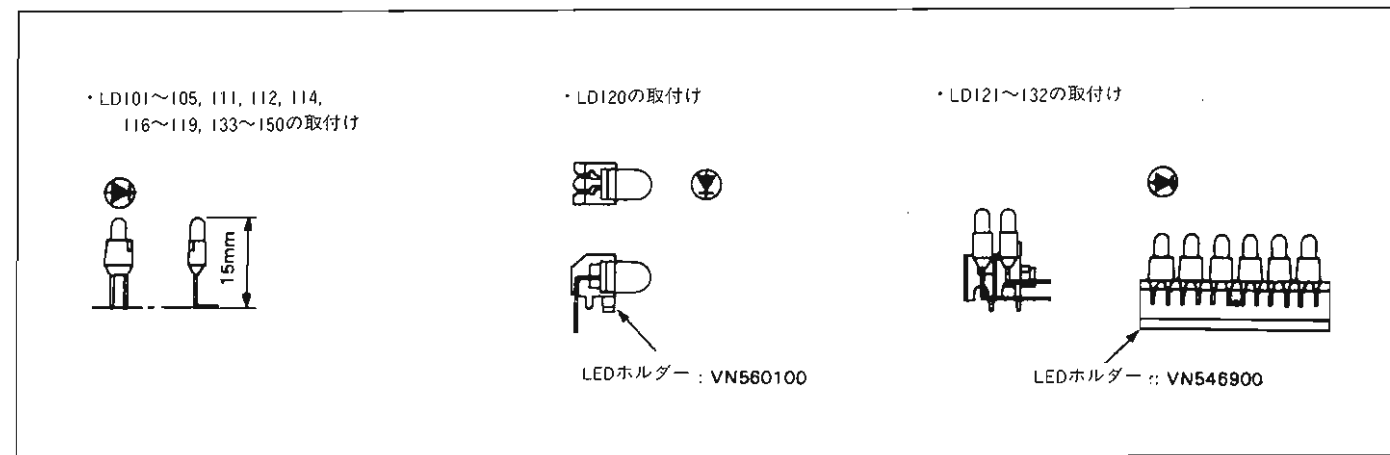
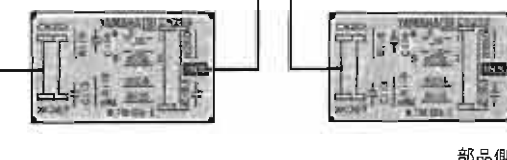
●SI1-1/3シート



●SI5シート

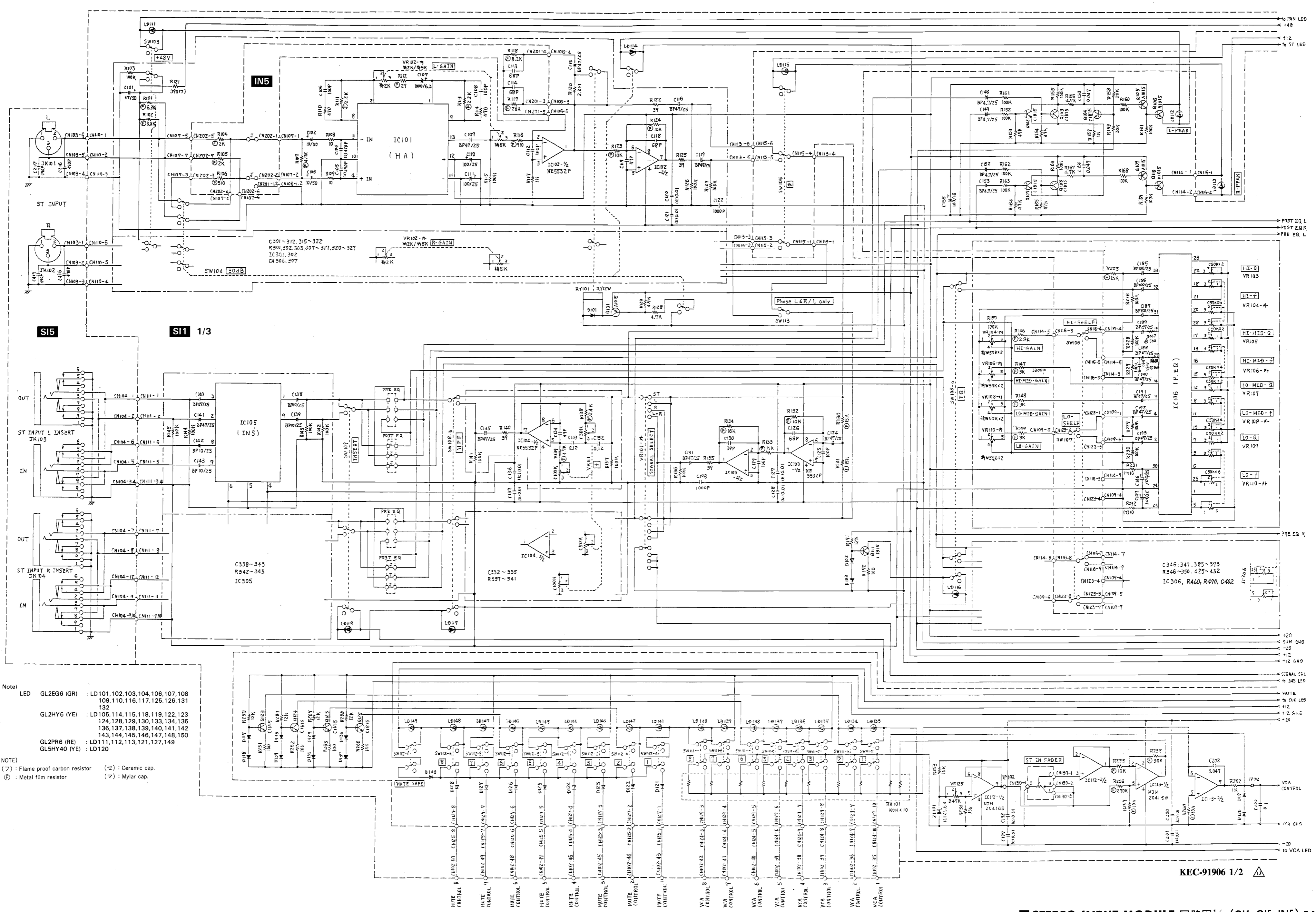


●IN5シート



- 3NA-VN02470 ▲ : SI1
- 3NA-VN02480 ▲ : SI2
- 3NA-VN02490 ▲ : SI3
- 3NA-VN02510 ▲ : SI5
- 3NA-VN02500 ▲ : SI6

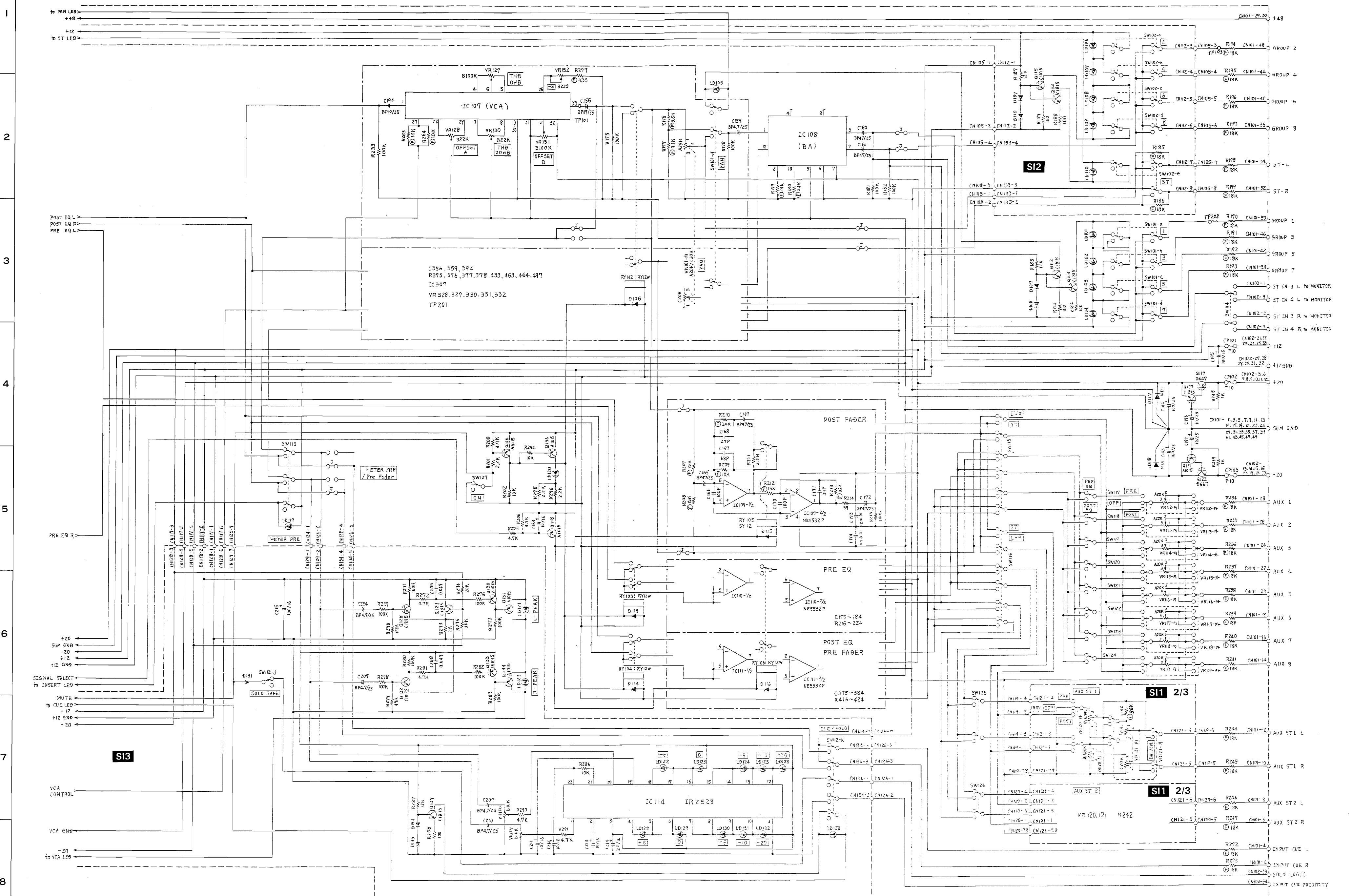
STEREO INPUT MODULE (SI1, SI2, SI3, SI5, IN5) PM4000H/PW4000



- Note)
- LED GL2EG6 (GR) : LD101, 102, 103, 104, 106, 107, 108, 109, 110, 116, 117, 125, 126, 131, 132
 - GL2HY6 (YE) : LD105, 114, 115, 118, 119, 122, 123, 124, 128, 129, 130, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 150
 - GL2PR6 (RE) : LD111, 112, 113, 121, 127, 149
 - GL5HY40 (YE) : LD120

NOTE)

- (7) : Flame proof carbon resistor
- (tz) : Ceramic cap.
- (⊖) : Metal film resistor
- (7) : Mylar cap.



KEC-91906 2/2

■ MASTER MODULE (MAS1, MAS2)

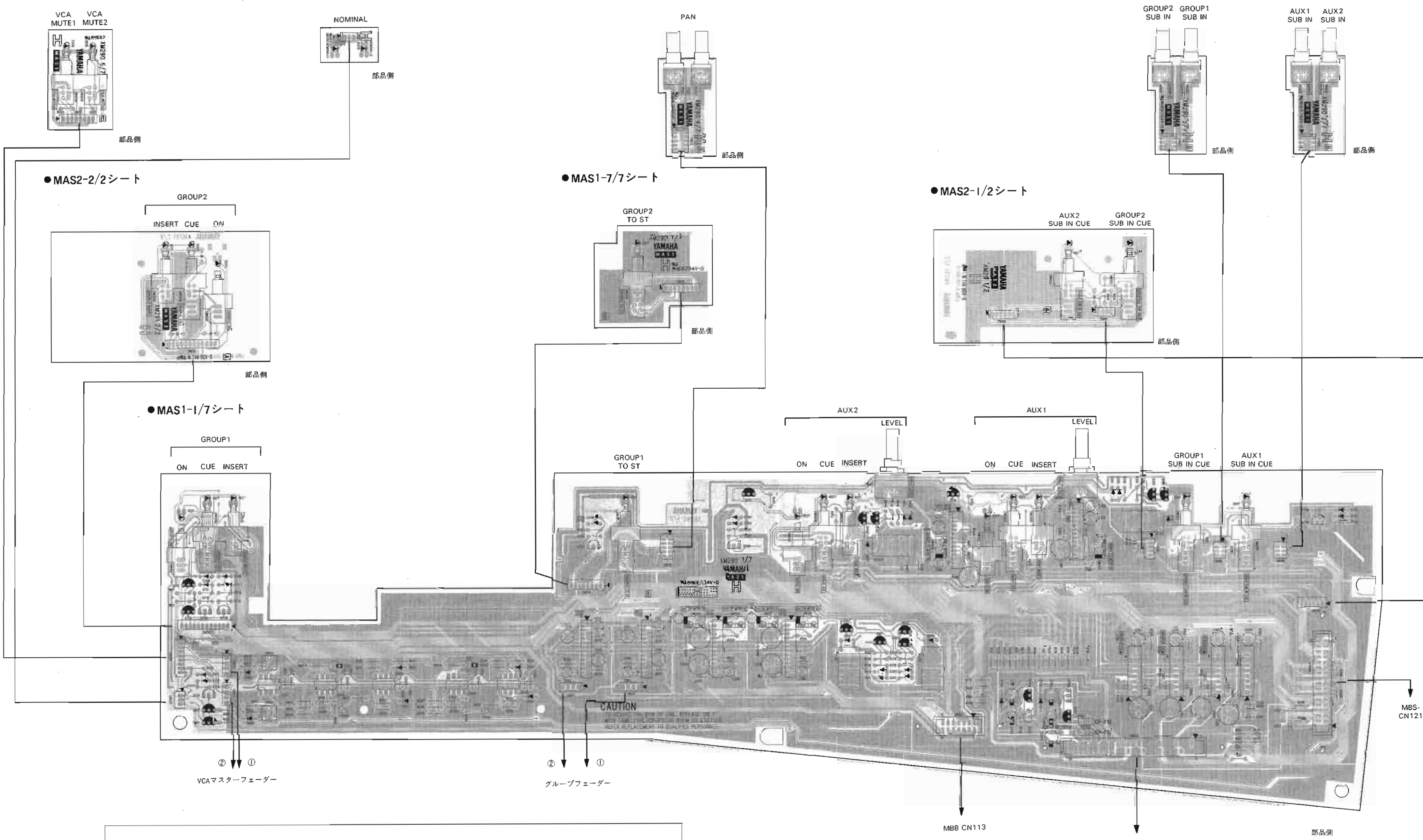
● MAS1-6/7シート

● MAS1-5/7シート

● MAS1-4/7シート

● MAS1-3/7シート

● MAS1-2/7シート



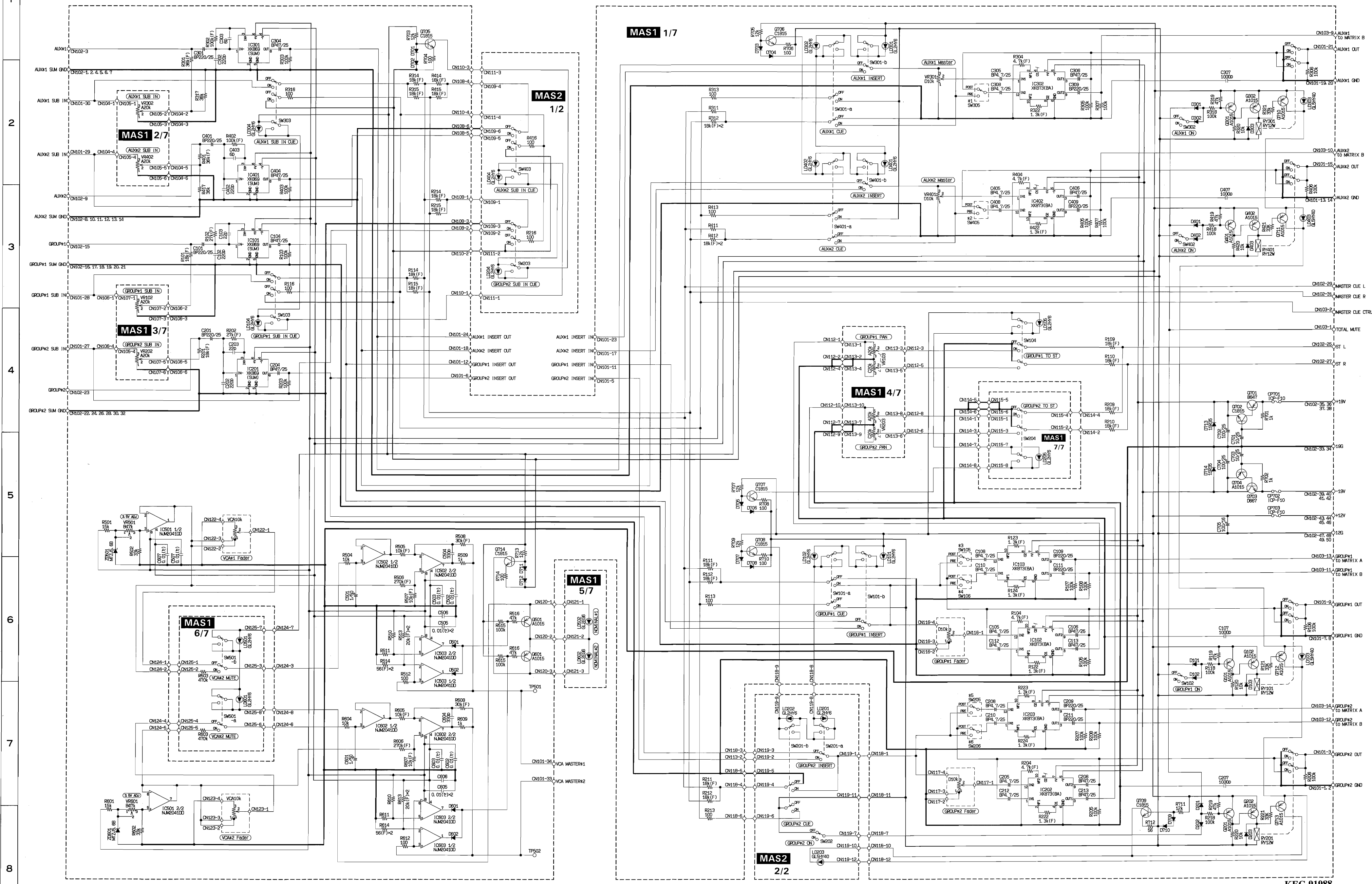
注1) LD101, LD102, LD104, LD105, LD201, LD202, LD204, LD205, LD301, LD302, LD304, LD401, LD402, LD404, LD501, LD601 取付方法

注2) LD103, LD203, LD303, LD403 取付方法

LEDホルダー: VN560100

注3) LD502, LD602 取付方法

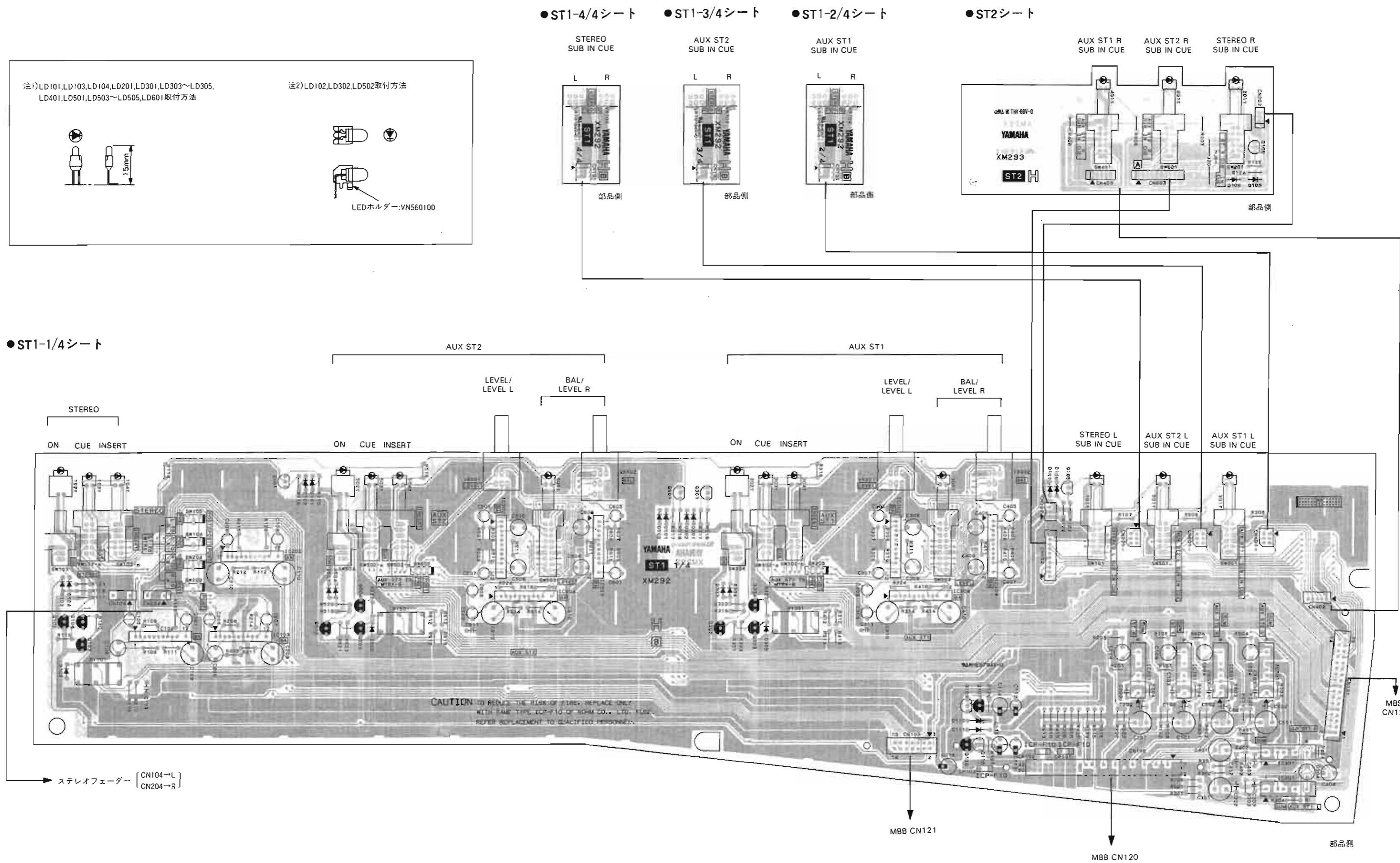
3NA-VQ433220 ▲ : MAS1
 3NA-VQ43230 : MAS2



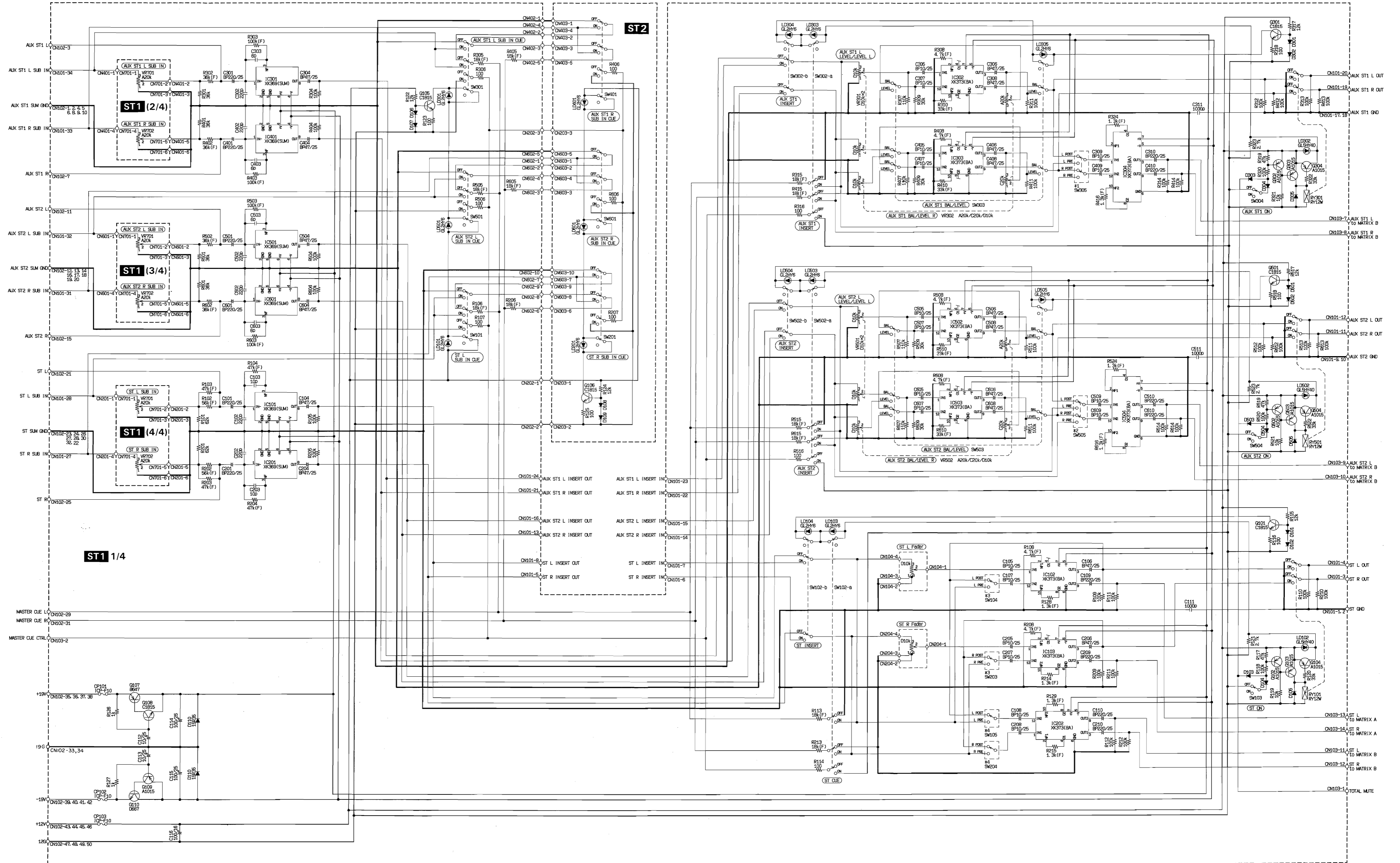
※1) D713, 714を抜き、タイマーは全て15S133, 15S176に設定
 ※2) 絶縁
 (F) 金鍍層抵抗(1%)

※3) Factory preset
 #1 Aux1 to MATRIX B pre Master/post Master switch : post Master
 #2 Aux2 to MATRIX B pre Master/post Master switch : post Master
 #3 GROUP#1 to MATRIX A pre Fader/post Fader switch : post Fader
 #4 GROUP#1 to MATRIX B pre Fader/post Fader switch : post Fader
 #5 GROUP#2 to MATRIX A pre Fader/post Fader switch : post Fader
 #6 GROUP#2 to MATRIX B pre Fader/post Fader switch : post Fader

■ STEREO MASTER MODULE (ST1, ST2)



3NA-VQ43240 △ : ST1
 3NA-VQ43250 : ST2



KEC-91989

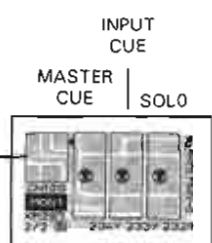
※1)D110.111 部品 1/1-12/87
155133.155176 部品 HSS104

※2) 脚
(F) 金線線径 (1%)

※3) Factory preset
※1 AUX ST1 to MATRIX B pre Master/post Master switch : post Master
※2 AUX ST2 to MATRIX B pre Master/post Master switch : post Master
※3 ST to MATRIX A pre Fader/post Fader switch : post Fader
※4 ST to MATRIX B pre Fader/post Fader switch : post Fader

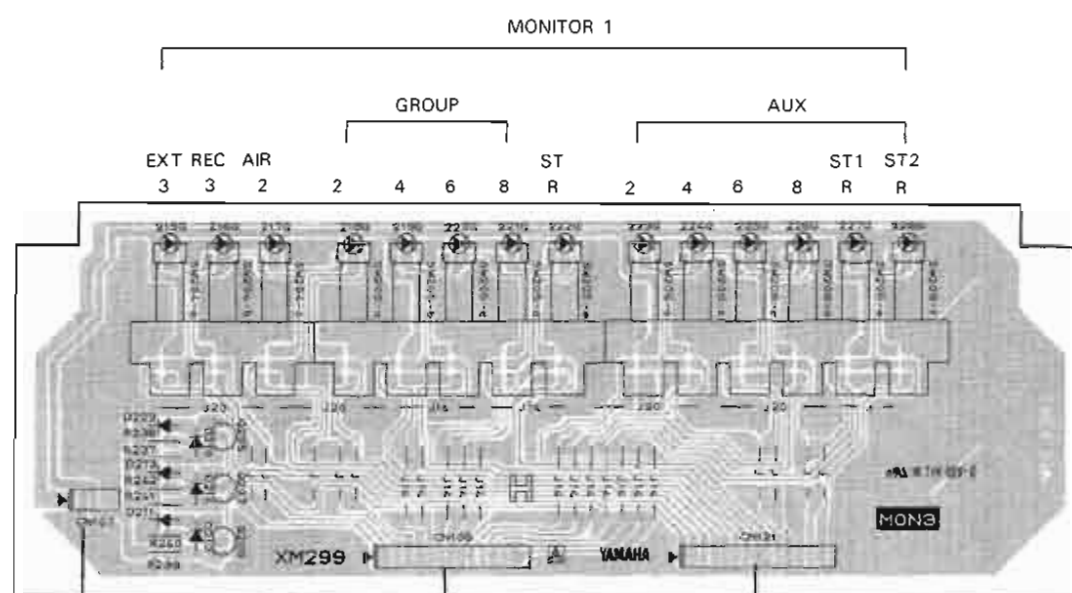
■ MONITOR 1 MODULE (MON1, MON3, MON4)

● MON1-2/2シート



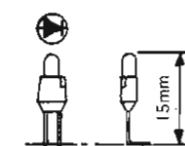
部品側

● MON3シート

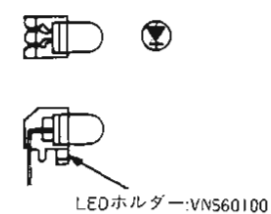


部品側

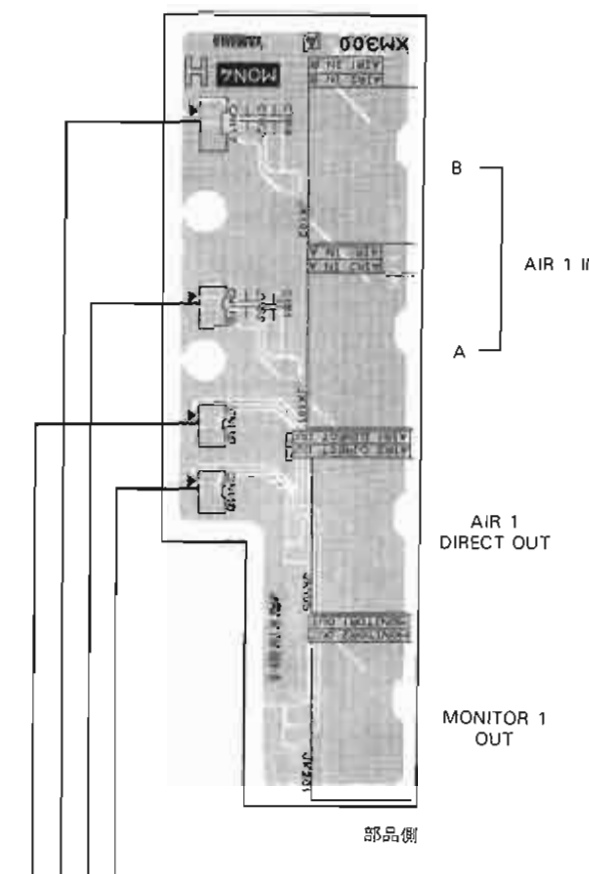
注1)LD101~LD107,LD109
LD201~LD228,LD229,LD230取付方法



注2)LD108,LD231取付方法

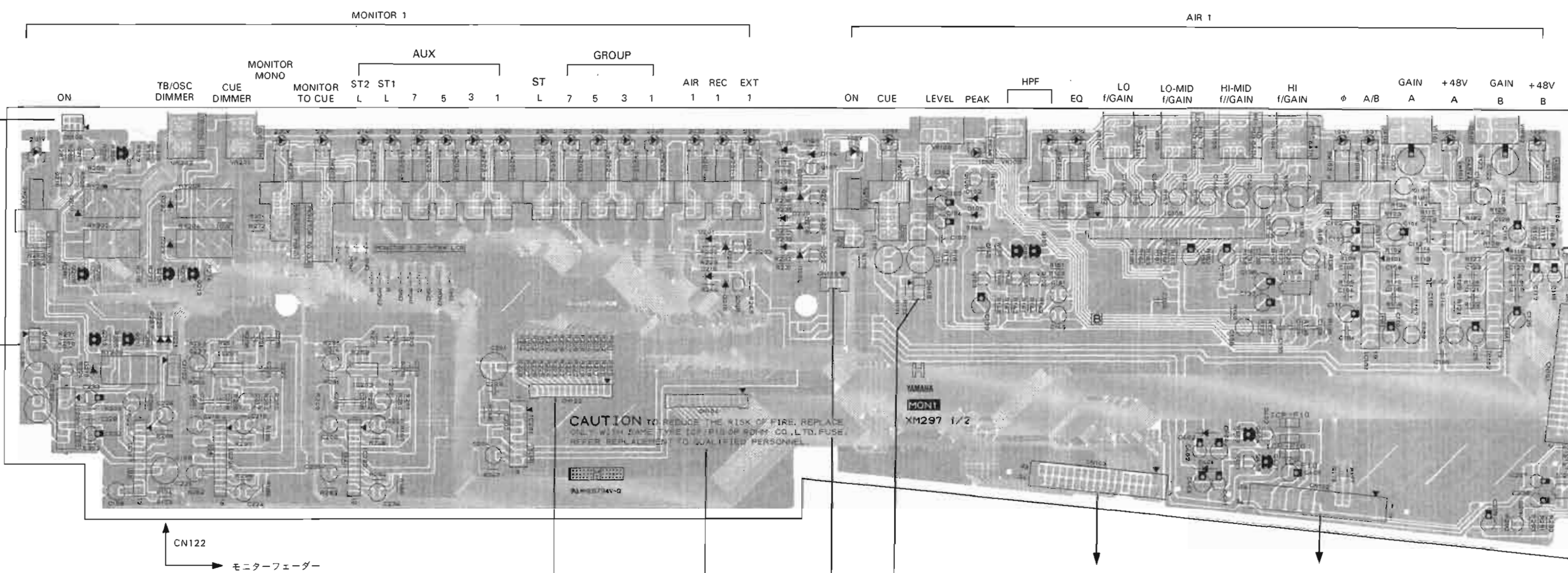


● MON4シート



部品側

● MON1-1/2シート



CN122
モニターフェーダー

CN111
SOLO MODE
インジケータ
SOLO MODE
スイッチ

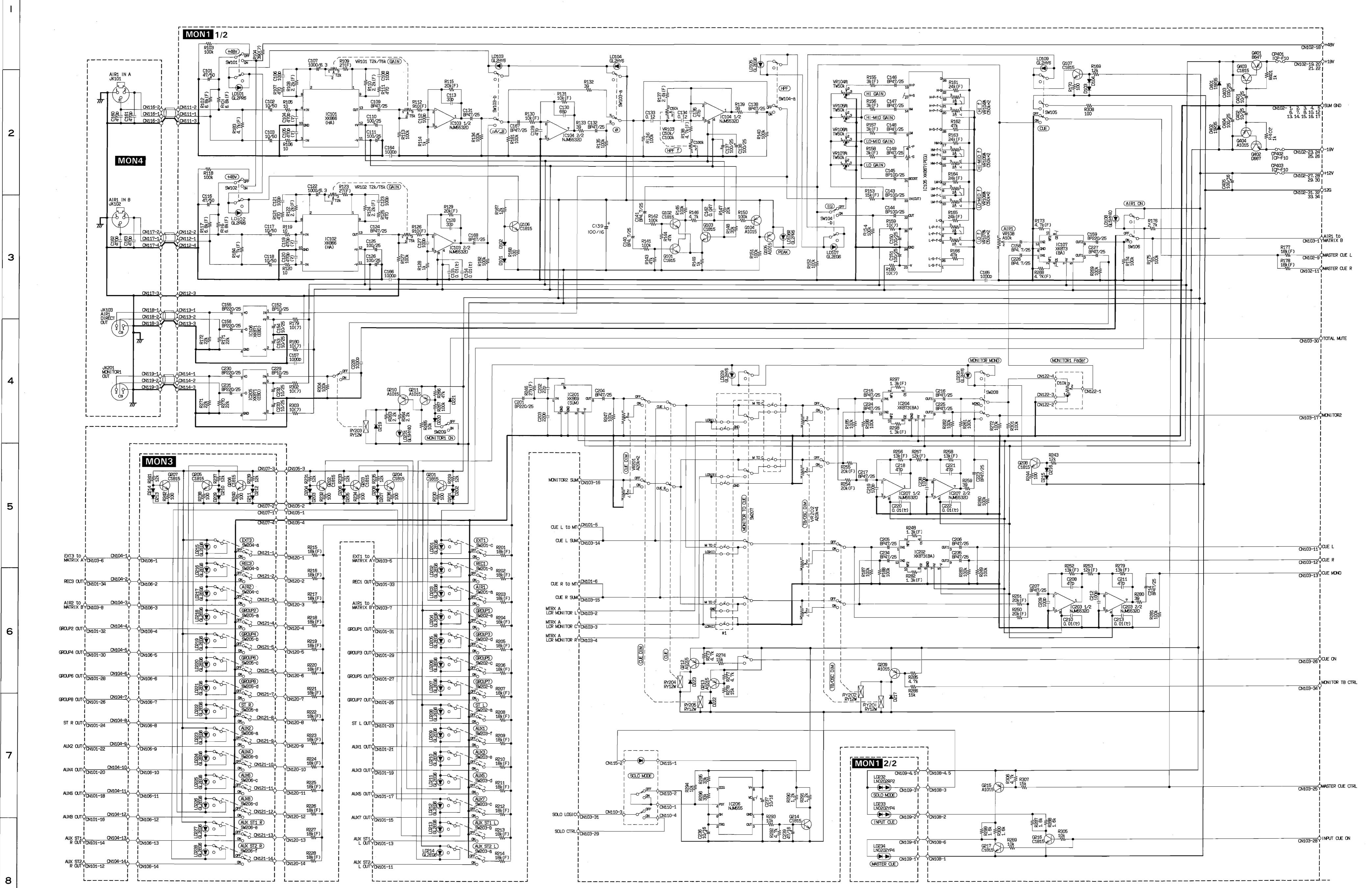
MBS-CN126

MBB-CN123

MBB-CN122

部品側

- 3NA-VQ43290 △ : MON1
- 3NA-VQ43310 : MON3
- 3NA-VQ43320 : MON4



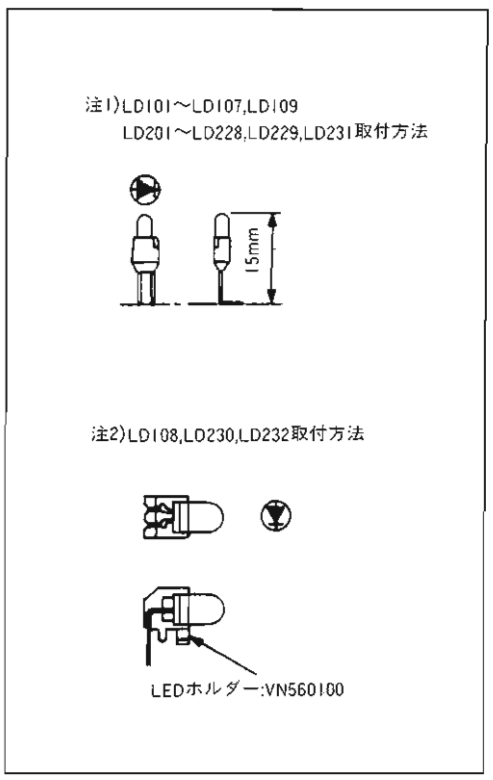
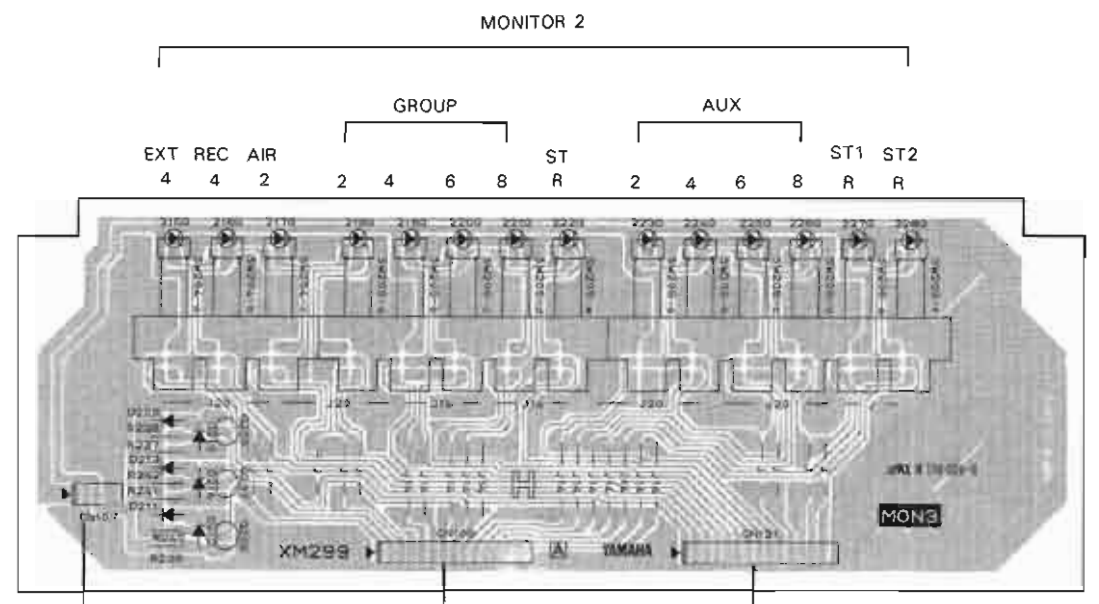
※1) D401, 402 端子、ワイヤは全て
1SS133, 1SS176 規格品を使用

※2) 図
(F) 全線幅調整用 (1%)
(7) 7セグメント表示用
(t) セラコン (μF)
(*) マイコン (μP)

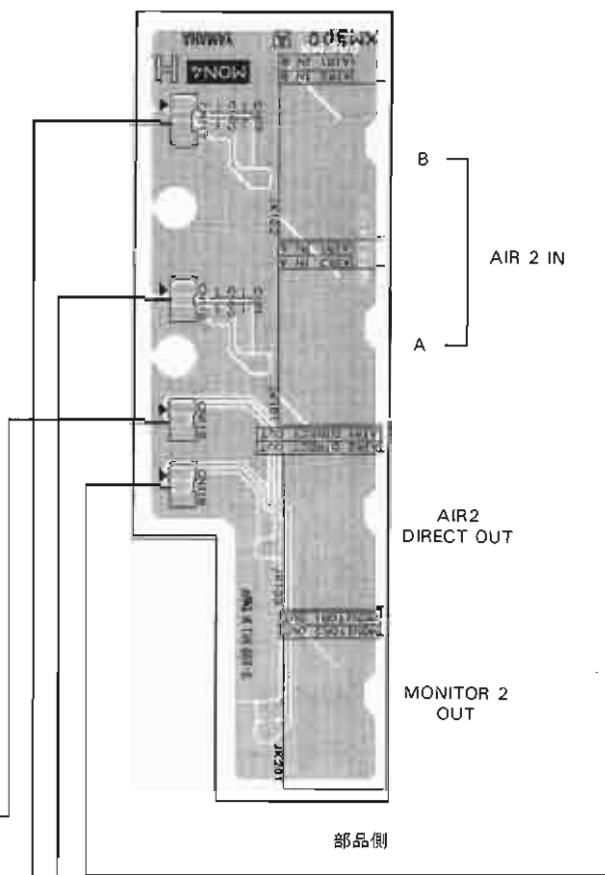
※3) Factory preset
*1 MONITOR TO CUE SW MONITOR TO CUE / LCR MONITOR JUMPER : MONITOR TO CUE (M TO C)

■ MONITOR 2 MODULE (MON2, MON3, MON4)

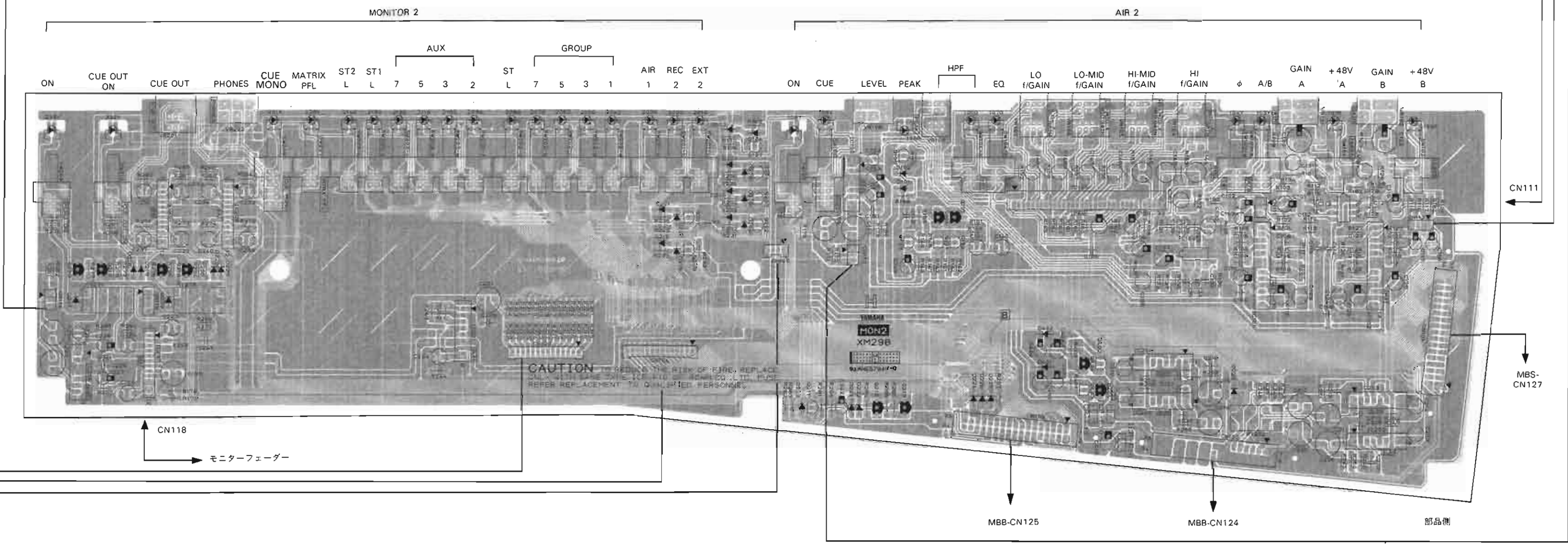
● MON3シート



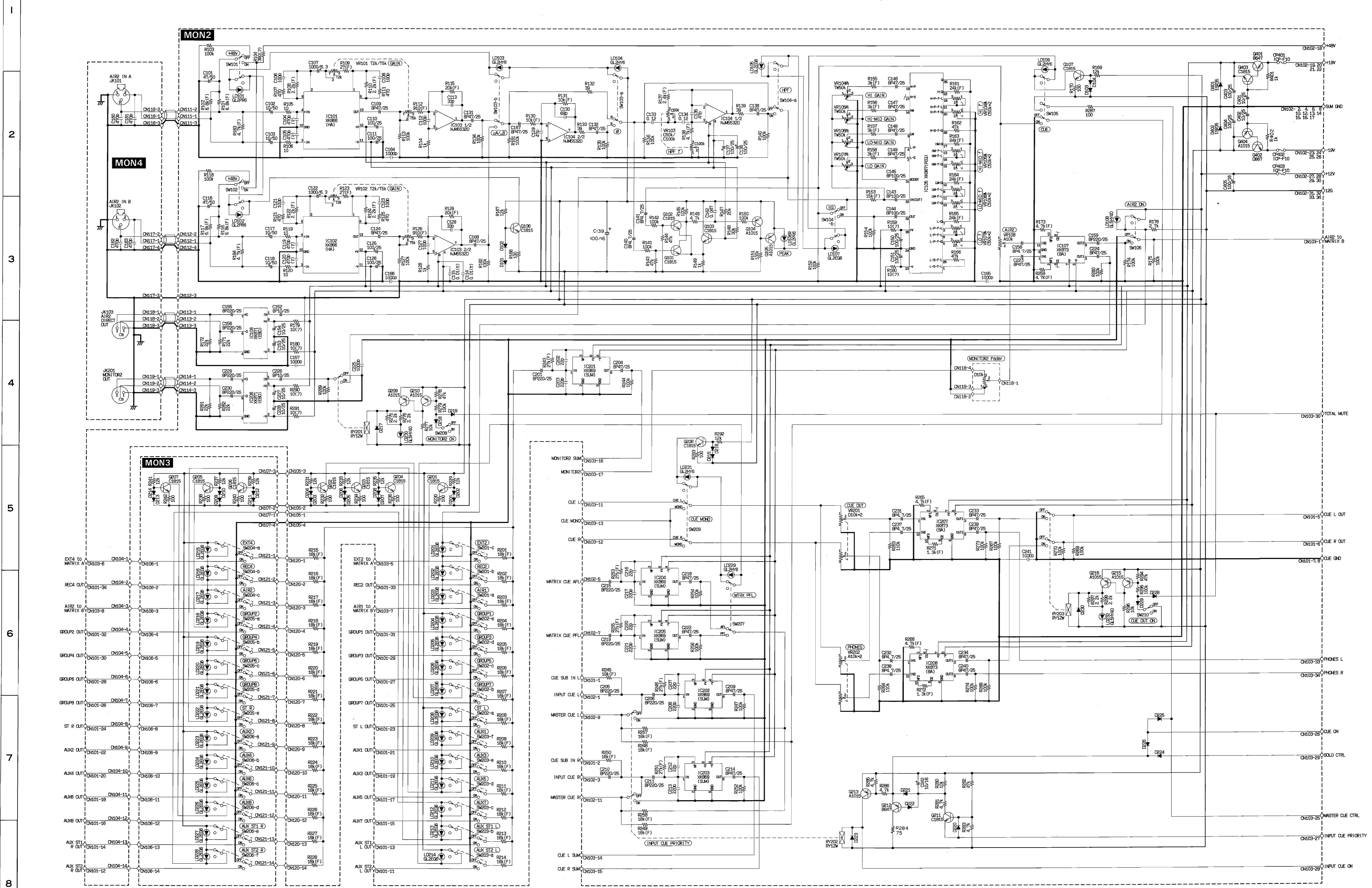
● MON4シート



● MON2シート



- 3NA-VQ43300 △ : MON2
- 3NA-VQ43310 : MON3
- 3NA-VQ43320 : MON4

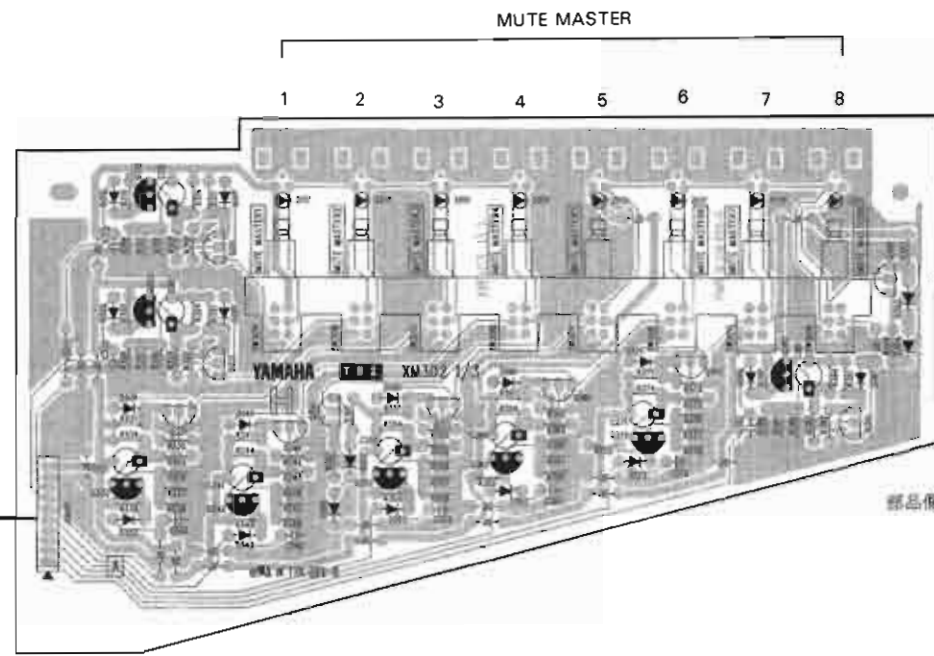


※1) D401, 402は標準、タイプ-1は7
1S5133, 1S5176は別組HSS104

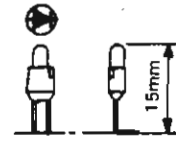
※2) 記号
(F) 薄膜電解コンデンサ (1%)
(?) 薄膜フィルムコンデンサ
(C) セラミックコンデンサ
(*) 747-コン(DF)

■ TALKBACK MODULE (TB1, TB2)

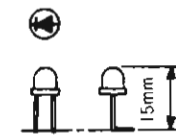
● TB2-1/3シート



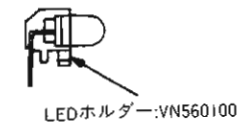
注1) LD102~LD128,LD202取付方法



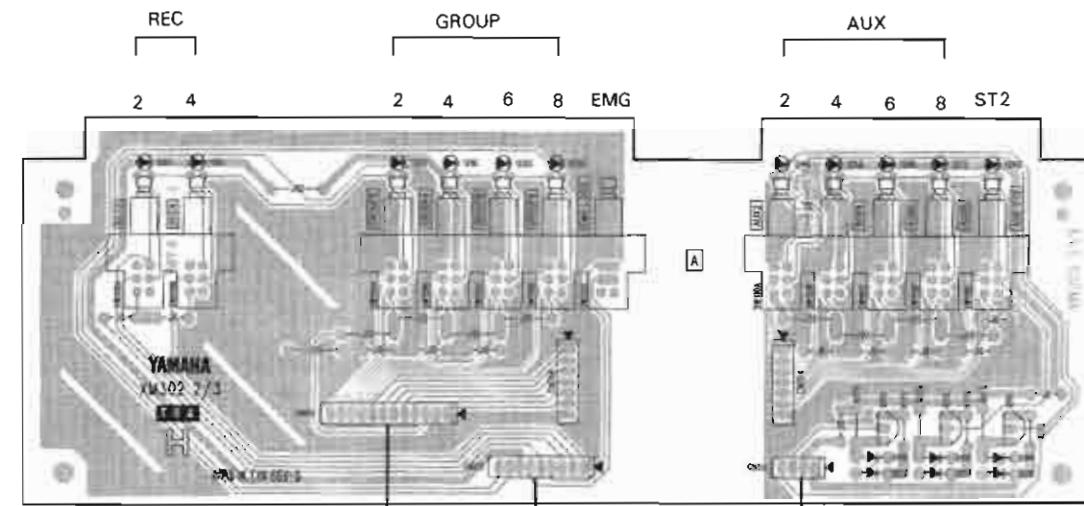
注2) LD101,LD201,LD402取付方法



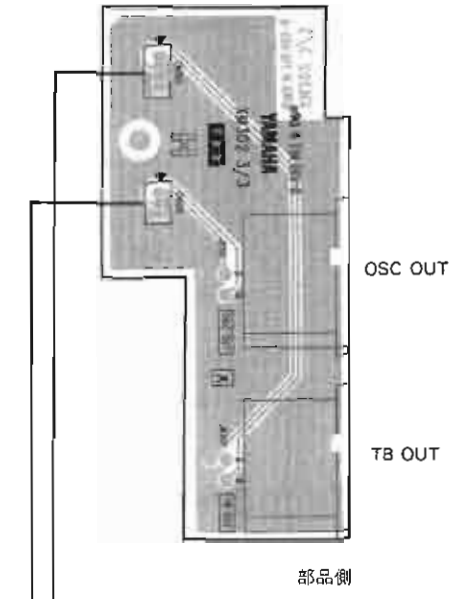
注3) LD311,LD321,LD331,LD341,LD351,LD361,LD371,LD381,LD401取付方法



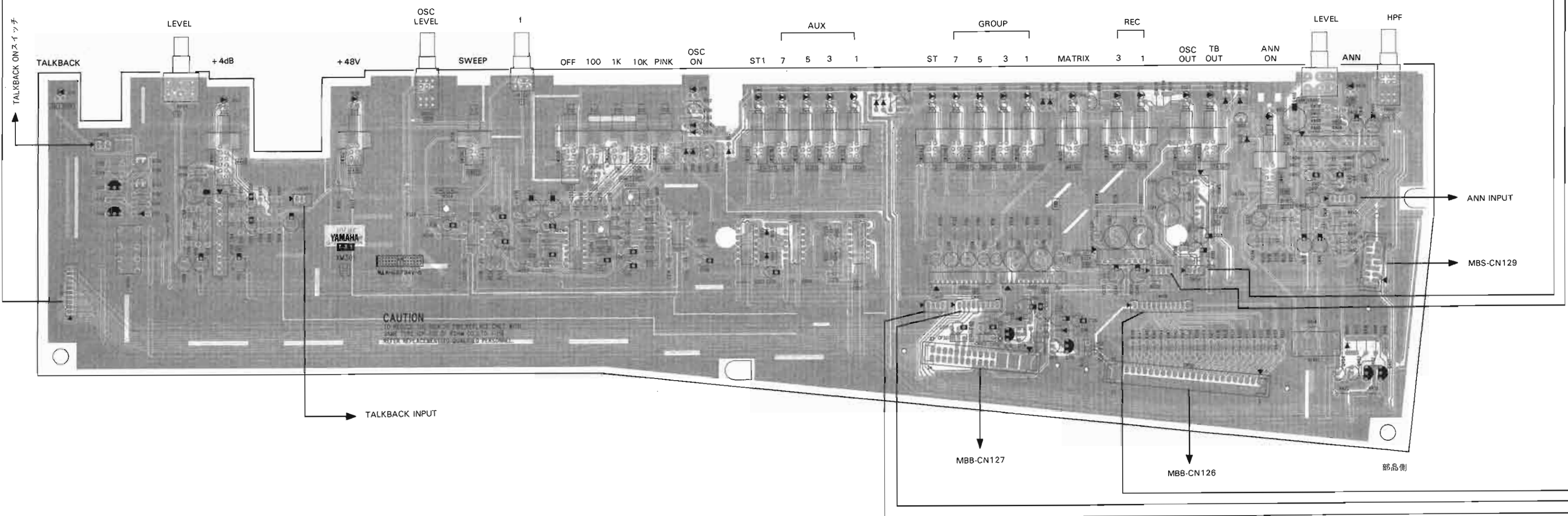
● TB2-2/3シート



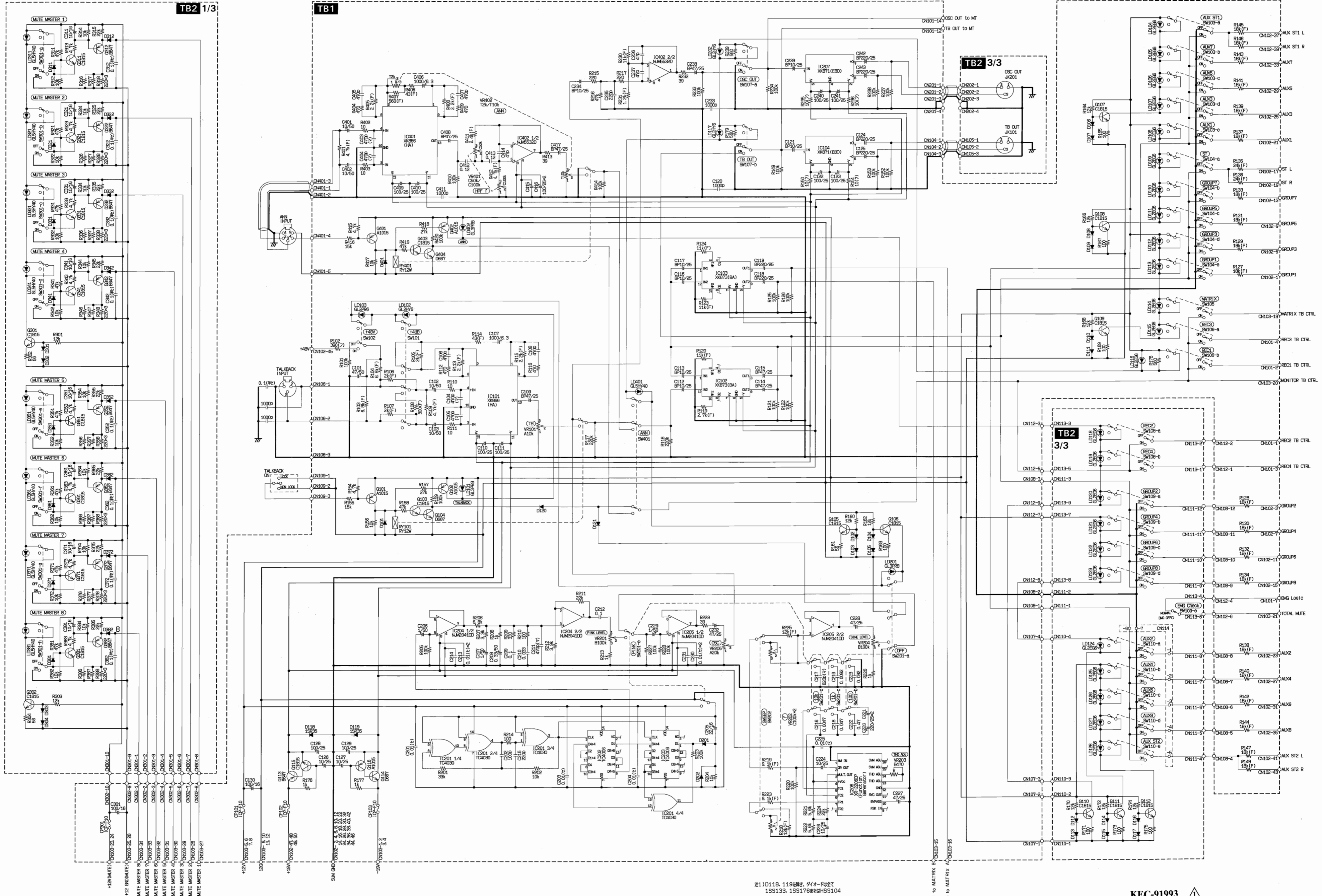
● TB2-3/3シート



● TB1シート



3NA-VQ43330 △ : TB1
3NA-VQ43340 : TB2



TB1 1/3

TB1

TB2 3/3

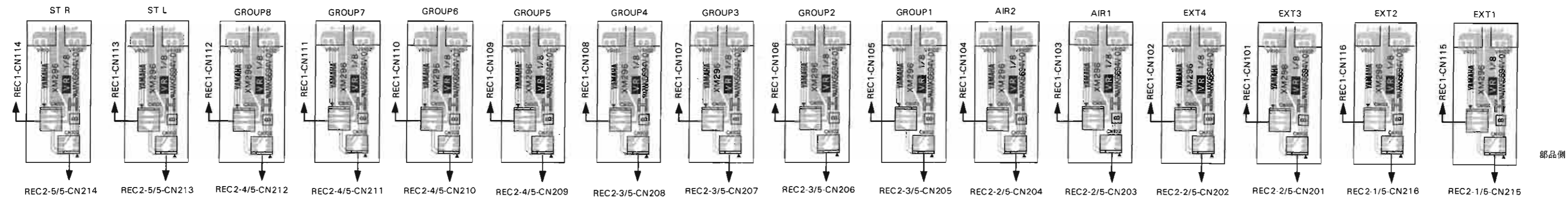
TB2 3/3

※1) D118, 119は標準, 9/1-1は☆
15S133, 15S176は☆HSS104

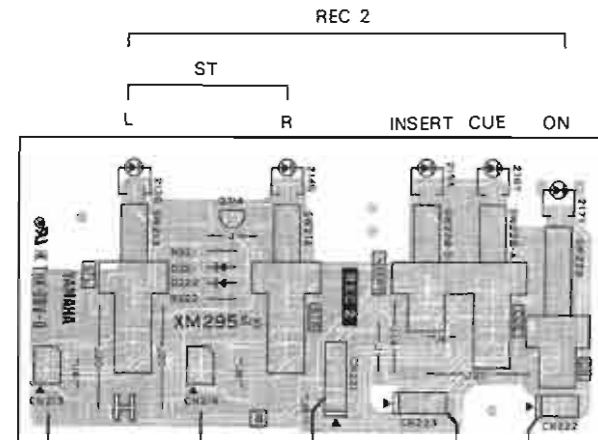
※2) 記号
(F) 金膜抵抗値(1%)
(?) 不確かな抵抗値
(C) セラコン(μF)
(半) 半導体セラコン(μF)
(R) マイラージコ(pF)

REC MODULE (REC1, REC2, VR)

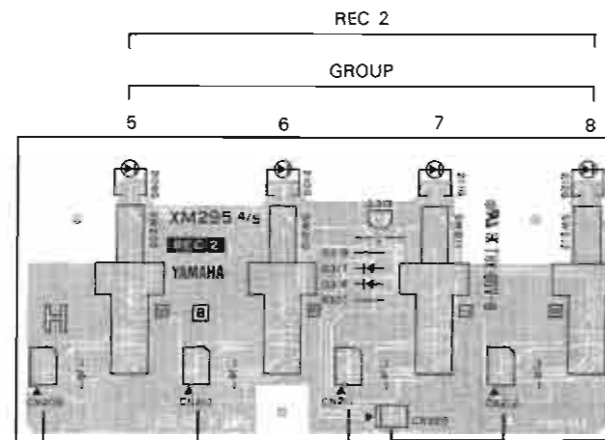
●VRシート(16枚)



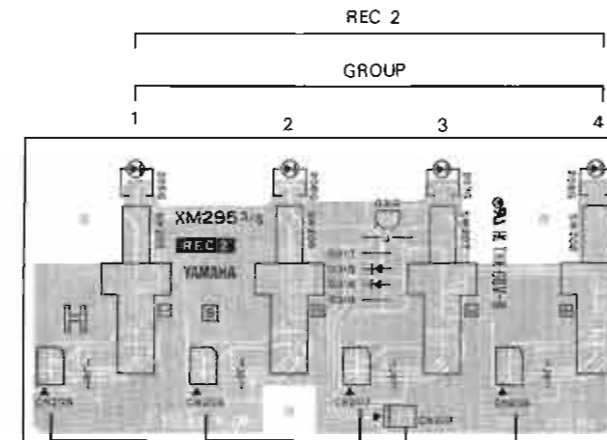
●REC2-5/5シート



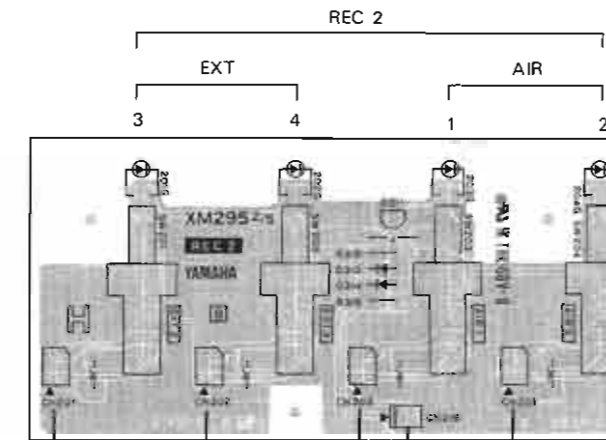
●REC2-4/5シート



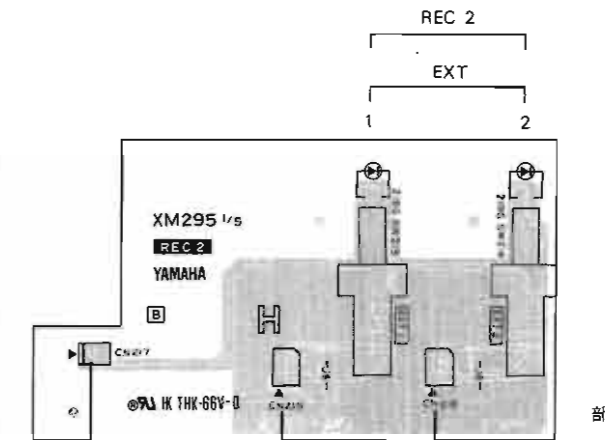
●REC2-3/5シート



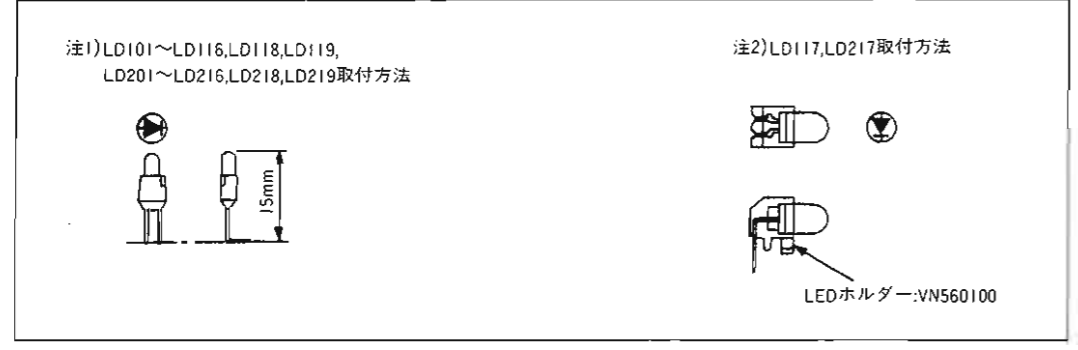
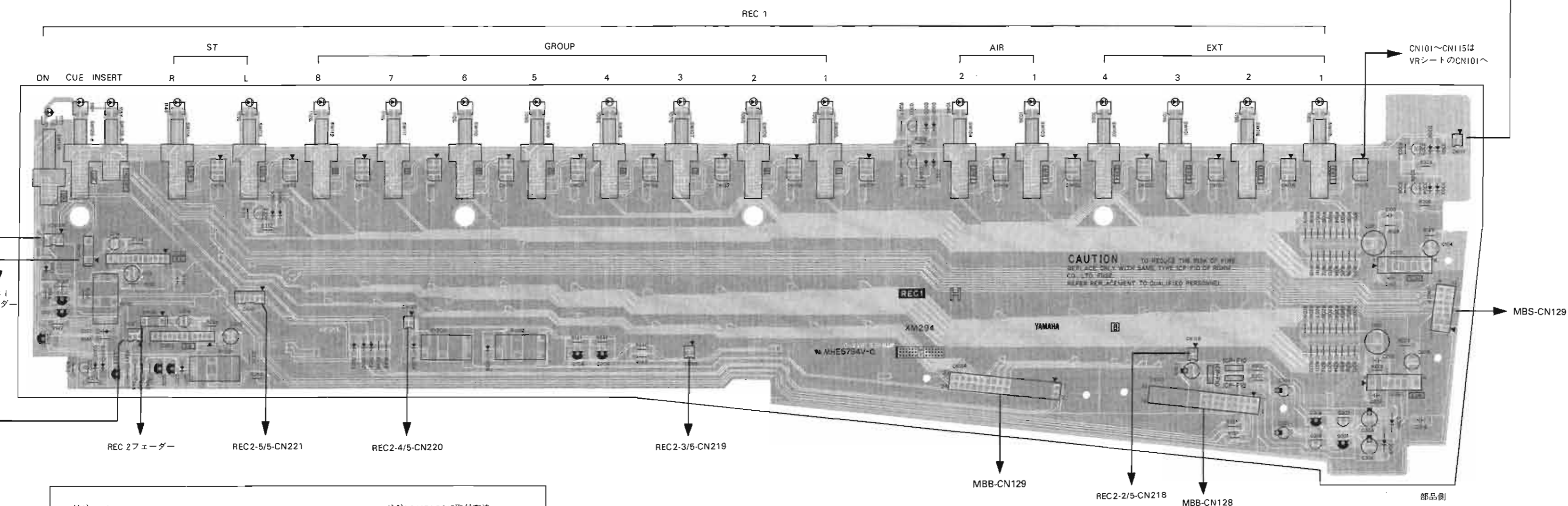
●REC2-2/5シート



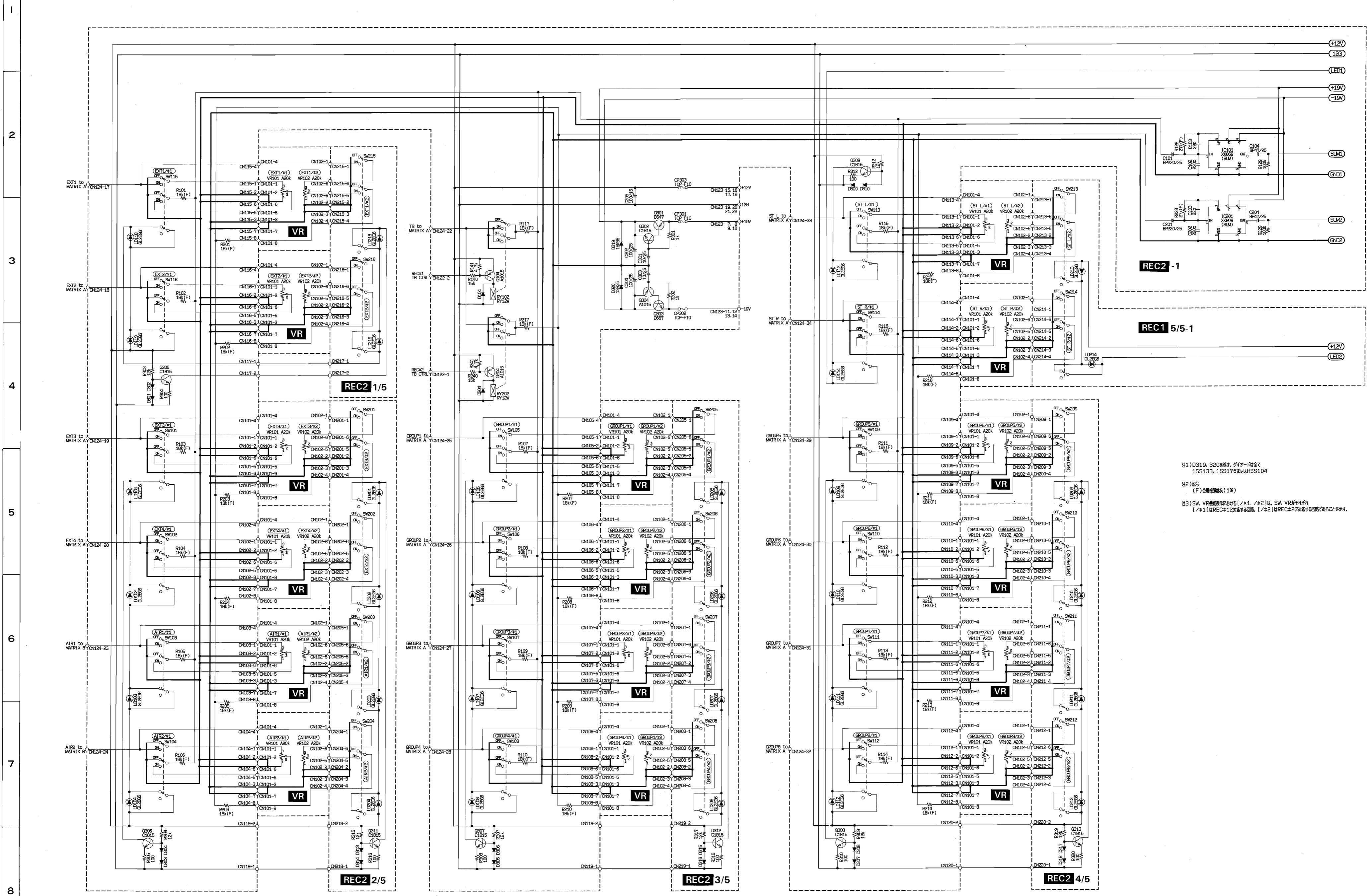
●REC2-1/5シート



●REC1シート



- 3NA-VQ43260 △ : REC1
- 3NA-VQ43270 : REC2
- 3NA-VQ43280 : VR

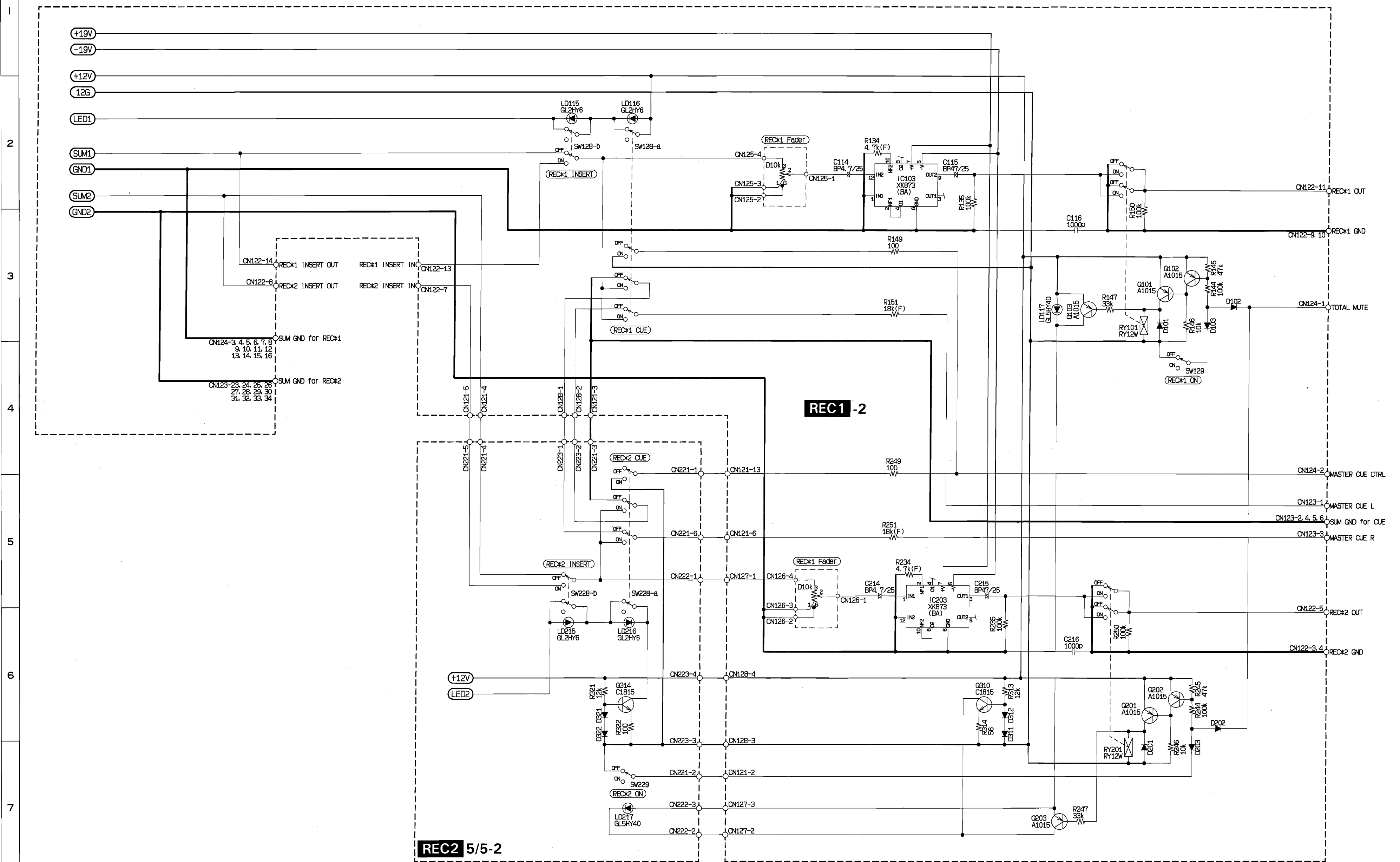


※1)D319, 320端子, 5才-1477
155133, 155176端子用HSS104

※2)SW (F)は標準仕様(1%)

※3)SW, VRは標準仕様の1/41, 1/42は, SW, VRは標準仕様
【*1】はREC*1に標準仕様, 【*2】はREC*2に標準仕様

REC MODULE 回路図 1/2 (REC1, REC2)

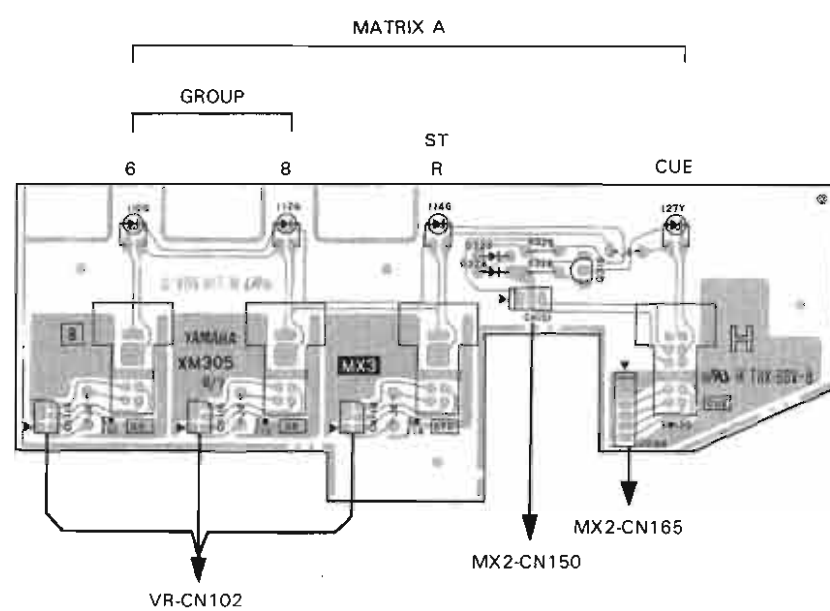


REC2 5/5-2

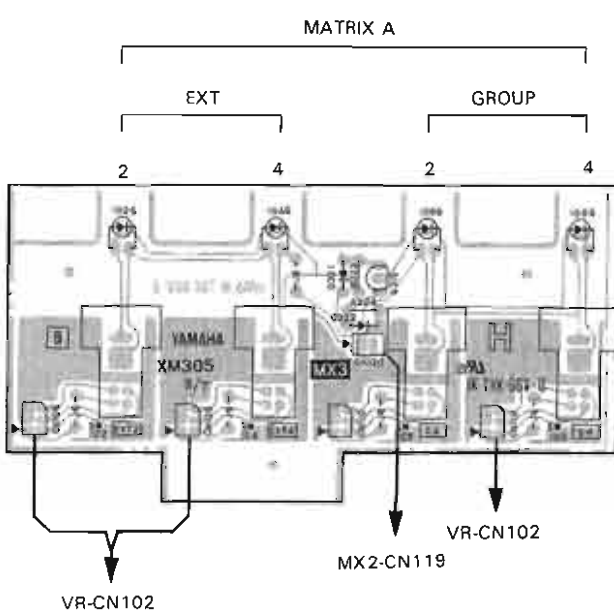
KEC-91990-2/2

MATRIX MODULE (MX1, MX2, MX3, VR)

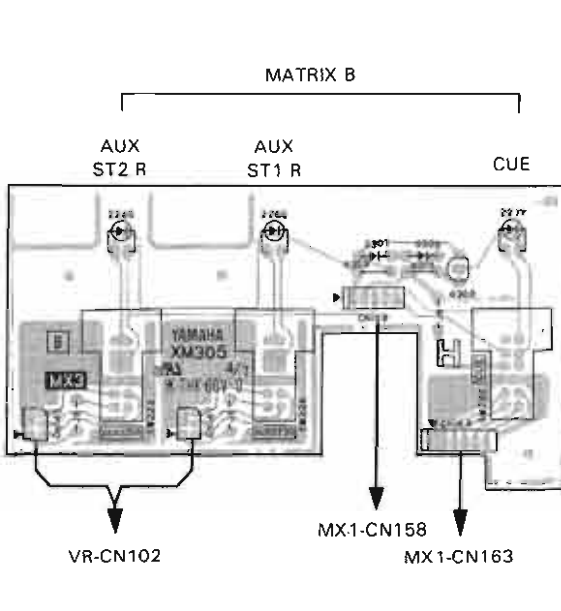
●MX3-6/7シート



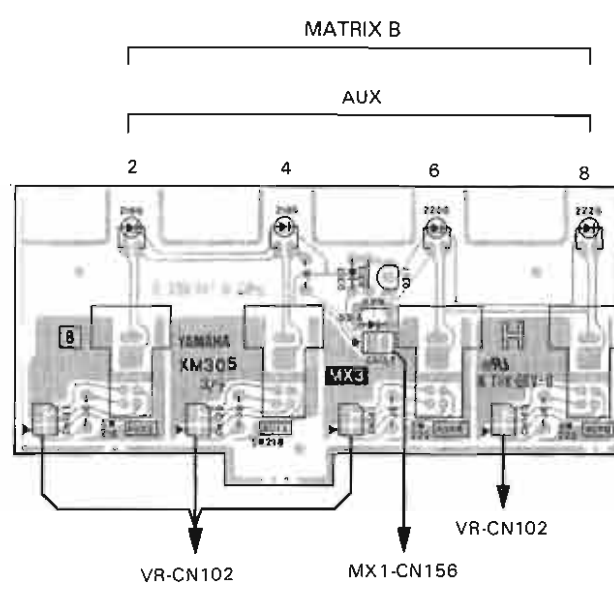
●MX3-5/7シート



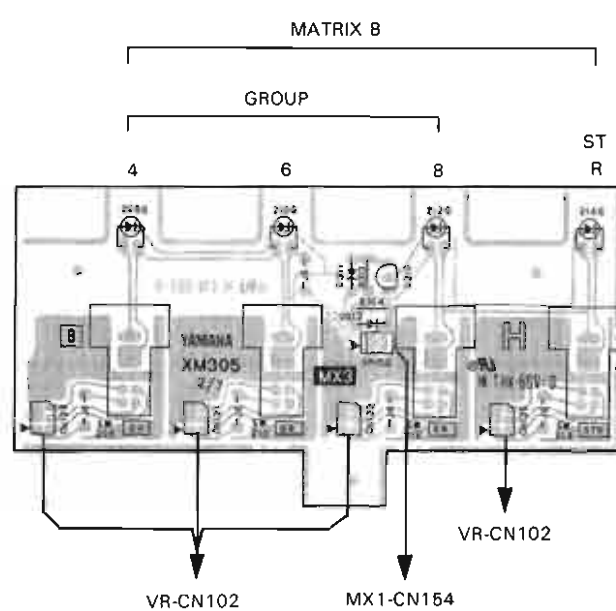
●MX3-4/7シート



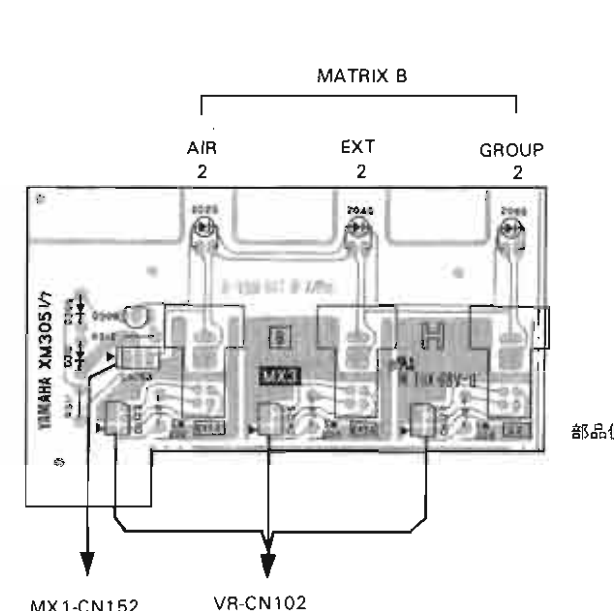
●MX3-3/7シート



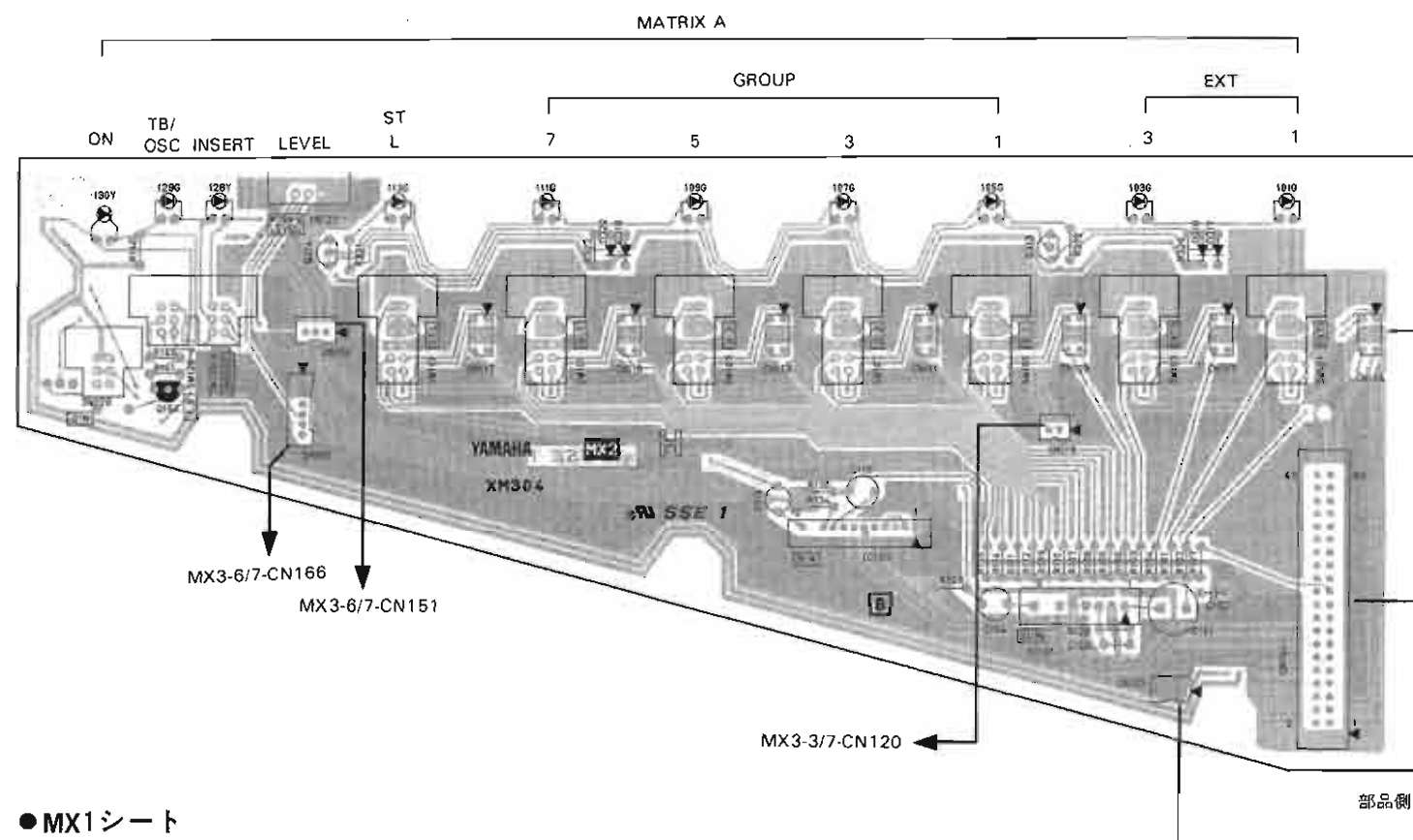
●MX3-2/7シート



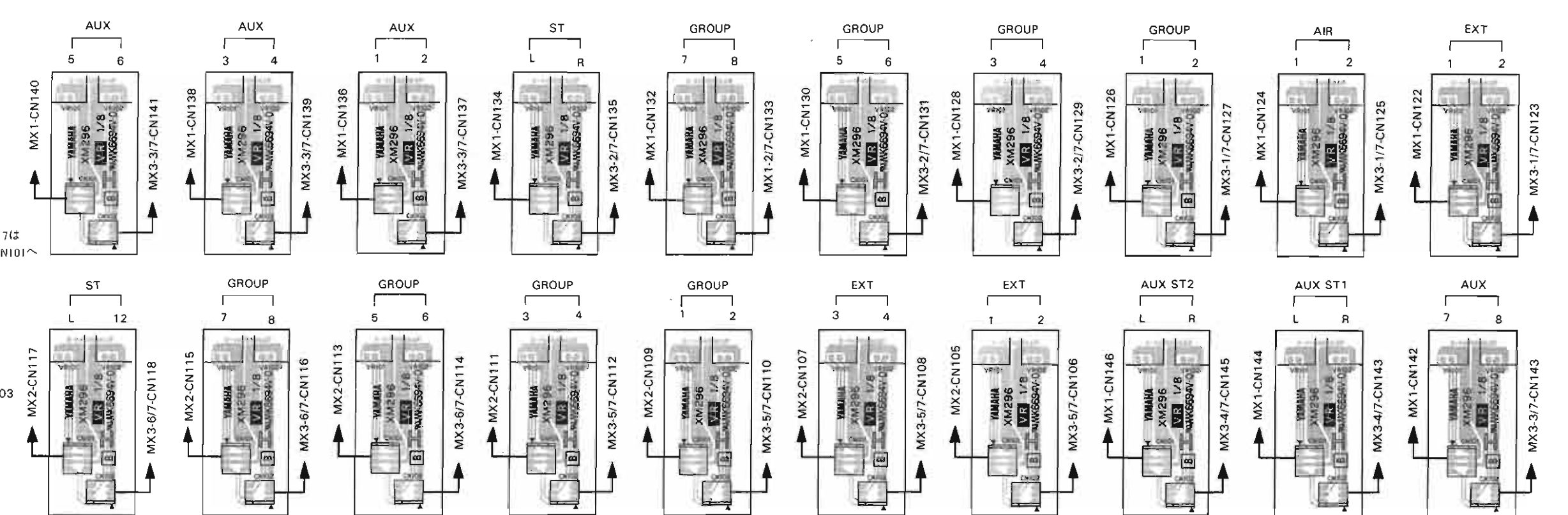
●MX3-1/7シート



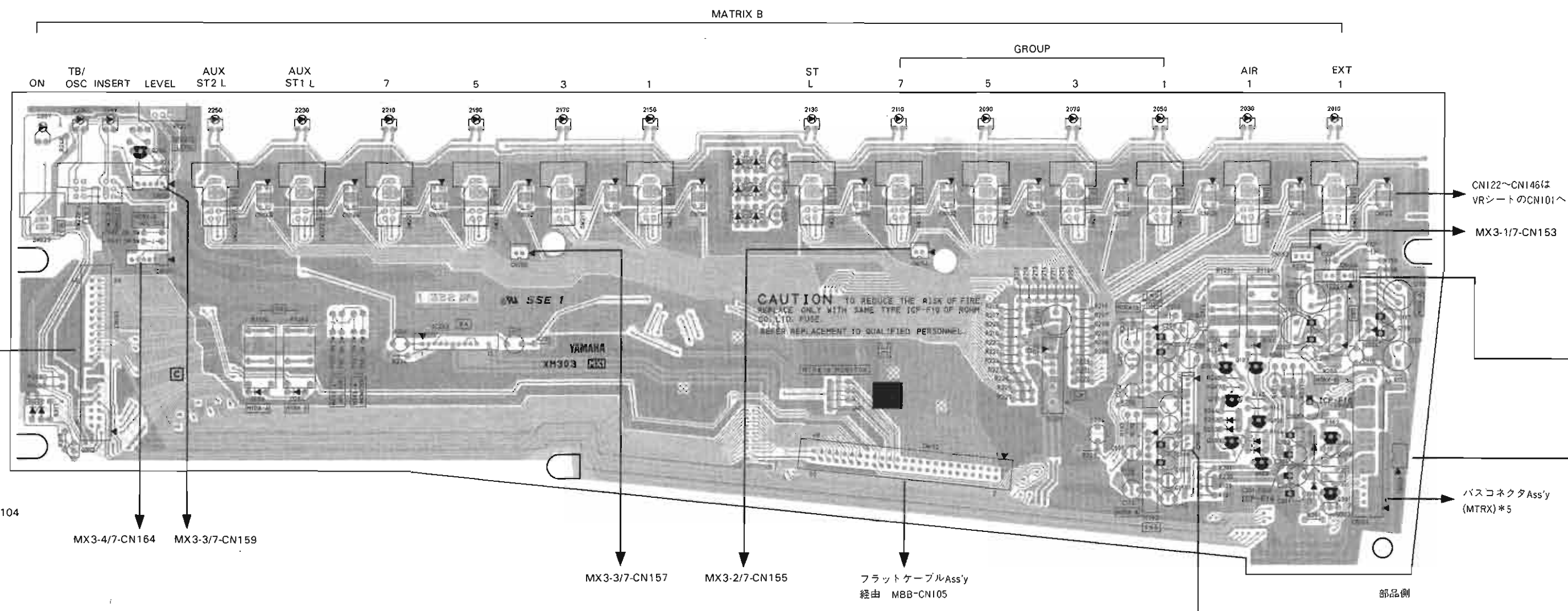
●MX2シート



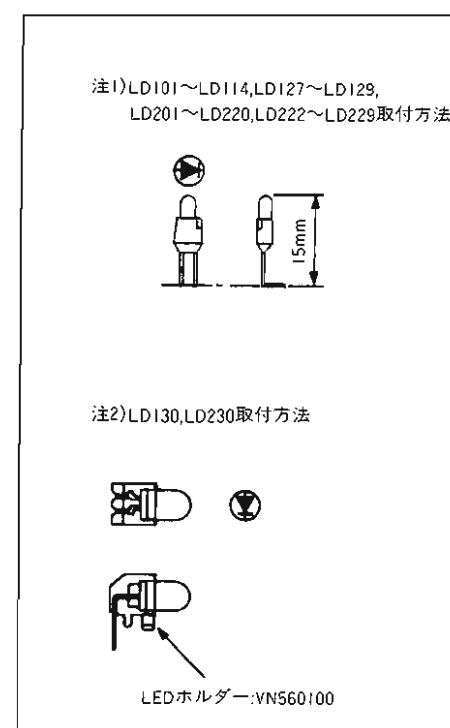
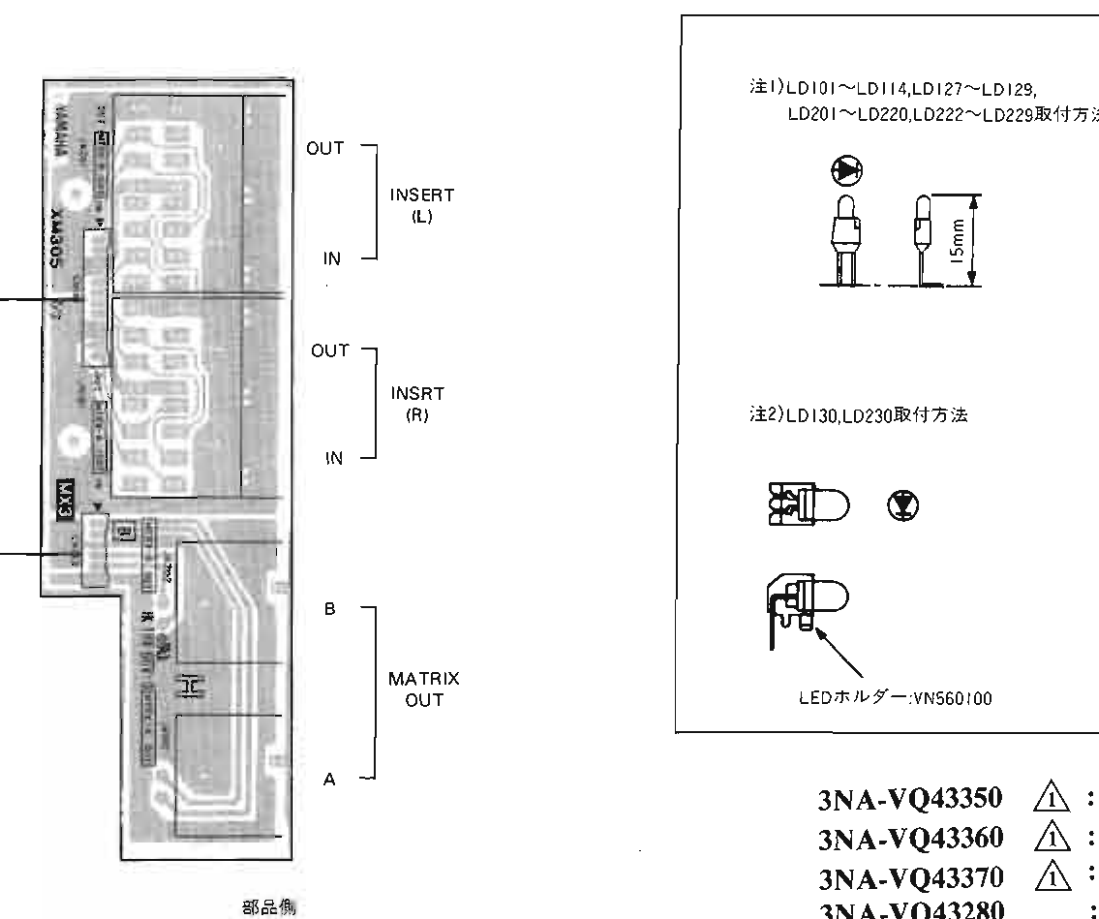
●VRシート(20枚)



●MX1シート

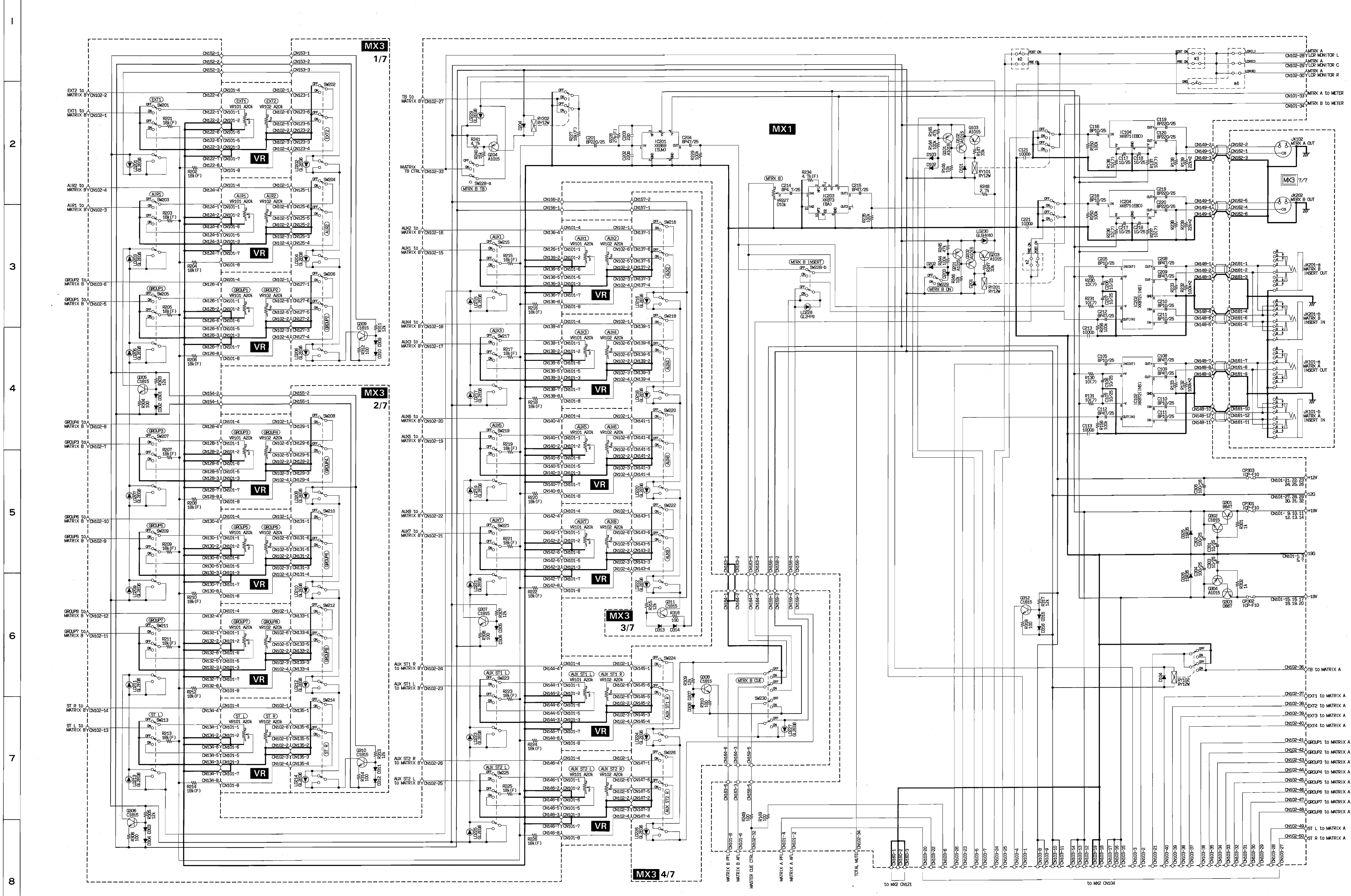


●MX3-7/7シート



- 3NA-VQ43350 ▲ : MX1
- 3NA-VQ43360 ▲ : MX2
- 3NA-VQ43370 ▲ : MX3
- 3NA-VQ43280 ▲ : VR

MATRIX MODULE 回路图 1/2 (MX1, MX3, VR)

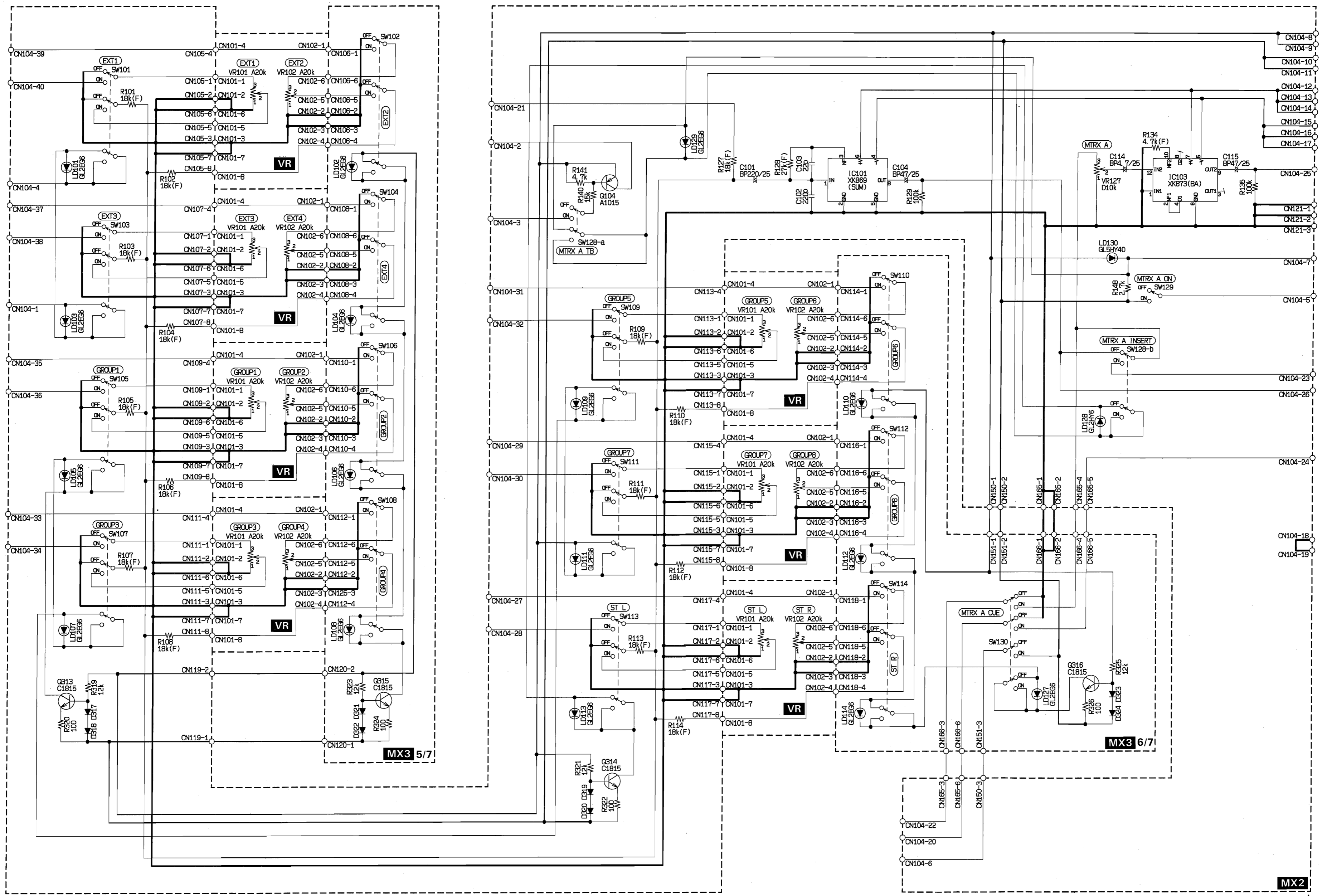


注1) D325, 326 规格书, 9/14 下位
1SS133, 1SS176 规格书 HSS104

注2) 电阻 (F) 金属膜电阻 (1%)
(?) 不接電力ケーブル

注3) Factory preset
#1 MATRIX B CUE(AFL) pre ON SW/post ON SW Jumper : post ON SW
#2 MATRIX A CUE(AFL) pre ON SW/post ON SW Jumper : post ON SW
#3 LCR MONITOR pre ON SW/post ON SW Jumper : no connection
#4 LCR MONITOR to L/to C/to R/GND Jumper : GND

MATRIX MODULE 回路図 1/2 (MX2, VR)

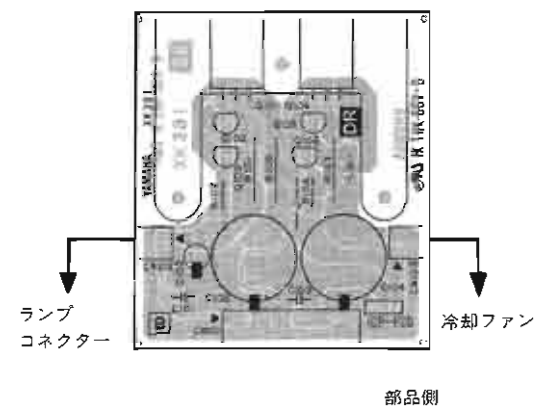


KEC-91994-2/2

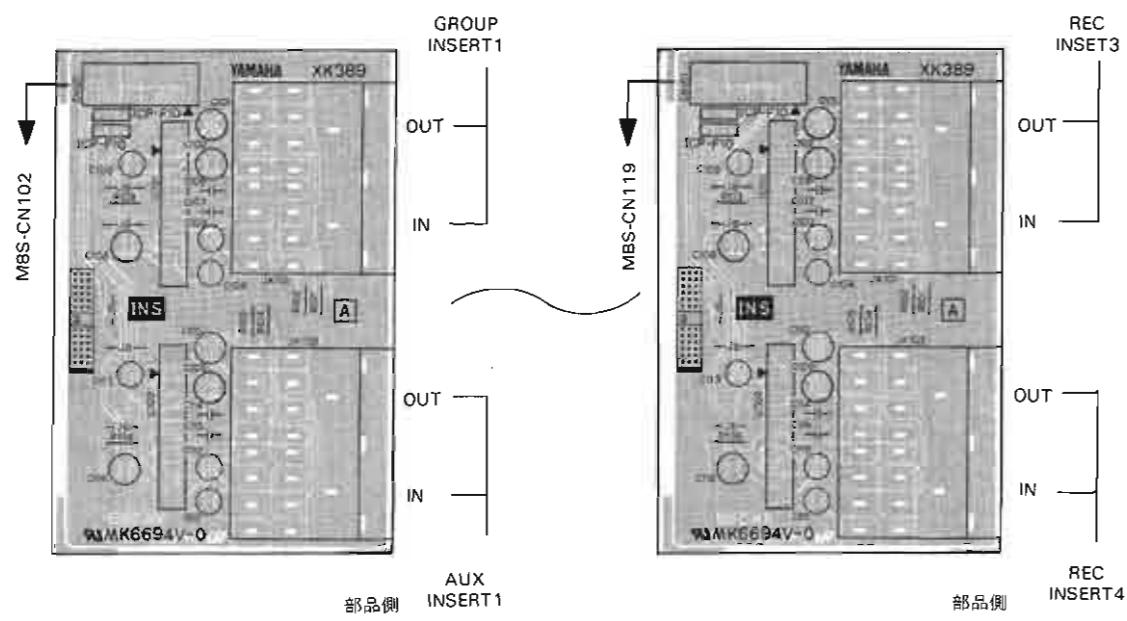
REAR PANEL (U) ASSEMBLY (CS, DR, EBI, INS, MF, VP, EMG, EIO)

DRシート (DRIVER)

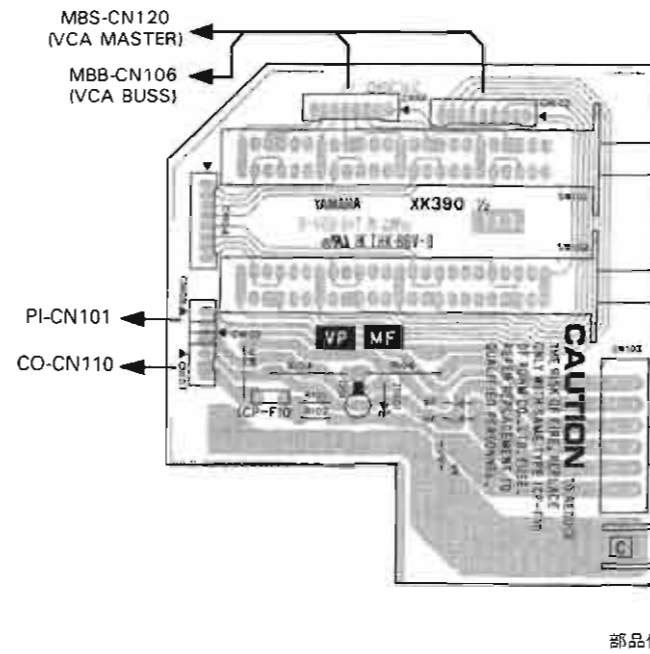
- PM4000H-16S : ×3
- PM4000H-16 : ×3
- PM4000H-24 : ×4
- PM4000H-32 : ×5



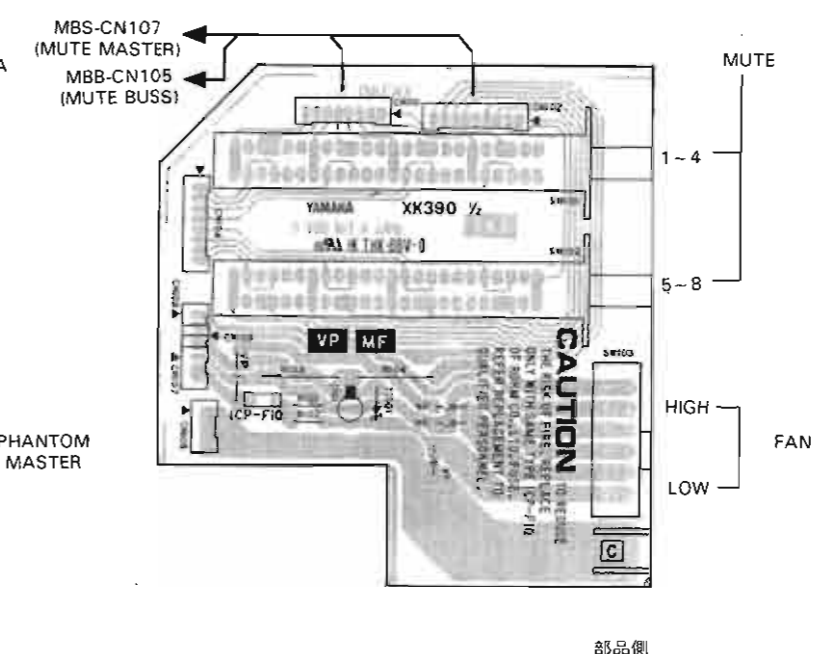
INSシート (×13) (INSERT)



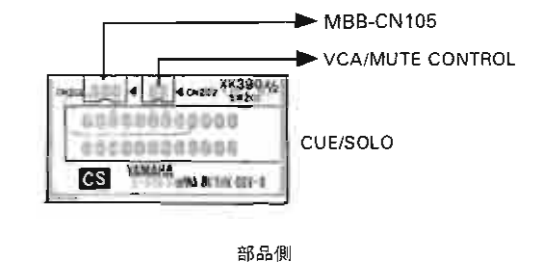
VPシート (VP1/2) (VCA & PHANTOM)



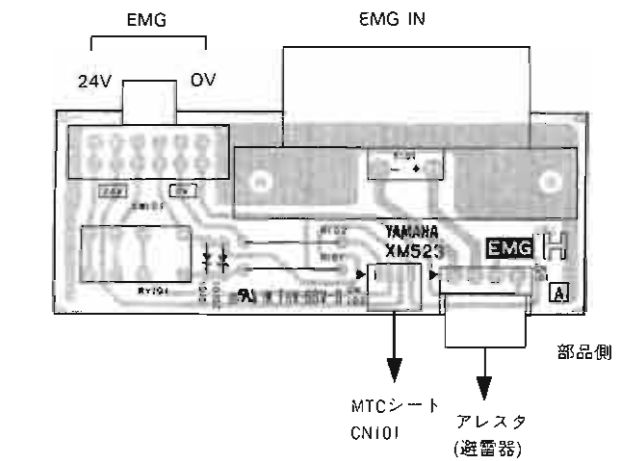
MFシート (MUTE & FAN)



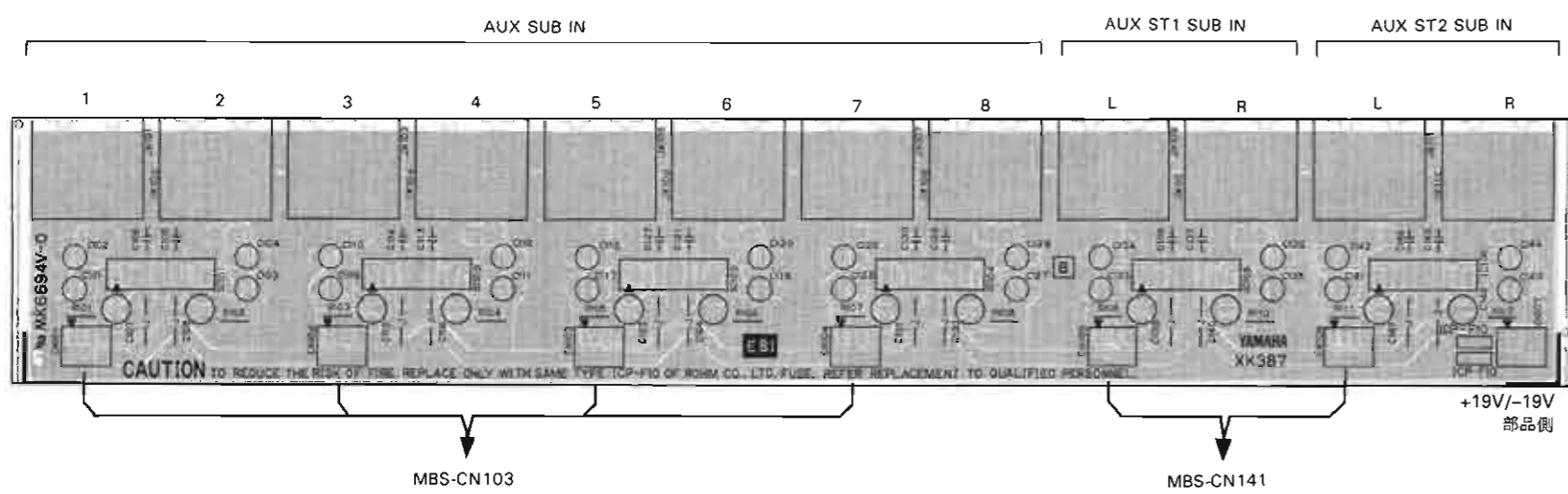
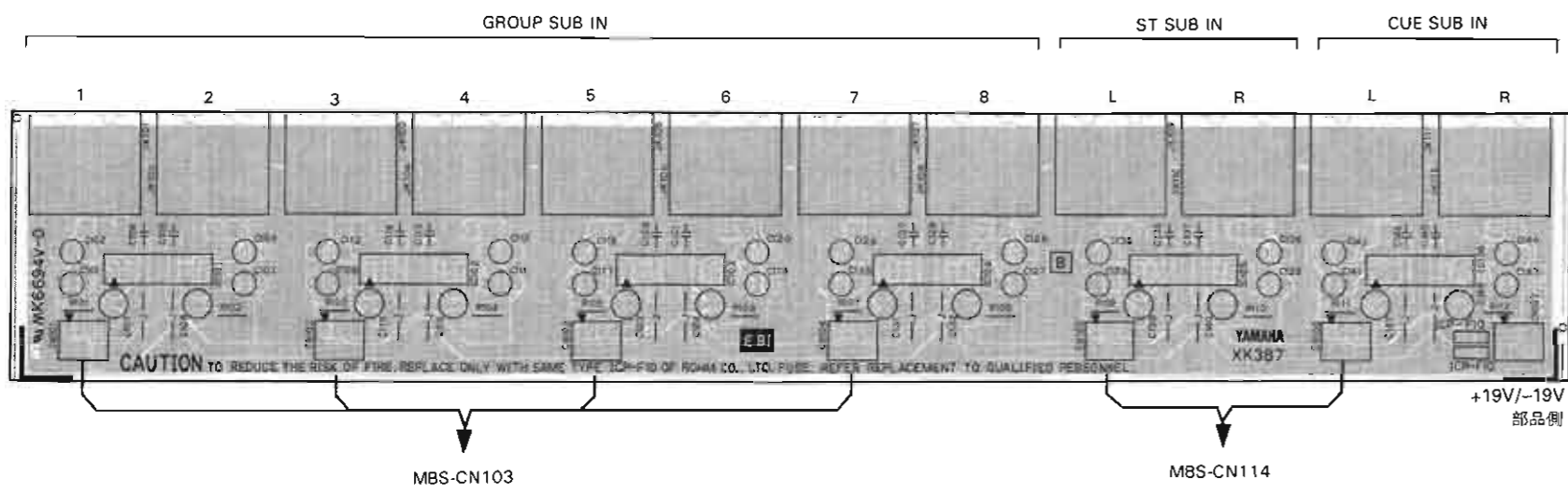
CSシート (VP2/2)



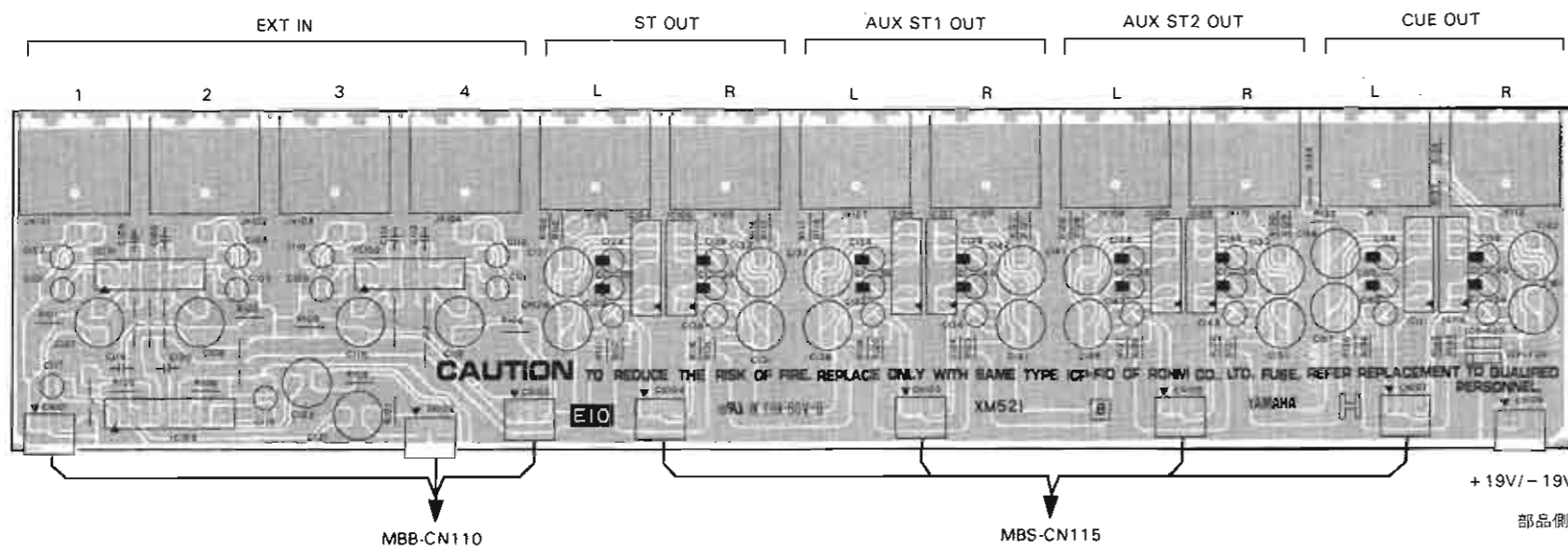
EMGシート



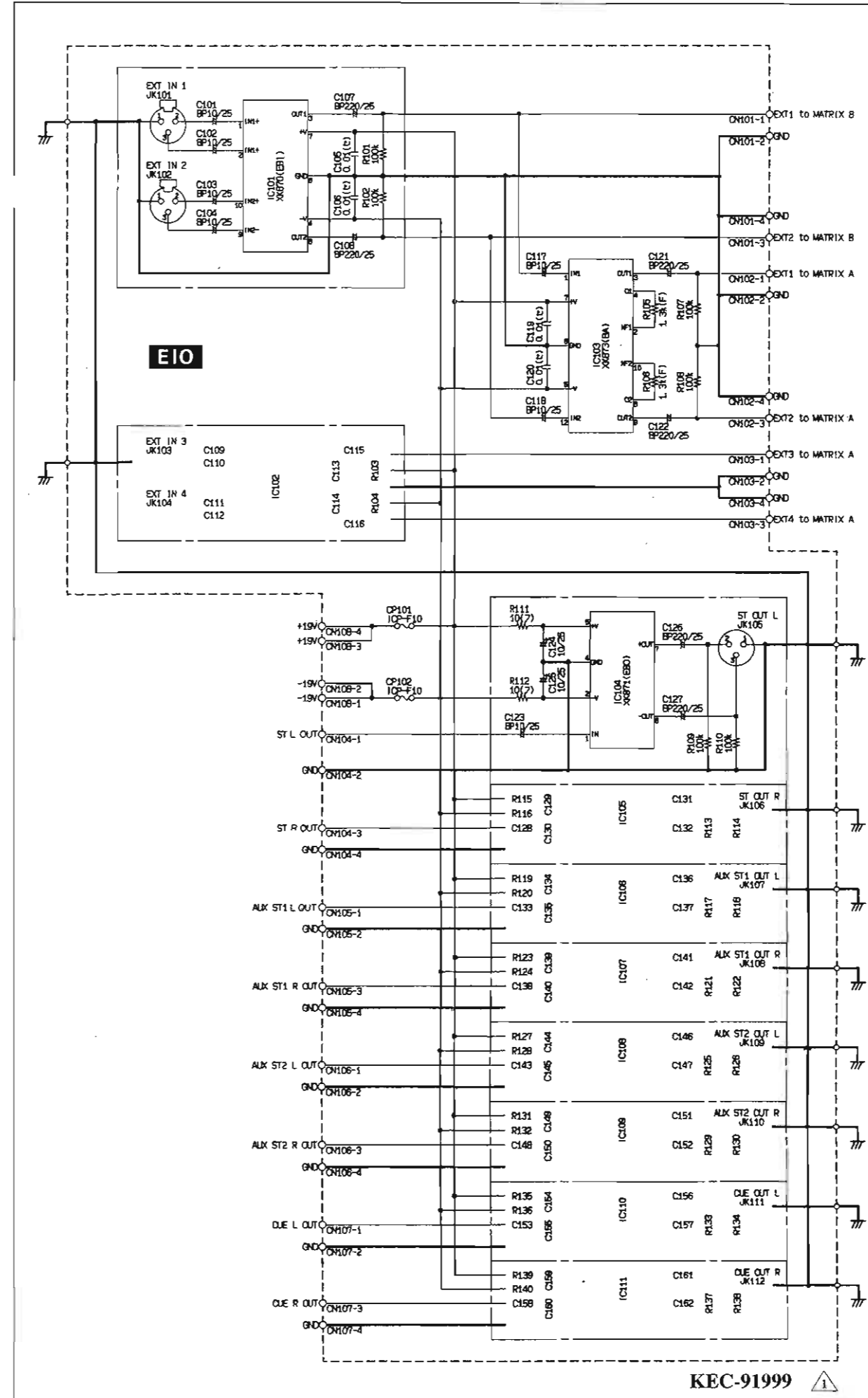
EBIシート (×2) (ELECTRIC BALANCED INPUT)



EIOシート

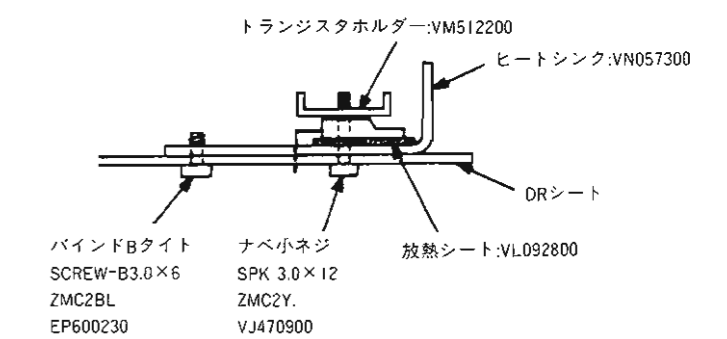


EIOシート回路図



DRシート

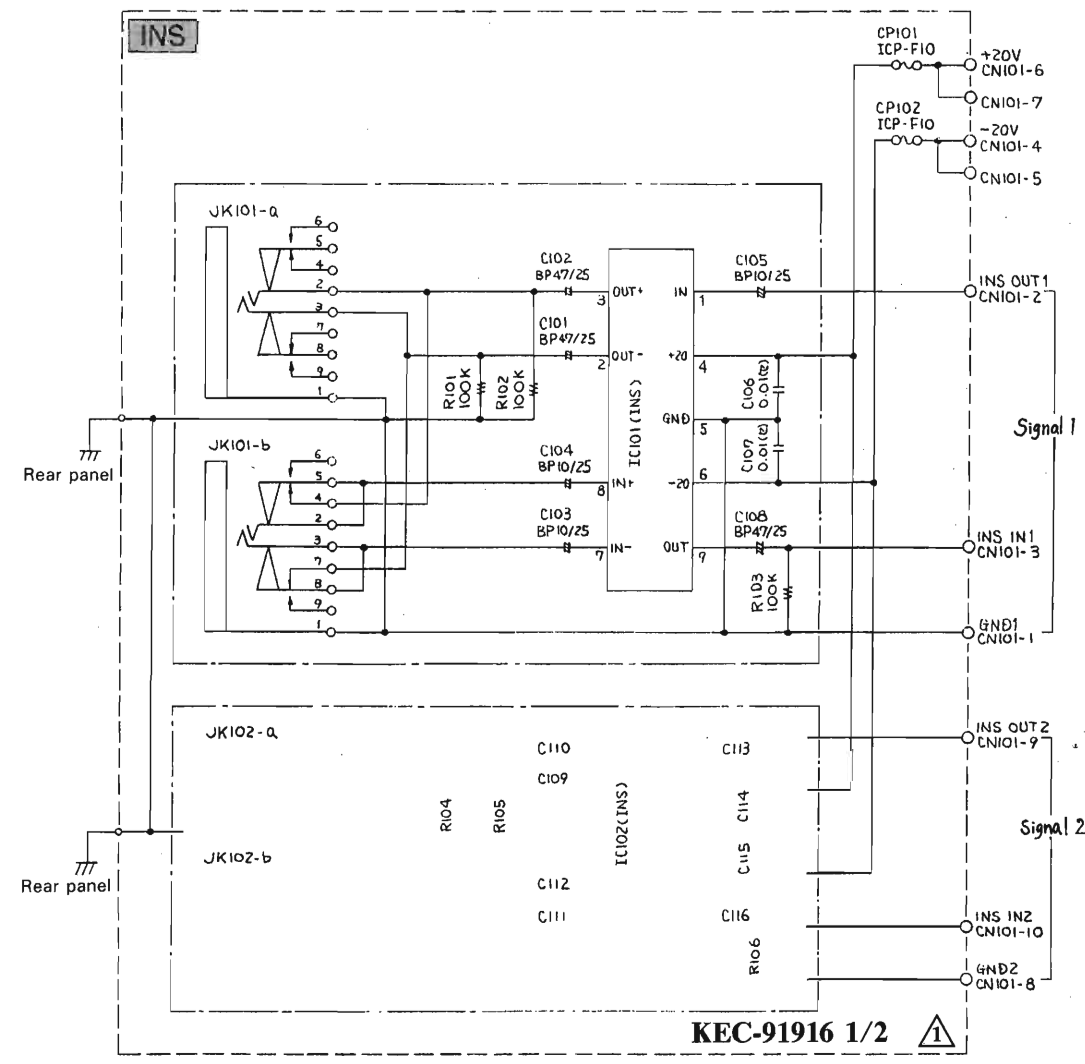
- ・Q101,104の取付け(DRシート)



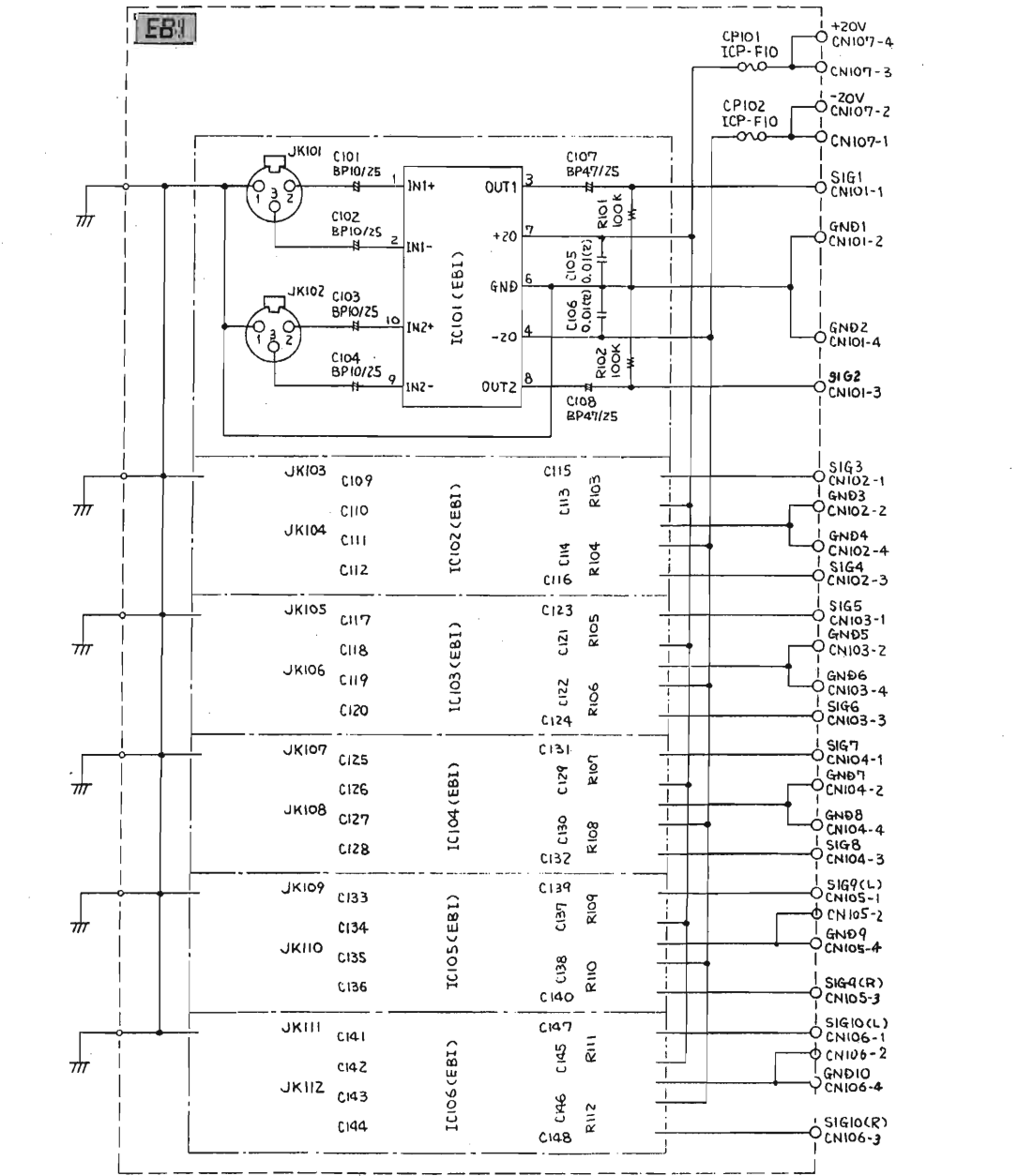
- 3NA-VQ43510 : ENG
- 3NA-VQ43480 △ : EIO
- 3NA-VN02710 △ : DR
- 3NA-VN02680 △ : INS
- 3NA-VN02700 △ : VP, CS
- 3NA-VN02690 △ : MF
- 3NA-VN02640 △ : EBI

REAR PANEL (U) ASSEMBLY (CS, DR, EBI, INS, MF, VP, EMG, EIO) PM4000H/PW4000

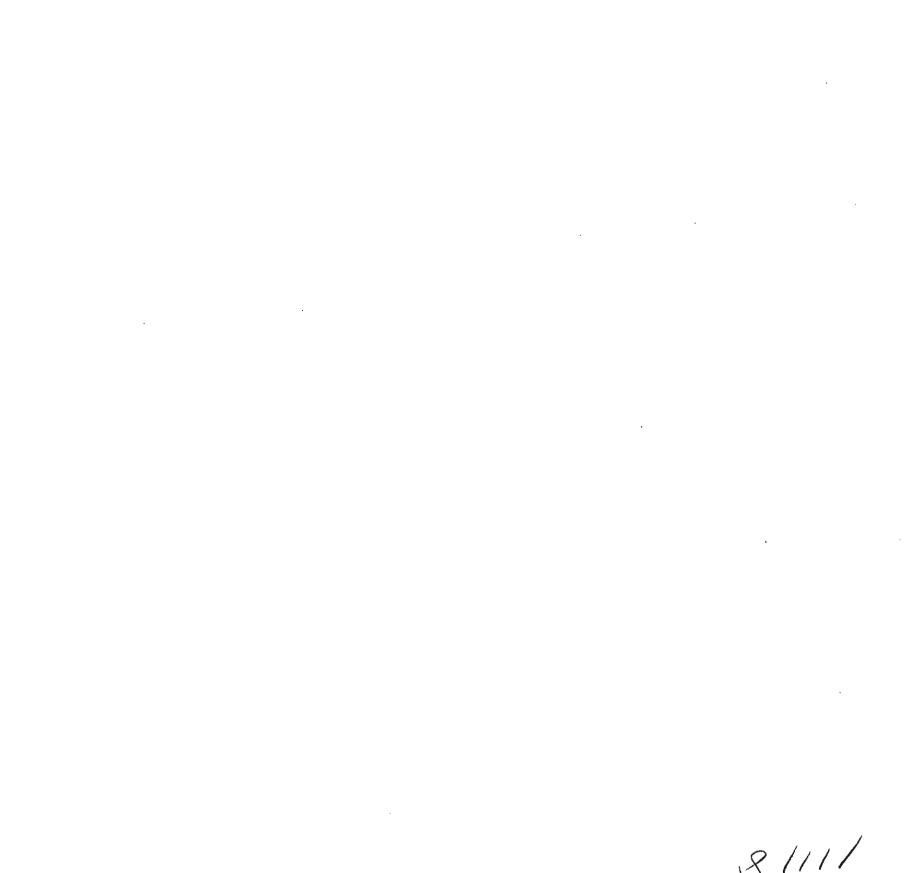
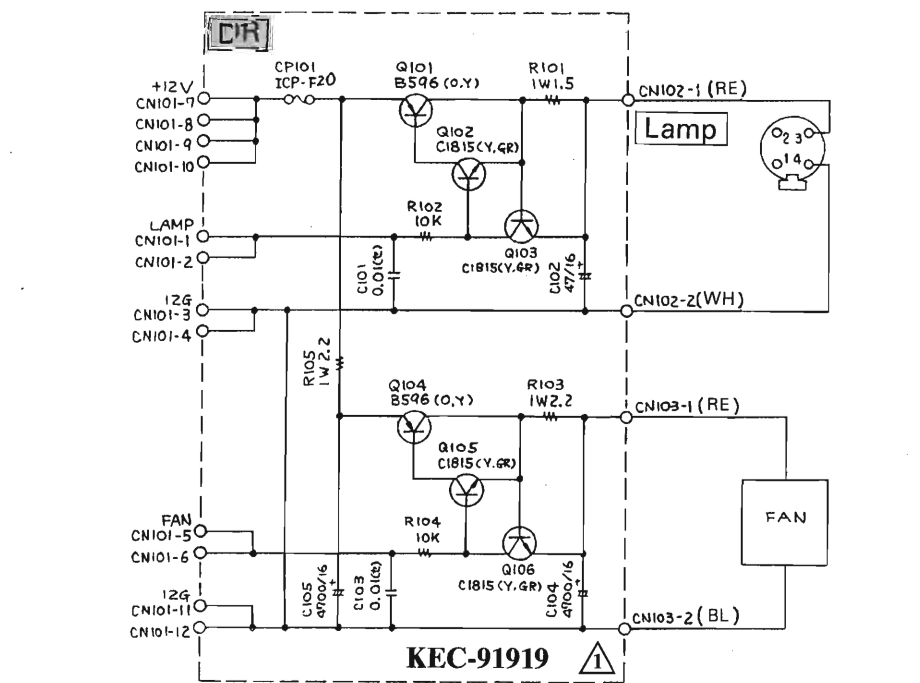
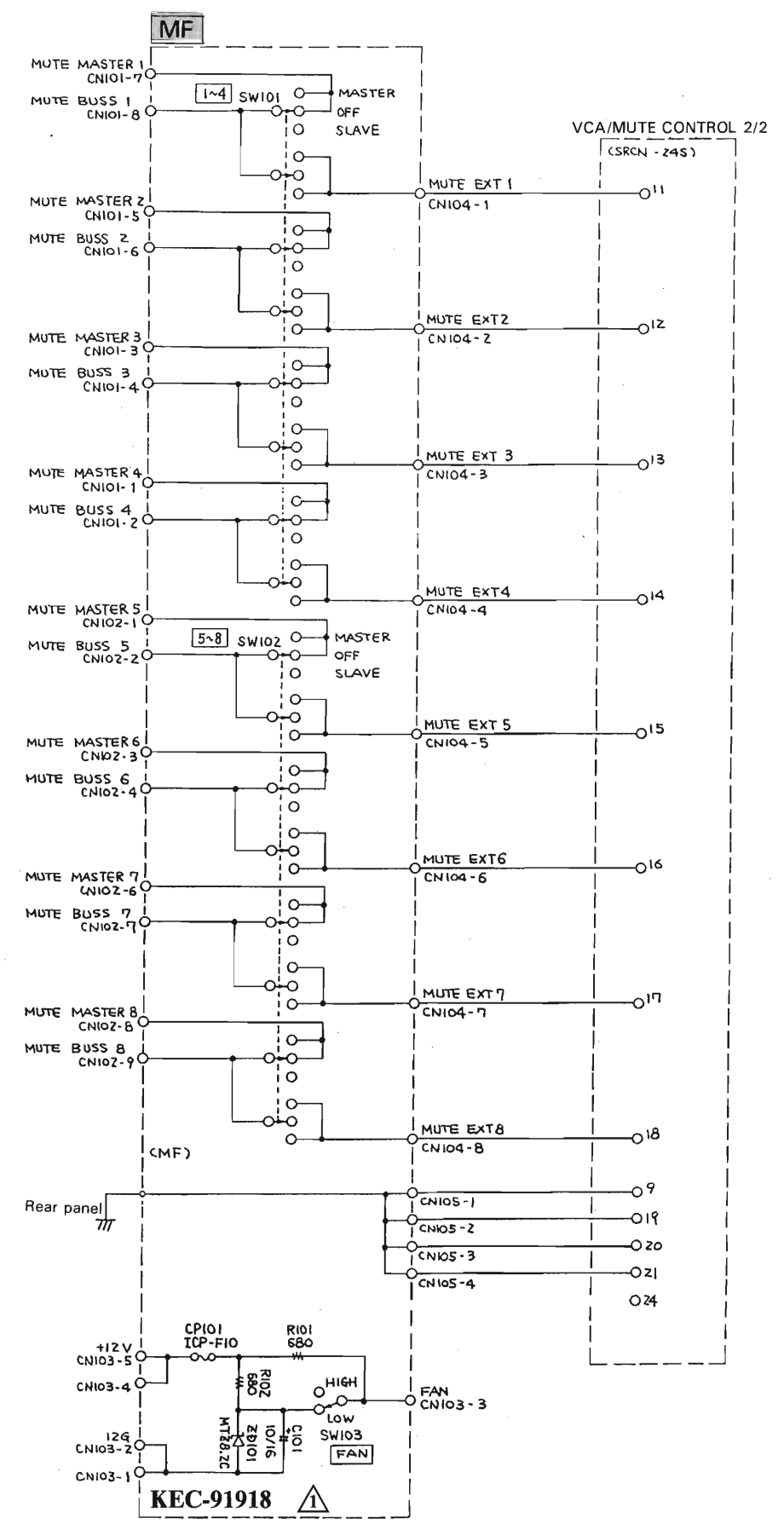
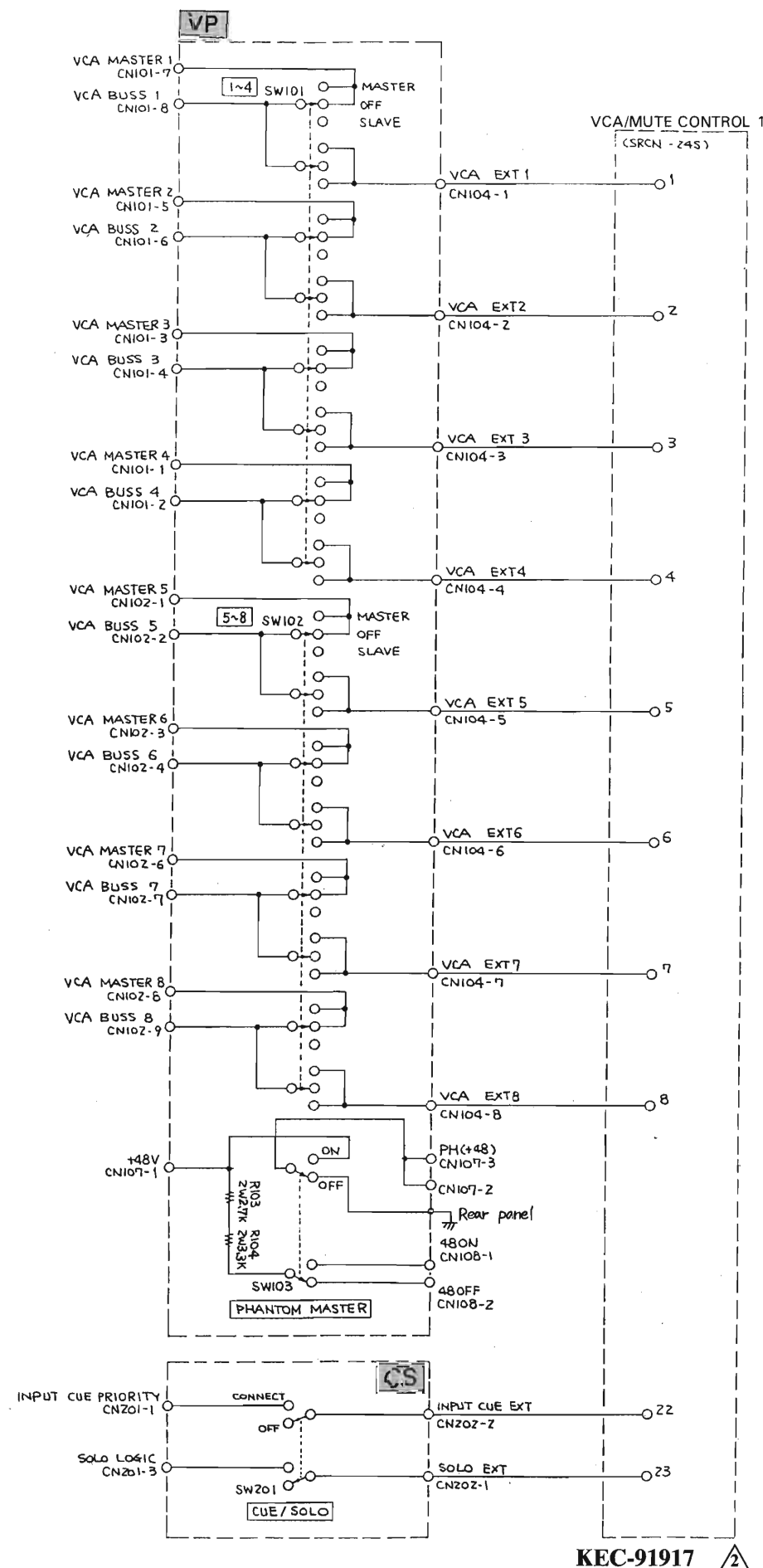
REAR PANEL (U) ASSEMBLY CIRCUIT DIAGRAM (CS, DR, EBI, INS, MF, VP)



| No. | Signal 1 | Signal 2 |
|-----|-----------|-----------|
| 1 | GROUP 1 | MTRIX 1 |
| 2 | 2 | 2 |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
| 5 | 5 | 5 |
| 6 | 6 | 4 |
| 7 | 7 | 7 |
| 8 | 8 | 8 |
| 9 | STEREO L | STEREO R |
| 10 | AUX 1 | AUX 5 |
| 11 | 2 | 6 |
| 12 | 3 | 7 |
| 13 | 4 | 8 |
| 14 | AUX ST1 L | AUX ST1 R |
| 15 | AUX ST2 L | AUX ST2 R |

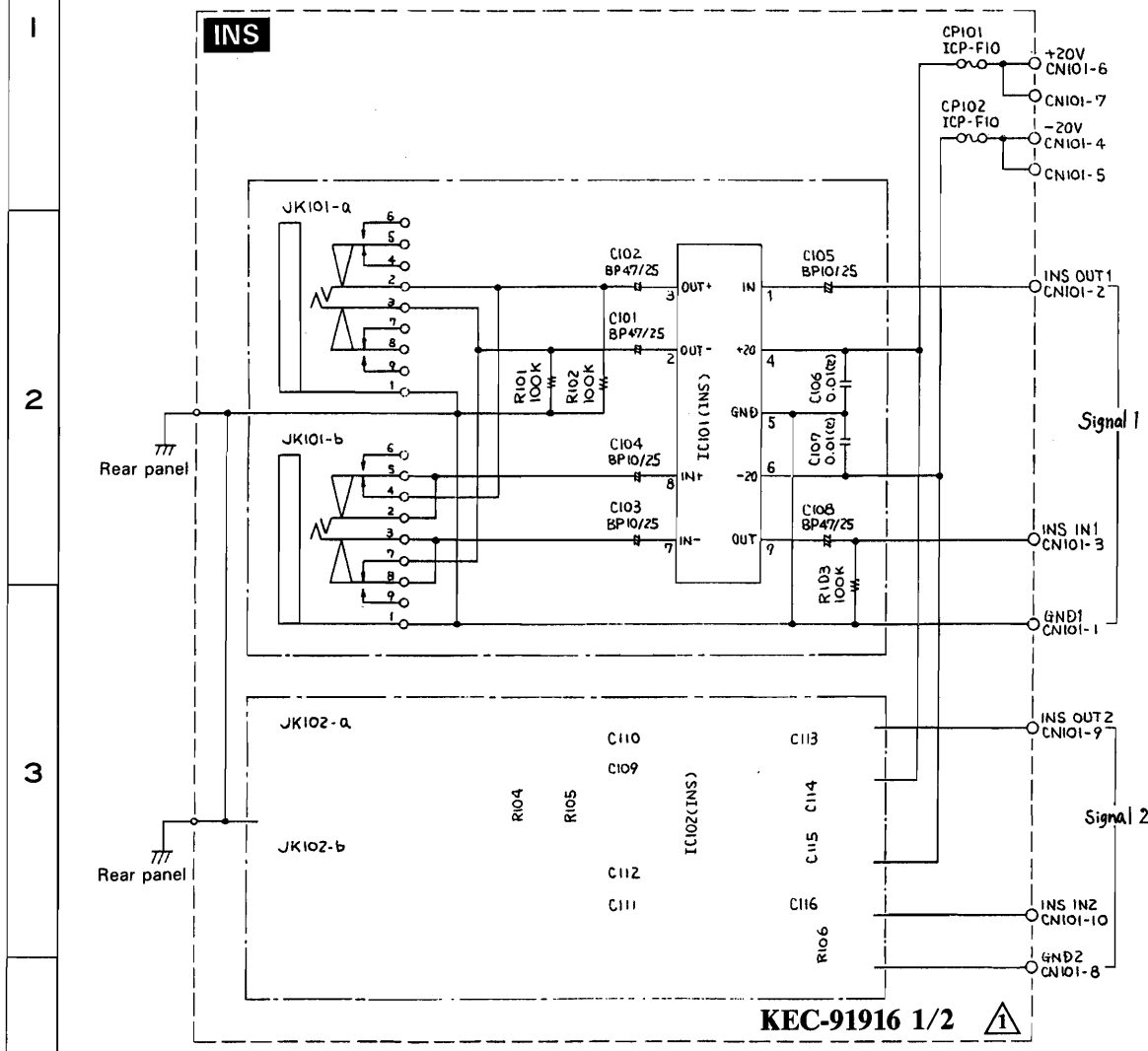


| Connector No. | 1 | 2 | 3 |
|---------------|---------------------|----------------|----------------|
| CN101 | SIG 1 GROUP SUB IN | MTRIX SUB IN 1 | AUX SUB IN 1 |
| CN102 | SIG 2 | 2 | 2 |
| CN103 | SIG 3 | 3 | 3 |
| CN104 | SIG 4 | 4 | 4 |
| CN105 | SIG 5 | 5 | 5 |
| CN106 | SIG 6 | 6 | 6 |
| CN107 | SIG 7 | 7 | 7 |
| CN108 | SIG 8 | 8 | 8 |
| CN109 | SIG 9 STEREO SUB IN | ZTR IN 1 | AUX ST1 SUB IN |
| CN110 | SIG 10 CUE SUB IN | ZTR IN 2 | AUX ST2 SUB IN |

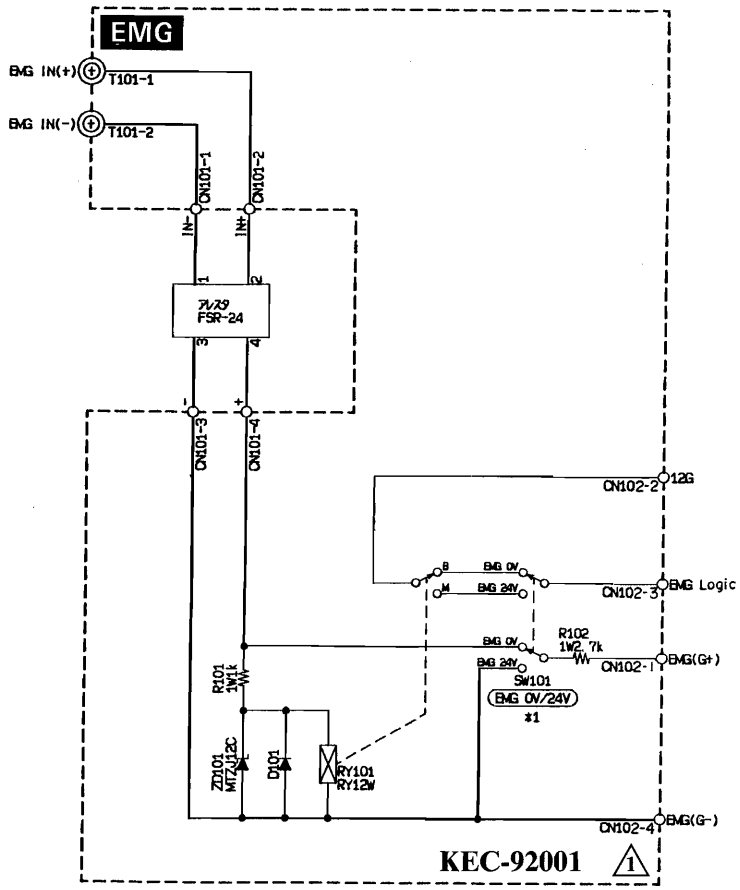
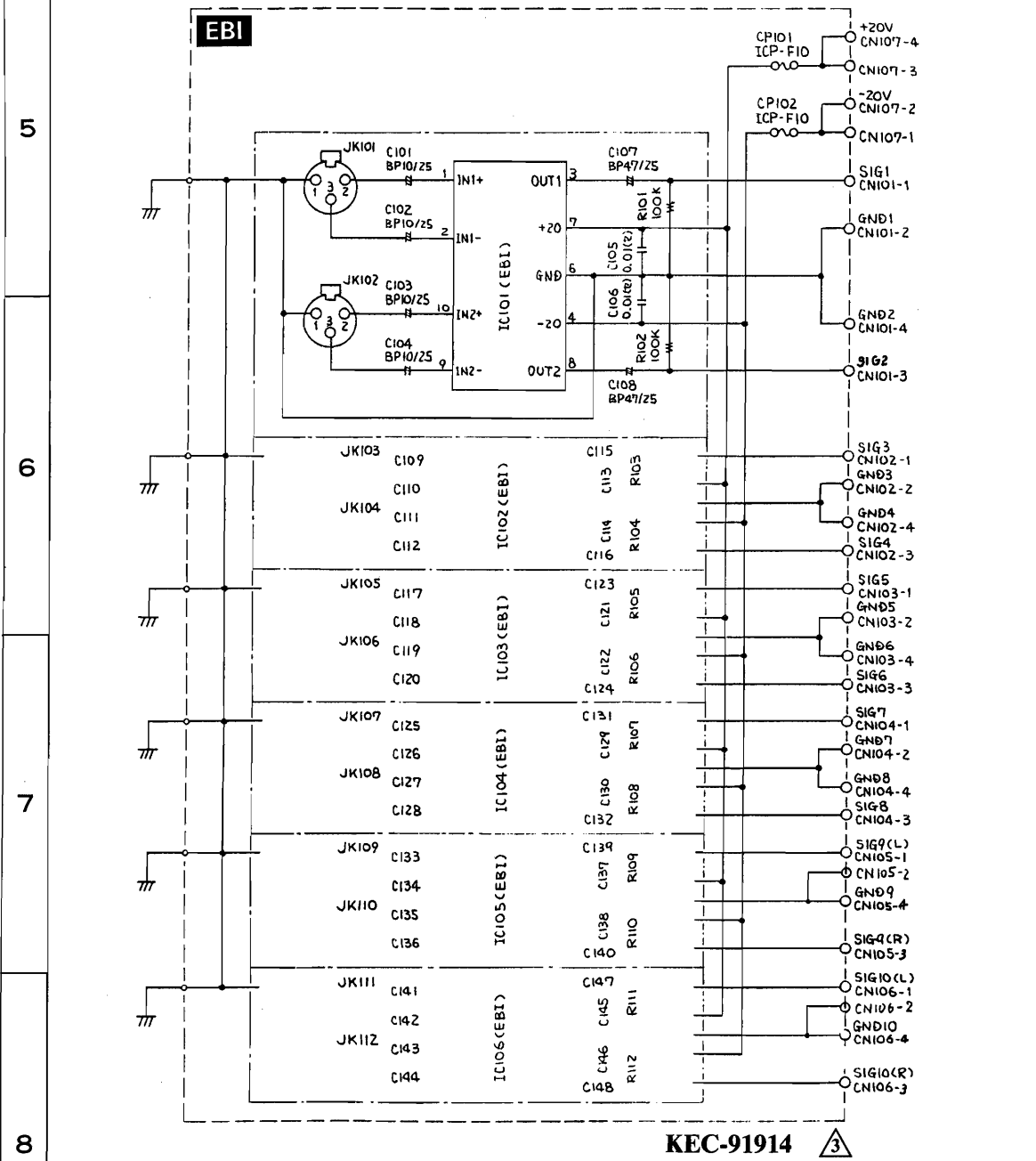


(NOTE) IW : Metal oxide film resistor

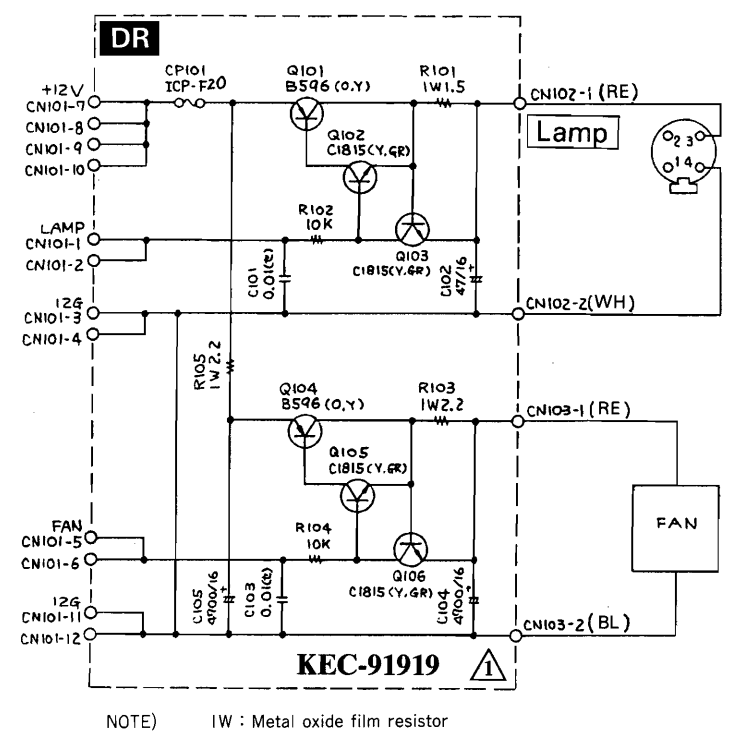
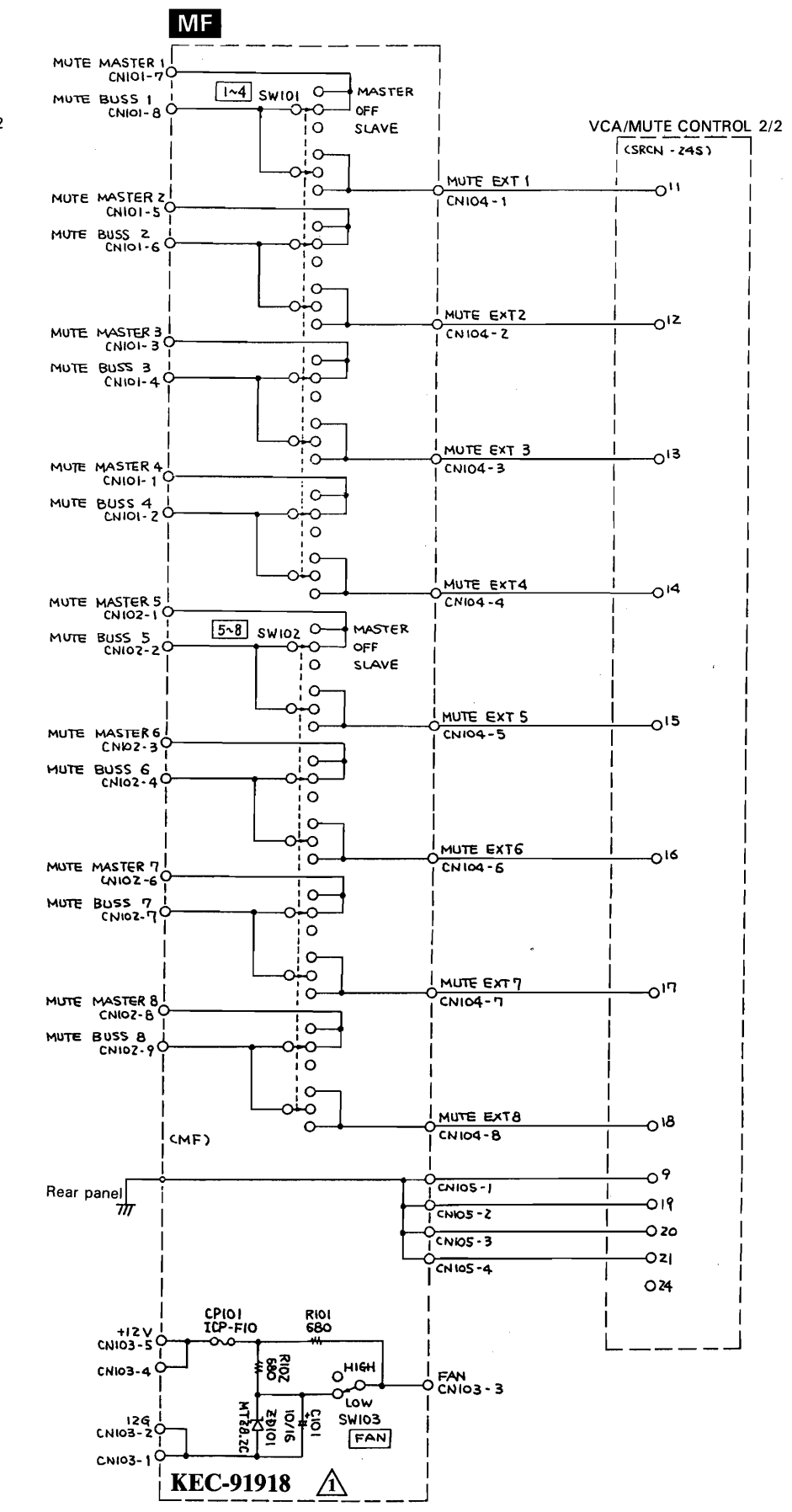
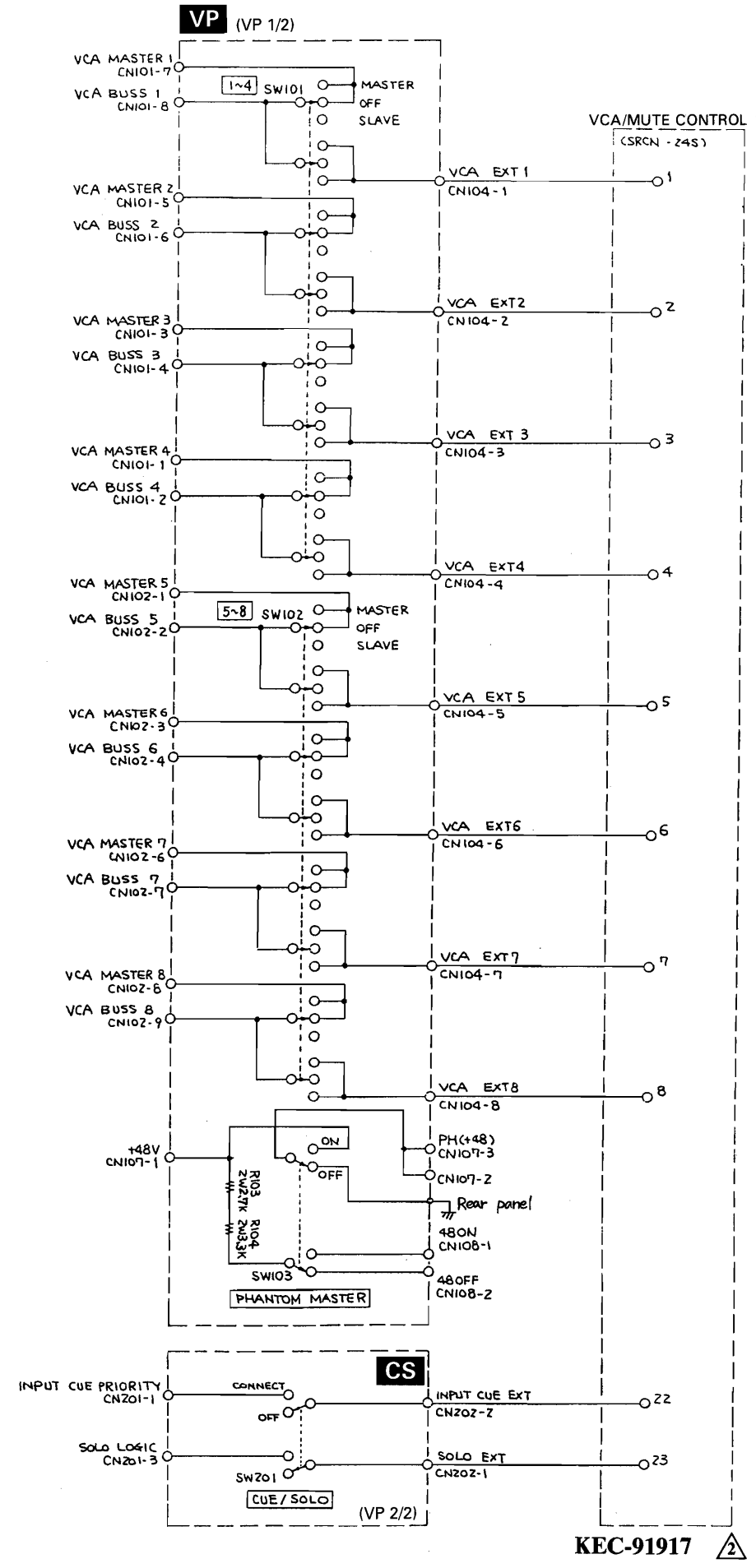
REAR PANEL (U) ASSEMBLY 回路図 (CS, DR, EBI, INS, MF, VP, EMG, EIO)



| No. | Signal 1 | Signal 2 |
|-----|-----------|-----------|
| 1 | GROUP 1 | AUX1 |
| 2 | 2 | 2 |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
| 5 | 5 | 5 |
| 6 | 6 | 6 |
| 7 | 7 | 7 |
| 8 | 8 | 8 |
| 9 | STEREO L | STEREO R |
| 10 | AUX ST1 L | AUX ST1 R |
| 11 | AUX ST2 L | AUX ST2 R |
| 12 | REC1 | REC2 |
| 13 | REC3 | REC4 |



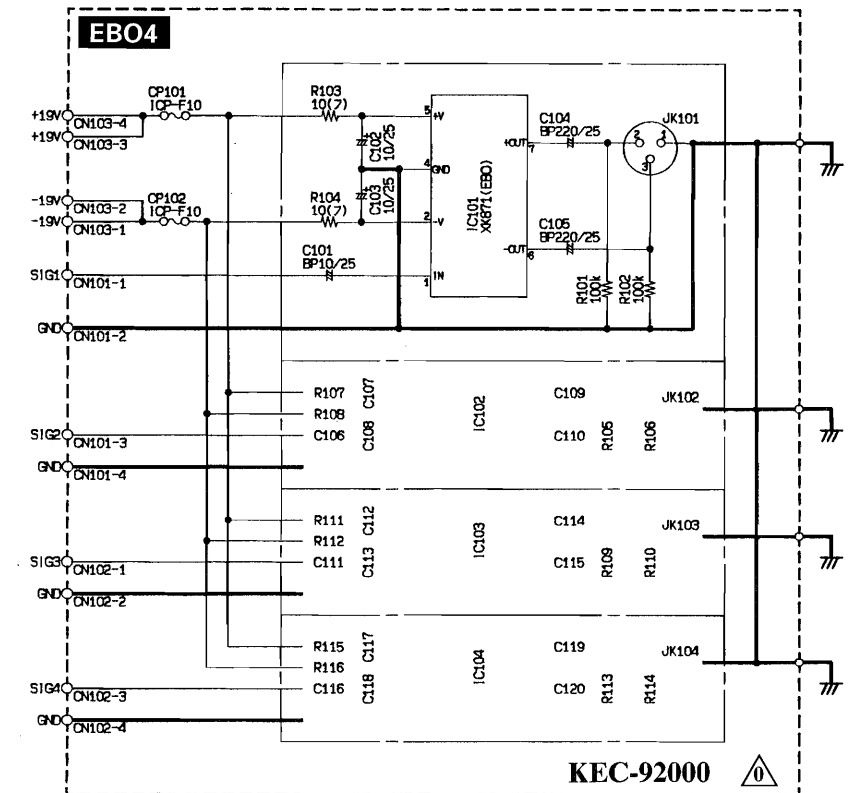
※1) D1014, 1S113, 1S1176#HSS104
 ※2) Factory preset
 ※1 EMG OV/24V : EMG OV



NOTE) 1W : Metal oxide film resistor

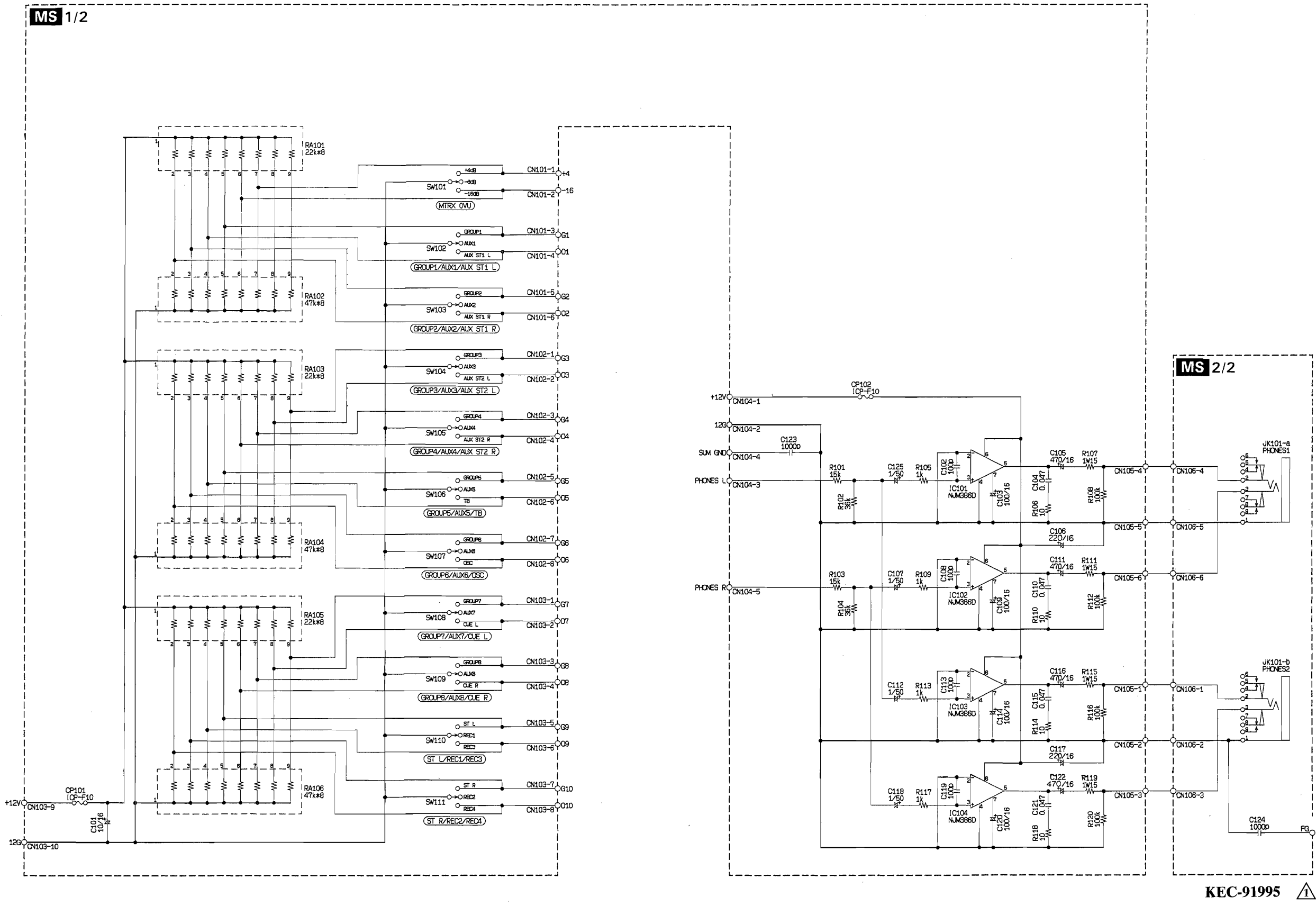
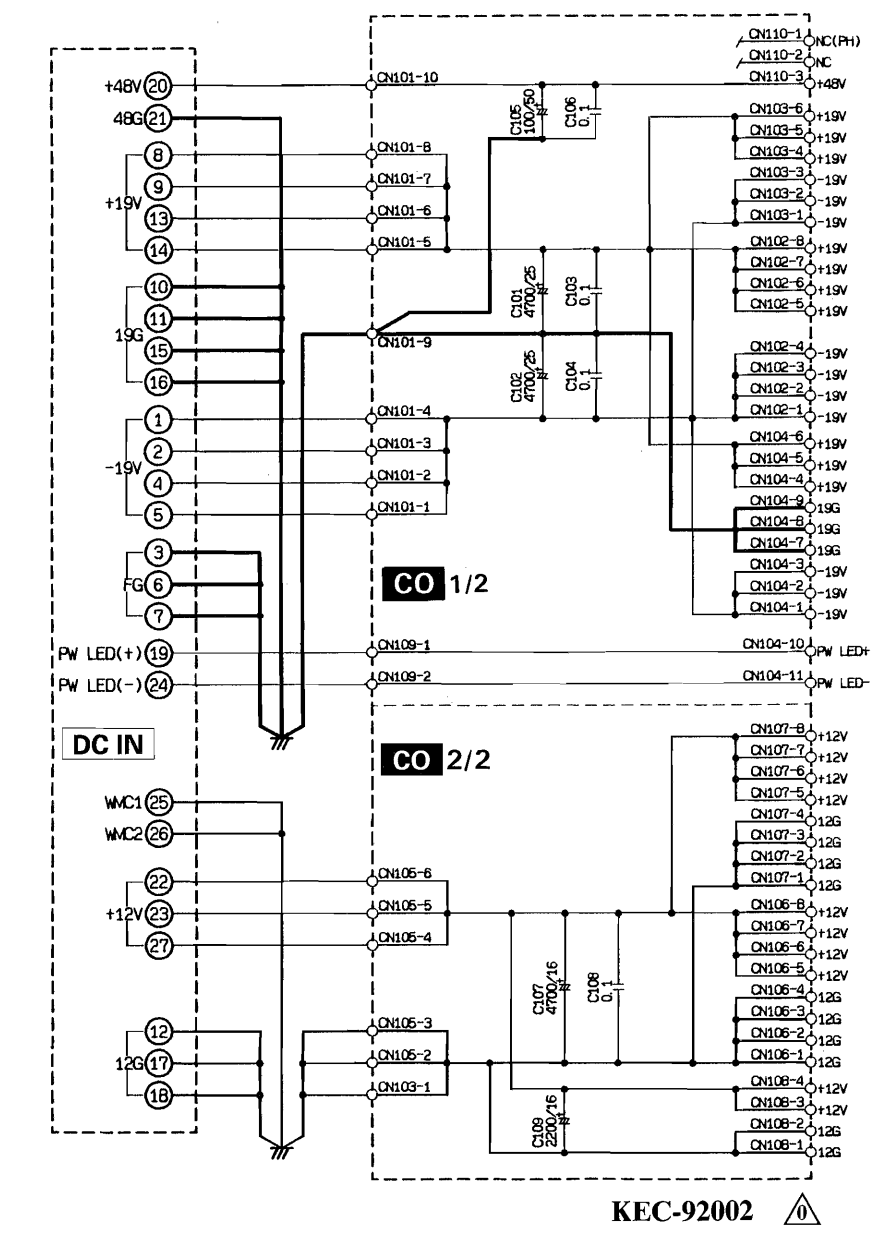
REAR (MAS) Ass'y, REAR (PS) Ass'y, METER SELECT SW & PHONES 回路図 (EBO4,CO,MS)

1
2
3
4
5
6
7
8



※1) EBO4の1-12番ピンは、それぞれEBO4-1,2,3,4,5,6,7,8,9,10,11,12に接続する。

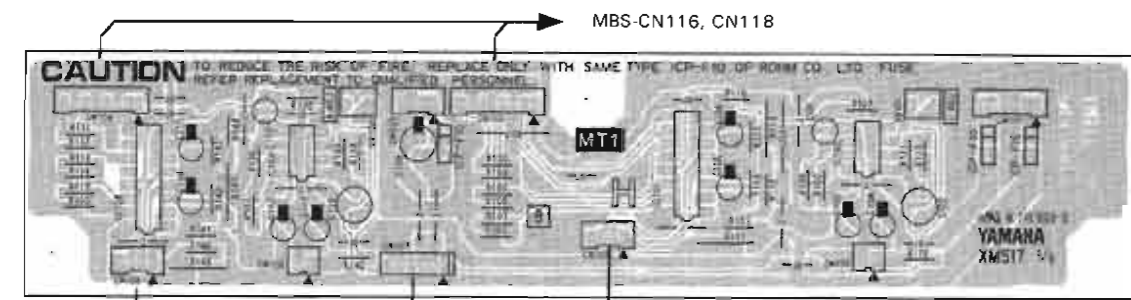
| | 1 | 2 | 3 | 4 | 5 |
|-------|------|------------|------------|----------|----------|
| CN101 | SIG1 | GROUP1 OUT | GROUP5 OUT | AUX1 OUT | AUX5 OUT |
| | SIG2 | GROUP2 OUT | GROUP6 OUT | AUX2 OUT | AUX6 OUT |
| CN102 | SIG3 | GROUP3 OUT | GROUP7 OUT | AUX3 OUT | AUX7 OUT |
| | SIG4 | GROUP4 OUT | GROUP8 OUT | AUX4 OUT | AUX8 OUT |



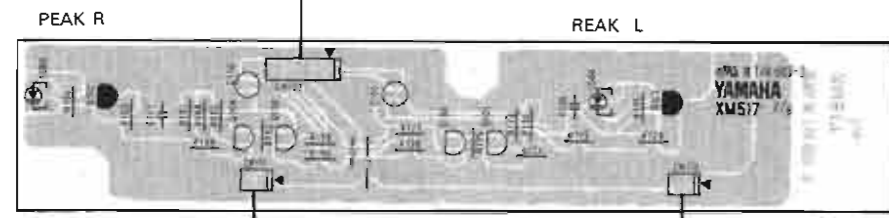
REAR (MAS) Ass'y, REAR (PS) Ass'y, METER SELECT SW & PHONES 回路図 (EBO4,CO,MS) C28

■ METER ASSEMBLY (MT1, MT2, MT3, MTC, LED, PI)

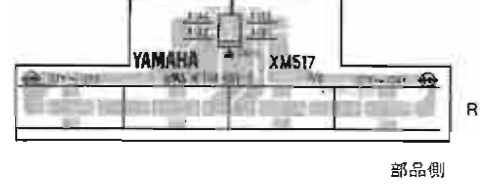
● MT1-1/6シート



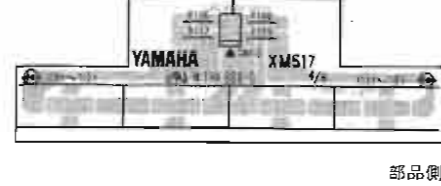
● MT1-2/6シート



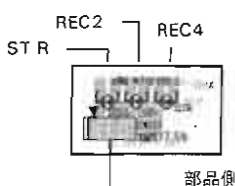
● MT1-3/6シート



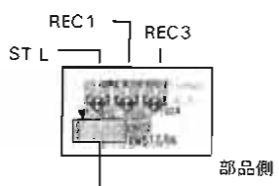
● MT1-4/6シート



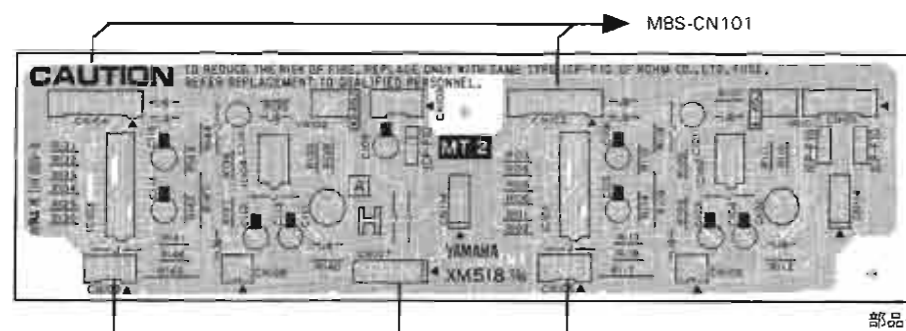
● MT1-5/6シート



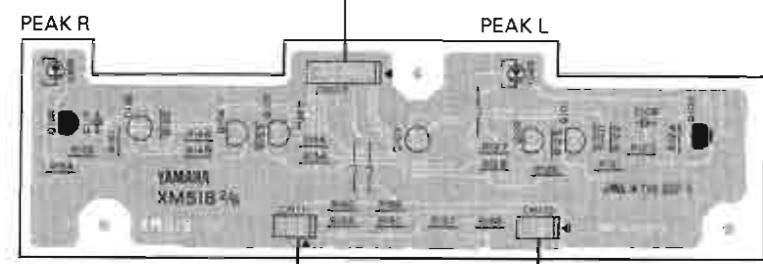
● MT1-6/6シート



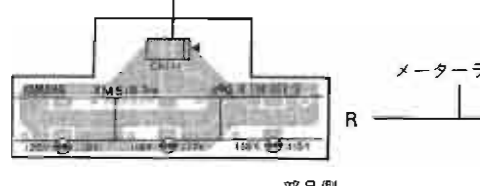
● MT2-1/6シート (MT2-1/6~MT2-6/6シートは各々4枚あります)



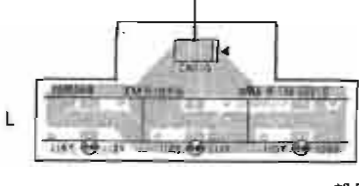
● MT2-2/6シート



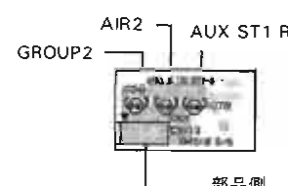
● MT2-3/6シート



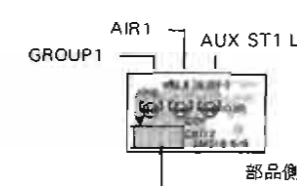
● MT2-4/6シート



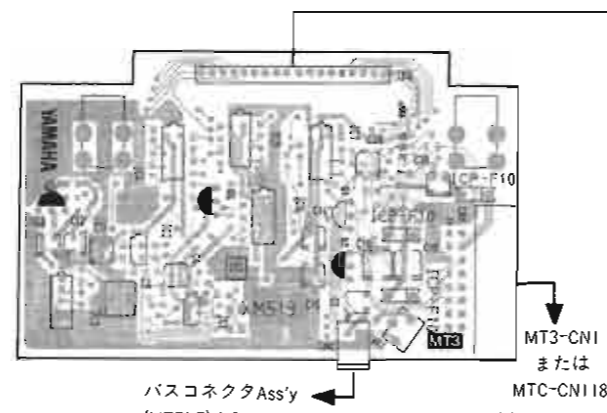
● MT2-5/6シート



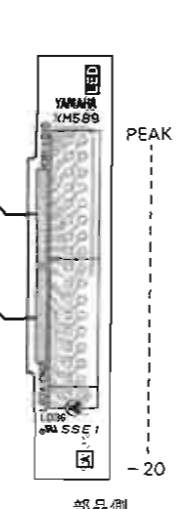
● MT2-6/6シート



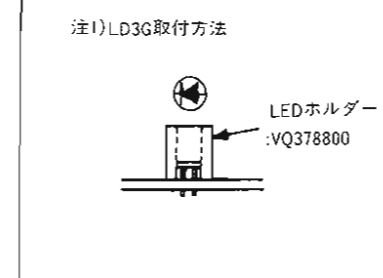
● MT3シート



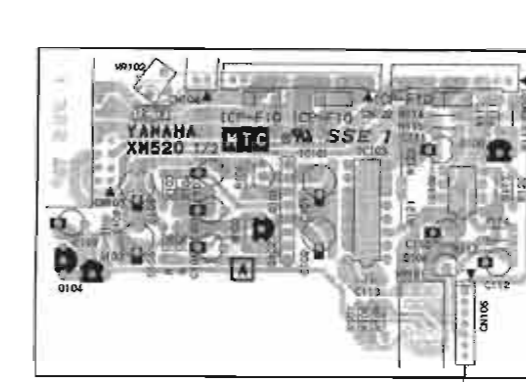
● LEDシート



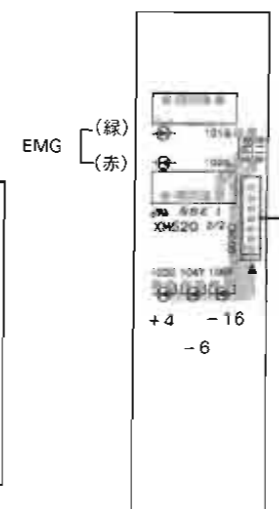
● LEDシート



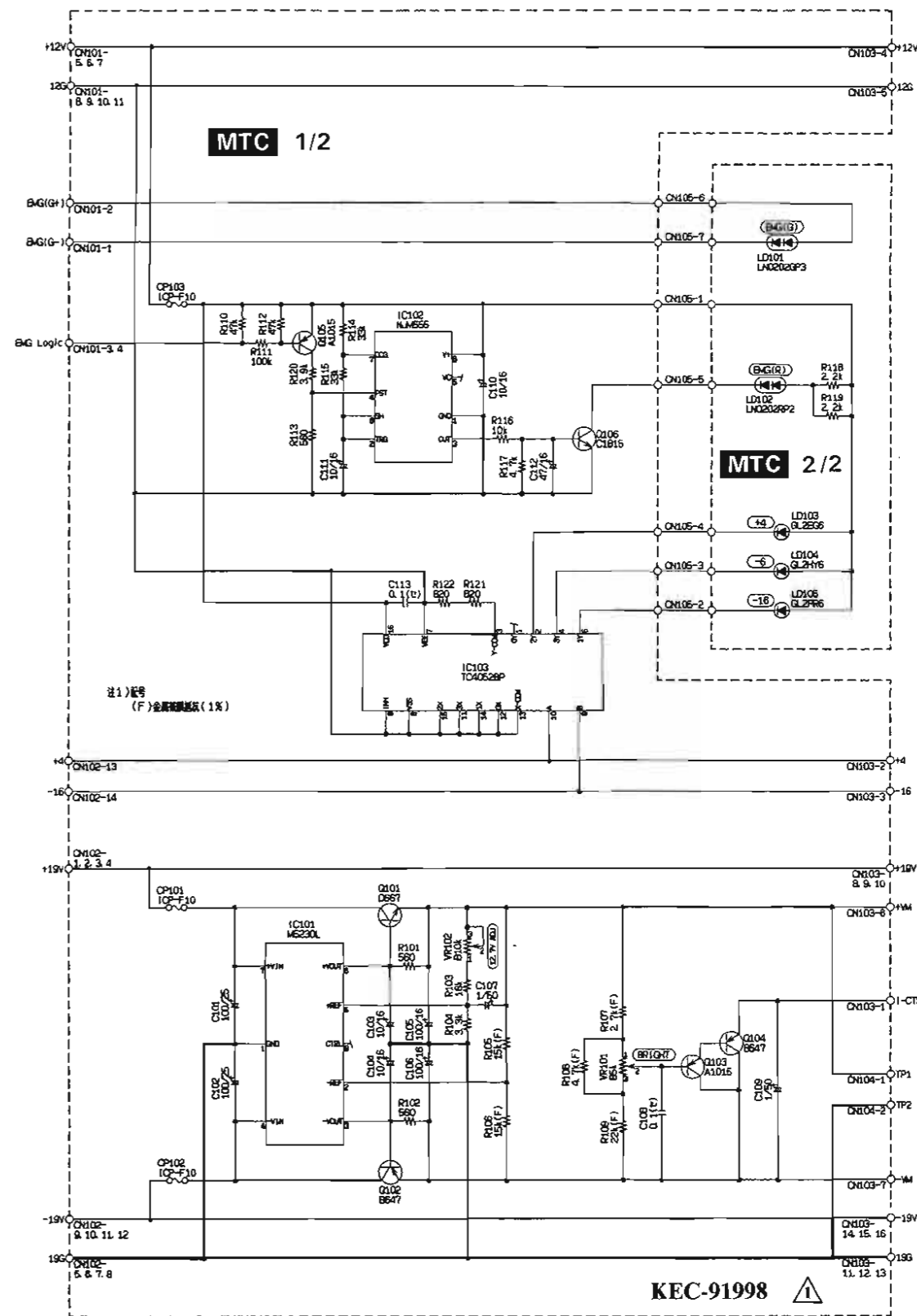
● MTC1/2シート



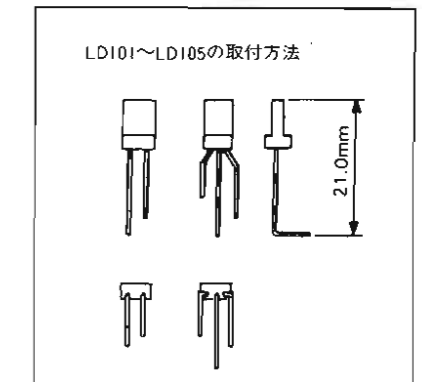
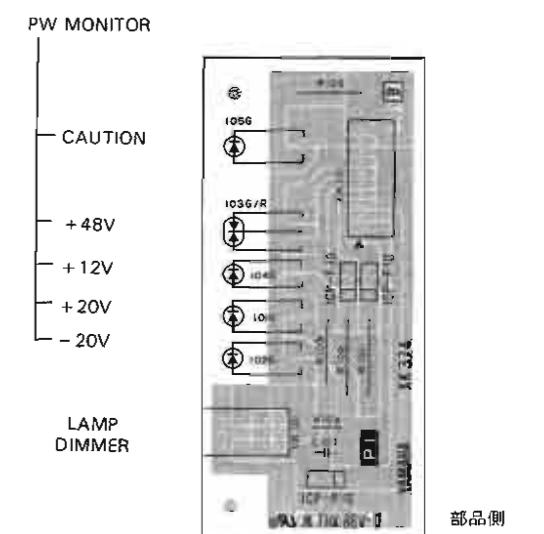
● MTC2/2シート



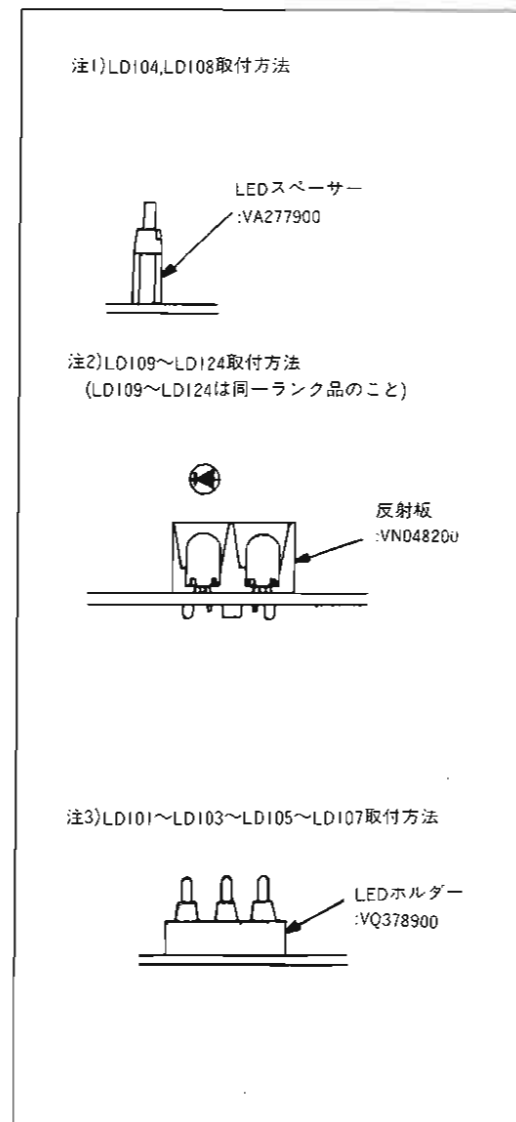
● MTCシート回路図



● P1シート (POWER INDICATOR)

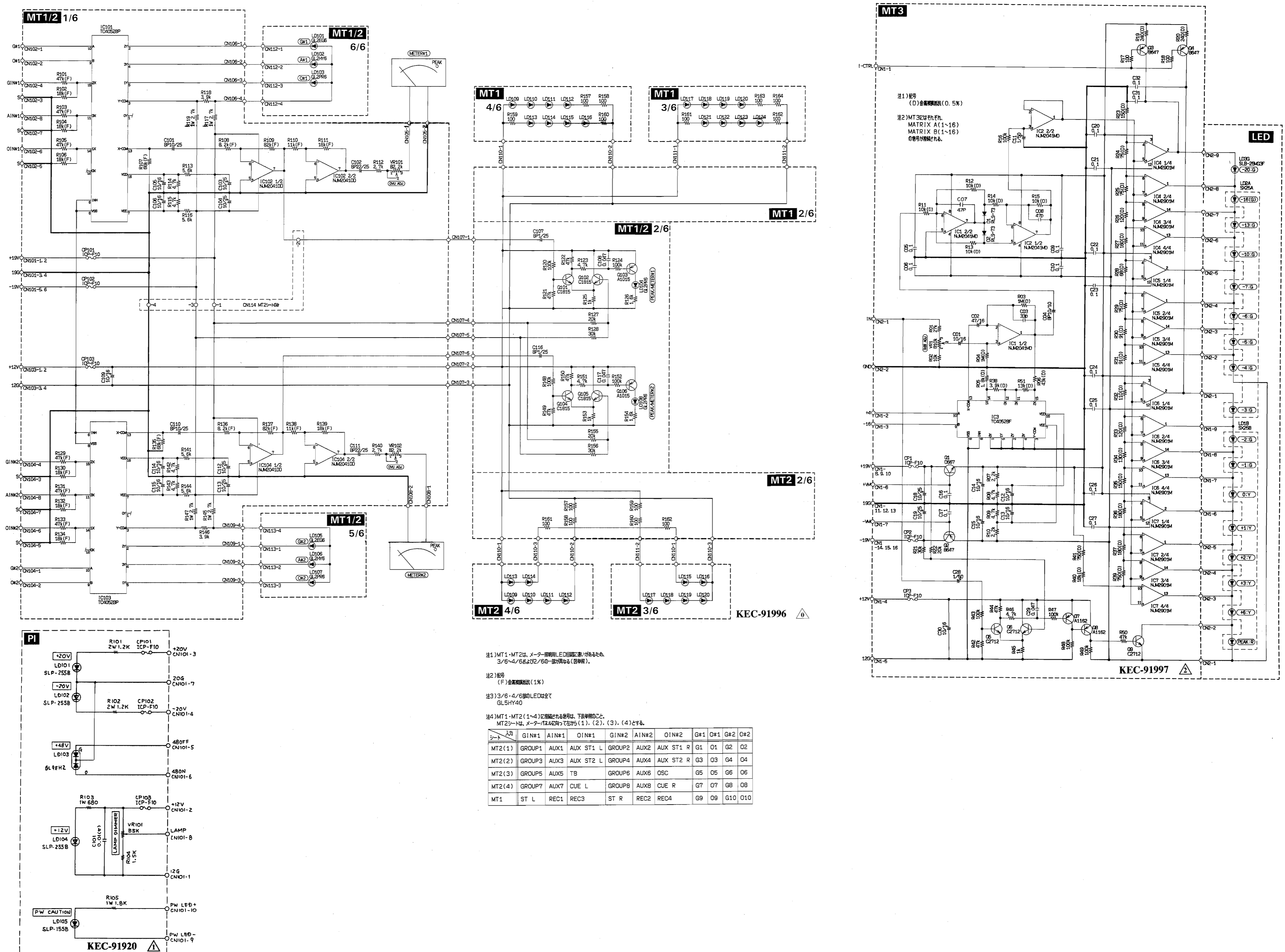


● MT1, MT2



- 3NA-VQ43440 △ : MT1
- 3NA-VQ43450 △ : MT2
- 3NA-VQ43460 △ : MT3
- 3NA-VQ43470 : MTC
- 3NA-VR11090 △ : LED
- 3NA-VN02720 △ : PI

■ METER ASSEMBLY 回路図 (MT1, MT2, MT3, MTC, LED, PI)



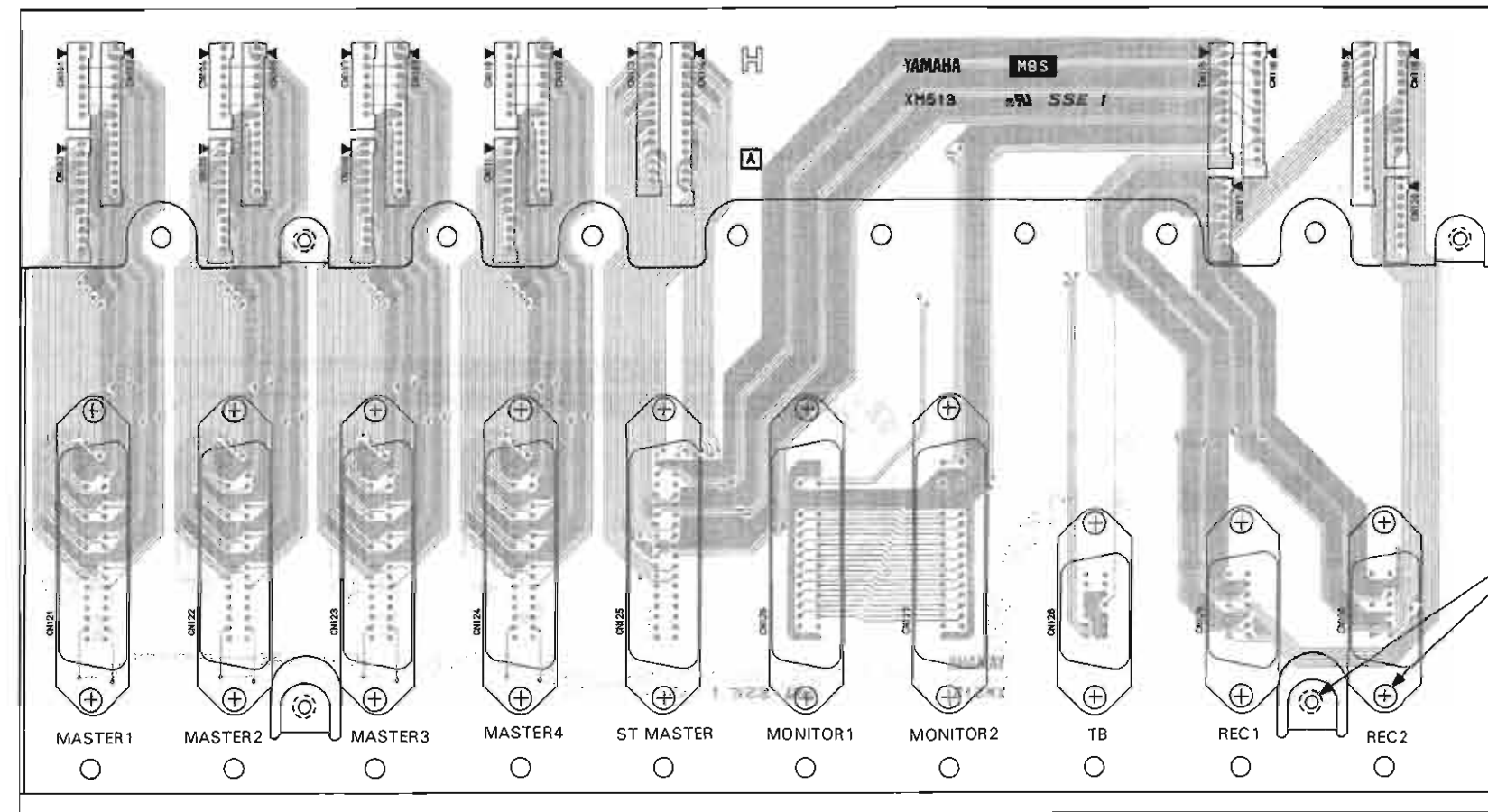
※1) MT1・MT2は、X-Y-Z-1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16のLEDは、下段の通り。
 ※2) 起停 (F) 金銀線幅幅 (0.5%)
 ※3) 1/3・4・6-8のLEDは、GL5HY40
 ※4) MT1・MT2 (1~4) のLEDは、下段の通り。
 MT2のLEDは、X-Y-Z-1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16のLEDは、下段の通り。

| メータ | グループ | AUX | ST | REC | OSC | CUE | ST | REC | OSC | CUE |
|--------|--------|------|-----------|--------|------|-----------|----|-----|-----|-----|
| MT2(1) | GROUP1 | AUX1 | AUX ST1 L | GROUP2 | AUX2 | AUX ST1 R | G1 | O1 | G2 | O2 |
| MT2(2) | GROUP3 | AUX3 | AUX ST2 L | GROUP4 | AUX4 | AUX ST2 R | G3 | O3 | G4 | O4 |
| MT2(3) | GROUP5 | AUX5 | TB | GROUP6 | AUX6 | OSC | G5 | O5 | G6 | O6 |
| MT2(4) | GROUP7 | AUX7 | CUE L | GROUP8 | AUX8 | CUE R | G7 | O7 | G8 | O8 |
| MT1 | ST L | REC1 | REC3 | ST R | REC2 | REC4 | G9 | O9 | G10 | O10 |

NOTE) 1W, 2W : Metal oxide film resistor

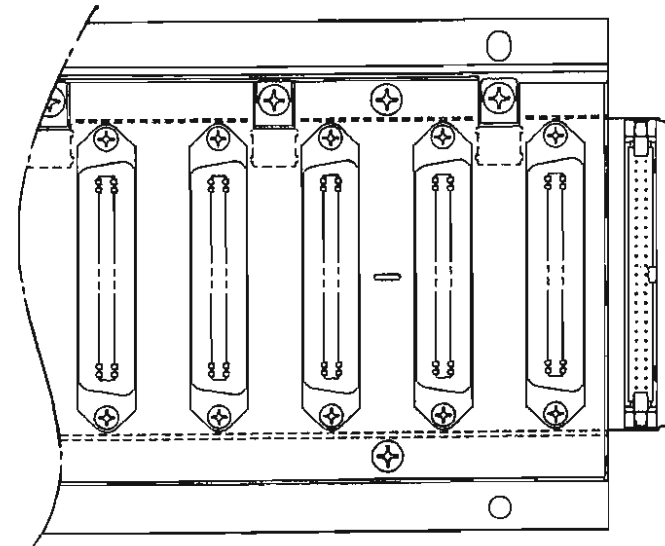
CONNECTORS (MBB, MBS)

●MBSシート



●バスコネクタAss'y

PM4000H-16S:VQ578500
 PM4000H-16 :VQ578500
 PM4000H-24 :VN478600
 PM4000H-32 :VN478700

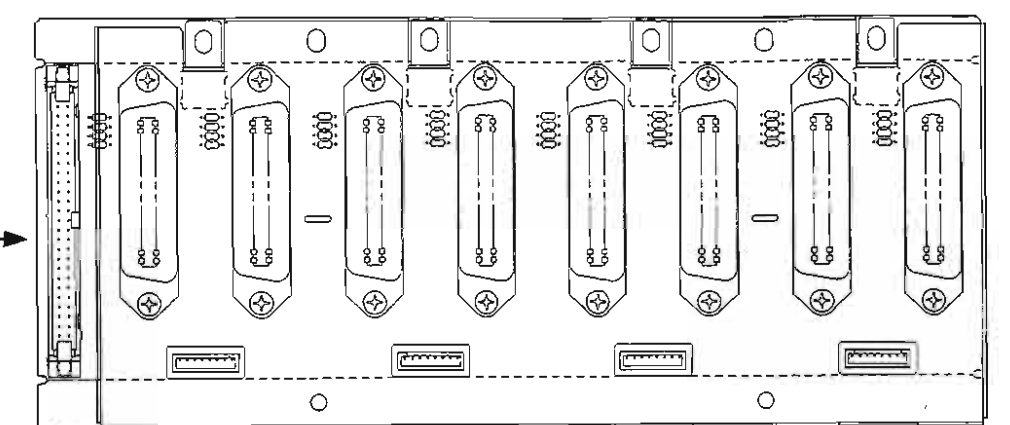


マザーボードアングル
(VQ258700)

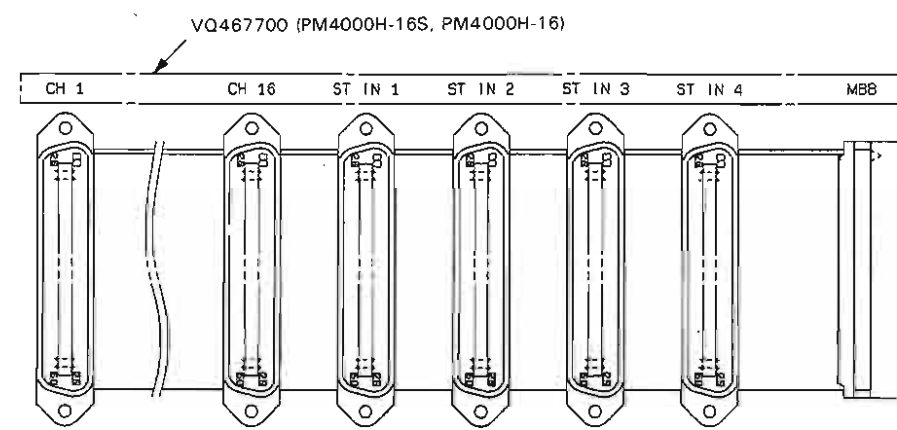
+皿小ネジ
3.0×5.8L
(EC030030)

●バスコネクタAss'y

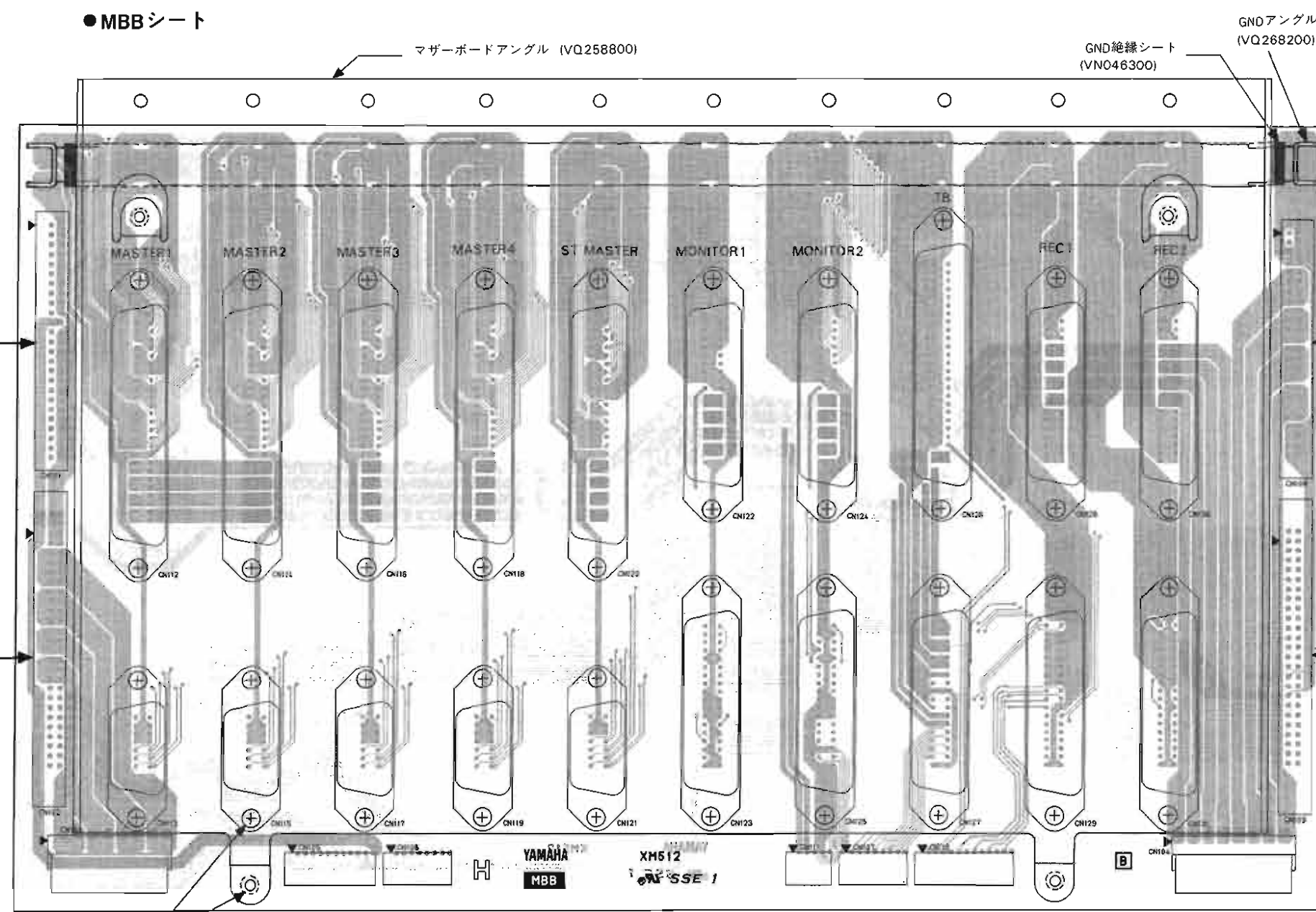
PM4000H-16S:VQ449700 PM4000H-24 :VQ449600
 PM4000H-16 :VQ449600 PM4000H-32 :VQ449600



●フラットケーブル(F)CH

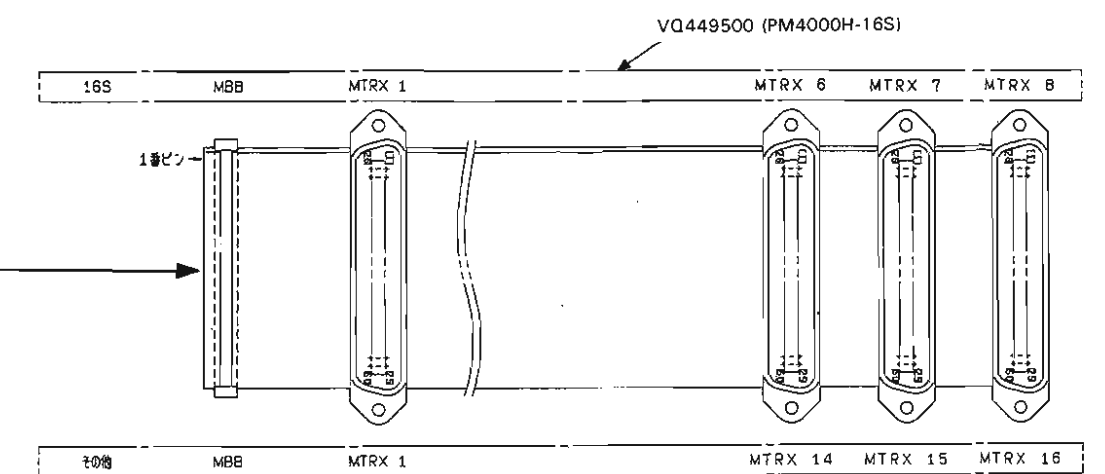


●MBBシート



+皿小ネジ
3.0×5.8L
(EC030030)

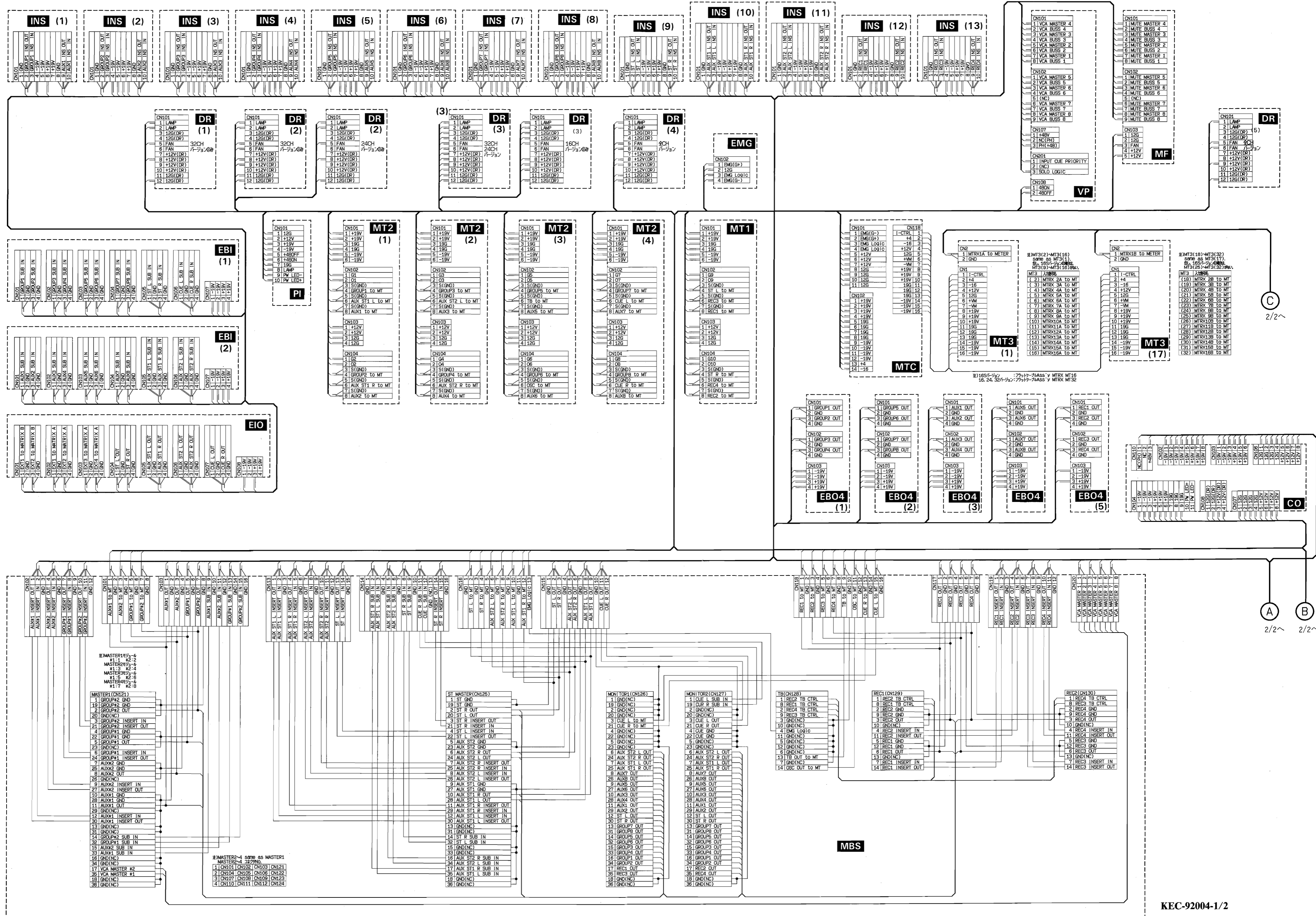
●フラットケーブル(F)MTRX

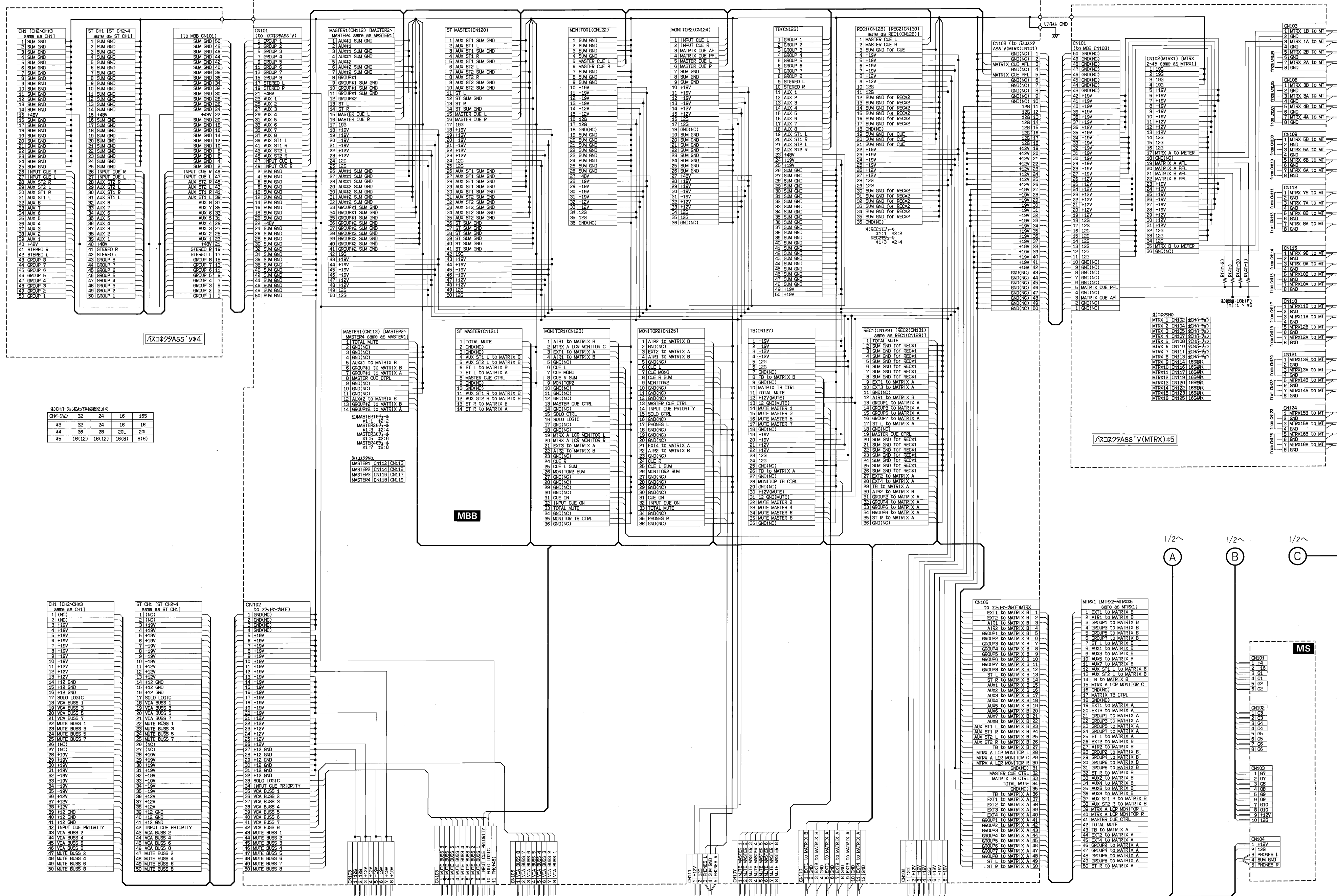


VQ449400 (PM4000H-16, PM4000H-24, PM4000H-32)
 ※標準仕様の場合、以下のMATRIXモジュール用コネクタは使用されていません。
 そして当該のモジュール位置には、BLANKモジュールが装着されています。

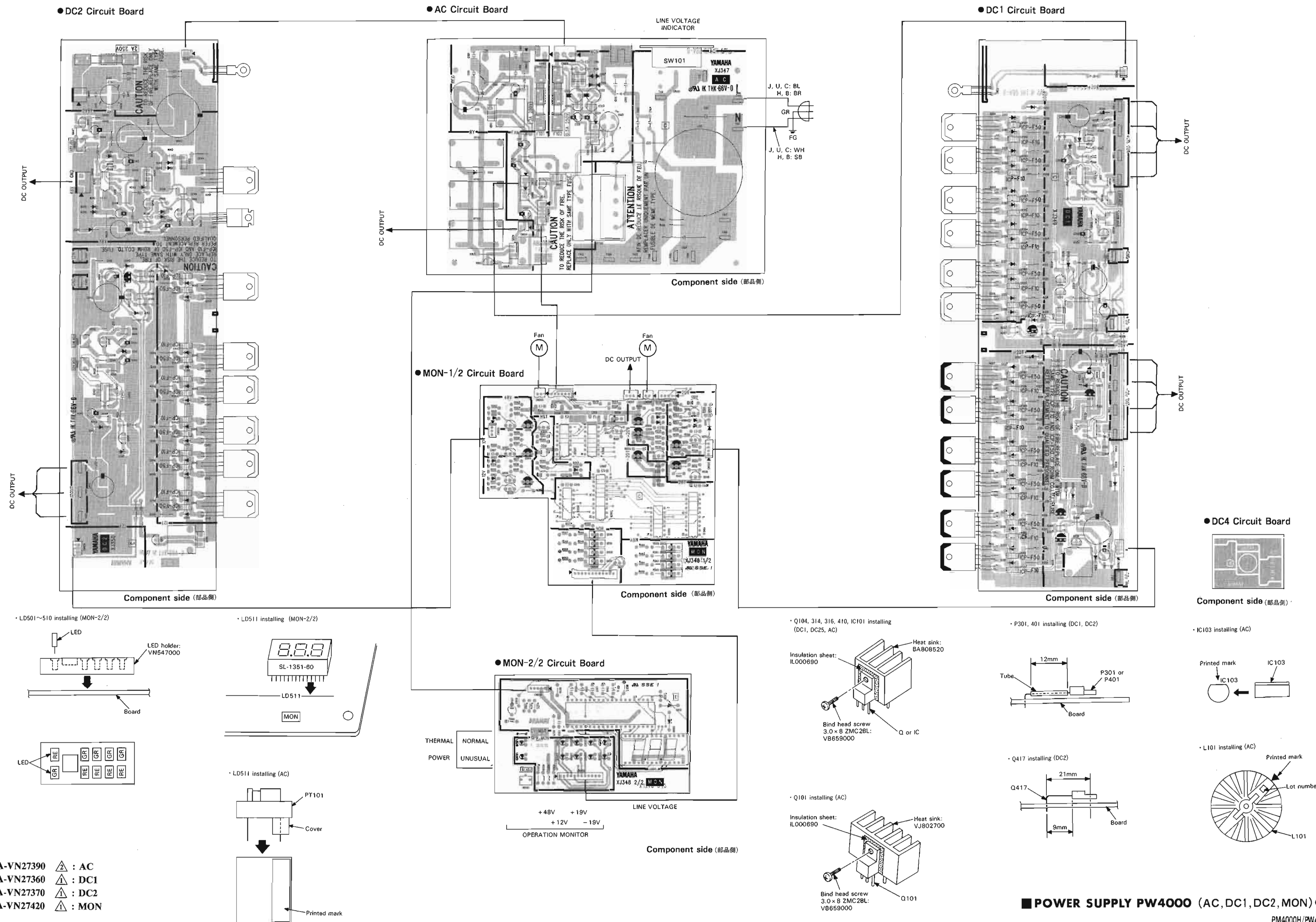
PM4000H-16:MTR X 9 - MTR X 16
 PM4000H-24:MTR X 13 - MTR X 16
 PM4000H-32:MTR X 13 - MTR X 16

3NA-VQ43390 : MBB
 3NA-VQ43400 : MBS

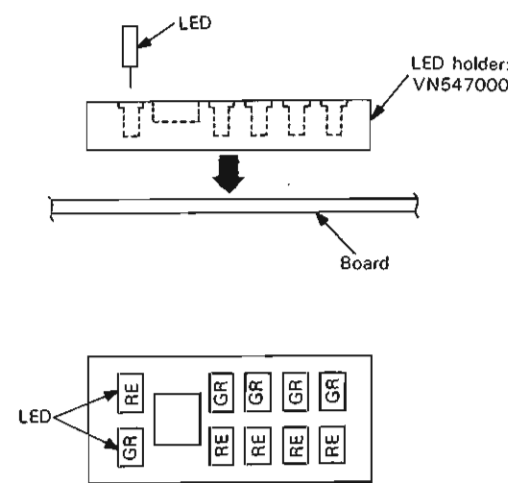




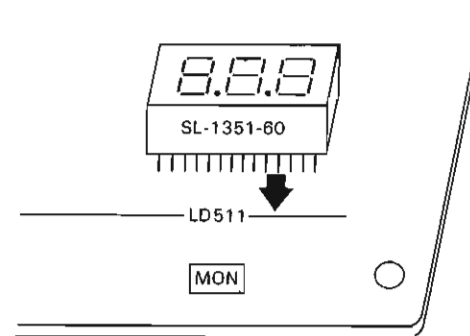
■ POWER SUPPLY PW4000 (AC, DC1, DC2, MON)



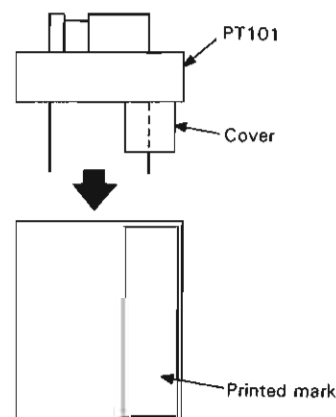
• LD501~510 installing (MON-2/2)



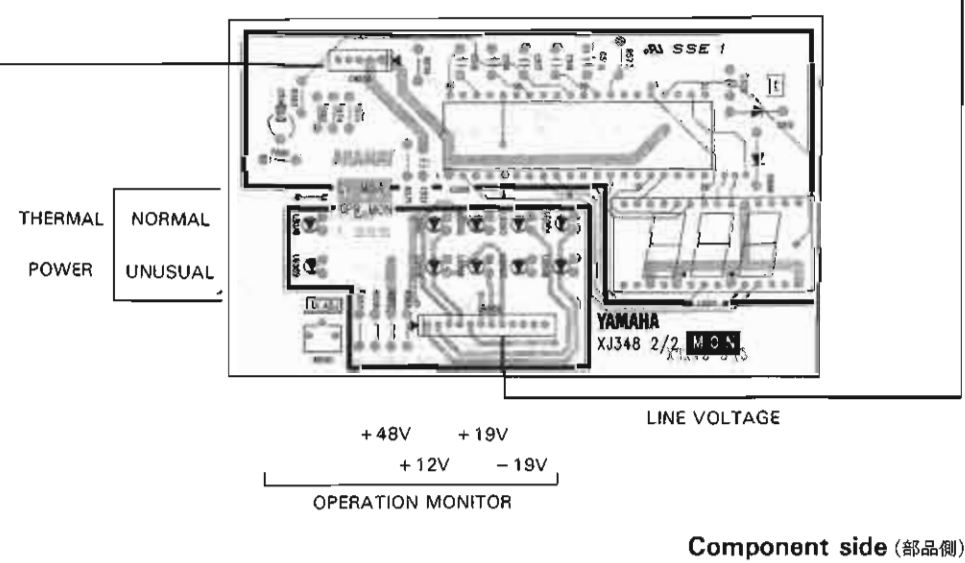
• LD511 installing (MON-2/2)



• LD511 installing (AC)

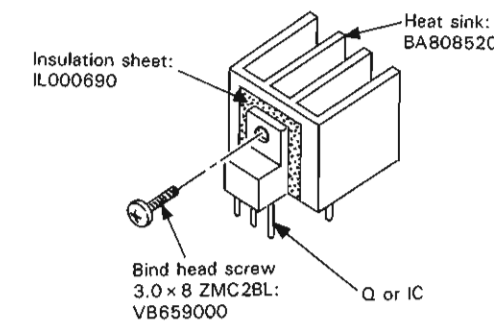


● MON-2/2 Circuit Board

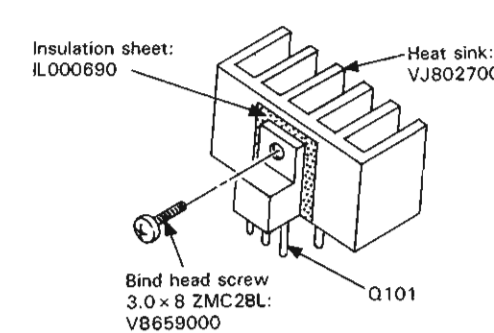


Component side (部品側)

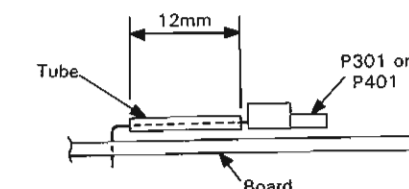
• Q104, 314, 316, 410, IC101 installing (DC1, DC25, AC)



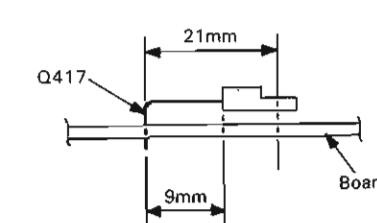
• Q101 installing (AC)



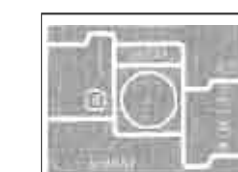
• P301, 401 installing (DC1, DC2)



• Q417 installing (DC2)

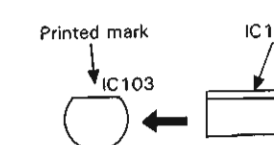


● DC4 Circuit Board

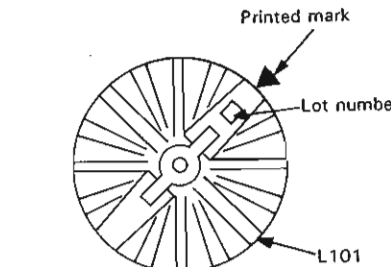


Component side (部品側)

• IC103 installing (AC)



• L101 installing (AC)



- 3NA-VN27390 ▲ : AC
- 3NA-VN27360 ▲ : DC1
- 3NA-VN27370 ▲ : DC2
- 3NA-VN27420 ▲ : MON

- Notes**
- Circuit Board: AC (VN273900) U, C, V
AC (VN274000) U, C, V
AC (VN274100) H, B
- IC
IC101, 103: NUM78M05FA (KF740A00) REGULATOR +5V
UPC78M05HF (XJ846A00) REGULATOR +5V or
NUM78L05A (IG065510) REGULATOR +5V or
UPC78L05J (KC349A00) REGULATOR +5V
IC102: NUM78L05A (IG130500) REGULATOR -5V or
UPC79L05J (KK195A00) REGULATOR -5V
 - Transistor
Q101, 104: 2SD526 O, Y (ID052630)
Q102, 103: 2SC2240 GR, BL (IC224030)
 - Diode
D102: 1SR35-100A (IH001430)
 - Diode Stack
D101: 5AVB20 (IH001090) 2.6A 200V
D105: 1G4B1 (IH001400) 1.5A 400V
 - Diode Array
D103: DAP208 (VN362600)
D104: DAN208 (VN362700)
 - Ceramic Capacitor
C101, 102: 0.220 250V (FR203220)
C103, 104: 2200P 400V (F1383220)
C105, 106: 4700P 400V (F1383470)
C107-110, 126: E 0.0047 500V M (FH223470)
C118, 119: F 0.0100 50V Z (FG644100)
 - Electrolytic Capacitor
C111: 2200 25.0V (UJ649220)
C112: 10.00 25.0V (UJ847100)
C113, 114: 100.00 25.0V (UJ848100)
C117, 124: 100.00 16.0V (UJ838100)
C122, 123: 220.00 16.0V (UJ838220)
C125: 10.00 16.0V (UJ837100)
 - Metal Oxide Film Resistor
R103: 10.0 1W J (VC742500)
 - Line Filter
L101: TF4825S192Y15R0 (VN365300)
 - Transformer
PT101: PEFF35-14 (XL073A00)
 - Relay
RY101-103: JM1AN-TMP-DC12V (VN477700)
 - Slide Switch
SW101: SDKGA4380B (VN547400) LINE VOLTAGE INDICATOR
 - Fuse
F101: T 3.00A 250V (KB000360) J
T 3.00A 250V (KB002650) U, C, V
T 3.15A S 250V (KB000760) H, B
T 500mA 250V (KB000310) J
T 500mA 250V (KB001150) U, C, V
T 500mA S 250V (KB000710) H, B
F102: T 500mA 250V (KB000310) J
T 500mA 250V (KB001150) U, C, V
T 500mA S 250V (KB000710) H, B
 - Base Post Connector
CN101: VH-2P TE (LB932020)
CN102: PH-5P TE (VB390100)
CN103: PH-6P TE (VB390200)
CN104-106: PH-2P TE (VB389900)
CN108: VH-3P TE (LB932030)

- Notes**
- Circuit Board: DC1 (VN273600)
- IC
IC301, 302: NUM2041D-0P AMP (IG069200)
 - Transistor
Q301-306: 2SC2837 (VN363900)
Q307-312: 2SA118B (VN363000)
Q313, 319, 322: 2SD438-MP E, F (ID043810)
Q314: 2SD526 O, Y (ID052630)
Q315, 320, 323: 2SB860-V16-MP (IB056010)
Q316: 2SB596 O, Y (IB059630)
Q317: 2SA970 GR, BL (IA097030)
Q318: 2SC2240 GR, BL (IC224030)
Q321: 2SC1815 Y, GR (IC1815M0)
 - Diode
D301-314, 317-330: 1SS146 T-72 (VN228300)
D315, 316, 332-335: 1SR35-100A (IH001430)
 - Zener Diode
D331: HZT7A3 (VN365100)
 - Positive Thermistor
P301: PTH9M04 BH 60°C (VM842100)
 - Ceramic Capacitor
C308, 311: F 0.0220 50V Z (FG644220)
 - Monolithic Cera. Cap.
C306, 307, 309, 312: 1.500 25V Z (VD534400)
 - Electrolytic Capacitor
C301, 302: 47.00 50.0V (UJ867470)
C303, 304: 2200 35.0V (UJ859220)
C305: 100.00 35.0V (UJ858100)
C310: 47.00 25.0V (UJ847470)
C313: 22.00 16.0V (UJ837220)
C314, 315: 1000 35.0V (VH520500)
 - Wire Wound Resistor
R309-320: 0.1 5W (VN368600)
R321-332, 359, 360: 0.39 05W (VN368800)
 - Metal Film Resistor
R341, 357, 358: 15.0K 1/4 F (VA074800)
R342: 11.0K 1/4 F (VA074500)
R346: 5.6K 1/4 F (VB067100)
R349: 3.9K 1/4 F (VB066900)
 - Flame Proof Resistor
R348, 352: 22.0 1/4 J (HV754220)
 - Trimmer Potentiometer
VR301: B 4.7K (VA786200) ±12V test
VR302: B 1.0K (VA785900) ±12V test
 - IC Protector
CP301-312: ICP-F50 (VF962800)
CP313-324: ICP-F10 (VF963600)
 - Connector
CN301: PH-4P TE (VB390000)
CN302: S-H 2P 380

- Notes**
- Circuit Board: DC4 (VA770200)
- Diode Stack
GBPC3504P (VP591700)
 - Mylar Capacitor
0.0100 630V M (F2000650)

- Notes**
- Circuit Board: DC2 (VN273700) J
DC2 (VN366000) U, C, V
DC2 (VN274800) H, B
- IC
IC401, 402: NUM2904 (IG093700) OP AMP
 - Transistor
Q401-406, 414: 2SC2837 (VN363900)
Q407, 409, 411: 2SD438-MP E, F (ID043810)
Q408, 419: 2SC1815 Y, GR (IC1815M0)
Q410, 417: 2SD526 O, Y (ID052630)
Q412: 2SA970 GR, BL (IA097030)
Q413, 420: 2SC3421 O, Y (IC342100)
Q415, 416, 418: 2SC2240 GR, BL (IC224030)
 - Diode
D401-407, 409-415, 419, 420: 1SS146 T-72 (VN228300)
D408, 418, 427: 1SR35-100A (IH001430)
 - Zener Diode
D416: HZT7A3 (VN365100)
D417, 424: MTZ5.6B 5.6V (VA007600)
D421: RD35E2 33.0V (IF005650)
D422: RD27E83 27.0V (IF005660)
D423: MTZ6.8C 6.8V (VA094800)
D425, 426: MTZ24A 24.0V (VB407500)
 - Diode Stack
D428: 1G4B1 1.5A 400V (IH001400)
 - Positive Thermistor
P401: PTH9M04 BH 60°C (VM842100)
 - Ceramic Capacitor
C405: F 0.0220 50.0V Z (FG644220)
C410-413: E 0.0047 500V M (FH223470)
C414: B 2200P 50V K (FG613220) J
B 2200P 50V Z (FG643220) U, C, H, B
B 1000P 50V K (FG613100)

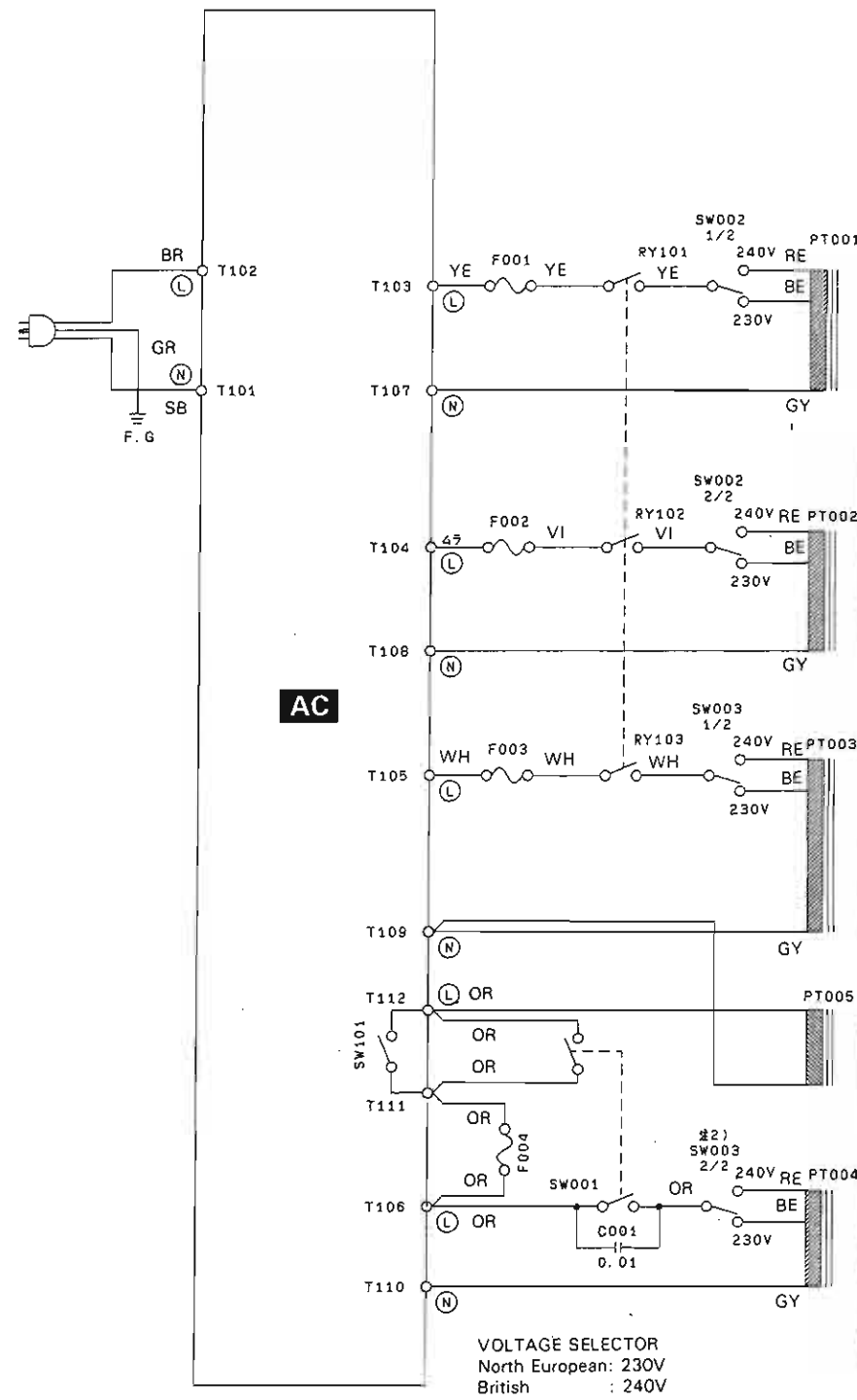
- Electrolytic Capacitor
C401, 416: 47.00 50.0V (UJ867470)
C402: 2200 25.0V (UJ849220)
C403, 404: 100.00 25.0V (UJ848100)
C406, 417: 47.00 25.0V (UJ847470)
C407: 1000.0 35.0V (VH520500)
C408: 2200 80.0V (VN864400)
C409: 220.00 100.0V (UJ898220)
C415: 1.0 100.0V (UJ896100)
C420: 4.7 100.0V (UJ896470)
C421: 220.00 63.0V (UJ878220)
- Wire Wound Resistor
C419: 0.1000 50V J (JA355100)
- Metal Film Resistor
R401-406: 0.1 5W (VN368600)
R408-412: 0.39 05W (VN368800)
- Metal Oxide Film Resistor
R420, 450: 3.0K 1/4 F (VB066600)
R421, 446: 5.1K 1/4 F (VA074200)
R425, 427: 6.2K 1/4 F (VB067200)
R447: 22.0K 1/4 F (VB068100)
R451: 18.0K 1/4 F (VB067900)
- Metal Oxide Film Resistor
R435: 330.0 1W J (VC746200)
R438: 2.2 1W J (VC740900)
R453: 3.3K 1W J (VC748800)
- Trimmer Potentiometer
VR401, 403: B 4.7K (VA786200) ±12V, +48V test
B 2.2K (VA786000) ±12V, +48V test
VR402: T 2.00A 250V (KB000350) J
T 2.00A 250V (KB001240) U, C, V
T 2.00A S 250V (KB000750) H, B
- Fuse
F413: T 2.00A 250V (KB000350) J
T 2.00A 250V (KB001240) U, C, V
T 2.00A S 250V (KB000750) H, B
- IC Protector
CP401-406: ICP-F50 (VF962800)
CP407-412: ICP-F10 (VF963600)
- Connector
CN401: VH-2P TE (LB932020)
CN402: VH-3P TE (LB932030)
CN403: S-H 2P 380
CN404: PH-3P TE (VB389900)

- Notes**
- Circuit Board: MON (VN274200)
- IC
IC501: PST518A-2 (KC722A00) RESET
IC502: SN74HC573N (IR067350) LATCH
IC503: SN74HC563N (IR066350) LATCH
IC504, 505: SN74HC08N (IR000850) AND
IC506: SN74HC21N (IR002150) AND
IC507: SN74HC14N (IR001450) INVERTER
IC508: NJU2028D (XK882A00) ADC
 - Transistor
Q501, 503, 505, 506, 508, 510, 511, 515: 2SC2240 GR, BL (IC224030)
Q502, 504, 507, 509: 2SA970 GR, BL (IA097030)
Q512-514, 518: 2SA970 GR, BL (IA097030)
Q517, 527: 2SC1815 Y, GR (IC1815M0)
 - Digital Transistor
Q518-526: DTC143XF (VA024600)
 - Diode
D508: 1SS146 T-72 (VN228300)
D509-511: 1SR35-100A (IH001430)
 - Zener Diode
D501, 503, 505: MTZ5.6B 5.6V (VA007600)
D502: MTZ13C 13.0V (VB405600)
D504: MTZ24A 24.0V (VB407500)
D506: RD27E83 27.0V (IF005660)
D507: MTZ11A 11.0V (VB404800)
 - LED
LD501-504, 509: GL8K26 GR (VJ734900) NAORMAL +48 - -19, POWER
LD505-508, 510: GL8HD26 RE (VK018900) CAUTION +48 - -19, THERMAL
 - LED Display
LD511: SL-1351 (VH556900) LINE VOLTAGE
 - Semiconductive Cera. Cap.
C501, 505, 506, 510-513, 520, 521: 0.1000 25V Z (VC694800)

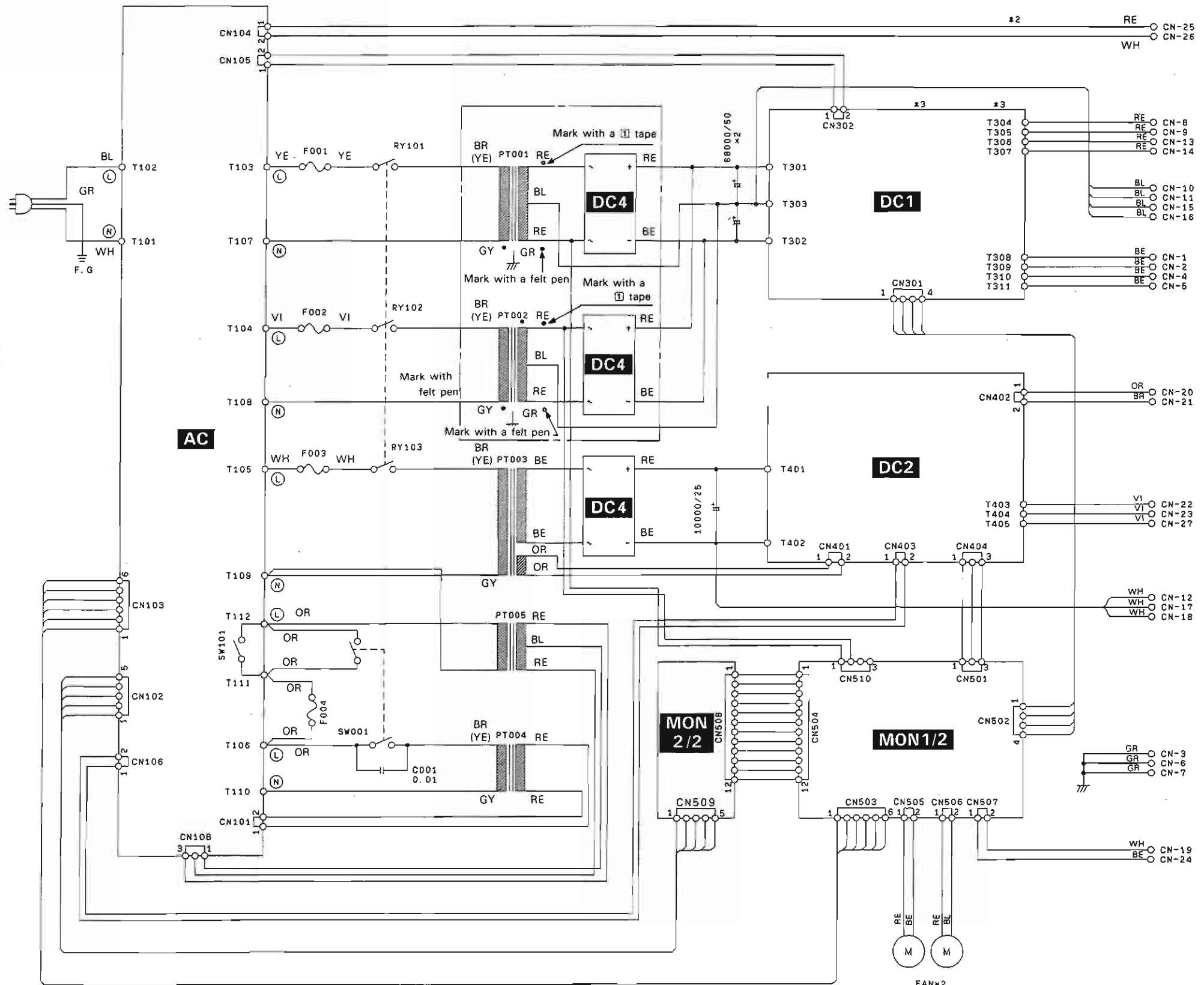
- Monolithic Cera. Cap.
C519: 0.220 50V Z (FZ005780)
- Ceramic Capacitor
C507-509: F 0.0220 50V Z (FG644220)
C515: SL 100P 50V J (FG652100)
- Electrolytic Capacitor
C502, 504: 100.00 16.0V (UJ838100)
C503: 47.00 16.0V (UJ837470)
C514: 100.00 10.0V (UJ837800)
C522: 1.0 100.0V (UJ896100)
- Mylar Capacitor
C517: 0.0100 50V J (JA354100)
C518: 0.47 50V J (VE326800)
- Metal Film Resistor
R572, 574: 82.0K 1/4 F (VB069400)
R582: 130.0 1/4 F (VB062800)
R584, 585: 47.0K 1/4 F (VB068800)
- Trimmer Potentiometer
VR501: B 1.0K (VA785900) VOLTAGE display adj.
- Connector
CN505, 506: PH-2P TE (VB389800)
CN507: PH-3P TE (VB389900)
CN510: PH-4P TE (VB390000)
CN503: PH-6P TE (VB390200)
CN504: PH-12P TE (VB390800)
CN501: S-P 3P 380
CN502: P-S 4P 410
CN508: P-S 12P 100
CN509: P-S 5P 600

■ PW4000 ブロックダイアグラム

* North European and British models



* Japanese, U.S. and Canadian models



| | F001-003 | F004 | PT001-002 | PT003 | PT004 | PT005 | PT101 |
|------|-------------|-------------|-----------|---------|---------|---------|---------|
| J | 6A 250V | 1A 250V | XJ357A0 | XJ351A0 | XJ354A0 | XL076A0 | XL073A0 |
| U, C | 6A 250V | 1A 250V | XJ358A0 | XJ352A0 | XJ355A0 | XL077A0 | ↓ |
| H, B | T3, 15A250V | T500MA 250V | XJ359A0 | XJ353A0 | XJ356A0 | XL078A0 | ↓ |

KEC-9190

PROFESSIONAL AUDIO MIXING CONSOLE PM4000 PARTS LIST

■ **CONTENTS** (目次)

| | | | |
|--|----|--|----|
| ELECTRICAL PARTS (電気部品)..... | 1 | TALKBACK MODULE (TBモジュール)..... | 38 |
| OVERALL ASSEMBLY 1/2 (総組立 $\frac{1}{2}$)..... | 14 | MONITOR MODULE (MONITORモジュール)..... | 42 |
| OVERALL ASSEMBLY 2/2 (総組立 $\frac{2}{2}$)..... | 20 | REAR PANEL-U ASSEMBLY (リアパネルU Ass'y)..... | 46 |
| MONAURAL INPUT MODULE (MONO INPUTモジュール)..... | 22 | REAR MASTER ASSEMBLY (リア(MAS) Ass'y)..... | 50 |
| STEREO INPUT MODULE (ST INPUTモジュール)..... | 26 | METER ASSEMBLY (メーターAss'y)..... | 54 |
| MASTER MODULE (MASTERモジュール)..... | 30 | BOTTOM BOARD ASSEMBLY (底板Ass'y)..... | 58 |
| STEREO MASTER MODULE (ST MASTERモジュール)..... | 34 | BUS CONNECTOR ASSEMBLY (バスコネクターAss'y)..... | 62 |

Notes DESTINATION ABBREVIATIONS

| | |
|--------------------------|---------------------------------|
| A : Australian model | J : Japanese model |
| B : British model | M : South African model |
| C : Canadian model | Q : South-east Asia model |
| D : German model | U : U.S.A. model |
| E : European model | V : General export model (110V) |
| F : French model | W : General export model (220V) |
| G : Belgian model | X : General export model |
| H : North European model | Y : Export model |
| I : Indonesian model | |

- 部品価格ランクは、変更になることがあります。
- Remarks欄に記されている数字は、使用個数です。
- 部品No.が“—”の部品は、サービス用部品として準備されておられません。
- The numbers with “pc.” or “pcs” in “Remarks” show quantities for each unit.
- The parts with “—” in “Part No.” are not available as spare parts.

ELECTRICAL PARTS (電気部品)

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|-----------------|------------|---|
| | | <ELECTRICAL PARTS> | <電気部品> | PM4000 | |
| | VN026200 | Circuit Board | CO | | 12 |
| | VN027100 | Circuit Board | DR | | 13 |
| | VN026400 | Circuit Board | EBI | | 37 |
| | VN026600 | Circuit Board | EBO10 | | 40 |
| | VN026700 | Circuit Board | EBO8 | | 35 |
| | VN024100 | Circuit Board | IN1 | | 60 |
| | VN024200 | Circuit Board | IN2 | | 14 |
| | VN024300 | Circuit Board | IN3 | | 20 |
| | VN024400 | Circuit Board | IN4 | | 14 |
| | VN024500 | Circuit Board | IN5 | | 07 |
| | VN024600 | Circuit Board | IN6 | | 13 |
| | VN026800 | Circuit Board | INS | | 18 |
| | VN025200 | Circuit Board | MAS1 | | 41 |
| | VN025300 | Circuit Board | MBBR | 24/32CH | 55 |
| | VN026000 | Circuit Board | MBBC | 40/48CH | 56 |
| | VN026100 | Circuit Board | MBS | | 46 |
| | VN026900 | Circuit Board | MF | | 14 |
| | VN025800 | Circuit Board | MON1 | | 55 |
| | VN025900 | Circuit Board | MON2 | | 18 |
| | VN027700 | Circuit Board | MSC | | 12 |
| | VN027400 | Circuit Board | MTS1 | | 18 |
| | VN027300 | Circuit Board | MTL | | 25 |
| | VN027200 | Circuit Board | PI | | 12 |
| | VN024700 | Circuit Board | SI1 | | 77 |
| | VN024800 | Circuit Board | SI2 | | 16 |
| | VN024900 | Circuit Board | SI3 | | 22 |
| | VN025100 | Circuit Board | SI5 | | 16 |
| | VN025400 | Circuit Board | ST1 | | 54 |
| | VN025500 | Circuit Board | TB1 | | 53 |
| | VN025700 | Circuit Board | TB3 | | 20 |
| | VN027000 | Circuit Board | VP | | 15 |
| | -- | Circuit Board | CS | VP2/2 | |
| | VN026200 | Circuit Board | CO | | 12 |
| | UA255100 | Mylar Cap. | 0.1000 50V J | マイラーコン | 02 |
| | UJ739220 | Electrolytic Cap. | 2200 16.0V | ケミコン | 02 |
| | UJ739470 | Electrolytic Cap. | 4700 16.0V | ケミコン | 03 |
| | UJ749470 | Electrolytic Cap. | 4700 25.0V | ケミコン | 03 |
| | UJ768100 | Electrolytic Cap. | 100.00 50.0V | ケミコン | 01 |
| | LB932100 | Base Post Connector | VH-10P TE | ベースポスト | 02 |
| | LB932080 | Base Post Connector | VH-8P TE | ベースポスト | 01 |
| | LB932060 | Base Post Connector | VH-6P TE | ベースポスト | 01 |
| | VB390100 | Base Post Connector | PH-5P TE | コネクタベースポスト | 01 |
| | LB932070 | Base Post Connector | VH-7P TE | ベースポスト | 01 |
| | VB390300 | Base Post Connector | PH-7P TE | コネクタベースポスト | 01 |
| | VB390000 | Base Post Connector | PH-4P TE | コネクタベースポスト | 01 |
| | VN027100 | Circuit Board | DR | DRシート | 13 |
| | VN057300 | Heat Sink | | ヒートシンク | 08 |
| | EP600230 | Bind Head Tapping Screw-B | 3.0X6 ZMC2BL | + バインドBタイト | 01 |
| | VL092800 | Insulation Sheet | BFG-20AD | 放熱シート | 02 |
| | VM512200 | Holder, Transistor | | T R ホルダ | 05 |
| | VJ470900 | Pan Head Screw | SPK3.0X12 ZMC2Y | + ナベ小ネジ | |
| | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコンF | 01 |
| | UJ837470 | Electrolytic Cap. | 47.00 16.0V | ケミコン | 01 |
| | UJ739470 | Electrolytic Cap. | 4700 16.0V | ケミコン | 03 |
| | IB059600 | Transistor | 2SB596LBB 0.Y | トランジスタ | 04 |
| | IC1815M0 | Transistor | 2SC1815 Y.GR | トランジスタ | 01 |
| | VC740500 | Metal Oxide Film Resistor | 1.5 1W J | 酸化金属被膜抵抗 | 01 |
| | VC740900 | Metal Oxide Film Resistor | 2.2 1W J | 酸化金属被膜抵抗 | 01 |
| | -- | Base Post Connector | PH-12P SE | コネクタベースポスト | (VC16650) |
| | VB858100 | Base Post Connector | PH-2P SE | コネクタベースポスト | 01 |
| | VG297000 | IC Protector | ICP-F20 | ICプロテクター | 0.8A, 50Vdc 02 |
| | VN026400 | Circuit Board | EBI | EBIシート | 37 |
| | FG644100 | Ceramic Cap. | 0.0100 50V Z | セラコンF | 01 |
| | UK547100 | Electrolytic Cap. | 10.00 25.0V | B Pケミコン | 01 |
| | VN321100 | Electrolytic Cap. | 47.00 25.0V | バイポーラケミコン | 01 |
| | VB858300 | Base Post Connector | PH-4P SE | コネクタベースポスト | 01 |
| | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc 02 |
| | XK870A00 | IC | 917038 | IC | EBI 07 |
| | VL958600 | XLN Connector | XLN-3-31PCV | キャノンコネクタ | GROUP SUB IN, ST SUB IN, CUE SUB IN 08 |
| | VN026600 | Circuit Board | EBO10 | EBO10シート | 40 |
| | UJ847100 | Electrolytic Cap. | 10.00 25.0V | ケミコン | 01 |

PM4000

| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク |
|----------|-------------------|-------------------------|----------------|--|-----|
| * | UK547100 | Electrolytic Cap. | 10.00 25.0V | VP | 01 |
| | VL049300 | Electrolytic Cap. | 220.00 25.0V | | 02 |
| | HV754100 | Flame Proof C. Resistor | 10.0 1/4 J | | 01 |
| | VB390000 | Base Post Connector | PH-4P TE | | 01 |
| * | VG297000 | IC Protector | ICP-F20 | 0.8A, 50Vdc | 02 |
| | XK871A00 | IC | 917040 | | 08 |
| * | VL958700 | XLW Connector | XLW-3-32PCV | EBO GROUP OUT, ST OUT, MTRX OUT TB OUT, OSC OUT | 07 |
| | VN026700 | Circuit Board | EBO8 | | VP |
| UJ847100 | Electrolytic Cap. | 10.00 25.0V | 01 | | |
| UK547100 | Electrolytic Cap. | 10.00 25.0V | 01 | | |
| VL049300 | Electrolytic Cap. | 220.00 25.0V | 02 | | |
| * | HV754100 | Flame Proof C. Resistor | 10.0 1/4 J | 0.8A, 50Vdc | 01 |
| | VB390000 | Base Post Connector | PH-4P TE | | 02 |
| | VG297000 | IC Protector | ICP-F20 | | 08 |
| | XK871A00 | IC | 917040 | | 07 |
| * | VL958700 | XLW Connector | XLW-3-32PCV | EBO AUX OUT, AUX ST OUT, MONITOR OUT | 07 |
| | VN024100 | Circuit Board | IN1 | | 60 |
| VN560100 | LED Holder | IN5 | 03 | | |
| VN024500 | Circuit Board | IN5 | 07 | | |
| * | -- | Connector Assembly | IN1 | (VP70200) (FG65147) (FG65168) | 01 |
| | -- | Ceramic Cap.-SL | 47P 50V J | | |
| | -- | Ceramic Cap.-SL | 88P 50V J | | |
| | FG652100 | Ceramic Cap.-SL | 100P 50V J | | |
| | FG613100 | Ceramic Cap.-B | 1000P 50V K | | |
| * | -- | Mylar Cap. | 470P 50V J | (UA35247) (UA35333) | 01 |
| | -- | Mylar Cap. | 3300P 50V J | | |
| | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | | |
| | -- | Mylar Cap. | 0.0470 50V J | | |
| | -- | Mylar Cap. | 0.1200 50V J | | |
| * | UJ819100 | Electrolytic Cap. | 1000 6.3V | VP | 01 |
| | UJ837100 | Electrolytic Cap. | 10.00 16.0V | | 01 |
| | UJ838100 | Electrolytic Cap. | 100.00 16.0V | | 01 |
| | UJ847100 | Electrolytic Cap. | 10.00 25.0V | | 01 |
| | UJ848100 | Electrolytic Cap. | 100.00 25.0V | | 01 |
| | VJ097400 | Electrolytic Cap. | 10.00 50.0V | | 01 |
| * | UJ867470 | Electrolytic Cap. | 47.00 50.0V | VP | 01 |
| | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | | 01 |
| | UK547100 | Electrolytic Cap.-BP | 10.00 25.0V | | 01 |
| | VN321100 | Electrolytic Cap.-BP | 47.00 25.0V | | 01 |
| | VN452100 | Electrolytic Cap.-BP | 100.00 25.0V | | 01 |
| * | VL049300 | Electrolytic Cap.-BP | 220.00 25.0V | VP | 02 |
| | VB941200 | Diode | 1SS133, 1SS176 | | 01 |
| | IH000030 | Diode | 10D1 | | 01 |
| | IC1815M0 | Transistor | 2SC1815 Y, GR | | 01 |
| | IA101590 | Transistor | 2SA1015 O, Y | | 01 |
| | IB064730 | Transistor | 2SB647 C, D | | 01 |
| | ID066700 | Transistor | 2SD667 C, D | | 01 |
| | VB061100 | Metal Film Resistor | 27.0 1/4 F | | 01 |
| | VB063700 | Metal Film Resistor | 330.0 1/4 F | | 01 |
| | VB064300 | Metal Film Resistor | 560.0 1/4 F | | 01 |
| * | VB065000 | Metal Film Resistor | 910.0 1/4 F | L=215 (VP12930) L=80 (VN32160) CH IN (VN36650) CH D-0 (VN36670) | 01 |
| | VB066300 | Metal Film Resistor | 2.2K 1/4 F | | 01 |
| | VB066400 | Metal Film Resistor | 2.4K 1/4 F | | 01 |
| | VB066600 | Metal Film Resistor | 3.0K 1/4 F | | 01 |
| | VA074100 | Metal Film Resistor | 4.7K 1/4 F | | 01 |
| | VB067300 | Metal Film Resistor | 6.8K 1/4 F | | 01 |
| | VB067500 | Metal Film Resistor | 9.1K 1/4 F | | 01 |
| | VA074400 | Metal Film Resistor | 10.0K 1/4 F | | 01 |
| | VA074600 | Metal Film Resistor | 15.0K 1/4 F | | 01 |
| | VB067900 | Metal Film Resistor | 18.0K 1/4 F | | 01 |
| * | VB068200 | Metal Film Resistor | 24.0K 1/4 F | L=215 (VP12930) L=80 (VN32160) CH IN (VN36650) CH D-0 (VN36670) | 01 |
| | HV754100 | Flame Proof C. Resistor | 10.0 1/4 J | | 01 |
| | HV755390 | Flame Proof C. Resistor | 390.0 1/4 J | | 01 |
| | -- | Flat Cable Assembly | 57F50P-AXP50P | | 01 |
| * | -- | Flat Cable Assembly | 57F50P-AXP50P | L=215 (VP12930) L=80 (VN32160) CH IN (VN36650) CH D-0 (VN36670) | 01 |
| | -- | Connector Assembly | SAN&PH | | |
| | -- | Connector Assembly | SAN&PH | | |
| * | VA252300 | Base Post Connector | MQ-5P TE | 01 | 01 |
| | VB994800 | Connector | BO7P-MQ | | 01 |
| * | VB390000 | Base Post Connector | PH-4P TE | 01 | 01 |
| | VB390200 | Base Post Connector | PH-6P TE | | 01 |
| | VB390400 | Base Post Connector | PH-8P TE | | 01 |
| | VF283100 | Base Post Connector | PH-13P TE | | 01 |

*New Parts (新規部品)

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|-----------------|-------------|-------------------|
| | VE352600 | Base Post Connector | PH-14P TE | コネクタベースポスト | 01 |
| | -- | Connector | 5532-NA 6P TE | 基板用コネクタ | (VN30430) |
| | -- | Connector Assembly | SAN&PH | 束線 | CH. INS (VN36660) |
| | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 02 |
| | XK866A00 | IC | 917090 | IC | 09 |
| | IG102500 | IC | NE5532P | IC | 06 |
| | XK872A00 | IC | 911306 | IC | 08 |
| | XK867B00 | IC | 911308 | IC | 14 |
| | XK871A00 | IC | 917040 | IC | 08 |
| | XK868C00 | IC | 917089 | IC | 16 |
| | XK873A00 | IC | 917037 | IC | 07 |
| | VH325300 | LED | GL2EG6 GR | LED | 01 |
| | VJ471200 | LED | GL2HY6 YE | LED | 01 |
| | VH325200 | LED | GL2PR6 RE | LED | 01 |
| | VP155700 | LED | GL5HY40 YE | LED | 01 |
| | VM640200 | Relay | DC RY 12W-OH-K | リレー 12V | 05 |
| | VN018100 | Push Switch | SPUJ50 4/2 2/2* | プッシュSW五連 | 05 |
| | VN016900 | Push Switch | SPUJ12 2/2 | プッシュSW | 02 |
| | VN017100 | Push Switch | SPUJ12 6/2 | プッシュSW | 03 |
| | VN017200 | Push Switch | SPUJ21 2/2*2 | プッシュSW二連 | 03 |
| | KA401270 | Slide Switch | SSS212 | スライドSW | 03 |
| | VE340300 | Test Point | IRS-1169 | テストポイントピン | 01 |
| | VN014800 | Variable Resistor | A20K C20K | 二連ロータリーVR | 04 |
| | VN015900 | Variable Resistor | 2K 5K | 二連ロータリーVR | 04 |
| | VN014700 | Variable Resistor | C 50K&DMY | 二連ロータリーVR | 04 |
| | VP610100 | Variable Resistor | C50K*3 W50K | 二軸ロータリーVR五連 | 05 |
| | VP609900 | Variable Resistor | C50K*2 W50K | 二軸ロータリーVR四連 | 05 |
| | VP126100 | Variable Resistor | C100KC50K DMY*2 | 四連ロータリーVR | 08 |
| | VP255200 | Variable Resistor with SW | A20K 2/3 SRBM13 | SW付VR | 08 |
| | VA788100 | Trimmer Potentiometer | B 22.0K | 半固定VR | 01 |
| | VA788400 | Trimmer Potentiometer | B 100.0K | 半固定VR | 01 |
| | VA787300 | Trimmer Potentiometer | B 220 | 半固定VR | 01 |
| | VN024200 | Circuit Board | IN2 | IN2シート | 14 |
| | VB067900 | Metal Film Resistor | 18.0K 1/4 F | 金属被膜抵抗 | 01 |
| | -- | Connector Assembly | IN2 SAN&PH | 束線 #28 | (VP66850) |
| | -- | Connector Assembly | SAN&PH 6P 60L | 束線 #28 | (VN37540) |
| | -- | Connector Assembly | SAN&PH 8P 60L | 束線 #28 | (VN37190) |
| | VH325300 | LED | GL2EG6 GR | LED | 01 |
| | VJ471200 | LED | GL2HY6 YE | LED | 01 |
| | VN018200 | Push Switch | SPUJ50 2/2*4 4/ | プッシュSW五連 | 05 |
| | VN016900 | Push Switch | SPUJ12 2/2 | プッシュSW | 02 |
| | VN024300 | Circuit Board | IN3 | IN3シート | 20 |
| | VN546900 | LED Holder | METER | LEDホルダー | 03 |
| | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコンF | 01 |
| | -- | Mylar Cap. | 0.0470 50V J | マイラーコン | (UA35447) |
| | UA355100 | Mylar Cap. | 0.1000 50V J | マイラーコン | 01 |
| | UJ838100 | Electrolytic Cap. | 100.00 16.0V | ケミコン | 01 |
| | UJ837100 | Electrolytic Cap. | 10.00 16.0V | ケミコン | 01 |
| | UJ846470 | Electrolytic Cap. | 4.70 25.0V | ケミコン | 01 |
| | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | BPケミコン | 01 |
| | VB941200 | Diode | 1SS133,1SS176 | ダイオード | 01 |
| | IC1815M0 | Transistor | 2SC1815 Y,GR | トランジスタ | 01 |
| | IA101590 | Transistor | 2SA1015 O,Y | トランジスタ | 01 |
| | VA074400 | Metal Film Resistor | 10.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VB070600 | Metal Film Resistor | 270.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VA074700 | Metal Film Resistor | 30.0K 1/4 F | 金属被膜抵抗 | 01 |
| | -- | Connector Assembly | SAN&PH 13P 60L | 束線 #28 | (VN00260) |
| | -- | Connector Assembly | SAN&PH 4P 60L | 束線 #28 | (VM66720) |
| | -- | Connector Assembly | SAN&PH 14P 60L | 束線 #28 | (VN35890) |
| | IG136600 | IC | IR2E19 | IC | 05 |
| | IG069200 | IC | NJM2041D-D | IC | 05 |
| | VH325200 | LED | GL2PR6 RE | LED | 01 |
| | VJ471200 | LED | GL2HY6 YE | LED | 01 |
| | VH325300 | LED | GL2EG6 GR | LED | 01 |
| | VN467900 | Resistor Array | EXB-F11E104F | 抵抗アレイ | 01 |
| | VN018300 | Push Switch | SPUJ 2/2*8 | プッシュSW八連 | 06 |
| | VN018500 | Push Switch | SPUJA5 2/2*9 4/ | プッシュSW十連 | 07 |

| Ref. No. | Part No. | Description | | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|-----------------|---------------|--|-----|
| | VE340300 | Test Point | IRS-1169 | テストポイントピン | | 01 |
| | VA788000 | Trimmer Potentiometer | B 10.0K | 半固定VR | Meter LED adj. | 01 |
| | VA788300 | Trimmer Potentiometer | B 47.0K | 半固定VR | VCA reference voltage adj. | 01 |
| | VA007800 | Zener Diode | MTZ5.6B 5.6V | ツェナーダイオード | | 01 |
| * | VN024400 | Circuit Board | IN4 | IN4シート | | 14 |
| * | VB067200 | Metal Film Resistor | 6.2K 1/4 F | 金属被膜抵抗 | | 01 |
| * | -- | Connector | 5533-NAPB 6P SE | 基板用コネクタ | (VN30400) | |
| * | VP255300 | Variable Resistor with SW | A20K 2/3 | SW付VR | LEVEL/LEVEL L, | 08 |
| * | VP255500 | Variable Resistor with SW | A20K C20K 4/2 | SW付VR | PRE/OFF/POST PAN/LEVEL R | 08 |
| * | VN024500 | Circuit Board | IN5 | IN5シート | | 07 |
| * | -- | Ceramic Cap.-SL | 33P 50V J | セラコン (SL) | (FG65133) | |
| * | -- | Ceramic Cap.-SL | 88P 50V J | セラコン (SL) | (FG65168) | |
| * | VB064200 | Metal Film Resistor | 510.0 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB066200 | Metal Film Resistor | 2.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB067400 | Metal Film Resistor | 8.2K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB068000 | Metal Film Resistor | 20.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VA252100 | Connector | MQ-BT 5P TE | MQコネクタ | | 01 |
| * | -- | Connector | 07MQ-BT 7P TE | MQコネクタ | (VB99500) | |
| * | VN024600 | Circuit Board | IN6 | IN6シート | | 13 |
| * | VN057000 | Holder, Jack | x3 | JACK金具 | | 05 |
| * | -- | Ceramic Cap.-B | 470P 50V K | セラコン B | (FG61247) | |
| * | VB390000 | Base Post Connector | PH-4P TE | コネクタベースポスト | | 01 |
| * | VB389900 | Base Post Connector | PH-3P TE | コネクタベースポスト | | 01 |
| * | VB390200 | Base Post Connector | PH-6P TE | コネクタベースポスト | | 01 |
| * | VM651800 | XLM Connector | XLM-3-31PCH-L | キャノンコネクタ | INPUT | 13 |
| * | VN327000 | Phone Jack | 2P STEREO | ホンコネクタ | INSERRT OUT/IN | 05 |
| * | VN326800 | Phone Jack | 1P STEREO | ホンコネクタ | DIRECT OUT | 03 |
| * | VN026800 | Circuit Board | INS | INSシート | | 18 |
| * | VN347800 | Holder, Jack | x2 | JACK金具 | | 05 |
| * | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコン F | | 01 |
| * | UK547100 | Electrolytic Cap.-BP | 10.00 25.0V | BPケミコン | | 01 |
| * | VN321100 | Electrolytic Cap.-BP | 47.00 25.0V | バイポーラケミコン | VP | 01 |
| * | VB858900 | Base Post Connector | PH-10P SE | コネクタベースポスト | | 01 |
| * | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc | 02 |
| * | XK872A00 | IC | 811308 | IC | INS | 08 |
| * | VN327000 | Phone Jack | 2P STEREO | ホンコネクタ | GROUP INSERT, ST INSERT, MTRX INSERT, AUX INSERT | 05 |
| * | VN025200 | Circuit Board | MAS1 | MAS1シート | | 41 |
| * | VN560100 | LED Holder | | LEDホルダー | | 03 |
| * | VN051400 | LED Holder | MASTER | LEDホルダー | | 03 |
| * | -- | Ceramic Cap.-SL | BP 50V D | セラコン (SL) | (FG65060) | |
| * | -- | Ceramic Cap.-SL | 22P 50V J | セラコン (SL) | (FG65122) | |
| * | FG612220 | Ceramic Cap.-B | 220P 50V K | セラコン B | | 01 |
| * | -- | Ceramic Cap.-B | 330P 50V K | セラコン B | (FG61233) | |
| * | FG613100 | Ceramic Cap.-B | 1000P 50V K | セラコン B | | 01 |
| * | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコン F | | 01 |
| * | UJ838100 | Electrolytic Cap. | 100.00 16.0V | ケミコン | | 01 |
| * | UJ847100 | Electrolytic Cap. | 10.00 25.0V | ケミコン | | 01 |
| * | UJ848100 | Electrolytic Cap. | 100.00 25.0V | ケミコン | | 01 |
| * | UJ866100 | Electrolytic Cap. | 1.00 50.0V | ケミコン | | 01 |
| * | UK846470 | Electrolytic Cap. | 4.7 25.0V | BPケミコン | | 01 |
| * | VN321100 | Electrolytic Cap. | 47.00 25.0V | バイポーラケミコン | VP | 01 |
| * | VL049300 | Electrolytic Cap. | 220.00 25.0V | バイポーラケミコン | VP | 02 |
| * | VB941200 | Diode | 1SS133,1SS176 | ダイオード | | 01 |
| * | IH000030 | Diode | 10D1 | ダイオード | | 01 |
| * | IB064730 | Transistor | 2SB647 C,D | トランジスタ | | 01 |
| * | IC1815M0 | Transistor | 2SC1815 Y,GR | トランジスタ | | 01 |
| * | IA101590 | Transistor | 2SA1015 O,Y | トランジスタ | | 01 |
| * | ID066700 | Transistor | 2SD667 C,D | トランジスタ | | 01 |
| * | VA074100 | Metal Film Resistor | 4.7K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VA074400 | Metal Film Resistor | 10.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB067900 | Metal Film Resistor | 18.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB068000 | Metal Film Resistor | 20.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB068300 | Metal Film Resistor | 27.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VA074700 | Metal Film Resistor | 30.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB068500 | Metal Film Resistor | 36.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB069600 | Metal Film Resistor | 100.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB070600 | Metal Film Resistor | 270.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | -- | Flat Cable Assembly | 57F36P-AXP34P | フラットケーブル Assy | L=180 (VN32190) | |
| * | -- | Flat Cable Assembly | 57F36P-AXP34P | フラットケーブル Assy | L=80 (VN32180) | |

*New Parts (新規部品)

ランク : Japan only

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------|------------------|---------------|------------------|
| | -- | Connector Assembly | 5395&5480 | 東線 | 4P 80L (VA34190) |
| | -- | Connector | 5532-NA 6P TE | 基板用コネクタ | (VN30430) |
| | -- | Connector Assembly | 5395&5480 4P | 東線 | L=180 (VA35040) |
| | -- | Connector Assembly | SAN&SAN 6P | 東線 #28 | L=140 (VN37050) |
| | -- | Connector | 5533-NAPB. 6P SE | 基板用コネクタ | (VN30400) |
| * | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc |
| * | XK869A00 | IC | 917091 | IC | SUM |
| * | XK873A00 | IC | 917037 | IC | BA |
| * | IG069200 | IC | NJM2041D-D | IC | OP AMP |
| * | VJ471200 | LED | GL2HY6 YE | LED | INSERT, GROUP TO |
| * | VP155700 | LED | GL5HY40 YE | LED | ST, GROUP TO MT- |
| * | VN327800 | LED | LN320 GR | LED | ON, CUE |
| * | VH325200 | LED | GL2PR6 RE | LED | NOMINAL |
| * | VN017600 | Push Switch | SPUJ21 4/2 2/2 | プッシュSW二連 | VCA MUTE |
| * | VN017300 | Push Switch | SPUJ21 2/2 4/2 | プッシュSW二連 | INSERT, CUE |
| * | KA401270 | Slide Switch | SSS212 | スライドSW | GROUP TO ST, |
| * | VN016900 | Push Switch | SPUJ12 2/2 | プッシュSW | GROUP TO MTRX |
| * | VE340300 | Test Point | IRS-1169 | テストポイントピン | PRE/POST |
| * | VN014800 | Variable Resistor | A20K C20K | 二連ロータリーVR | (internal sw) |
| * | VP126000 | Variable Resistor | A20&DMY DMY#2 | 四連ロータリーVR | ON, VCA MUTE |
| * | VN014500 | Variable Resistor | A 20K&DMY | 二連ロータリーVR | PAN |
| * | VN015700 | Variable Resistor | A 10K&DMY | 二連ロータリーVR | SUB IN |
| * | VA788300 | Trimmer Potentiometer | B 47.0K | 半固定VR | L.R. 1-8 |
| * | VA007600 | Zener Diode | MTZ5.6B 5.6V | ツェナーダイオード | MTRX MASTER, |
| * | VN025300 | Circuit Board | MBBR | M B B R シート | LEVEL |
| * | VN026000 | Circuit Board | MBBC | M B B C シート | VCA adj. |
| * | VN046000 | Angle Bracket, MB | (F) | マザーボードアングル | |
| * | VN046100 | Angle Bracket, GND | | GNDアングル | |
| * | VN046300 | Insulation Sheet, GND | | GND絶縁シート | |
| * | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | +皿小ネジ | |
| * | -- | Flat Cable Assembly | HIF50P-AXP50P | フラットケーブル Assy | (VN47800) |
| * | VN318700 | Header | HIF3BBF50PA2.54 | ヘッダー | |
| * | -- | Base Post Connector | VH-8P SE | ベースポスト | (LB93308) |
| * | LB933040 | Base Post Connector | VH-4P SE | ベースポスト | |
| * | VB389600 | Base Post Connector | PH-11P SE | コネクタベースポスト | |
| * | VB858700 | Base Post Connector | PH-8P SE | コネクタベースポスト | |
| * | VN074400 | Connector | 36P TE | 57シリーズコネクタ | |
| * | VA252000 | Connector | 50P TE | コネクタ | |
| * | -- | Flat Cable Assembly | HIF50P-AXP50P | フラットケーブル Assy | (VN47810) |
| * | VN026100 | Circuit Board | MBS | M B S シート | |
| * | VN045900 | Angle Bracket, MB | (R) | マザーボードアングル | |
| * | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | +皿小ネジ | |
| * | VB390200 | Base Post Connector | PH-6P TE | コネクタベースポスト | |
| * | VB390300 | Base Post Connector | PH-7P TE | コネクタベースポスト | |
| * | VB352600 | Base Post Connector | PH-14P TE | コネクタベースポスト | |
| * | VF283300 | Base Post Connector | PH-15P TE | コネクタベースポスト | |
| * | VF283400 | Base Post Connector | PH-16P TE | コネクタベースポスト | |
| * | VB389900 | Base Post Connector | PH-3P TE | コネクタベースポスト | |
| * | VB390600 | Base Post Connector | PH-10P TE | コネクタベースポスト | |
| * | VB390400 | Base Post Connector | PH-8P TE | コネクタベースポスト | |
| * | VN074400 | Connector | 36P TE | 57シリーズコネクタ | |
| * | VA252000 | Connector | 50P TE | コネクタ | |
| * | VA251900 | Connector | 14P TE | コネクタ | |
| * | VN026900 | Circuit Board | MF | M F シート | |
| * | VC719300 | Terminal Plate | P-424 | ターミナル金具 | |
| * | UJ837100 | Electrolytic Cap. | 10.00 16.0V | ケミコン | |
| * | VB390400 | Base Post Connector | PH-8P TE | コネクタベースポスト | |
| * | VB390500 | Base Post Connector | PH-9P TE | コネクタベースポスト | |
| * | VB390100 | Base Post Connector | PH-5P TE | コネクタベースポスト | |
| * | VB390000 | Base Post Connector | PH-4P TE | コネクタベースポスト | |
| * | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc |
| * | VN019000 | Rotary Switch | SRRS8 8/3 | ロータリーSW | MUTE1-4, 5-8 |
| * | VP958200 | Slide Switch | SSSB1 | スライドSW | FAN (HIGH/LOW) |
| * | VA095400 | Zener Diode | MTZ8.2C 8.2V | ツェナーダイオード | |
| * | VN025800 | Circuit Board | MON1 | M O N 1 シート | |
| * | VN560100 | LED Holder | | LEDホルダー | |
| | -- | Ceramic Cap.-SL | 22P 50V J | セラコン (SL) | (FG65122) |
| | -- | Ceramic Cap.-SL | 47P 50V J | セラコン (SL) | (FG65147) |
| | FG652100 | Ceramic Cap.-SL | 100P 50V J | セラコン (SL) | |
| | FG612220 | Ceramic Cap.-B | 220P 50V K | セラコン B | |

PM4000

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|---------------|---|-----|
| | FG613100 | Ceramic Cap.-B | セラコン B | | 01 |
| | FG644100 | Ceramic Cap.-F | セラコン F | | 01 |
| | UJ837100 | Electrolytic Cap. | ケミコン | | 01 |
| | UJ837470 | Electrolytic Cap. | ケミコン | | 01 |
| | UJ838100 | Electrolytic Cap. | ケミコン | | 01 |
| | UJ847100 | Electrolytic Cap. | ケミコン | | 01 |
| | UJ848100 | Electrolytic Cap. | ケミコン | | 01 |
| * | UK846470 | Electrolytic Cap.-BP | BPケミコン | | 01 |
| * | VN321100 | Electrolytic Cap.-BP | パイボークミコン | VP | 01 |
| * | VL049300 | Electrolytic Cap.-BP | パイボークミコン | VP | 02 |
| | VB941200 | Diode | ダイオード | | 01 |
| | IH000030 | Diode | ダイオード | | 01 |
| | IA101590 | Transistor | トランジスタ | | 01 |
| | IC1815M0 | Transistor | トランジスタ | | 01 |
| | IB064730 | Transistor | トランジスタ | | 01 |
| | ID066700 | Transistor | トランジスタ | | 01 |
| | VA074100 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB067600 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB067700 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB067900 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB068000 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB068300 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | VB069000 | Metal Film Resistor | 金属被膜抵抗 | | 01 |
| | -- | Flat Cable Assembly | フラットケーブル Assy | L=180 (VN32170) | 01 |
| | -- | Flat Cable Assembly | フラットケーブル Assy | L=80 (VN32160) | 01 |
| | VB390000 | Base Post Connector | コネクタベースポスト | | 01 |
| | VB389900 | Base Post Connector | コネクタベースポスト | | 01 |
| | VB389800 | Base Post Connector | コネクタベースポスト | | 01 |
| | VF963600 | IC Protector | ICプロテクター | 0.4A, 50Vdc | 02 |
| | XK873A00 | IC | IC | BA | 07 |
| * | XK869A00 | IC | IC | SUM | 08 |
| | IG102500 | IC | IC | OP AMP | 06 |
| | IG063500 | IC | IC | TIMER | 03 |
| | VJ471200 | LED | LED | 2TR IN1,2,ST CH 3,4,ST OUT, | 01 |
| | VP155700 | LED | LED | MON.A,AUX ST1,2 AUX,GROUP,MTRX, MONO | 01 |
| | VG261500 | LED | LED | ON TALKBACK | 01 |
| * | VN327200 | LED | LED | CUE | 01 |
| * | VM640200 | Relay | リレー 12V | | 05 |
| * | VN018800 | Push Switch | プッシュ SW 六連 | 2TR IN1,2,ST CH 3,4,ST OUT, MON.A,AUX ST1,2 | 06 |
| | VN017000 | Push Switch | プッシュ SW | AUX,GROUP,MTRX, MONO | 03 |
| * | VN018900 | Push Switch | プッシュ SW 十連 | ON,MONO 2TR IN1,2,ST CH 3,4,ST OUT, | 07 |
| | VN017900 | Push Switch | プッシュ SW 四連 | AUX ST1,2,AUX, GROUP,MTRX | 07 |
| * | VN015800 | Variable Resistor | 二連ロータリーVR | 1-2,3-4,5-6,7-8 LEVEL,PHONES | 04 |
| * | VN025900 | Circuit Board | MON2 | | 18 |
| | FG652100 | Ceramic Cap.-SL | セラコン (SL) | | 01 |
| | -- | Mylar Cap. | マイラーコン | (UA35447) | 01 |
| | UJ866100 | Electrolytic Cap. | ケミコン | | 01 |
| | UJ838100 | Electrolytic Cap. | ケミコン | | 01 |
| * | UJ838470 | Electrolytic Cap. | ケミコン | | 01 |
| | VC742900 | Metal Oxide Film Resistor | 酸化金属被膜抵抗 | | 01 |
| | -- | Connector Assembly | 束線 #28 | (VN35590) | |
| | -- | Connector Assembly | 束線 #28 | (VM85710) | |
| | IG058600 | IC | IC | | 04 |
| | LB301690 | Phone Jack | ホンコネクタ | PHONES | 02 |
| | VA273600 | LED Display | LEDディスプレイ | INPUT CUE | 04 |
| | VA273400 | LED Display | LEDディスプレイ | SOLO | 03 |
| * | VN027700 | Circuit Board | MSC | | 12 |
| | VB941200 | Diode | ダイオード | | 01 |
| | IA101590 | Transistor | トランジスタ | | 01 |
| | VF283100 | Base Post Connector | コネクタベースポスト | | 01 |
| | -- | Connector Assembly | 束線 #28 | (VM62900) | |
| | VF963600 | IC Protector | ICプロテクター | 0.4A, 50Vdc | 02 |
| * | VA273600 | LED Display | LEDディスプレイ | MON A,TB/OSC | 04 |
| | VN016900 | Push Switch | プッシュ SW | MON meter funct- ion switch | 02 |

*New Parts (新規部品)

ランク: Japan only

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|--|---|---|---|---|
| * * | VN027300 VN048200 VA775300 -- UJ847220 | Circuit Board Reflector Spacer Mylar Cap. Electrolytic Cap. | MTL シート 反射板 LED スペーサー マイラーコン ケミコン | (UA35447) | 25 04 01 01 |
| | UK866100 UK547220 VB941200 IC1815M0 IA101590 | Electrolytic Cap.-BP Electrolytic Cap.-BP Diode Transistor Transistor | BPケミコン BPケミコン ダイオード トランジスタ トランジスタ | | 01 01 01 01 01 |
| | VB389900 VB390600 VB390400 VB390200 VB389800 | Base Post Connector Base Post Connector Base Post Connector Base Post Connector Base Post Connector | コネクタベース コネクタベース コネクタベース コネクタベース コネクタベース | | 01 01 01 01 01 |
| | -- -- -- -- VF963600 | Connector Assembly Connector Assembly Connector Assembly Connector Assembly IC Protector | SAN&SAN 8P 60L SAN&SAN 4P 60L SAN&SAN 2P 60L SAN&PH 2P 60L ICP-F10 | 東線 #28 東線 #28 東線 #28 東線 #28 ICプロテクター | (VN35120) (VN35110) (VM66560) (VM62900) 0.4A, 50Vdc |
| | IG069200 VH325200 VP155700 VA273500 VA273400 | IC LED LED LED Display LED Display | NJM2041D-D GL2PR6 RE GL5HY40 YE LN0202GP3 LN0202RP2 | IC LED LED LEDディスプレイ LEDディスプレイ | OP AMP ST L,R PEAK ST meter lamp GRP MTRX |
| | VA273600 VA786000 | LED Display Trimmer Potentiometer | LN0202YP4 B2.2K | LEDディスプレイ 半固定VR | AUX ST meter adj. |
| * * | VN027400 VN048200 | Circuit Board Reflector | MTS1 PM4K | MTS1 シート 反射板 | 24/32CH 04 |
| | VC340900 FG644100 -- UJ837100 UJ847100 | LED Spacer Ceramic Cap.-F Mylar Cap. Electrolytic Cap. Electrolytic Cap. | 0.0100 50V Z 0.0470 50V J 10.00 16.0V 10.00 25.0V | LED スペーサー セラコンF マイラーコン ケミコン | (UA35447) |
| | UK547100 VN321100 UK866100 VN320100 IC1815M0 IA101590 | Electrolytic Cap. Electrolytic Cap. Electrolytic Cap. Diode Transistor Transistor | 10.00 25.0V 47.00 25.0V 1.00 50.0V 1K34A 2SC1815 Y,GR 2SA1015 O,Y | BPケミコン バイポーラケミコン BPケミコン ダイオード トランジスタ トランジスタ | VP 01 01 01 01 |
| | -- VB858700 -- VB858100 VB389800 -- VF963600 XA053A00 IG069200 | Base Post Connector Base Post Connector Connector Assembly Base Post Connector Base Post Connector Base Post Connector IC Protector IC IC | PH-12P SE PH-8P SE SAN&SAN 3P 60L PH-2P SE PH-2P TE PH-14P SE ICP-F10 TC4052BP NJM2041D-D | コネクタベース コネクタベース 東線 #28 コネクタベース コネクタベース コネクタベース ICプロテクター IC IC | (VC16650) (VN90060) (VH90420) 0.4A, 50Vdc MULTIPLEXER OP AMP |
| | VH325200 VP155700 VA785900 | LED LED Trimmer Potentiometer | GL2PR6 RE GL5HY40 YE B 1.0K | LED LED 半固定VR | PEAK Meter lamp Meter adj. |
| * * | VN027200 | Circuit Board | PJ | PI シート | 12 |
| | FG444100 VC747000 VC781600 VC748200 VB858900 | Ceramic Cap.-F Metal Oxide Film Resistor Metal Oxide Film Resistor Metal Oxide Film Resistor Base Post Connector | 0.0100 50V Z 680.0 1W J 1.2K 2W J 1.8K 1W J PH-10P SE | セラコンF 酸化金属被膜抵抗 酸化金属被膜抵抗 酸化金属被膜抵抗 コネクタベース | 01 01 01 01 01 |
| | VF963600 VN327400 VQ320800 VN327300 VP128200 | IC Protector LED LED LED Variable Resistor | ICP-F10 SLP-255B-81 GR GL9EH2 OR/GR SLP-155B-81 RE B5K&DMY DMY#2 | ICプロテクター LED LED LED 四連ロータリーVR | 0.4A, 50Vdc +12V, +20V, -20V +48V CAUTION LAMP DIMMER |
| * * | VN024700 VN560100 VN024500 | Circuit Board LED Holder Circuit Board | SI1 IN5 | SI1 シート LEDホルダー IN5 シート | 77 03 07 |
| | -- -- -- -- FG652100 FG613100 FG644100 | Ceramic Cap.-SL Ceramic Cap.-SL Ceramic Cap.-SL Ceramic Cap.-SL Ceramic Cap.-SL Ceramic Cap.-B Ceramic Cap.-F | 27P 50V J 39P 50V J 47P 50V J 68P 50V J 100P 50V J 1000P 50V K 0.0100 50V Z | セラコン (SL) セラコン (SL) セラコン (SL) セラコン (SL) セラコン (SL) セラコンB セラコンF | (FG65127) (FG65139) (FG65147) (FG65168) 01 01 01 |
| | -- -- -- | Mylar Cap. Mylar Cap. Mylar Cap. | 470P 50V J 3300P 50V J 0.0470 50V J | マイラーコン マイラーコン マイラーコン | (UA35247) (UA35333) (UA35447) |

PM4000

| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク |
|----------|----------|-------------------------|-----------------|-----------------|-----|
| | -- | Mylar Cap. | 0.1200 50V J | (UA35512) | |
| | UJ819100 | Electrolytic Cap. | 1000 6.3V | | 01 |
| | UJ837100 | Electrolytic Cap. | 10.00 16.0V | | 01 |
| | UJ838100 | Electrolytic Cap. | 100.00 16.0V | | 01 |
| | UJ847100 | Electrolytic Cap. | 10.00 25.0V | | 01 |
| | UJ848100 | Electrolytic Cap. | 100.00 25.0V | | 01 |
| | VJ097400 | Electrolytic Cap. | 10.00 50.0V | | 01 |
| | UJ867470 | Electrolytic Cap. | 47.00 50.0V | | 01 |
| | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | | 01 |
| | UK547100 | Electrolytic Cap.-BP | 10.00 25.0V | | 01 |
| | VN321100 | Electrolytic Cap.-BP | 47.00 25.0V | VP | 01 |
| | VN452100 | Electrolytic Cap.-BP | 100.00 25.0V | VP | 01 |
| | VB941200 | Diode | 1SS133,1SS176 | | 01 |
| | IH000030 | Diode | 10D1 | | 01 |
| | IA101590 | Transistor | 2SA1015 O,Y | | 01 |
| | IC1815M0 | Transistor | 2SC1815 Y,GK | | 01 |
| | IB064730 | Transistor | 2SB647 C,D | | 01 |
| | ID066700 | Transistor | 2SD667 C,D | | 01 |
| | VB061100 | Metal Film Resistor | 27.0 1/4 F | | 01 |
| | VB063700 | Metal Film Resistor | 330.0 1/4 F | | 01 |
| | VB064300 | Metal Film Resistor | 560.0 1/4 F | | 01 |
| | VB065000 | Metal Film Resistor | 910.0 1/4 F | | 01 |
| | VB066300 | Metal Film Resistor | 2.2K 1/4 F | | 01 |
| | VB066400 | Metal Film Resistor | 2.4K 1/4 F | | 01 |
| | VB066600 | Metal Film Resistor | 3.0K 1/4 F | | 01 |
| | VB066800 | Metal Film Resistor | 3.6K 1/4 F | | 01 |
| | VA074100 | Metal Film Resistor | 4.7K 1/4 F | | 01 |
| | VB067300 | Metal Film Resistor | 6.8K 1/4 F | | 01 |
| | VB067500 | Metal Film Resistor | 9.1K 1/4 F | | 01 |
| | VA074400 | Metal Film Resistor | 10.0K 1/4 F | | 01 |
| | VB067600 | Metal Film Resistor | 12.0K 1/4 F | | 01 |
| | VA074600 | Metal Film Resistor | 15.0K 1/4 F | | 01 |
| | VB067800 | Metal Film Resistor | 16.0K 1/4 F | | 01 |
| | VB067900 | Metal Film Resistor | 18.0K 1/4 F | | 01 |
| | VB068200 | Metal Film Resistor | 24.0K 1/4 F | | 01 |
| | HV754100 | Flame Proof C. Resistor | 10.0 1/4 J | | 01 |
| | HV755390 | Flame Proof C. Resistor | 390.0 1/4 J | | 01 |
| | -- | Flat Cable Assembly | 57F50P-AXP50P | L=215 (VP12930) | |
| | -- | Flat Cable Assembly | 57F50P-AXP50P | L=80 (VN32160) | |
| | VB390400 | Base Post Connector | PH-8P TE | | 01 |
| | VA252300 | Base Post Connector | MQ-5P TE | | 01 |
| | VB994800 | Connector | B07P-MQ | | 01 |
| | VB390000 | Base Post Connector | PH-4P TE | | 01 |
| | VB390300 | Base Post Connector | PH-7P TE | | 01 |
| | -- | Connector Assembly | SAN&PH | SI INP(VN36700) | |
| | -- | Connector Assembly | SAN&PH | SI INS(VN36710) | |
| | VB390200 | Base Post Connector | PH-6P TE | | 01 |
| | VB390500 | Base Post Connector | PH-9P TE | | 03 |
| | -- | Connector | 5532-NA 8P TE | (VN30450) | |
| | -- | Connector | 5533-NAPB 8P SE | (VN30420) | |
| | VB390600 | Base Post Connector | PH-10P TE | | 01 |
| | VB994800 | Connector | B07P-MQ | | 01 |
| | VG297000 | IC Protector | ICP-F20 | | 02 |
| | XK866A00 | IC | 917090 | 0.8A, 50Vdc | 09 |
| | IG102500 | IC | NE5532P | OP AMP | 06 |
| | XK872A00 | IC | 911306 | | 08 |
| | XK867B00 | IC | 911308 | | 14 |
| | XK868C00 | IC | 917089 | | 16 |
| | XK873A00 | IC | 917037 | | 07 |
| | VH325300 | LED | GL2EG6 GR | | 01 |
| | VJ471200 | LED | GL2HY6 YE | | 01 |
| | VH325200 | LED | GL2PR6 RE | | 01 |
| | VP155700 | LED | GL5HY40 YE | | 01 |
| | VM640200 | Relay | DC RY 12W-OH-K | | 05 |
| | VA248100 | Relay | DC SY-12 | | 06 |
| | VN018100 | Push Switch | SPUJ50 4/2 2/2* | | 05 |
| | VN017000 | Push Switch | SPUJ12 4/2 | | 03 |
| | VN017100 | Push Switch | SPUJ12 6/2 | | 03 |
| | VN017500 | Push Switch | SPUJ21 4/2*2 | | 04 |
| | KA401270 | Slide Switch | SSS212 | | 03 |
| | VN316400 | Slide Switch | SSSS2-23-01 | | 02 |
| | VN316500 | Slide Switch | SSSA062-06-2 | | 04 |

*New Parts (新規部品)

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク | |
|----------|----------|---------------------------|-----------------|-------------|---|----|
| * | VN316300 | Slide Switch | SSSS2-22-01 | スライド SW | CT(internal sw) PRE/POST(internal sw) | 02 |
| * | VN016900 | Push Switch | SPUJ12 2/2 | プッシュ SW | ON | 02 |
| * | VE340300 | Test Point | IRS-1169 | テストポイントピン | | 01 |
| * | VP255600 | Variable Resistor with SW | A20K C20K 4/4 | SW付VR | BAL/PAN | 08 |
| * | VN016100 | Variable Resistor | (2K & 5K)*2 | 二軸ロータリーVR四連 | GAIN | 10 |
| * | VN014900 | Variable Resistor | C 50K*2 | 二連ロータリーVR | Q | 04 |
| * | VP610400 | Variable Resistor | C50K*6 W50K*2 | 二軸ロータリーVR八連 | HI-GAIN, LO-GAIN | |
| * | VP610200 | Variable Resistor | C50K*4 W50K*2 | 二軸ロータリーVR六連 | HI MID-GAIN, LO MID-GAIN | |
| * | VN015200 | Variable Resistor | C100K*2 C50K*2 | 四連ロータリーVR | HPF | 05 |
| * | VP255200 | Variable Resistor with SW | A20K 2/3 | SW付VR | AUX1-8 | 08 |
| * | VP255400 | Variable Resistor with SW | A20K*2 2/3 | SW付VR | LEVEL L/PRE/OFF /POST | 08 |
| * | VP255500 | Variable Resistor with SW | A20K C20K 4/2 | SW付VR | LEVEL R/PAN | 08 |
| * | VP255600 | Variable Resistor with SW | A20K C20K 4/4 | SW付VR | LEVEL R/PAN | 08 |
| * | VA788100 | Trimmer Potentiometer | B 22.0K | 半固定VR | OFFSET A, THD20 | 01 |
| * | VA788400 | Trimmer Potentiometer | B 100.0K | 半固定VR | OFFSET B, THD0dB | 01 |
| * | VA787300 | Trimmer Potentiometer | B 220 | 半固定VR | -∞ dB | 01 |
| * | VN024800 | Circuit Board | SI2 | SI2シート | | 16 |
| * | VB941200 | Diode | 1SS133, 1SS176 | ダイオード | | 01 |
| * | IC1815M0 | Transistor | 2SC1815 Y, GR | トランジスタ | | 01 |
| * | VB067900 | Metal Film Resistor | 18.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | -- | Connector Assembly | SAN&PH 8P 60L | 東線 #28 | (VN37190) | |
| * | -- | Connector Assembly | SAN&PH 6P 60L | 東線 #28 | (VN37540) | |
| * | -- | Connector Assembly | SAN&PH 9P 60L | 東線 #28 | (VN37520) | |
| * | -- | Connector Assembly | SAN&PH 7P 60L | 東線 #28 | (VN37200) | |
| * | -- | Connector Assembly | SAN&PH 4P 60L | 東線 #28 | (VM66720) | |
| * | VH325300 | LED | GL2EG6 GR | LED | ASSIGN2,4,6,8,S | 01 |
| * | VH325200 | LED | GL2PR6 RE | LED | φ | 01 |
| * | VJ471200 | LED | GL2HY6 YE | LED | HI | 01 |
| * | VN018200 | Push Switch | SPUJ50 2/2*4 4/ | プッシュ SW 五連 | ASSIGN2,4,6,8,S | 05 |
| * | VN017000 | Push Switch | SPUJ12 4/2 | プッシュ SW | φ | 03 |
| * | VN016900 | Push Switch | SPUJ12 2/2 | プッシュ SW | HI, LO | 02 |
| * | VN024900 | Circuit Board | SI3 | SI3シート | | 22 |
| * | VN546900 | LED Holder | METER | LEDホルダー | | 03 |
| * | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコン F | | 01 |
| * | -- | Mylar Cap. | 0.0470 50V J | マイラーコン | (UA35447) | |
| * | UA355100 | Mylar Cap. | 0.1000 50V J | マイラーコン | | 01 |
| * | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | BPケミコン | | 01 |
| * | UJ837100 | Electrolytic Cap. | 10.00 16.0V | ケミコン | | 01 |
| * | UJ837220 | Electrolytic Cap. | 22.00 16.0V | ケミコン | | 01 |
| * | UJ838100 | Electrolytic Cap. | 100.00 16.0V | ケミコン | | 01 |
| * | VB941200 | Diode | 1SS133, 1SS176 | ダイオード | | 01 |
| * | IC1815M0 | Transistor | 2SC1815 Y, GR | トランジスタ | | 01 |
| * | IA101590 | Transistor | 2SA1015 O, Y | トランジスタ | | 01 |
| * | VA074400 | Metal Film Resistor | 10.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VB070600 | Metal Film Resistor | 270.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VA074400 | Metal Film Resistor | 10.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | VA074700 | Metal Film Resistor | 30.0K 1/4 F | 金属被膜抵抗 | | 01 |
| * | -- | Connector Assembly | SAN&PH 9P 60L | 東線 #28 | (VN37520) | |
| * | -- | Connector Assembly | SAN&PH 6P 60L | 東線 #28 | (VN37540) | |
| * | -- | Connector Assembly | SAN&PH 10P 60L | 東線 #28 | (VN37530) | |
| * | -- | Connector Assembly | 5395&5480 4P | 東線 #28 | L=80 (VA34190) | |
| * | -- | Connector Assembly | SAN&PH 7P 60L | 東線 #28 | (VN37200) | |
| * | IG069200 | IC | NJM2041D-D | IC | OP AMP | 05 |
| * | XK259A00 | IC | IR2E28 | IC | LED DRIVER | 04 |
| * | VH325200 | LED | GL2PR6 RE | LED | PEAK, SOLO | 01 |
| * | VJ471200 | LED | GL2HY6 YE | LED | +6,0,-6,VCA GR- OUP1-8, MUTE1-8, CUE/SOLO | 01 |
| * | VH325300 | LED | GL2EG6 GR | LED | -10,-20 | 01 |
| * | VN467900 | Resistor Array | EXB-F11E104F | 抵抗アレイ | | 01 |
| * | VN018300 | Push Switch | SPUJ 2/2*8 | プッシュ SW 八連 | VCA GROUP1-8 | 06 |
| * | VN018400 | Push Switch | SPUJ 2/2*A 6/2 | プッシュ SW 11連 | MTE1-8,S, CUE/SOLO | 07 |
| * | VE340300 | Test Point | IRS-1169 | テストポイントピン | | 01 |
| * | VA788300 | Trimmer Potentiometer | B 47.0K | 半固定VR | VCA reference voltage adj. | 01 |
| * | VA788000 | Trimmer Potentiometer | B 10.0K | 半固定VR | LED meter adj. | 01 |
| * | VA007600 | Zener Diode | MTZ5.6B 5.6V | ツェナーダイオード | | 01 |
| * | VN025100 | Circuit Board | SI5 | SI5シート | | 16 |
| * | VN347800 | Holder, Jack | x2 | JACK金具 | | 05 |
| * | -- | Ceramic Cap.-B | 470P 50V K | セラコン B | (FG61247) | |
| * | VB390200 | Base Post Connector | PH-6P TE | コネクタベースポスト | | 01 |

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|---------------------|----------------------|----------------|-----------------|---|
| * | VB390800 | Base Post Connector | PH-12P TE | コネクタベースポスト | 01 |
| | VN651800 | XML Connector | XML-3-31PCH-L | コネクタ | 13 |
| | VN327000 | Phone Jack | 2P STEREO | コネクタ | 05 |
| * | VN025400 | Circuit Board | ST1 | ST1シート | 54 |
| * | VN560100 | LED Holder | | LEDホルダー | (FG65060) |
| | -- | Ceramic Cap.-SL | 8P 50V D | セラコン (SL) | |
| | -- | Ceramic Cap.-SL | 10P 50V D | セラコン (SL) | 01 |
| | FG612220 | Ceramic Cap.-B | 220P 50V K | セラコン B | 01 |
| | UJ866100 | Electrolytic Cap. | 1.00 50.0V | ケミコン | 01 |
| * | UJ847100 | Electrolytic Cap. | 10.00 25.0V | ケミコン | 01 |
| | UJ848100 | Electrolytic Cap. | 100.00 25.0V | ケミコン | 01 |
| | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | BPケミコン | 01 |
| | VN321100 | Electrolytic Cap.-BP | 47.00 25.0V | パイポラケミコン | VP |
| | VL049300 | Electrolytic Cap.-BP | 220.00 25.0V | パイポラケミコン | VP |
| | VB941200 | Diode | 1SS133,1SS176 | ダイオード | 01 |
| IH000030 | Diode | 10D1 | ダイオード | 01 | |
| IC1815M0 | Transistor | 2SC1815 Y,GR | トランジスタ | 01 | |
| IB064730 | Transistor | 2SB647 C,D | トランジスタ | 01 | |
| ID066700 | Transistor | 2SD667 C,D | トランジスタ | 01 | |
| IA101590 | Transistor | 2SA1015 0,Y | トランジスタ | 01 | |
| VA074100 | Metal Film Resistor | 4.7K 1/4 F | 金属被膜抵抗 | 01 | |
| VB067900 | Metal Film Resistor | 18.0K 1/4 F | 金属被膜抵抗 | 01 | |
| VB068300 | Metal Film Resistor | 27.0K 1/4 F | 金属被膜抵抗 | 01 | |
| VB068400 | Metal Film Resistor | 33.0K 1/4 F | 金属被膜抵抗 | 01 | |
| VB068500 | Metal Film Resistor | 36.0K 1/4 F | 金属被膜抵抗 | 01 | |
| VB068800 | Metal Film Resistor | 47.0K 1/4 F | 金属被膜抵抗 | 01 | |
| VB069600 | Metal Film Resistor | 100.0K 1/4 F | 金属被膜抵抗 | 01 | |
| -- | Flat Cable Assembly | 57F50P-AXP50P | フラットケーブル Assy | L=180 (VN32170) | |
| -- | Flat Cable Assembly | 57F36P-AXP34P | フラットケーブル Assy | L=80 (VN32180) | |
| * | -- | Connector Assembly | 5395&5480(ST) | 束線 | (VN31860) |
| | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc |
| | XK869A00 | IC | 917091 | IC | SUM |
| | XK873A00 | IC | 917037 | IC | BA |
| | VJ471200 | LED | GL2HY6 YE | LED | ST TO MTRX, |
| * | VP155700 | LED | GL5HY40 YE | LED | INSERT,CUE, BAL/LEVEL R |
| | VN017700 | Push Switch | SPUJ31 4/2*3 | プッシュSW三連 | ON ST TO MTRX, INSERT,CUE |
| * | VN316300 | Slide Switch | SSSS2-22-01 | スライドSW | ST TO MTRIX PRE /POST FADER (in- ternal sw) |
| * | VN017000 | Push Switch | SPUJ12 4/2 | プッシュSW | ON |
| | VN017100 | Push Switch | SPUJ12 6/2 | プッシュSW | BAL/LEVEL R |
| | VN017500 | Push Switch | SPUJ21 4/2*2 | プッシュSW二連 | INSERT/CUE |
| | VN016000 | Variable Resistor | A20K C20K A10K | 三連ロータリーVR | BAL/LEVEL R |
| | VN015800 | Variable Resistor | A 10K*2 | 二連ロータリーVR | LEVEL/LEVEL L |
| * | VN025500 | Circuit Board | TB1 | TB1シート | 53 |
| * | -- | Ceramic Cap.-SL | 47P 50V J | セラコン (SL) | (FG65147) |
| | FG652100 | Ceramic Cap.-SL | 100P 50V J | セラコン (SL) | 01 |
| | FG612220 | Ceramic Cap.-B | 220P 50V K | セラコン B | 01 |
| | FG613100 | Ceramic Cap.-B | 1000P 50V K | セラコン B | 01 |
| | FG644100 | Ceramic Cap.-F | 0.0100 50V Z | セラコン F | 01 |
| * | -- | Mylar Cap. | 470P 50V J | マイラーコン | (UA35247) |
| | -- | Mylar Cap. | 820P 50V J | マイラーコン | (UA35282) |
| | UA353470 | Mylar Cap. | 4700P 50V J | マイラーコン | 01 |
| | -- | Mylar Cap. | 8200P 50V J | マイラーコン | (UA35382) |
| | UA355100 | Mylar Cap. | 0.1000 50V J | マイラーコン | 01 |
| VA354330 | Mylar Cap. | 0.0330 50V J | マイラーコン | 01 | |
| * | -- | Mylar Cap. | 0.0470 50V J | マイラーコン | (UA35447) |
| | -- | Mylar Cap. | 0.0820 50V J | マイラーコン | (UA35482) |
| | -- | Mylar Cap. | 0.4700 50V J | マイラーコン | (UA65547) |
| | UJ819100 | Electrolytic Cap. | 1000 6.3V | ケミコン | 01 |
| * | UJ837220 | Electrolytic Cap. | 22.00 16.0V | ケミコン | 01 |
| | UJ838100 | Electrolytic Cap. | 100.00 16.0V | ケミコン | 01 |
| | UJ847100 | Electrolytic Cap. | 10.00 25.0V | ケミコン | 01 |
| | UJ847470 | Electrolytic Cap. | 47.00 25.0V | ケミコン | 01 |
| | UJ848100 | Electrolytic Cap. | 100.00 25.0V | ケミコン | 01 |
| | UJ848220 | Electrolytic Cap. | 220.00 25.0V | ケミコン | 01 |
| * | UJ865330 | Electrolytic Cap. | 0.33 50.0V | ケミコン | 01 |
| | UJ866100 | Electrolytic Cap. | 1.00 50.0V | ケミコン | 01 |
| | VJ097400 | Electrolytic Cap. | 10.00 50.0V | ケミコン | 01 |
| | UJ867470 | Electrolytic Cap. | 47.00 50.0V | ケミコン | 01 |
| | UK846470 | Electrolytic Cap.-BP | 4.7 25.0V | BPケミコン | VP |
| | VN321100 | Electrolytic Cap.-BP | 47.00 25.0V | パイポラケミコン | VP |
| VB941200 | Diode | 1SS133,1SS176 | ダイオード | 01 | |
| IH000030 | Diode | 10D1 | ダイオード | 01 | |

*New Parts (新規部品)

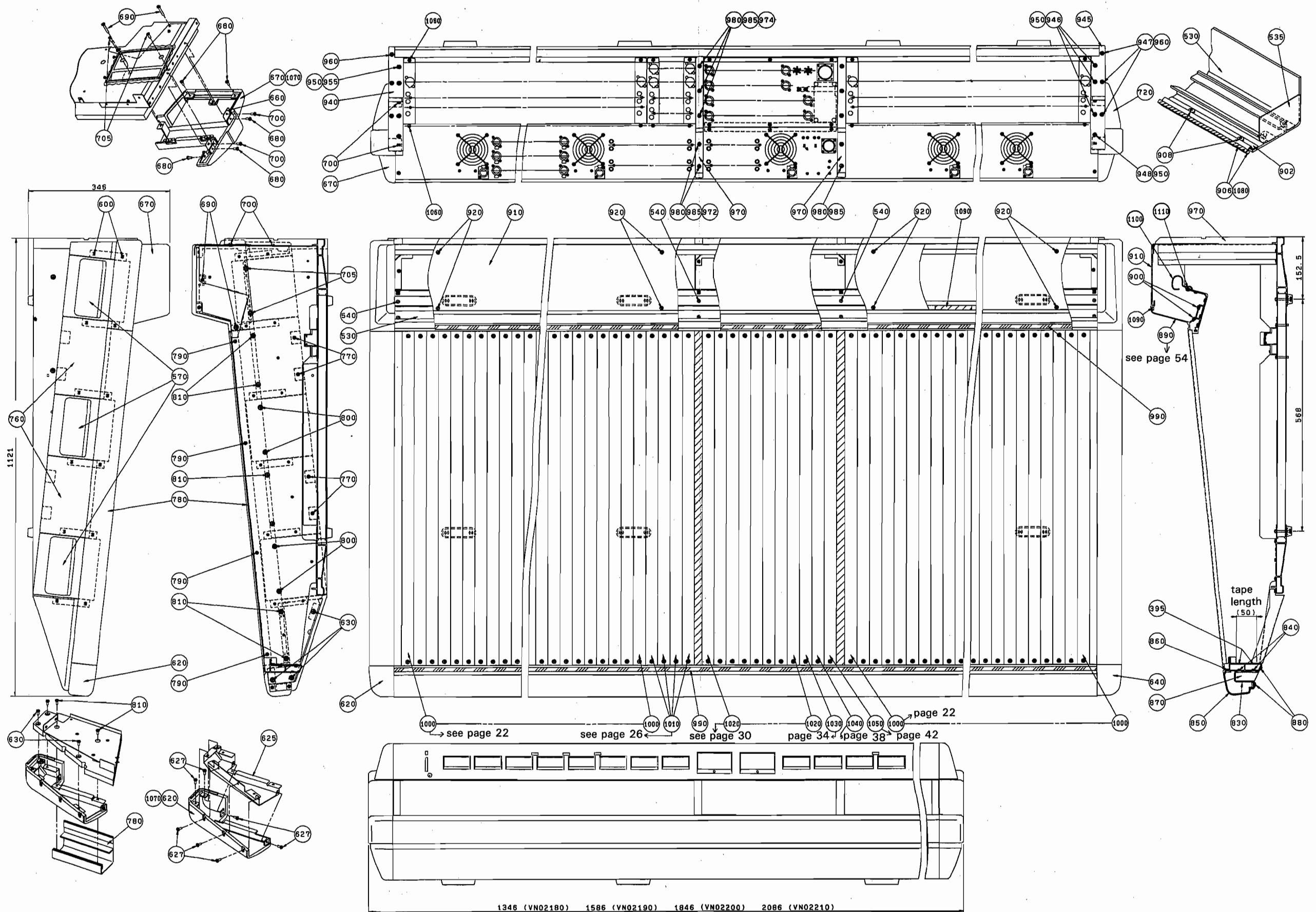
ランク : Japan only

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|-----------------|---------------|---|
| | IA101590 | Transistor | 2SA1015 O,Y | トランジスタ | 01 |
| | IC1815M0 | Transistor | 2SC1815 Y,GR | トランジスタ | 01 |
| | IB064730 | Transistor | 2SB647 C,D | トランジスタ | 01 |
| | ID066700 | Transistor | 2SD667 C,D | トランジスタ | 01 |
| | HV755390 | Flame Proof C. Resistor | 390.0 1/4 J | 不燃化カーボン抵抗 | 01 |
| | VB061600 | Metal Film Resistor | 43.0 1/4 F | 金属被膜抵抗 | 01 |
| | VB063600 | Metal Film Resistor | 300.0 1/4 F | 金属被膜抵抗 | 01 |
| | VB065700 | Metal Film Resistor | 1.2K 1/4 F | 金属被膜抵抗 | 01 |
| | VB066200 | Metal Film Resistor | 2.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VB066300 | Metal Film Resistor | 2.2K 1/4 F | 金属被膜抵抗 | 01 |
| | VB066500 | Metal Film Resistor | 2.7K 1/4 F | 金属被膜抵抗 | 01 |
| | VA074100 | Metal Film Resistor | 4.7K 1/4 F | 金属被膜抵抗 | 01 |
| | VB067300 | Metal Film Resistor | 6.8K 1/4 F | 金属被膜抵抗 | 01 |
| | VB067500 | Metal Film Resistor | 9.1K 1/4 F | 金属被膜抵抗 | 01 |
| | VA074500 | Metal Film Resistor | 11.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VB067600 | Metal Film Resistor | 12.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VB067900 | Metal Film Resistor | 18.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VB068200 | Metal Film Resistor | 24.0K 1/4 F | 金属被膜抵抗 | 01 |
| | -- | Flat Cable Assembly | 57F50P-AXP50P | フラットケーブル Assy | L=80 (VN32160) |
| | -- | Flat Cable Assembly | 57F36P-AXP34P | フラットケーブル Assy | L=80 (VN32180) |
| | -- | Flat Cable Assembly | 57F14P-AXP14P | フラットケーブル Assy | L=180 (VN32200) |
| | -- | Connector Assembly | SAN&PH 15P 80L | 束線 #28 | (VN35930) |
| | VB389900 | Base Post Connector | PH-3P TE | コネクタベースポスト | 01 |
| | VF283300 | Base Post Connector | PH-15P TE | コネクタベースポスト | 01 |
| | VE352600 | Base Post Connector | PH-14P TE | コネクタベースポスト | 01 |
| | VB389900 | Base Post Connector | PH-3P TE | コネクタベースポスト | 01 |
| | VF963600 | IC Protector | ICP-F10 | ICプロテクター | 0.4A, 50Vdc |
| | XK866A00 | IC | 917090 | IC | HA |
| | XK873A00 | IC | 917037 | IC | BA |
| | IG001790 | IC | TC4030BP | IC | XOR |
| | IG001680 | IC | TC4006BP | IC | SHIFT REGISTER |
| | IG069200 | IC | NJM2041D-D | IC | OP AMP |
| | XA243A00 | IC | XR-2206CP | IC | FUNCTION GENE. |
| | IG102500 | IC | NE5532P | IC | OP AMP |
| | VH325200 | LED | GL2PR8 RE | LED | +48V, |
| | VJ471200 | LED | GL2HY6 YE | LED | METER SEL I-M +4dB, TM TO MON. B, TB OUT, OSC 0- UT, METER SEL IA TB ON, OSC ON |
| | VG261500 | LED | GL3PR8 RE | LED | 01 |
| | VH325300 | LED | GL2EG6 GR | LED | TB ASSIGN, TB/OSC ASSIGN, METER SEL I-G |
| | VM640200 | Relay | DC RY 12W-OH-K | リレー 12V | 05 |
| | VN016900 | Push Switch | SPUJ12 2/2 | プッシュSW | +48V, SWEEP |
| | VN017000 | Push Switch | SPUJ12 4/2 | プッシュSW | +4dB |
| | VN018000 | Push Switch | SPUJ 2/2*5 | プッシュSW五連 | TB ASSIGN, TB/OSC ASSIGN |
| | VN017500 | Push Switch | SPUJ21 4/2*2 | プッシュSW二連 | TB OUT, OSC OUT |
| | VN018700 | Push Switch | SPUJ5 4/2 2/2*4 | プッシュSW五連 | PINK, 10K, 1K, |
| | VP242300 | Push Switch | SPUJ31 2/2S*3 R | プッシュSW三連 | 100, OFF |
| | VN015700 | Variable Resistor | A 10K&DMY | 二連ロータリーVR | METER SEL I |
| | VA788400 | Trimmer Potentiometer | B 100.0K | 半固定VR | LEVEL |
| | VN015100 | Variable Resistor | C 100K*2 | 二連ロータリーVR | PINK LEVEL adj. |
| | VA787500 | Trimmer Potentiometer | B 470 | 半固定VR | SINE LEVEL adj. |
| | VP126000 | Variable Resistor | A20&DMY DMY*2 | 四連ロータリーVR | 04 |
| | VN025700 | Circuit Board | TB3 | TB3シート | 01 |
| | VN560100 | LED Holder | | LEDホルダー | 03 |
| | UJ837100 | Electrolytic Cap. | 10.00 16.0V | ケミコン | 01 |
| | VC694800 | Semiconductive Cera. Cap. | 0.1000 25V Z | 半導体セラコン | 01 |
| | VB941200 | Diode | 1SS133, 1SS176 | ダイオード | 01 |
| | IC1815M0 | Transistor | 2SC1815 Y,GR | トランジスタ | 01 |
| | IB064730 | Transistor | 2SB647 C,D | トランジスタ | 01 |
| | -- | Connector Assembly | SAN&PH 14P 60L | 束線 #28 | (VN35890) |
| | VH325300 | LED | GL2EG6 GR | LED | METER SEL II-A |
| | VH325200 | LED | GL2PR8 RE | LED | METER SEL II-M |
| | VJ471200 | LED | GL2HY6 YE | LED | METER SEL II-G |
| | VP155700 | LED | GL5HY40 YE | LED | METER MASTER1-8 |
| | VP242300 | Push Switch | SPUJ31 2/2S*3 R | プッシュSW三連 | METER SEL II |
| | VN023900 | Push Switch | SPUJ 2/2*8 | プッシュSW八連 | METER MASTER1-8 |
| | VN027000 | Circuit Board | VP | VPシート | 15 |
| | VC719300 | Terminal Plate | P-424 | ターミナル金具 | 01 |
| | VC761800 | Metal Oxide Film Resistor | 1.5K 2W J | 酸化金属被膜抵抗 | 01 |
| | VB390400 | Base Post Connector | PH-8P TE | コネクタベースポスト | 01 |
| | VB390500 | Base Post Connector | PH-9P TE | コネクタベースポスト | 03 |

| Ref. No. | Part No. | Description | | 部品名 | Remarks | ランク |
|----------|----------|------------------------|---------------|--------------------|--|-----|
| | VB389900 | Base Post Connector | PH-3P TE | コネクタベースポスト | VCA1-4,5-8 PHANTOM MASTER CUE/SOLO | 01 |
| | VB389800 | Base Post Connector | PH-2P TE | コネクタベースポスト | | 01 |
| | VN019000 | Rotary Switch | SRRZS8 8/3 | ロータリーSW | | 06 |
| | VP958200 | Slide Switch | SSSB1 | スライドSW | | |
| | VN900500 | Rotary Switch | SRRZS4 4/2 | ロータリーSW | | 05 |
| | VN060700 | Flat Cable-F | | フラットケーブル(F) | 24CH | 56 |
| | VN060800 | Flat Cable-F | | フラットケーブル(F) | 32CH | 63 |
| | VN060900 | Flat Cable-F | | フラットケーブル(F) | 40CH | 70 |
| | VN061000 | Flat Cable-F | | フラットケーブル(F) | 42CH | 74 |
| | VN478600 | Bus Connector Assembly | 28 | バスコネクタ Assy | 24CH | 74 |
| | VN478700 | Bus Connector Assembly | 36 | バスコネクタ Assy | 32CH | 81 |
| | VN478500 | Bus Connector Assembly | 24 | バスコネクタ Assy | 40/48CH | 70 |
| | VN478300 | Bus Connector Assembly | 20 | バスコネクタ Assy | 40CH | 66 |
| | VN478500 | Bus Connector Assembly | 24 | バスコネクタ Assy | 48CH | 70 |
| | VN059900 | Monaural Input Module | | MONO INPUTモジュール | J only | 80 |
| | VN060000 | Stereo Input Module | | ST INPUTモジュール | J only | 88 |
| | VN060100 | Master Module | | M.A.S.T.E.Rモジュール | J only | 63 |
| | VN060200 | Stereo Master Module | | ST MASTERモジュール | J only | 75 |
| | VN060300 | Talkback Module | | T Bモジュール | J only | 79 |
| | VN060400 | Monitor Module | | M O N I T O Rモジュール | J only | 79 |
| | VN022400 | Power Supply | | 電源 Assy | J | |
| | VN022500 | Power Supply | | 電源 Assy | U,C,V | |
| | VN022600 | Power Supply | | 電源 Assy | H | |
| | VN022700 | Power Supply | | 電源 Assy | B | |
| | VN386600 | Power Cable | UL2464 #26#27 | 電源ケーブル | J 3.6m | 52 |
| | VP012400 | Power Cable | UL2501 #26#27 | 電源ケーブル | U,C,V,H,B 3.6m | 57 |
| | VC791100 | Lamp | 12V 5W | ランプ | | 27 |
| | VN079000 | Slide Pot. | 10.0K 100mm | スライドVR | VCA(Channel & G. Master)fader | 10 |
| | VN079700 | Slide Pot. | D(AUDIO)10.0K | スライドVR | Group & Stereo Master faders | 10 |
| | VN073800 | Meter | | アナログメーター | 2pcs ST L,R | 25 |
| | VN123000 | Connector Assembly | FAN&PH | 束線 | FAN | 14 |
| | VN122900 | Connector Assembly | XLR4&PH(LAMP) | 束線 | LAMP CONNECTOR | 13 |
| | VN027600 | Connector Assembly | EXT I/O | 束線 | EXT CONNECTOR | 17 |
| | VN027500 | Connector Assembly | DC IN | 束線 | DC IN CONNECTOR | 25 |
| | VN122800 | Connector Assembly | XLR3&PH(TB) | 束線 | TB CONNECTOR | 12 |
| | VN366300 | Connector Assembly | SW&PH(TB) | 束線 | TB SW | 11 |
| | VN366400 | Connector Assembly | SW&PH(SOLO) | 束線 | PUSH SW (SOLO) | 14 |



OVERALL ASSEMBLY 1/2 (総組立1/2)



1346 (VN02180) 1586 (VN02190) 1846 (VN02200) 2086 (VN02210)

PM4000

| Ref. No. | Part No. | Description | | | 部 品 名 | Remarks | ランク |
|----------|----------|---|--------------|--------|-----------------------|--------------------------|-----|
| 10 | -- | <OVERALL ASSEMBLY> Bottom Board Assembly | | | < 総組立 > 底板 A s s y | PM4000 24CH (VN05840) | |
| 10 | -- | Bottom Board Assembly | | | 底板 A s s y | 32CH (VN05850) | |
| 10 | -- | Bottom Board Assembly | | | 底板 A s s y | 40CH (VN05860) | |
| 10 | -- | Bottom Board Assembly | | | 底板 A s s y | 48CH (VN05870) | |
| 20 | VN035700 | Insulation Sheet-S | 28S | | 絶縁シート (S) | 24/48CH | 09 |
| 20 | VN035800 | Insulation Sheet-S | 36S | | 絶縁シート (S) | 32CH | 10 |
| 20 | VN035600 | Insulation Sheet-S | 24S | | 絶縁シート (S) | 48CH | 09 |
| 30 | VN035500 | Insulation Sheet-S | 20S | | 絶縁シート (S) | 40CH | 09 |
| 30 | VN035600 | Insulation Sheet-S | 24S | | 絶縁シート (S) | 48CH | 09 |
| 60 | VN036500 | Stay-S | 28 | | コネクターステー (F) | 24/48CH | 26 |
| 60 | VN036600 | Stay-S | 36 | | コネクターステー (F) | 32CH | 32 |
| 60 | VN036400 | Stay-S | 24 | | コネクターステー (F) | 40CH | 24 |
| 70 | VN036300 | Stay-S | 20 | | コネクターステー (F) | 40CH | 25 |
| 70 | VN036400 | Stay-S | 24 | | コネクターステー (F) | 48CH | 24 |
| 80 | EG340260 | Bind Head Screw | 4.0X30 | FCM3BL | ＋パインド小ネジ | 10/12/14/18pcs | 01 |
| 120 | VN359400 | Insulation Bushing | M4 | | 絶縁ブッシュ | 10/12/14/18pcs | 04 |
| 130 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋パインドBタイト | 10/12/14/18pcs | 01 |
| 140 | VN060700 | Flat Cable-F | | | フラットケーブル (F) | 24CH | 56 |
| 140 | VN060800 | Flat Cable-F | | | フラットケーブル (F) | 32CH | 63 |
| 140 | VN060900 | Flat Cable-F | | | フラットケーブル (F) | 40CH | 70 |
| 140 | VN061000 | Flat Cable-F | | | フラットケーブル (F) | 42CH | 74 |
| 145 | CB830110 | Cord Binder | MFC-3000 | | 束線止め | | 02 |
| 150 | VC569900 | Bind Head Tapping Screw-B | A3.0X8 | FCM3BL | ＋パインドBタイト | 3/3/6/6pcs | 01 |
| 155 | VP849400 | Spacer, PCB | | | PCBスペーサー | 56/72/88/104pcs | 03 |
| 160 | VN478600 | Bus Connector Assembly | 28 | | バスコネクタ A s s y | 24CH | 74 |
| 160 | VN478700 | Bus Connector Assembly | 36 | | バスコネクタ A s s y | 32CH | 81 |
| 160 | VN478500 | Bus Connector Assembly | 24 | | バスコネクタ A s s y | 40/48CH | 70 |
| 165 | VN478300 | Bus Connector Assembly | 20 | | バスコネクタ A s s y | 40CH | 66 |
| 165 | VN478500 | Bus Connector Assembly | 24 | | バスコネクタ A s s y | 48CH | 70 |
| 170 | VN362900 | Connector Socket | HIF3BB-50DA- | | コネクタースOCKET | 40/48CH | 05 |
| 180 | VN025300 | Circuit Board | MBBR | | M B B R シート | 24/32CH | 55 |
| 180 | VN026000 | Circuit Board | MBBC | | M B B C シート | 40/48CH | 56 |
| 185 | VP319500 | Spacer | MB-R | | M B (R) スペーサー | | 06 |
| 190 | VC569900 | Bind Head Tapping Screw-B | A3.0X8 | FCM3BL | ＋パインドBタイト | 11pcs | 01 |
| 200 | EG330410 | Bind Head Screw | A3.0X6 | FCM3BL | ＋パインド小ネジ | 10pcs | 01 |
| 210 | VN026100 | Circuit Board | MBS | | M B S シート | | 46 |
| 215 | VP597000 | Insulation Sheet, EOB | | | EOB絶縁シート | | 03 |
| 220 | VC569900 | Bind Head Tapping Screw-B | A3.0X8 | FCM3BL | ＋パインドBタイト | 11pcs | 01 |
| 230 | EG330410 | Bind Head Screw | A3.0X6 | FCM3BL | ＋パインド小ネジ | 10pcs | 01 |
| 240 | VN037100 | Angle Bracket, Side Board | L | | 側板アングル L | | 26 |
| 250 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 8pcs | 01 |
| 260 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋パインドBタイト | 1pc. | 01 |
| 270 | VN037200 | Angle Bracket, Side Board | R | | 側板アングル R | | 26 |
| 280 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 8pcs | 01 |
| 290 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋パインドBタイト | 1pc. | 01 |
| 300 | VN037300 | Partition | L | | 仕切板 L | | 31 |
| 305 | VP517200 | Insulation Sheet | L | | 絶縁シート 仕切板 L | | 06 |
| 310 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 7pcs | 01 |
| 320 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋パインドBタイト | 1pc. | 01 |
| 330 | VN037400 | Partition | R | | 仕切板 R | 40/48CH | 31 |
| 335 | VP517300 | Insulation Sheet | R | | 絶縁シート 仕切板 R | 40/48CH 7pcs | 08 |
| 340 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 40/48CH 1pc. | 01 |
| 350 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 40/48CH | 01 |
| 360 | VN037500 | Stay-F | | | ステー (F) | 24CH | 61 |
| 360 | VN037600 | Stay-F | | | ステー (F) | 32CH | 60 |
| 360 | VN037700 | Stay-F | | | ステー (F) | 40CH | 63 |
| 360 | VN037800 | Stay-F | | | ステー (F) | 48CH | 60 |
| 370 | EL000320 | Bind Head Screw | A4.0X8 | FCM3BL | ＋パインド小ネジ | 6/6/8/8pcs | 01 |
| 380 | VN037900 | Angle Bracket-L | L | | Lアングル | 24CH | 21 |
| 380 | VN038000 | Angle Bracket-L | L | | Lアングル | 32CH | 20 |
| 380 | VN038100 | Angle Bracket-L | L | | Lアングル | 40CH | 21 |
| 380 | VN038200 | Angle Bracket-L | L | | Lアングル | 48CH | 20 |
| 390 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 4/5/7/7pcs | 01 |
| 395 | -- | Adhesive Tape | | | アルミ粘着テープ | (VP82130) | |
| 400 | VN038300 | Front Angle | | | フロントアングル | 5/6/7/8pcs | 17 |
| 410 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 20/24/28/32pcs | 01 |
| 420 | VN055300 | Front Spacer | | | フロントスペーサー | 1/1/2/2pc (s) | 12 |
| 430 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋パインドBタイト | 4/4/8/8pcs | 01 |
| 440 | VN038500 | Front Filter | | | フロントフィルター | 5/6/7/8pcs | 04 |
| 450 | VN038600 | Front Cover | | | フロントカバー | 5/6/7/8pcs | 11 |
| 460 | EG330410 | Bind Head Screw | A3.0X6 | FCM3BL | ＋パインド小ネジ | 10/12/14/16pcs | 01 |
| 472 | VP000500 | Connector Assembly, Shunt | L | | 線材 A s s y (シャント) | | 13 |
| 474 | VP000600 | Connector Assembly, Shunt | S | | 線材 A s s y (シャント) | 1/1/2/2pc (s) | 12 |
| 475 | EL000320 | Bind Head Screw | A4.0X8 | FCM3BL | ＋パインド小ネジ | 4/4/6/6pcs | 01 |
| 476 | VN055700 | GND Plate | | | GND金具 | 2pcs | 09 |
| 477 | -- | Connector Assembly | MAIN | | メイン束線 | (VN82900) | |
| 478 | -- | Connector Assembly | MAIN-MT | | メイン束線 M T | 24CH (VN06150) | |
| 478 | -- | Connector Assembly | MAIN-MT | | メイン束線 M T | 32CH (VN87640) | |

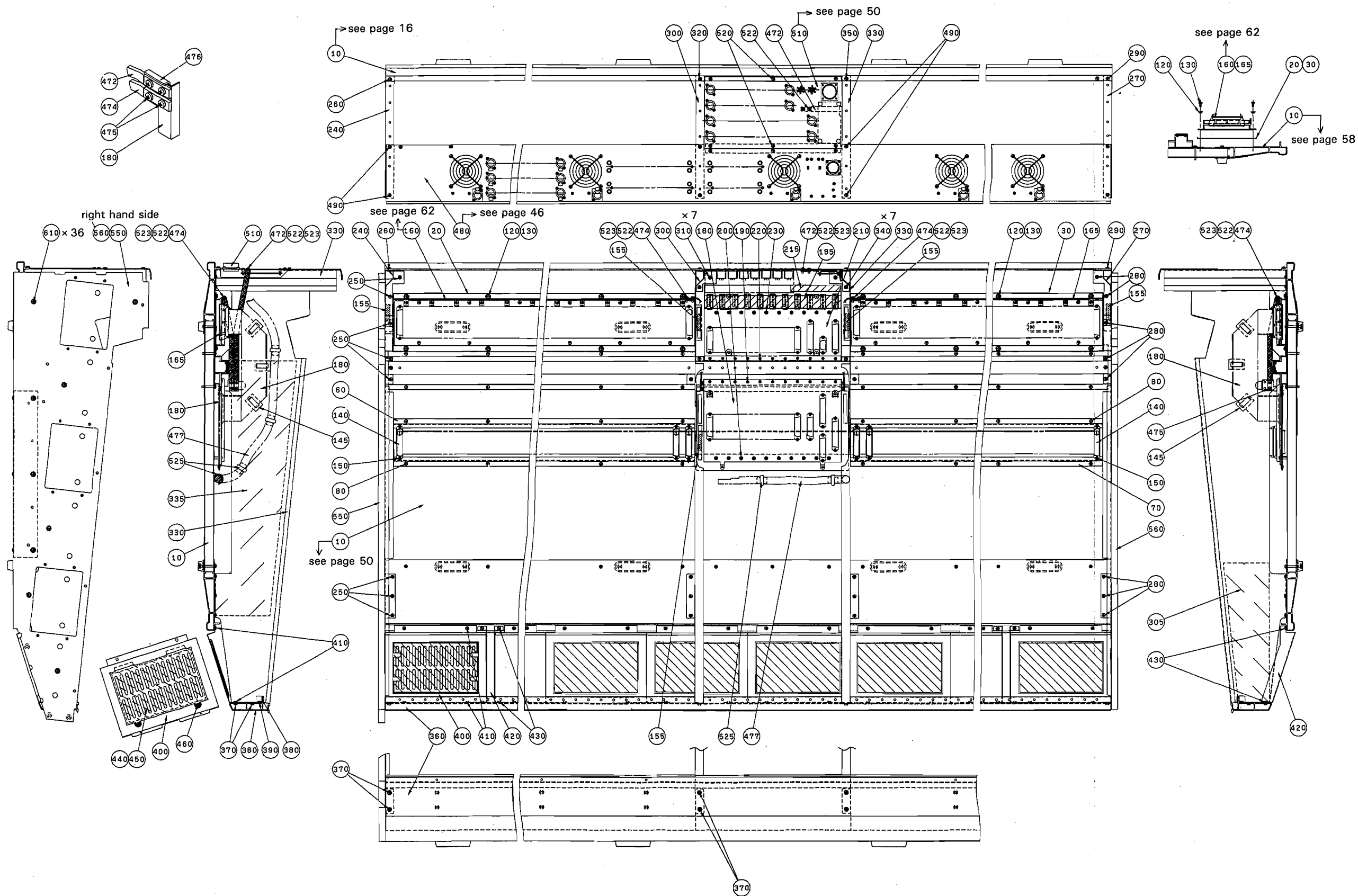
*New Parts (新規部品)

| Ref. No. | Part No. | Description | | | 部品名 | Remarks | ランク |
|----------|----------|---------------------------|----------|--------|--------------|------------------|-----|
| 478 | -- | Connector Assembly | MAIN-MT | | メイン束線MT | 40/48CH(VN26470) | |
| 480 | -- | Rear Panel Assembly | U | | リアパネルU Assy | 24CH (VN05900) | |
| 480 | -- | Rear Panel Assembly | U | | リアパネルU Assy | 32CH (VN05910) | |
| 480 | -- | Rear Panel Assembly | U | | リアパネルU Assy | 40CH (VN05920) | |
| 480 | -- | Rear Panel Assembly | U | | リアパネルU Assy | 48CH (VN05930) | |
| 490 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋バインドBタイト | 6/6/8/8pcs | 01 |
| 510 | -- | Rear Master Assembly | | | リア(MAS) Assy | (VN05940) | |
| 520 | VK464300 | Bonding Head Screw | 4.0X8 | FCM3BL | ボンディング小ネジ | 6pcs | 01 |
| 522 | EL000330 | Bind Head Screw | A4.0X12 | FCM3BL | ＋バインド小ネジ | 4/4/6/6pcs | 01 |
| 523 | VP265700 | Screw Board | | | ネジ板 | 2/2/3/3pcs | 09 |
| 525 | VN941800 | Cord Keeper | K-106G | | コードキープ | 5pcs | 01 |
| 530 | VN038700 | Stay-R | | | ステー (R) | 24CH | 49 |
| 530 | VN038800 | Stay-R | | | ステー (R) | 32CH | 42 |
| 530 | VN038900 | Stay-R | | | ステー (R) | 40CH | 44 |
| 530 | VN039000 | Stay-R | | | ステー (R) | 48CH | 37 |
| 535 | VP265800 | Angle Bracket, Handle | | | 把手アングル | 2pcs | 11 |
| 540 | EL000320 | Bind Head Screw | A4.0X8 | FCM3BL | ＋バインド小ネジ | 12/12/16/16pcs | 01 |
| 550 | VN039100 | Side Board | L | | 側板 | | 59 |
| 560 | VN039200 | Side Board | R | | 側板 | | 59 |
| 570 | VN039300 | Handle | | | 把手 | 6pcs | 16 |
| 600 | VB923200 | Bind Head Screw | 4.0X25 | ZMC2BL | ＋バインド小ネジ | 24pcs | 01 |
| 610 | VP062700 | Bind Head Screw | PW4.0X16 | ZMC2BL | ＋バインド小ネジ | 18pcs | 01 |
| 620 | VN039600 | Front Pad | L | | フロントパッド L | | 22 |
| 625 | VN655400 | Angle Bracket, Front Pad | L | | フロントパッドアングル | | 30 |
| 627 | VB178500 | Bind Head Screw | PW4.0X8 | FCM3BL | ＋バインド小ネジ | 7pcs | 01 |
| 630 | VP062700 | Bind Head Screw | PW4.0X16 | ZMC2BL | ＋バインド小ネジ | 3pcs | 01 |
| 640 | VN039700 | Front Pad | R | | フロントパッド R | | 22 |
| 645 | VN655500 | Angle Bracket, Front Pad | R | | フロントパッドアングル | | 30 |
| 647 | VB178500 | Bind Head Screw | PW4.0X8 | FCM3BL | ＋バインド小ネジ | 7pcs | 01 |
| 650 | VP062700 | Bind Head Screw | PW4.0X16 | ZMC2BL | ＋バインド小ネジ | 3pcs | 01 |
| 660 | VN039800 | Angle Bracket, Rear Pad | L | | リアパッドアングル | | 28 |
| 670 | VN040000 | Rear Pad | L | | リアパッド L | | 23 |
| 680 | VB178500 | Bind Head Screw | PW4.0X8 | FCM3BL | ＋バインド小ネジ | 5pcs | 01 |
| 690 | VA314000 | Bind Head Screw | PW4.0X20 | ZMC2BL | ＋バインド小ネジ | 4pcs | 01 |
| 700 | EL000320 | Bind Head Screw | A4.0X8 | FCM3BL | ＋バインド小ネジ | 2pcs | 01 |
| 705 | VP063700 | Flat Head Tapping Screw-B | 4.0X10 | ZMC2BL | ＋皿Bタイト | 2pcs | 01 |
| 710 | VN039900 | Angle Bracket, Rear Pad | R | | リアパッドアングル | | 28 |
| 720 | VN040100 | Rear Pad | R | | リアパッド R | | 23 |
| 730 | VB178500 | Bind Head Screw | PW4.0X8 | FCM3BL | ＋バインド小ネジ | 5pcs | 01 |
| 740 | VB403600 | Bind Head Screw | 4.0X20 | ZMC2BL | ＋バインド小ネジ | 2pcs | 01 |
| 750 | EL000320 | Bind Head Screw | A4.0X8 | FCM3BL | ＋バインド小ネジ | 2pcs | 01 |
| 755 | VP063700 | Flat Head Tapping Screw | 4.0X10 | ZMC2BL | ＋皿Bタイト | 2pcs | 01 |
| 760 | VN040200 | Under Cover | | | アンダーカバー | 4pcs | 17 |
| 770 | VA314000 | Bind Head Screw | PW4.0X20 | ZMC2BL | ＋バインド小ネジ | 8pcs | 01 |
| 780 | VN040300 | Side Cover | | | サイドカバー | 2pcs | 23 |
| 790 | VB569300 | Bind Head Tapping Screw-B | 4.0X25 | FCM3BL | ＋バインドBタイト | 8pcs | 01 |
| 800 | VP063700 | Flat Head Tapping Screw-B | 4.0X10 | ZMC2BL | ＋皿Bタイト | 8pcs | 01 |
| 810 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋バインドBタイト | 12pcs | 01 |
| 815 | VP754400 | MD Holder 1 | 28CH | | MDホルダー-1 | 24/48CH | 13 |
| 815 | VP754500 | MD Holder 1 | 36CH | | MDホルダー-1 | 32CH | 18 |
| 815 | VP754200 | MD Holder 1 | 24CH | | MDホルダー-1 | 40CH | 18 |
| 820 | VP754600 | MD Holder 2 | | | MDホルダー-2 | | 10 |
| 825 | VP754700 | MD Holder 3 | 20CH | | MDホルダー-3 | 40CH | 18 |
| 825 | VP754800 | MD Holder 3 | 24CH | | MDホルダー-3 | 48CH | 13 |
| 828 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋バインドBタイト | 7/8/9/11pcs | 01 |
| 830 | VN040400 | Leather Pad | L | | レザーパッド (下) | 24CH | 36 |
| 830 | VN040500 | Leather Pad | L | | レザーパッド (下) | 32CH | 41 |
| 830 | VN040600 | Leather Pad | L | | レザーパッド (下) | 40CH | 44 |
| 830 | VN040700 | Leather Pad | L | | レザーパッド (下) | 48CH | 40 |
| 840 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋バインドBタイト | 8/10/12/14pcs | 01 |
| 850 | VN574600 | Leather Pad Assembly | U | | レザーパッド上 Assy | 24CH | 48 |
| 850 | VN574700 | Leather Pad Assembly | U | | レザーパッド上 Assy | 32CH | 53 |
| 850 | VN574800 | Leather Pad Assembly | U | | レザーパッド上 Assy | 40CH | 56 |
| 850 | VN574900 | Leather Pad Assembly | U | | レザーパッド上 Assy | 48CH | 55 |
| 860 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋バインドBタイト | 4/5/6/7pcs | 01 |
| 870 | VN041200 | Angle Bracket, Pad | | | パッドアングル | 4/5/6/7pcs | 09 |
| 880 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋バインドBタイト | 4/5/6/7pcs | 01 |
| 885 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 | ZMC2BL | ＋バインドBタイト | 4/5/6/7pcs | 01 |
| 890 | -- | Meter Assembly | | | メーター Assy | 24CH (VN05950) | |
| 890 | -- | Meter Assembly | | | メーター Assy | 32CH (VN05960) | |
| 890 | -- | Meter Assembly | | | メーター Assy | 40CH (VN05970) | |
| 890 | -- | Meter Assembly | | | メーター Assy | 48CH (VN05980) | |
| 900 | VD831800 | Bind Head Tapping Screw-B | A4.0X12 | ZMC2BL | ＋バインドBタイト | 10/10/14/14pcs | 01 |
| 902 | VN669200 | Holder, Module | | | モジュール固定板 | 24CH | 22 |
| 902 | VN669300 | Holder, Module | | | モジュール固定板 | 32CH | 23 |
| 902 | VN669400 | Holder, Module | | | モジュール固定板 | 40CH | 24 |
| 902 | VN669500 | Holder, Module | | | モジュール固定板 | 48CH | 17 |
| 906 | VP313200 | Rubber Holder, Module | 360 | | モジュール固定ゴム | 32CH 2pcs | 04 |
| 906 | VP313300 | Rubber Holder, Module | 750 | | モジュール固定ゴム | 40/48CH 2pcs | 05 |

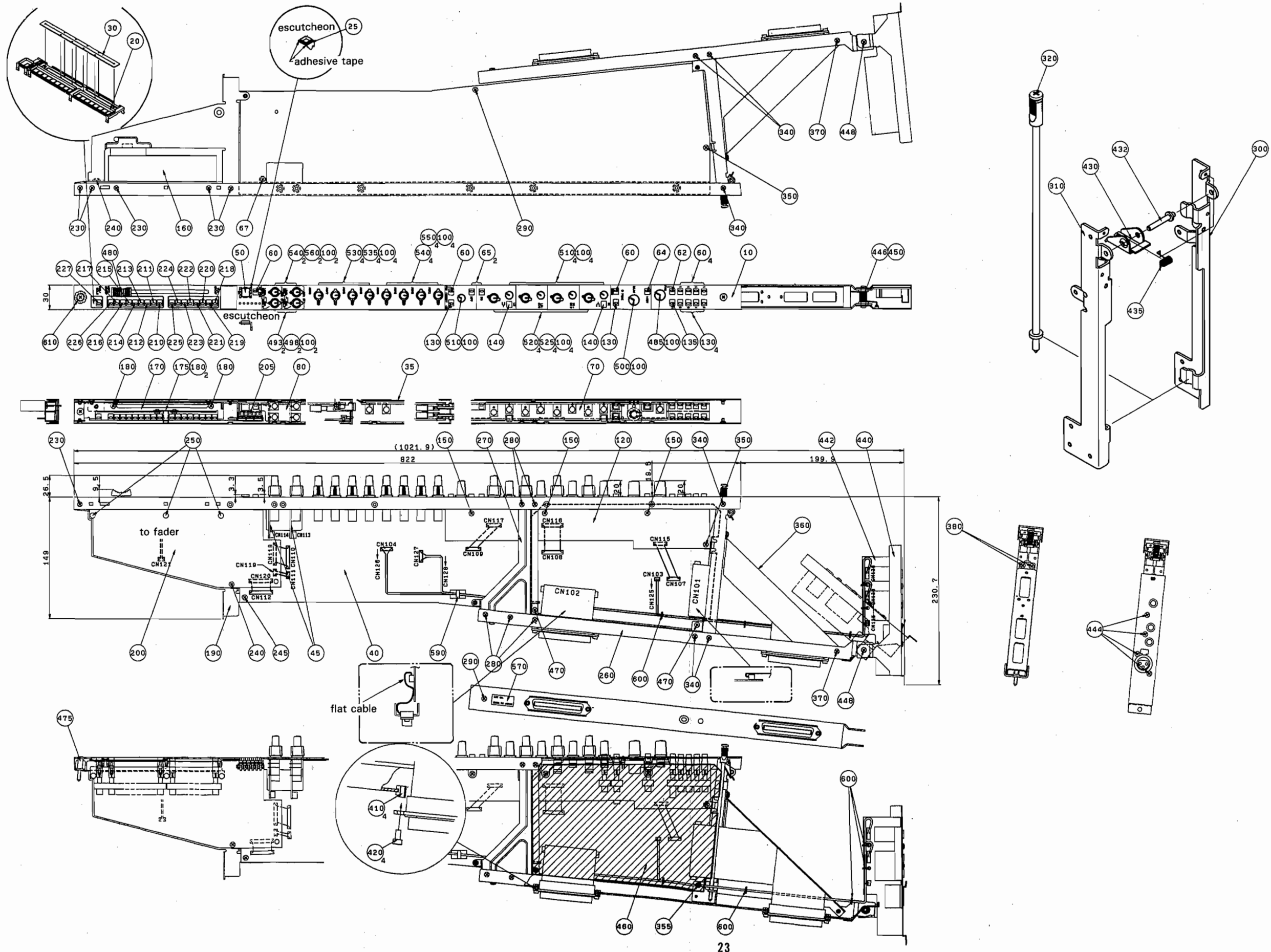
PM4000

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|-----------|----------|---------------------------|-----------------|-----------------|-----|
| * 907 | VP313400 | Rubber Holder, Module | 1230 | 2pcs | 06 |
| * 908 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 ZNC2BL | 5/5/7/7pcs | 01 |
| * 910 | VN041300 | Top Panel | | 24CH | 35 |
| * 910 | VN041400 | Top Panel | | 32CH | 39 |
| * 910 | VN041500 | Top Panel | | 40CH | 42 |
| * 910 | VN041800 | Top Panel | | 48CH | 41 |
| * 920 | EL000320 | Bind Head Screw | A4.0X8 FCM3BL | 6/8/8/10pcs | 01 |
| * 940 | VN041700 | Foot | L | | 15 |
| * 945 | VN065600 | Foot | R | | 15 |
| * 946 | VP313800 | Spacer | 9.5 | 2pcs | 05 |
| * 947 | VP313900 | Spacer | 11.5 | 6pcs | 05 |
| * 948 | VP314000 | Spacer | 19 | 6pcs | 05 |
| * 950 | EP600880 | Bind Head Tapping Screw-B | 4.0X20 FCM3BL | 8pcs | 01 |
| * 955 | ET500070 | Flat Washer | 4.0X10X FCM3BL | 8pcs | 01 |
| * 960 | EP040370 | Bind Head Tapping Screw-1 | 4.0X30 FCM3BL | 6pcs | 01 |
| * 970 | VN041800 | Foot | | 1/1/2/2pc(s) | 16 |
| * 972 | VP313800 | Spacer | 9.5 | 2/2/4/4pcs | 05 |
| * 974 | VP313900 | Spacer | 11.5 | 3/3/6/6pcs | 05 |
| * 980 | EP600880 | Bind Head Tapping Screw-B | 4.0X20 FCM3BL | 5/5/10/10pcs | 01 |
| * 985 | ET500070 | Flat Washer | 4.0X10X FCM3BL | 5/5/10/10pcs | 01 |
| * 990 | VN041900 | Module Indicator | | 24CH 2pcs | 15 |
| * 990 | VN065700 | Module Indicator | | 32CH 2pcs | 15 |
| * 990 | VN065800 | Module Indicator | | 40CH 2pcs | 15 |
| * 990 | VN065900 | Module Indicator | | 48CH 2pcs | 18 |
| * 1000 | VN059900 | Monaural Input Module | | J only | 80 |
| * 1010 | VN060000 | Stereo Input Module | | J only | 88 |
| * 1020 | VN060100 | Master Module | | J only | 63 |
| * 1030 | VN060200 | Stereo Master Module | | J only | 75 |
| * 1040 | VN060300 | Talkback Module | | J only | 79 |
| * 1050 | VN060400 | Monitor Module | | J only | 79 |
| * 1060 | VK464300 | Bonding Head Screw | 4.0X8 FCM3-BL | 56/72/88/104pcs | 01 |
| * 1080 | -- | Adhesive Tape | W=10 | (VE36300) | |
| * 1090 | -- | Adhesive Tape | 10mm | (CB65448) | |
| * 1100 | VJ770600 | Cord Binder | S-126 | 7/7/9/9pcs | 01 |
| * 1110 | VC688800 | Bind Head Tapping Screw-B | A4.0X8 ZNC2BL | 7/7/9/9pcs | 01 |
| * * * * * | | <ACCESSORIES> | | | |
| * * * * * | VN022400 | Power Supply | | J | |
| * * * * * | VN022500 | Power Supply | | U,C,V | |
| * * * * * | VN022600 | Power Supply | | H | |
| * * * * * | VN022700 | Power Supply | | B | |
| * * * * * | VN386600 | DC Cable | UL2464 #26*27 | J 3.6m | 52 |
| * * * * * | VP012400 | DC Cable | UL2501 #26*27 | U,C,V,H,B 3.6m | 57 |
| * * * * * | VC791100 | Lamp | 12V 5W | 3/4/5/5pcs | 27 |
| * * * * * | VN671200 | Cover | | 24CH | 57 |
| * * * * * | VN671300 | Cover | | 32CH | 58 |
| * * * * * | VN671400 | Cover | | 40CH | 61 |
| * * * * * | VN671500 | Cover | | 48CH | 63 |
| * * * * * | | <FOR SERVICING> | | | |
| * * * * * | TX800300 | EXTENSION CABLE SET | PM4000 | | 32 |
| * * * * * | VN386600 | <POWER CABLE> | UL2464 #26*27 | J 3.6m | 52 |
| * * * * * | -- | Tube | 22X0.4TX1M | (VP06060) | |
| * * * * * | VN074200 | Connector | NK-27-22C-3/4 | | 19 |
| * * * * * | VN074300 | Connector | NK-27-21C-3/4 | | 19 |
| * * * * * | -- | Barrel Adaptor | NK-AD1 | (VN38640) | |
| * * * * * | VN386500 | Cable | UL2464AWG20 27P | 3.6m | |
| * * * * * | -- | Bushing | MS-3420-12 JAE | (VP31540) | |
| * * * * * | VP012400 | <POWER CABLE> | UL2501 #26*27 | U,C,V,H,B 3.6m | 57 |
| * * * * * | -- | Tube | 22X0.4TX1M | (VP06060) | |
| * * * * * | -- | Barrel Adaptor | NK-AD1 | (VN38640) | |
| * * * * * | VP012100 | Connector | NK-27-22C-7/8 | | 21 |
| * * * * * | VP012200 | Connector | NK-27-21C-7/8 | | 22 |
| * * * * * | VP012500 | Cable | UL2501AWG20 27P | 3.6m | |

OVERALL ASSEMBLY 2/2 (総組立2/2)



MONAURAL INPUT MODULE (MONO INPUTモジュール)



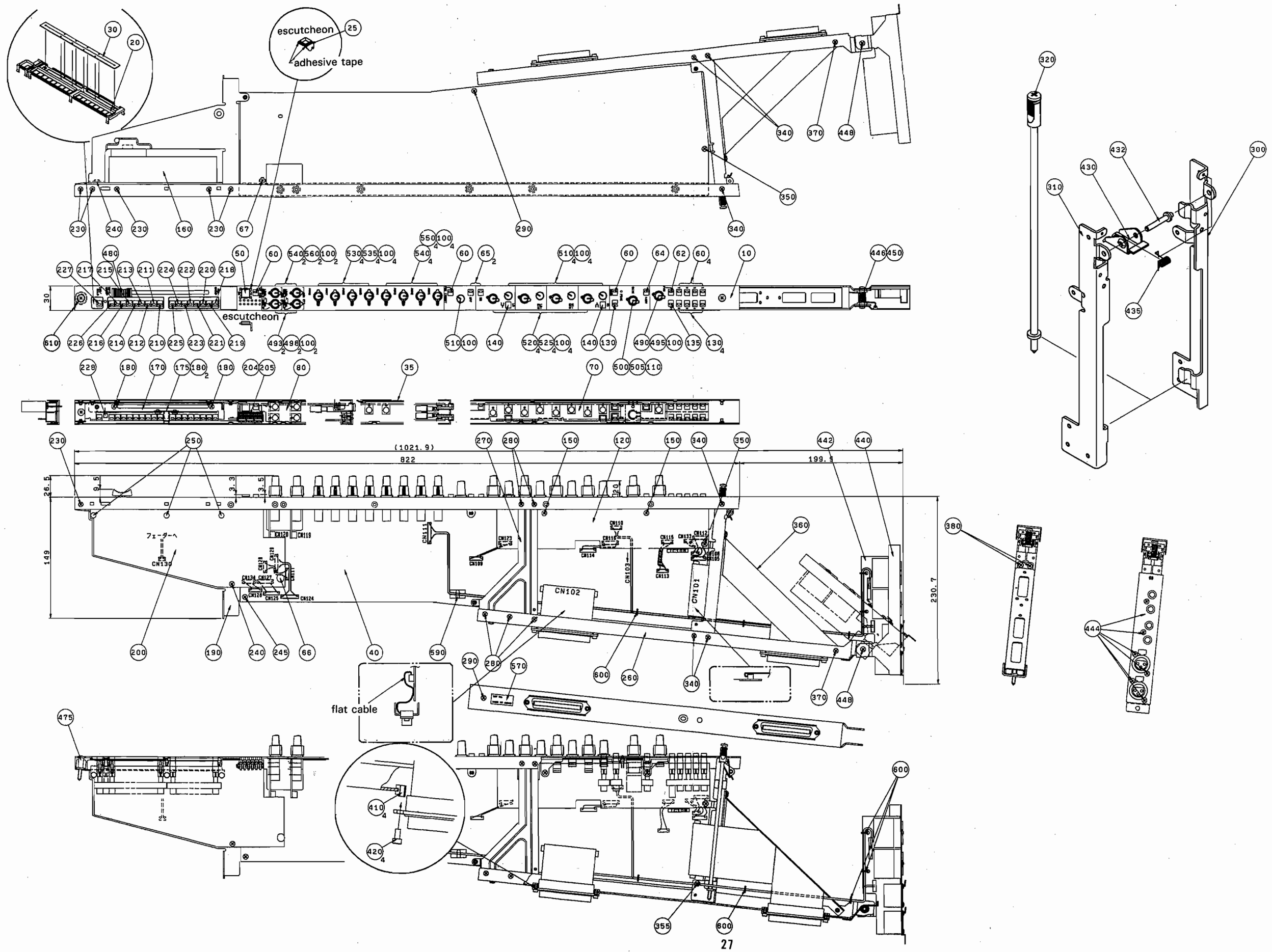
PM4000

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク | | |
|----------|----------|-------------------------|-------------|---------------------|---|-------|----|
| * 10 | VN059900 | <MONAURAL INPUT MODULE> | | < MONO INPUTモジュール > | PM4000 (J only) | 80 | |
| * 20 | VN049300 | INPUT Panel | VMCF | パネル INPUT | | 18 | |
| * 25 | VP244200 | Escutcheon | IN | VMCF エスカッション | | 05 | |
| * 30 | VN049500 | Dust Proof Cover | | エスカッション | | 04 | |
| * 35 | VN676700 | Insulation Sheet, MD | (INPUT) | 防塵カバー | | 04 | |
| * 40 | VN024100 | Circuit Board | IN1 | MD 絶縁シート | | 04 | |
| * 45 | VN024400 | Circuit Board | IN4 | IN1 シート | | 60 | |
| * 50 | VN680200 | Push Button Assembly | L | IN4 シート | 2pcs | 14 | |
| * 60 | VN049700 | Push Button with Lens | M GY | プッシュボタン L Assy | Channel ON | 05 | |
| | | | | プッシュボタン (S) | 7pcs (ASSIGN1,3) | 03 | |
| * 62 | VN305400 | Push Button with Lens | S GY | プッシュボタン (S) | .5,7,30dB,PRE INSERT,MT PRE) | 03 | |
| * 64 | VN305900 | Push Button with Lens | YE | プッシュボタン (S) | PAN | 03 | |
| * 65 | VN524700 | Push Button with Lens | GR | プッシュボタン (S) | +48V | 03 | |
| | | | | | 2pcs (EQ,HPP) | 03 | |
| * 67 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 1pc. | 01 |
| * 70 | VN049900 | Spacer, MD-VR | | MD VR スペーサー | | 07 | |
| * 80 | VN050000 | Spacer, MD-VR | | MD VR スペーサー | | 05 | |
| * 100 | ES200180 | Hexagonal Nut | 7.0 | ZHC2BL | 特殊六角ナット | 23pcs | 01 |
| * 120 | VN024200 | Circuit Board | IN2 | IN2 シート | | 14 | |
| * 130 | VN049700 | Push Switch with Lens | M GY | プッシュボタン (S) | | 03 | |
| | | | | | 6pcs (ASSIGN2,4 .6,8,φ,INSERT ON) | 03 | |
| * 135 | VN305500 | Push Switch with Lens | RE | プッシュボタン (S) | ST | 03 | |
| * 140 | VN524600 | Push Switch | GR | プッシュボタン (S) | 2pcs (HI,LO) | 03 | |
| * 150 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 3pcs | 01 |
| * 160 | VN079000 | Slide Pot. | 10.0K 100mm | | スライド VR | Fader | 10 |
| * 170 | VN050200 | Angle Bracket, Fader | (INPUT) | MD フェダーアングル | | 06 | |
| * 175 | VP253200 | Angle Bracket, MD | (INPUT) | M D 補強金具 | | 05 | |
| * 180 | EG330010 | Bind Head Screw | 3.0X4 | FCM3BL | + バインド小ネジ | 4pcs | 01 |
| * 190 | VN050300 | Angle Bracket, MD | (F) | MD アングル | | 08 | |
| * 200 | VN024300 | Circuit Board | IN3 | IN3 シート | | 20 | |
| * 205 | VP270500 | Insulation Sheet | (INPUT) | MD 絶縁シート S | | 03 | |
| * 210 | VN306000 | Push Button with Lens | M GY 1 | プッシュボタン (S) | MUTE 1 | 05 | |
| * 211 | VN306500 | Push Button with Lens | M GY 2 | プッシュボタン (S) | MUTE 2 | 05 | |
| * 212 | VN308700 | Push Button with Lens | M GY 3 | プッシュボタン (S) | MUTE 3 | 05 | |
| * 213 | VN306800 | Push Button with Lens | M GY 4 | プッシュボタン (S) | MUTE 4 | 05 | |
| * 214 | VN308900 | Push Button with Lens | M GY 5 | プッシュボタン (S) | MUTE 5 | 05 | |
| * 215 | VN307000 | Push Button with Lens | M GY 6 | プッシュボタン (S) | MUTE 6 | 05 | |
| * 216 | VN307100 | Push Button with Lens | M GY 7 | プッシュボタン (S) | MUTE 7 | 05 | |
| * 217 | VN307200 | Push Button with Lens | M GY 8 | プッシュボタン (S) | MUTE 8 | 05 | |
| * 218 | VN307300 | Push Button with Lens | S GY 1 | プッシュボタン (S) | VCA GROUP 1 | 05 | |
| * 219 | VN307400 | Push Button with Lens | S GY 2 | プッシュボタン (S) | VCA GROUP 2 | 05 | |
| * 220 | VN307500 | Push Button with Lens | S GY 3 | プッシュボタン (S) | VCA GROUP 3 | 05 | |
| * 221 | VN307600 | Push Button with Lens | S GY 4 | プッシュボタン (S) | VCA GROUP 4 | 05 | |
| * 222 | VN307700 | Push Button with Lens | S GY 5 | プッシュボタン (S) | VCA GROUP 5 | 05 | |
| * 223 | VN307800 | Push Button with Lens | S GY 6 | プッシュボタン (S) | VCA GROUP 6 | 05 | |
| * 224 | VN307900 | Push Button with Lens | S GY 7 | プッシュボタン (S) | VCA GROUP 7 | 05 | |
| * 225 | VN308000 | Push Button with Lens | S GY 8 | プッシュボタン (S) | VCA GROUP 8 | 05 | |
| * 226 | VN308100 | Push Button with Lens | RE S | プッシュボタン (S) | S (Mute safe) | 05 | |
| * 227 | VN305400 | Push Button with Lens | S GY | プッシュボタン (S) | CUE/SOLO | 03 | |
| * 230 | EC030030 | Flat Head Screw | 3.0X6 | ZHC2BL | + 皿小ネジ | 6pcs | 01 |
| * 240 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 2pcs | 01 |
| * 245 | EG330010 | Bind Head Screw | 3.0X4 | FCM3BL | + バインド小ネジ | 1pc. | 01 |
| * 250 | CR602970 | Plastic Rivet | NO.920 | | ブラリベット | 01 | |
| * 260 | VN050400 | Bottom Stay, MD | (INPUT) | MD ボトムステー | | 10 | |
| * 270 | VN050500 | Angle Bracket, MD | (C) | MD アングル | | 07 | |
| * 280 | EC030030 | Flat Head Screw | 3.0X6 | ZHC2BL | + 皿小ネジ | 5pcs | 01 |
| * 290 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 2pcs | 01 |
| * 300 | VN050600 | Angle Bracket, MD | (R) L | MD アングル L | | 08 | |
| * 310 | VN565500 | Angle Bracket, MD | (R) R | MD アングル R | | 08 | |
| * 320 | VN050800 | Screw, MD | L | MD 特殊ネジ | 1pc. | 10 | |
| * 340 | EC030030 | Flat Head Screw | 3.0X6 | ZHC2BL | + 皿小ネジ | 6pcs | 01 |
| * 350 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 2pcs | 01 |
| * 355 | EG330010 | Bind Head Screw | 3.0X4 | FCM3BL | + バインド小ネジ | 1pc. | 01 |
| * 360 | VN050900 | Angle Bracket, MD | (INPUT) H | MD アングル H | | 07 | |
| * 370 | EC030030 | Flat Head Screw | 3.0X6 | ZHC2BL | + 皿小ネジ | 2pcs | 01 |
| * 380 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 2pcs | 01 |
| * 410 | VN051000 | Spacer, MD | (CONNECTOR) | MD スペーサー | 4pcs | 05 | |
| * 420 | ER000320 | Cap Screw | 3.0X6 | FCM3BL | 六角穴付ボルト | 4pcs | 01 |
| * 430 | VN670200 | Stopper, MD | | MD ストップバー | | 05 | |
| * 432 | VN899800 | Pin, MD | | MD ピン | | 03 | |
| * 435 | VP240600 | Coil Spring, MD | S | MD コイルバネ S | | 04 | |
| * 440 | VN055400 | Rear Panel | IN | リアパネル (IN) | | 11 | |
| * 442 | VN024600 | Circuit Board | IN6 | IN6 シート | | 13 | |
| * 444 | VC082800 | Bonding Head Screw | 3.0X6 | FCM3BL | ボンディング小ネジ | 4pcs | 01 |
| * 448 | VN670500 | Shaft, MD-R | P-125-20 | | M D 軸 (R) | 03 | |
| * 448 | EG330360 | Bind Head Screw | 3.0X6 | ZHC2BL | + バインド小ネジ | 2pcs | 01 |
| * 450 | VN670600 | Coil Spring, MD | | MD コイルバネ | | 04 | |

*New Parts (新規部品)

ランク : Japan only

STEREO INPUT MODULE (ST INPUTモジュール)



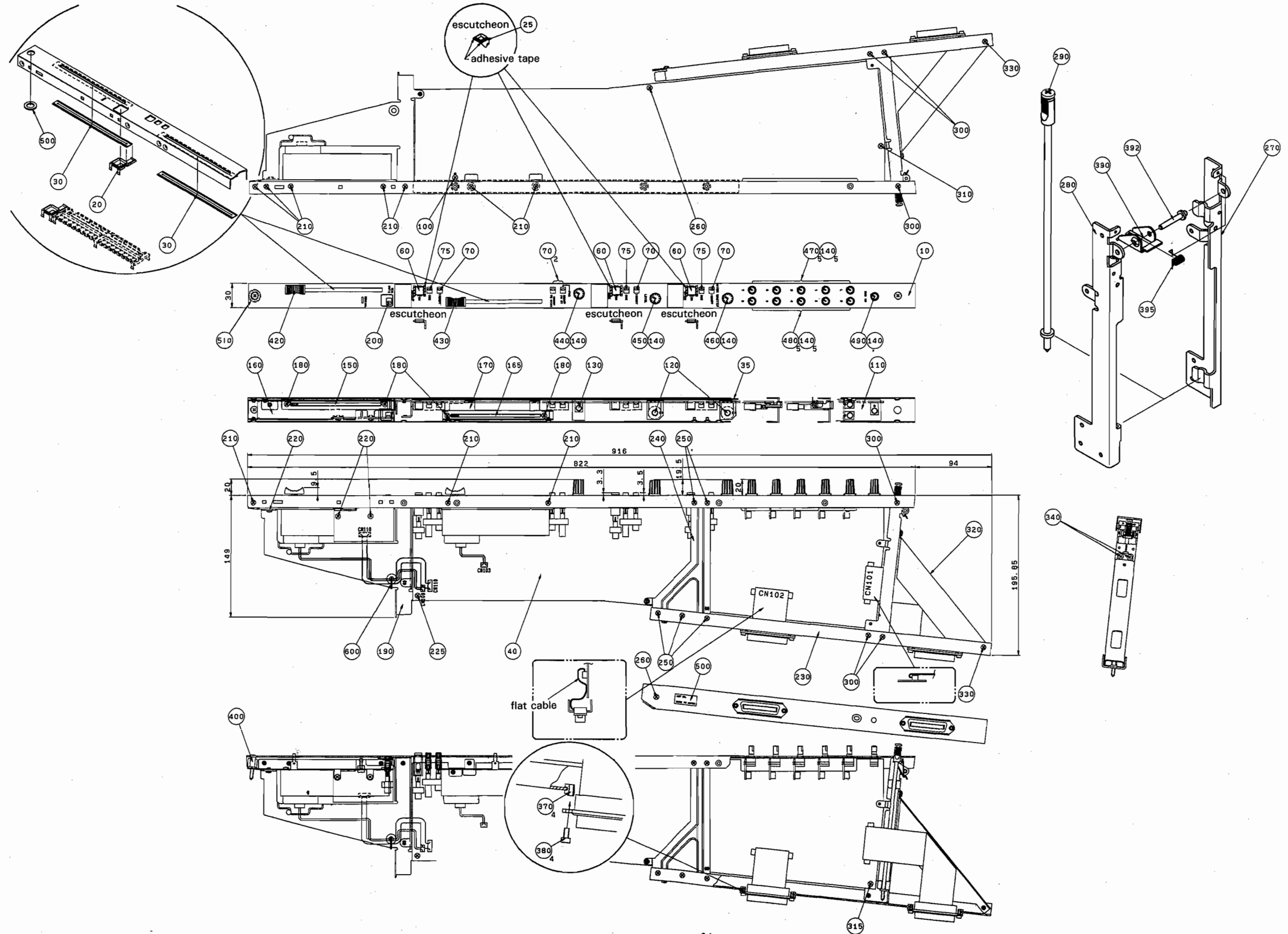
PM4000

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------|--------------|-----------------|---|
| * 10 | VN060000 | <STEREO INPUT MODULE> | | <ST INPUTモジュール> | PM4000 (J only) |
| * 20 | VN052100 | ST IN Panel | | パネル ST INPUT | 19 |
| * 25 | VN049400 | Escutcheon | VMCF | V M C F エスカッション | 05 |
| * 30 | VP244200 | Escutcheon | | エスカッション | 04 |
| * 35 | VN049500 | Dust Proof Cover | IN | 防塵カバー | 04 |
| * 40 | VN024700 | Insulation Sheet, MD | (INPUT) | MD 絶縁シート | 04 |
| * 50 | VN024700 | Circuit Board | SI1 | SI1 シート | 77 |
| * 60 | VN680200 | Push Button Assembly | | プッシュボタン L Assy | 05 |
| * 60 | VN049700 | Push Button with Lens | H GY | プッシュボタン (S) | Channel ON 7pcs (ASSIGN1,3 ,5,7,30dB, INSE- RT ON, MT PRE) |
| * 82 | VN305400 | Push Button with Lens | S GY | プッシュボタン (S) | 03 |
| * 84 | VN305900 | Push Button with Lens | YE | プッシュボタン (S) | 03 |
| * 65 | VN524700 | Push Button with Lens | GR | プッシュボタン (S) | +48V |
| * 66 | VP691700 | Spacer | KGLS-18RF | ワッキングガード スパース | 2pcs (EQ, HPF) |
| * 67 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 1pc. |
| * 70 | VN049900 | Spacer, MD-VR | | MD VR スパース | 07 |
| * 80 | VN050000 | Spacer, MD-VR | | MD VR スパース | 05 |
| * 100 | ES200180 | Hexagonal Nut | 7.0 ZMC2BL | 特殊六角ナット | 22pcs |
| * 110 | VJ388000 | Hexagonal Nut | 9 ZMC2BL | 特殊六角ナット | 1pc. |
| * 120 | VN024800 | Circuit Board | SI2 | SI2 シート | 16 |
| * 130 | VN049700 | Push Button with Lens | M GY | プッシュボタン (S) | 5pcs (ASSIGN2,4 ,6,8,φ) |
| * 135 | VN305500 | Push Button with Lens | RE | プッシュボタン (S) | 03 |
| * 140 | VN524800 | Push Button | GR | プッシュボタン (S) | ST 2pcs (HI, LO) |
| * 150 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 2pcs |
| * 160 | VN079000 | Slide Pot. | 10.0K 100mm | スライドVR | Fader |
| * 170 | VN050200 | Angle Bracket, Fader | (INPUT) | MD フェーダーアングル | 06 |
| * 175 | VP253200 | Angle Bracket, MD | (INPUT) | MD 補強金具 | 05 |
| * 180 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL | + バインド小ネジ | 4pcs |
| * 190 | VN050300 | Angle Bracket, MD | (F) | MD アングル | 08 |
| * 200 | VN024900 | Circuit Board | SI3 | SI3 シート | 22 |
| * 204 | VP376200 | LED Sheet, MD | (SI) | MD LED シート | 03 |
| * 205 | VP270500 | Insulation Sheet, MD | (INPUT) | MD 絶縁シート S | 03 |
| * 210 | VN306000 | Push Button with Lens | M GY 1 | プッシュボタン (S) | MUTE 1 |
| * 211 | VN306500 | Push Button with Lens | M GY 2 | プッシュボタン (S) | MUTE 2 |
| * 212 | VN306700 | Push Button with Lens | M GY 3 | プッシュボタン (S) | MUTE 3 |
| * 213 | VN306800 | Push Button with Lens | M GY 4 | プッシュボタン (S) | MUTE 4 |
| * 214 | VN306900 | Push Button with Lens | M GY 5 | プッシュボタン (S) | MUTE 5 |
| * 215 | VN307000 | Push Button with Lens | M GY 6 | プッシュボタン (S) | MUTE 6 |
| * 216 | VN307100 | Push Button with Lens | M GY 7 | プッシュボタン (S) | MUTE 7 |
| * 217 | VN307200 | Push Button with Lens | M GY 8 | プッシュボタン (S) | MUTE 8 |
| * 218 | VN307300 | Push Button with Lens | S GY 1 | プッシュボタン (S) | VCA GROUP 1 |
| * 219 | VN307400 | Push Button with Lens | S GY 2 | プッシュボタン (S) | VCA GROUP 2 |
| * 220 | VN307500 | Push Button with Lens | S GY 3 | プッシュボタン (S) | VCA GROUP 3 |
| * 221 | VN307600 | Push Button with Lens | S GY 4 | プッシュボタン (S) | VCA GROUP 4 |
| * 222 | VN307700 | Push Button with Lens | S GY 5 | プッシュボタン (S) | VCA GROUP 5 |
| * 223 | VN307800 | Push Button with Lens | S GY 6 | プッシュボタン (S) | VCA GROUP 6 |
| * 224 | VN307900 | Push Button with Lens | S GY 7 | プッシュボタン (S) | VCA GROUP 7 |
| * 225 | VN308000 | Push Button with Lens | S GY 8 | プッシュボタン (S) | VCA GROUP 8 |
| * 226 | VN308100 | Push Button with Lens | RE S | プッシュボタン (S) | S (Mute safe) |
| * 227 | VN305400 | Push Button with Lens | S GY | プッシュボタン (S) | CUE/SOLO |
| * 228 | VN569600 | Knob | BL/YE | SW ノブ | Solo mute defe- at switch |
| * 230 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 8pcs |
| * 235 | VP626500 | Module Plate, P.C.B. | SI | MD 基板金具 SI | 2pcs |
| * 236 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 1pc. |
| * 240 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 3pcs |
| * 245 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 1pc. |
| * 250 | CB602970 | Plastic Rivet | NO.920 | ブラリベット | 3pcs |
| * 260 | VN050400 | Bottom Stay, MD | (INPUT) | MD ボトムステー | 10 |
| * 270 | VN050500 | Angle Bracket, MD | (C) | MD アングル | 07 |
| * 280 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 5pcs |
| * 290 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 2pcs |
| * 300 | VN050600 | Angle Bracket, MD | (R) L | MD アングル L | 08 |
| * 310 | VN565500 | Angle Bracket, MD | (R) R | MD アングル R | 08 |
| * 320 | VN050800 | Screw | L | MD 特殊ネジ | 1pc. |
| * 340 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 8pcs |
| * 350 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 2pcs |
| * 355 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL | + バインド小ネジ | 1pc. |
| * 360 | VN050900 | Angle Bracket, MD | (INPUT) H | MD アングル H | 07 |
| * 370 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 2pcs |
| * 380 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 2pcs |
| * 410 | VN051000 | Spacer, MD | (CONNECTOR) | MD スパース | 4pcs |
| * 420 | ER000320 | Cap Screw | 3.0X6 FCM3BL | 六角穴付ボルト | 4pcs |
| * 430 | VN670200 | Stopper, MD | | MD ストッパー | 05 |
| * 432 | VN899600 | Pin, MD | S | MD ピン | 03 |
| * 435 | VP240600 | Coil Spring, MD | ST IN | MD コイル パネ S | 04 |
| * 440 | VN055500 | Rear Panel | ST IN | リアパネル (S T I N) | 11 |

*New Parts (新規部品)

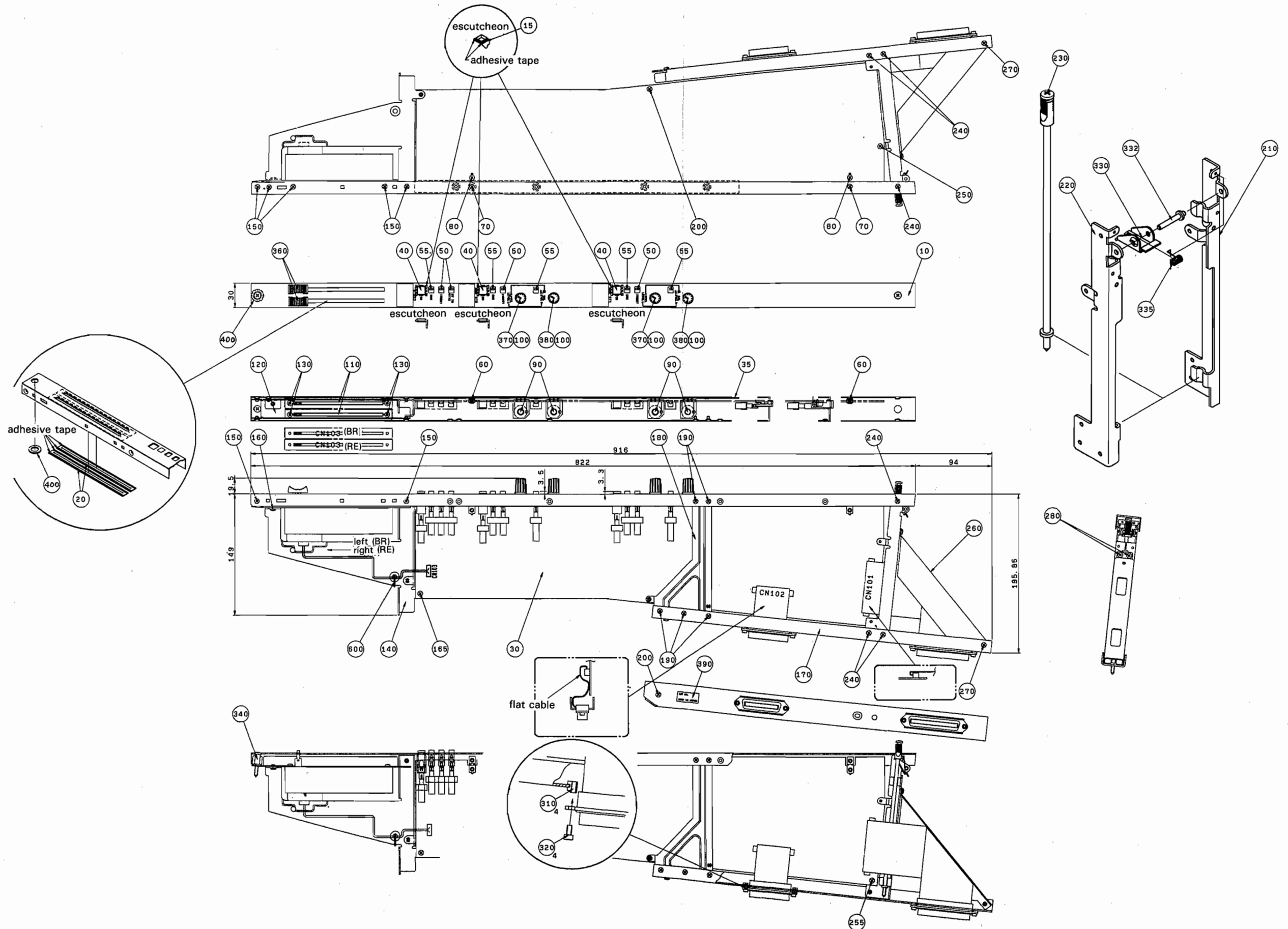
ランク: Japan only

MASTER MODULE (MASTERモジュール)



| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------|-----------------------|---|-----|
| 10 | VN060100 | <MASTER MODULE> | <GROUP MASTERモジュール> | PM4000 (J only) | 63 |
| 20 | VN052600 | MASTER Panel | パネル M A S T E R | | 17 |
| 25 | VN049400 | Escutcheon | V M C F エスカッション | | 05 |
| 30 | VP244200 | Escutcheon | エスカッション | 3pcs | 04 |
| 35 | VN655300 | Dust Proof Cover | 防塵カバー | 2pcs | 05 |
| 40 | VN676800 | Insulation Sheet, MD | M D 絶縁シート | | 04 |
| 60 | VN025200 | Circuit Board | M A S I シート | | 41 |
| 70 | VN680200 | Push Button Assembly | プッシュボタン L Assy | 3pcs (ON) | 05 |
| | VN049700 | Push Button with Lens | プッシュボタン (S) | 5pcs (INSERT, GROUP TO ST, GROUP TO MTRX) | 03 |
| 75 | VN305400 | Push Button with Lens | プッシュボタン (S) | 3pcs (CUE) | 03 |
| 80 | VN053300 | Angle Bracket, MD | M D 基板金具 | | 05 |
| 90 | EC030030 | Flat Head Screw | +皿小ネジ | | 01 |
| 100 | EG330360 | Bind Head Screw | +バインド小ネジ | 1pc. | 01 |
| 110 | VN052700 | Spacer, MD-VR | M D V R スペーサー | | 07 |
| 120 | VN052800 | Spacer, MD-VR | M D V R スペーサー | 2pcs | 03 |
| 130 | VN052400 | Spacer, MD-VR | M D V R スペーサー | | 05 |
| 140 | ES200180 | Hexagonal Nut | 特殊六角ナット | 14pcs | 01 |
| 150 | VN079000 | Slide Pot. | スライドVR | VCA master | 10 |
| 160 | VN053000 | Angle Bracket, Fader | M D フェーダーアングル | | 11 |
| 165 | VN079700 | Slide Pot. | スライドVR | Group master | 10 |
| 170 | VN053100 | Angle Bracket, MD | M D フェーダーアングル | | 10 |
| 180 | EG330010 | Bind Head Screw | +バインド小ネジ | 4pcs | 01 |
| 190 | VN050300 | Angle Bracket, MD | M D アングル | | 08 |
| 200 | VN049700 | Push Button with Lens | プッシュボタン (S) | VCA MUTE | 03 |
| 210 | EC030030 | Flat Head Screw | +皿小ネジ | 10pcs | 01 |
| 220 | EG330360 | Bind Head Screw | +バインド小ネジ | 3pcs | 01 |
| 225 | EG330010 | Bind Head Screw | +バインド小ネジ | 1pc. | 01 |
| 230 | VN053200 | Bottom Stay, MD | M D ボトムステー | | 13 |
| 240 | VN050500 | Angle Bracket, MD | M D アングル | | 07 |
| 250 | EC030030 | Flat Head Screw | +皿小ネジ | 5pcs | 01 |
| 260 | EG330360 | Bind Head Screw | +バインド小ネジ | 2pcs | 01 |
| 270 | VN050600 | Angle Bracket, MD | M D アングル L | | 08 |
| 280 | VN565500 | Angle Bracket, MD | M D アングル R | | 08 |
| 290 | VN050800 | Screw, MD | M D 特殊ネジ | 1pc. | 10 |
| 300 | EC030030 | Flat Head Screw | +皿小ネジ | 6pcs | 01 |
| 310 | EG330360 | Bind Head Screw | +バインド小ネジ | 1pc. | 01 |
| 315 | EG330010 | Bind Head Screw | +バインド小ネジ | 1pc. | 01 |
| 320 | VN655200 | Angle Bracket, MD | (MASTER) H M D アングル H | | 07 |
| 330 | EC030030 | Flat Head Screw | +皿小ネジ | 2pcs | 01 |
| 340 | EG330360 | Bind Head Screw | +バインド小ネジ | 2pcs | 01 |
| 370 | VN051000 | Spacer, MD | (CONNECTOR) M D スペーサー | 4pcs | 05 |
| 380 | ER000320 | Cap Screw | 六角穴付ボルト | 4pcs | 01 |
| 390 | VN670200 | Stopper, MD | M D ストッパー | | 05 |
| 392 | VN899600 | Pin, MD | M D ピン | | 03 |
| 395 | VP240600 | Coil Spring, MD | M D コイルバネ S | | 04 |
| 400 | VN670700 | Screw, MD | M D 特殊ネジ | 1pc. | 07 |
| 420 | VN681200 | Knob, Fader | ノブ (フェーダー 4 K) | VCA master | 04 |
| 430 | VN681300 | Knob, Fader | ノブ (フェーダー 4 K) | Group master | 04 |
| 440 | VN938600 | Knob | ノブ (ダイ) | PAN | 03 |
| 450 | VN706600 | Knob | ノブ (ダイ) | AUX snd level | 03 |
| 460 | VN706500 | Knob | ノブ (ダイ) | MTRX MASTER | 03 |
| 470 | VN706800 | Knob | ノブ (ショウ) | 5pcs (L,1,3,5,7 mtrx mix level) | 03 |
| 480 | VN938700 | Knob | ノブ (ショウ) | 5pcs (R,2,4,6,8 mtrx mix level) | 03 |
| 490 | VN938800 | Knob | ノブ (ショウ) | SUB IN | 03 |
| 500 | -- | LOT Label | LOT ラベル | (CA80191) | |
| 510 | VQ451100 | Spacer | スペーサー | | |
| 600 | CB069250 | Cord Binder | インシュロックタイ | | 01 |

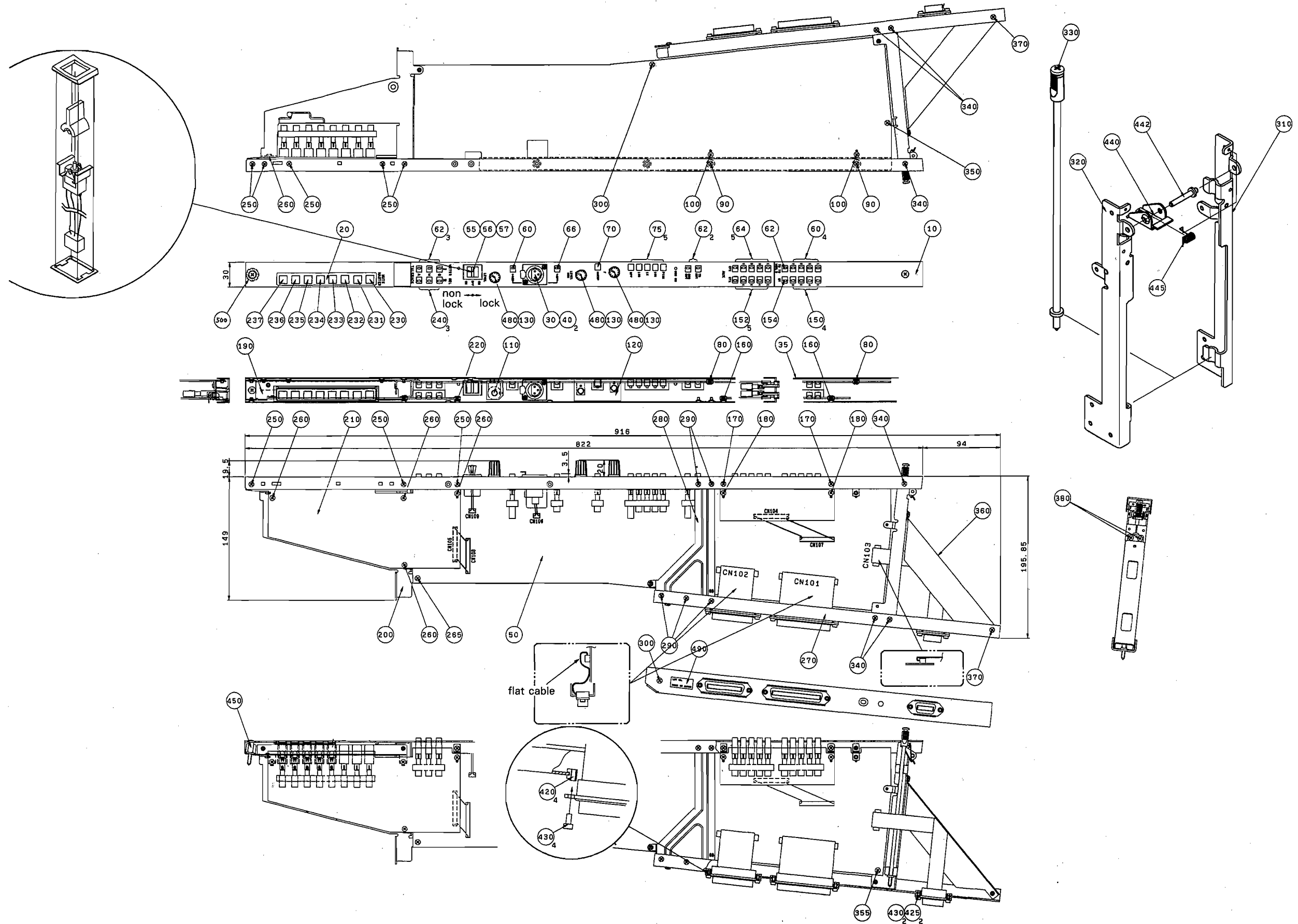
STEREO MASTER MODULE (ST MASTERモジュール)



| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク |
|----------|----------|------------------------|---------------------------|------------------------------|---------------|
| * 10 | VN060200 | <STEREO MASTER MODULE> | <ST MASTER モジュール> | PM4000 (J only) | 75 |
| * 15 | VN053400 | ST MASTER Panel | パネル S T MASTER | | 31 |
| * 20 | VP244200 | Escutcheon | エスカッション | 3pcs | 04 |
| * 30 | VN055300 | Dust Proof Cover | 防塵カバー | 2pcs | 05 |
| * 35 | VN025400 | Circuit Board | S T 1 シート | | 54 |
| * 40 | VN676800 | Insulation Sheet, MD | M D 絶縁シート | | 04 |
| * 50 | VN680200 | Push Button Assembly | プッシュボタン L Assy | 3pcs (ON) | 05 |
| * 55 | VN049700 | Push Button with Lens | プッシュボタン (S) | 4pcs (INSERT, ST TO MTRX) | 03 |
| * 60 | VN305400 | Push Button with Lens | プッシュボタン (S) | 5pcs | 03 |
| * 60 | VN053300 | Angle Bracket, MD | (MASTER) M D 基板金具 | (BAL/LEVEL, CUE) | 05 |
| * 70 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL +皿小ネジ | 2pcs | 01 |
| * 80 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL +パインド小ネジ | 2pcs | 01 |
| * 90 | VN052800 | Spacer, MD-VR | 4 M D V R スペースサー | 4pcs | 03 |
| * 100 | ES200180 | Hexagonal Nut | 7.0 ZNC2BL 特殊六角ナット | 4pcs | 01 |
| * 110 | VN079700 | Slide Pot. | D (AUDIO) 10.0K スライド V R | 2pcs (ST master fader) | 10 |
| * 120 | VN053500 | Angle Bracket, Fader | (ST MASTER) M D フェーダーアングル | | 12 |
| * 130 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL +パインド小ネジ | 4pcs | 01 |
| * 140 | VN050300 | Angle Bracket, MD | (F) M D アングル | | 08 |
| * 150 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL +皿小ネジ | 7pcs | 01 |
| * 160 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL +パインド小ネジ | 1pc. | 01 |
| * 165 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL +パインド小ネジ | 1pc. | 01 |
| * 170 | VN053600 | Bottom Stay, MD | (ST MASTER) M D ボトムステー | | 15 |
| * 180 | VN050500 | Angle Bracket, MD | (C) M D アングル | | 07 |
| * 190 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL +皿小ネジ | 5pcs | 01 |
| * 200 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL +パインド小ネジ | 2pcs | 01 |
| * 210 | VN050600 | Angle Bracket, MD | (R) L M D アングル L | | 08 |
| * 220 | VN565500 | Angle Bracket, MD | (R) R M D アングル R | | 08 |
| * 230 | VN050800 | Screw, MD | L M D 特殊ネジ | 1pc. | 10 |
| * 240 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL +皿小ネジ | 6pcs | 01 |
| * 250 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL +パインド小ネジ | 1pc. | 01 |
| * 255 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL +パインド小ネジ | 1pc. | 01 |
| * 260 | VN655200 | Angle Bracket, MD | (MASTER) H M D アングル H | | 07 |
| * 270 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL +皿小ネジ | 2pcs | 01 |
| * 280 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL +パインド小ネジ | 2pcs | 01 |
| * 310 | VN051000 | Spacer, MD | M D スペースサー | 4pcs | 05 |
| * 320 | ER000320 | Cap Screw | 3.0X6 FCM3BL 六角穴付ボルト | 4pcs | 01 |
| * 330 | VN670200 | Stopper, MD | M D ストッパー | | 05 |
| * 332 | VN899600 | Pin, MD | M D ピン | | 03 |
| * 335 | VP240600 | Coil Spring, MD | S M D コイルバネ S | | 04 |
| * 340 | VN670700 | Screw, MD | S M D 特殊ネジ | 1pc. | 07 |
| * 360 | VN681400 | Knob, Fader | BL/RE ノブ (フェーダー 4 K | 2pcs (ST master fader) | 04 |
| * 370 | VM706600 | Knob | S GY/BE ノブ (ダイ) | 2pcs | 03 |
| * 380 | VN938600 | Knob | RE/S GY ノブ (ダイ) | (LEVEL/LEVEL L) | 03 |
| * 390 | -- | LOT Label | LOT ラベル | 2pcs | (PAN/LEVEL R) |
| * 400 | VQ451100 | Spacer | スペースサー | (CA80191) | |
| * 600 | CB069250 | Cord Binder | BK-1 インシュロックタイ | | 01 |



■ TALKBACK MODULE (TBモジュール)



| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------|----------------|-----------------|-----|
| 10 | VN060300 | <TALKBACK MODULE> | < T B モジュール > | PM4000 (J only) | 79 |
| 20 | VN053700 | TALKBACK Panel | パネル TALKBACK | | 35 |
| 30 | VN053800 | Escutcheon | T B エスカッション | | 07 |
| 30a | VN122800 | Connector Assembly | 束線 | TB CONNECTOR | 12 |
| 35 | VA728200 | XLR Connector | キャノンコネクタ | | 09 |
| 35 | VN676900 | Insulation Sheet, MD | (TB) | MD 絶縁シート | 04 |
| 40 | EE620190 | Pan Head Screw | 2.6X8 FNM33G | + ナベ小ネジ | 01 |
| 50 | VN025500 | Circuit Board | TB1 | T B 1 シート | 53 |
| 55 | VN366300 | Connector Assembly | SW&PH(TB) | 束線 | 11 |
| 55a | VN019200 | Toggle Switch | 8HD-1051 | トグル S W | 08 |
| 56 | VN477500 | Switch Lever | MD0050559 RE | S W レバー (アカ) | 03 |
| 57 | VN477600 | Escutcheon, Switch | MD7340036 GY | S W 取付枠 (グレー) | 04 |
| 60 | VN049700 | Push Button with Lens | M GY | プッシュボタン (S) | 03 |
| 62 | VN305400 | Push Button with Lens | S GYA | プッシュボタン (S) | 03 |
| 64 | VN305800 | Push Button with Lens | BE | プッシュボタン (S) | 03 |
| 66 | VN305900 | Push Button with Lens | YE | プッシュボタン (S) | 03 |
| 70 | VN049800 | Push Button | M GY | プッシュボタン (S) | 03 |
| 75 | VN309300 | Push Button | S GY | プッシュボタン (S) | 03 |
| 80 | VN053300 | Angle Bracket, MD | (MASTER) | MD 基板金具 | 05 |
| 90 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 100 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 110 | VN052800 | Spacer, MD-VR | | MD V R スペース | 03 |
| 120 | VN052900 | Spacer, MD-VR | | MD V R スペース | 07 |
| 130 | ES200180 | Hexagonal Nut | 7.0 ZMC2BL | 特殊六角ナット | 01 |
| 150 | VN049700 | Push Button with Lens | M GY | プッシュボタン (S) | 03 |
| 152 | VN305800 | Push Button with Lens | BE | プッシュボタン (S) | 03 |
| 154 | VN305500 | Push Button with Lens | RE | プッシュボタン (S) | 03 |
| 160 | VN053300 | Angle Bracket, MD | (MASTER) | MD 基板金具 | 05 |
| 170 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 180 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 190 | VN053900 | Angle Bracket, Fader | (TB) | MD フェーダーアングル | 16 |
| 200 | VN050300 | Angle Bracket, MD | (F) | MD アングル | 08 |
| 210 | VN025700 | Circuit Board | TB3 | T B 3 シート | 20 |
| 220 | VN053300 | Angle Bracket, MD | (MASTER) | MD 基板金具 | 05 |
| 230 | VN680300 | Push Button Assembly | 1 | プッシュボタン (L) | 05 |
| 231 | VN680400 | Push Button Assembly | 2 | プッシュボタン (L) | 05 |
| 232 | VN680500 | Push Button Assembly | 3 | プッシュボタン (L) | 05 |
| 233 | VN680600 | Push Button Assembly | 4 | プッシュボタン (L) | 05 |
| 234 | VN680700 | Push Button Assembly | 5 | プッシュボタン (L) | 05 |
| 235 | VN680800 | Push Button Assembly | 6 | プッシュボタン (L) | 05 |
| 236 | VN680900 | Push Button Assembly | 7 | プッシュボタン (L) | 05 |
| 237 | VN681000 | Push Button Assembly | 8 | プッシュボタン (L) | 05 |
| 240 | VN305400 | Push Button with Lens | S GY | プッシュボタン (S) | 03 |
| 250 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 260 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 265 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL | + バインド小ネジ | 01 |
| 270 | VN054000 | Bottom Stay, MD | (TB) | MD ボトムステー | 15 |
| 280 | VN050500 | Angle Bracket, MD | (C) | MD アングル | 07 |
| 290 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 300 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 310 | VN050600 | Angle Bracket, MD | (R) L | MD アングル L | 08 |
| 320 | VN565500 | Angle Bracket, MD | (R) R | MD アングル R | 08 |
| 330 | VN050800 | Screw, MD | L | MD 特殊ネジ | 10 |
| 340 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 350 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 355 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL | + バインド小ネジ | 01 |
| 360 | VN655200 | Angle Bracket, MD | (MASTER) H | MD アングル H | 07 |
| 370 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL | + 皿小ネジ | 01 |
| 380 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | + バインド小ネジ | 01 |
| 420 | VN051000 | Spacer, MD | (CONNECTOR) | MD スペース | 05 |
| 425 | VN725000 | Spacer, MD | (CONNECTOR) TB | MD スペース T B | 05 |
| 430 | ER000320 | Cap Screw | 3.0X6 FCM3BL | 六角穴付ボルト | 01 |
| 440 | VN670200 | Stopper, MD | | MD ストップ | 05 |
| 442 | VN899600 | Pin, MD | | MD ピン | 03 |
| 445 | VP240600 | Coil Spring, MD | S | MD コイルバネ S | 04 |
| 450 | VN670700 | Screw, MD | S | MD 特殊ネジ | 07 |
| 480 | VN938500 | Knob | BL/M GY | ノブ (ダイ) | 03 |
| 490 | -- | LOT Label | | L O T ラベル | 03 |

*New Parts (新規部品)

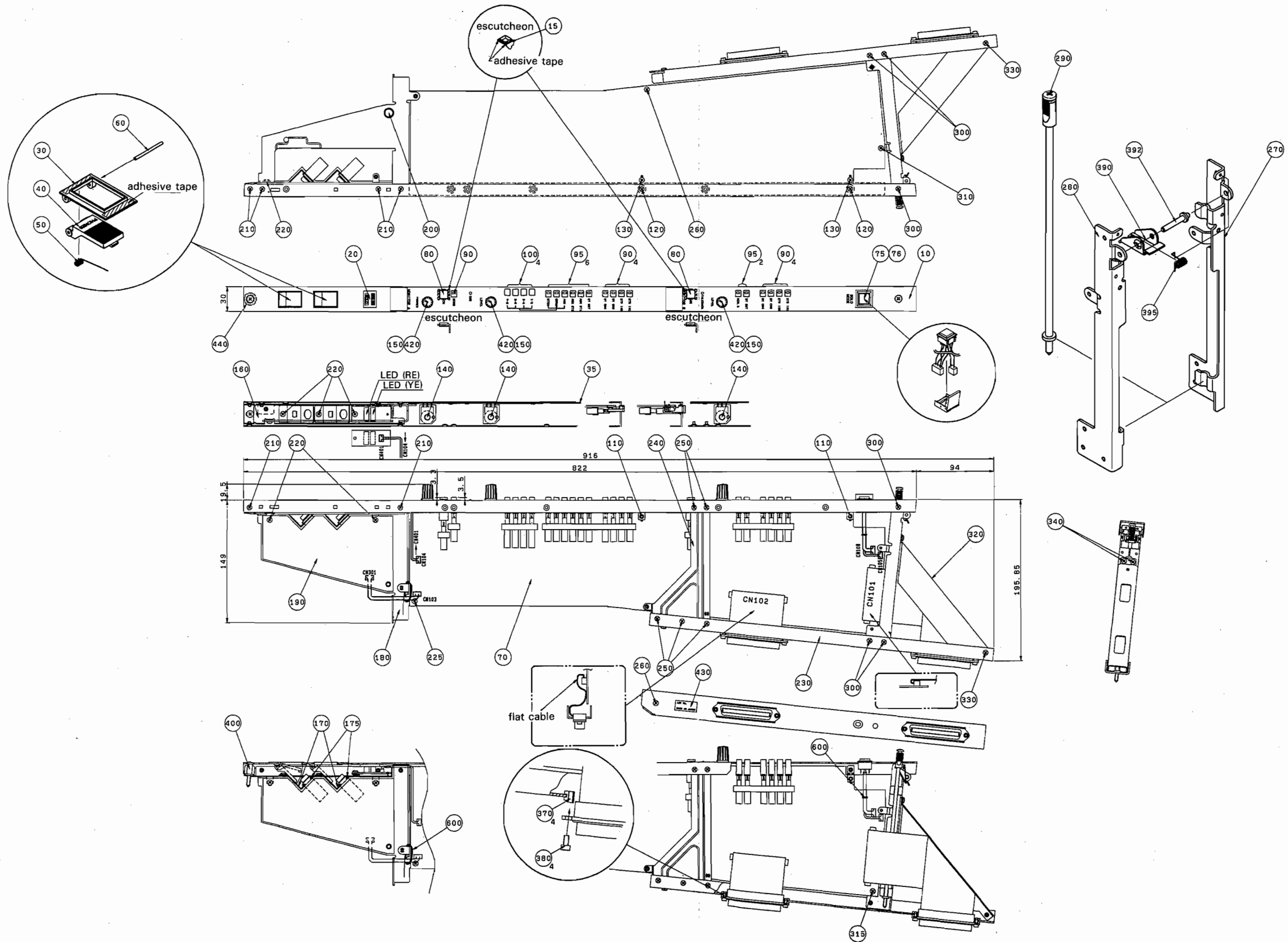
ランク : Japan only

| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク |
|----------|----------|-------------|-------|---------|-----|
| * 500 | VQ451100 | Spacer | スペーサー | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*New Parts (新規部品)

ランク : Japan only

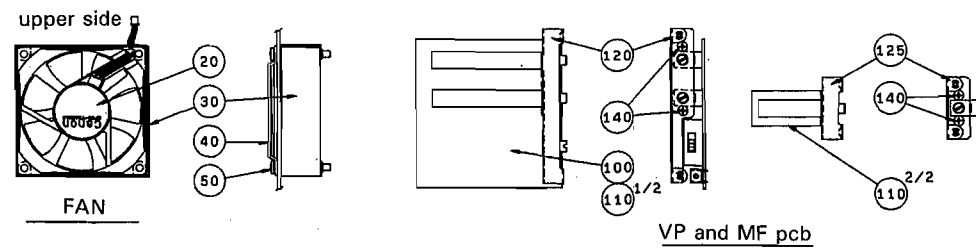
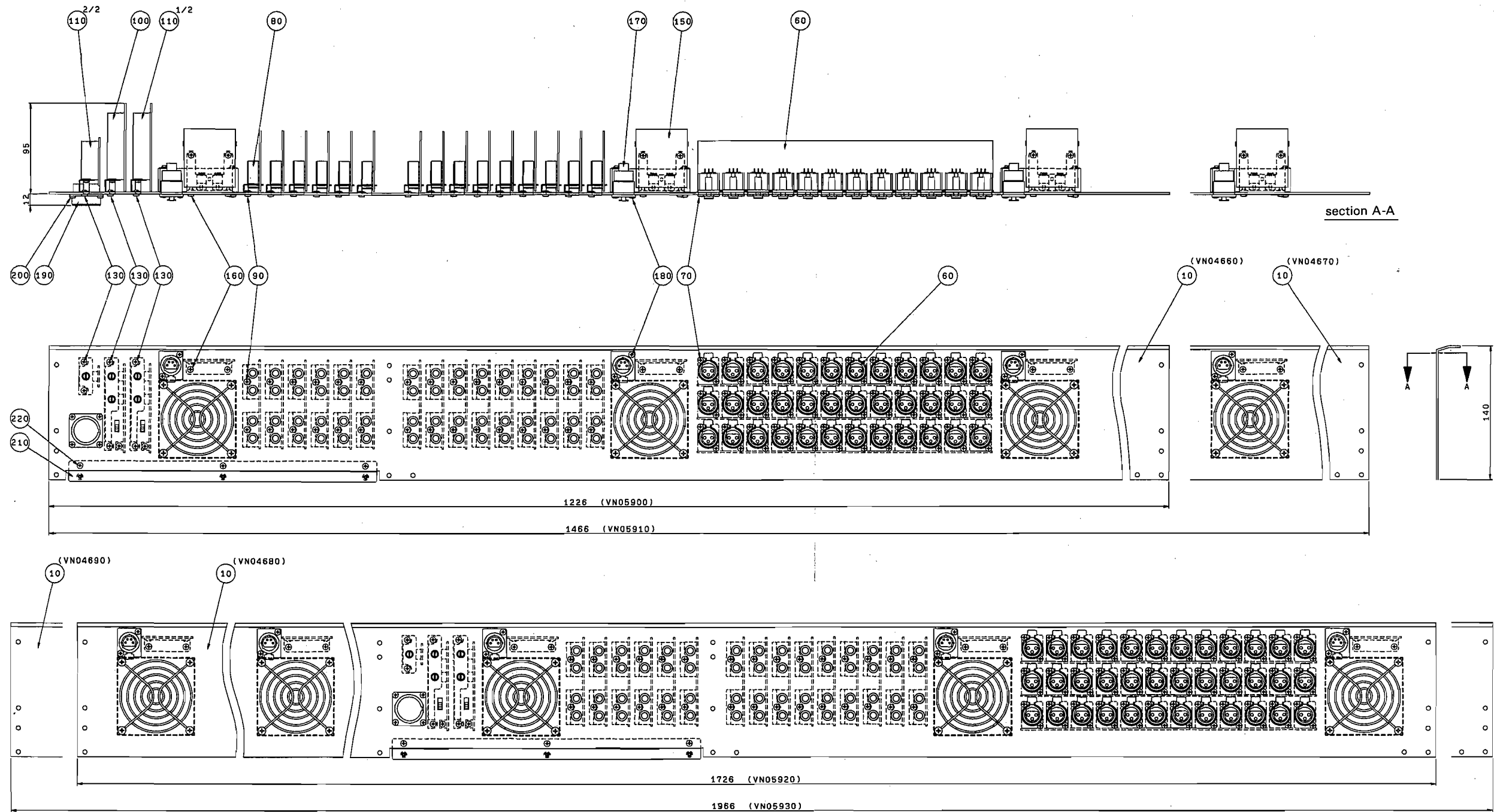
MONITOR MODULE (MONITORモジュール)



| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------|------------------------------|--|-----|
| * 10 | VN060400 | <MONITOR MODULE> | <MONITORモジュール> | PH4000 (J only) | 79 |
| * 15 | VN054100 | MONITOR Panel | パネル MONITOR | | 33 |
| * 20 | VP244200 | Escutcheon | エスカッション | 2pcs | 04 |
| * 30 | VN054200 | Window, MD | MD ウィンドウ | | 09 |
| * 35 | VK476500 | Escutcheon | エスカッション | 2pcs | 04 |
| * 40 | VN676700 | Insulation Sheet, MD | MD 絶縁シート | | 04 |
| * 40 | VK476600 | Cover | 蓋 | 2pcs | 04 |
| * 50 | VA294300 | Spring | スプリング | 2pcs | 03 |
| * 60 | VA294400 | Shaft | 軸 | 2pcs | 03 |
| * 70 | VN025800 | Circuit Board | MON1 MON1 シート | | 55 |
| * 75 | VN366400 | Connector Assembly | SW&PH(SOLO) | PUSH SW (SOLO) | 14 |
| * 75a | VN019100 | Push Switch | 照光 プッシュ SW | SOLO | 10 |
| * 76 | VN477400 | Switch Guard | SW ガード | | 04 |
| * 80 | VN680200 | Push Button Assembly | プッシュボタン L Assy | 2pcs (ON) | 05 |
| * 90 | VN049700 | Push Button with Lens | M GY プッシュボタン (S) | 9pcs (2TR IN1,2 ST CH3,4, MONO) | 03 |
| * 95 | VN305400 | Push Button with Lens | S GY プッシュボタン (S) | 8pcs (ST OUT, MON.A, AUX ST1,2 .AUX, GRP MTRX) | 03 |
| * 100 | VN309300 | Push Button | S GY プッシュボタン (S) | 4pcs (1-2,3-4, 5-6,7-8) | 03 |
| * 110 | VN053300 | Angle Bracket, MD | (MASTER) MD 基板金具 | 2pcs | 05 |
| * 120 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL + 皿小ネジ | 2pcs | 01 |
| * 130 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL + バインド小ネジ | 2pcs | 01 |
| * 140 | VN052800 | Spacer, MD-VR | 4 MD VR スペース | 3pcs | 03 |
| * 150 | ES200180 | Hexagonal Nut | 7.0 ZMC2BL 特殊六角ナット | 3pcs | 01 |
| * 160 | VN054300 | Angle Bracket, Fader | (MONITOR) MD フェーダーアングル | | 16 |
| * 170 | VN054400 | Jack Holder, MD | (MONITOR) MD JACK ホルダー | 2pcs | 09 |
| * 175 | VB508600 | Hexagonal Nut | 12.0 ZMC2BL 特殊六角ナット | 2pcs | 01 |
| * 180 | VN050300 | Angle Bracket, MD | (F) MD アングル | | 08 |
| * 190 | VN025900 | Circuit Board | MON2 MON2 シート | | 18 |
| * 200 | VP691700 | Spacer | KGLS-18RF ロッキングカート Spacer | | 03 |
| * 210 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL + 皿小ネジ | 6pcs | 01 |
| * 220 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL + バインド小ネジ | 6pcs | 01 |
| * 225 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL + バインド小ネジ | 1pc. | 01 |
| * 230 | VN054500 | Bottom Stay, MD | (MONITOR) MD ボトムステー | | 15 |
| * 240 | VN050500 | Angle Bracket, MD | (C) MD アングル | | 07 |
| * 250 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL + 皿小ネジ | 5pcs | 01 |
| * 260 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL + バインド小ネジ | 2pcs | 01 |
| * 270 | VN050600 | Angle Bracket, MD | (R) L MD アングル L | | 08 |
| * 280 | VN565500 | Angle Bracket, MD | (R) R MD アングル R | | 08 |
| * 290 | VN050800 | Screw, MD | L MD 特殊ネジ | 1pc. | 10 |
| * 300 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL + 皿小ネジ | 6pcs | 01 |
| * 310 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL + バインド小ネジ | 1pc. | 01 |
| * 315 | EG330010 | Bind Head Screw | 3.0X4 FCM3BL + バインド小ネジ | 1pc. | 01 |
| * 320 | VN655200 | Angle Bracket, MD | (MASTER) MD アングル H | | 07 |
| * 330 | EC030030 | Flat Head Screw | 3.0X6 ZMC2BL + 皿小ネジ | 2pcs | 01 |
| * 340 | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL + バインド小ネジ | 2pcs | 01 |
| * 370 | VN051000 | Spacer, MD | (CONNECTOR) MD スペース | 4pcs | 05 |
| * 380 | ER000320 | Cap Screw | 3.0X6 FCM3BL 六角穴付ボルト | 4pcs | 01 |
| * 390 | VN670200 | Stopper, MD | MD ストッパー | | 05 |
| * 392 | VN899600 | Pin, MD | MD ピン | | 03 |
| * 395 | VP240600 | Coil Spring, MD | MD コイルバネ S | | 04 |
| * 400 | VN670700 | Screw, MD | S MD 特殊ネジ | 1pc. | 07 |
| * 420 | VN938500 | Knob | BL/M GY ノブ (ダイ) | 3pcs | 03 |
| * 430 | -- | LOT Label | LOT ラベル | (LEVEL, PHONES) (CA80191) | |
| * 440 | VQ451100 | Spacer | スペース | | |
| * 600 | CB069250 | Cord Binder | インシュロックタイ | 2pcs | 01 |



REAR PANEL-U ASSEMBLY (リアパネルU Ass'y)



PM4000

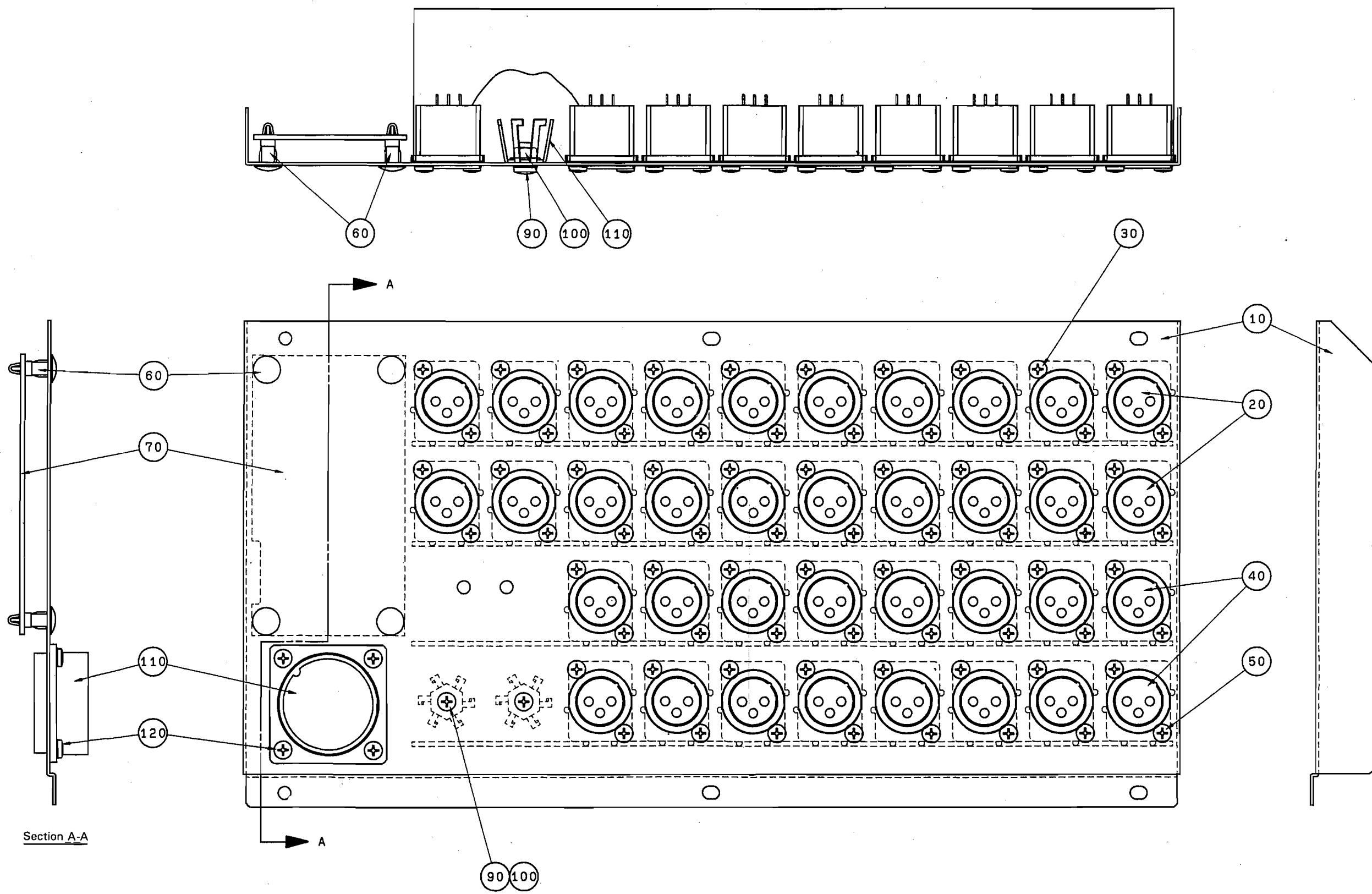
| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク |
|----------|----------|--|------------------------------|--------------------------|----------------|
| | -- | <REAR PANEL-U ASSEMBLY> Rear Panel-U Assembly | <リアパネルU Assy> リアパネルU Assy | PM4000 24CH (VN05900) | |
| | -- | Rear Panel-U Assembly | リアパネルU Assy | 32CH (VN05910) | |
| | -- | Rear Panel-U Assembly | リアパネルU Assy | 40CH (VN05920) | |
| | -- | Rear Panel-U Assembly | リアパネルU Assy | 48CH (VN05930) | |
| ** | 10 | VN048600 Rear Panel | リアパネルU | 24CH | 37 |
| ** | 10 | VN046700 Rear Panel | リアパネルU | 32CH | 40 |
| ** | 10 | VN048800 Rear Panel | リアパネルU | 40CH | 44 |
| ** | 10 | VN046900 Rear Panel | リアパネルU | 48CH | 39 |
| ** | 20 | VN123000 Connector Assembly | FAN&PH 束線FAN | 3/4/5/5pcs | 14 |
| ** | 20a | VN073900 Fan | CF80-T213N1D | DCファン | 3/4/5/5pcs |
| ** | 30 | VN047000 Fan Shield | CF80 | FANシールド | 3/4/5/5pcs |
| ** | 40 | VL872300 Fan Guard | CF80 | ファンガード | 3/4/5/5pcs |
| ** | 50 | VH928700 Bind Head Screw | PW4.0X35 FCM3BL | +バインド小ネジ | 12/16/20/20pcs |
| ** | 60 | VN026400 Circuit Board | EBI | EBIシート | 3pcs |
| ** | 70 | VC082800 Bonding Head Screw | 3.0X6 FCM3BL | ボンディング小ネジ | 72pcs |
| ** | 80 | VN026800 Circuit Board | INS | INSシート | 15pcs |
| ** | 90 | VC082800 Bonding Head Screw | 3.0X6 FCM3BL | ボンディング小ネジ | 30pcs |
| ** | 100 | VN026900 Circuit Board | MF | MFシート | 14 |
| ** | 110 | VN027000 Circuit Board | VP | V.Pシート | 15 |
| ** | 120 | VN047200 Metal Plate | | コントロール金具 | 2pcs |
| ** | 125 | VN869700 Metal Plate | 2 | コントロール金具 2 | 1pc. |
| ** | 130 | EG330410 Bind Head Screw | A3.0X6 FCM3BL | +バインド小ネジ | 8pcs |
| ** | 140 | EG330410 Bind Head Screw | A3.0X6 FCM3BL | +バインド小ネジ | 8pcs |
| ** | 150 | VN027100 Circuit Board | DR | DRシート | 3/4/5/5pcs |
| ** | 160 | EP800230 Bind Head Tapping Screw-B | 3.0X6 ZNC2BL | +バインドBタイト | 6/8/10/10pcs |
| ** | 170 | VN122900 Connector Assembly | XLR4&PH(LAMP) | 束線LAMP | 3/4/5/5pcs |
| ** | 170a | VA728100 XLR Connector | XLR-4-31-P77 | キャノンコネクタ | 3/4/5/5pcs |
| ** | 180 | EE820190 Pan Head Screw | 2.8X8 FNM33G | +ナベ小ネジ | 6/8/10/10pcs |
| ** | 190 | VN027600 Connector Assembly | EXT I/O | 束線EXT | VCA/MUTE |
| ** | 190a | VA729600 Connector | SRCN2A25-24S | 丸型コネクタ | |
| ** | 200 | VB511300 Bind Head Screw | A3.0X8 FCM3BL | +バインド小ネジ | 4pcs |
| ** | 210 | VN888100 Angle Bracket, Rear | | リアアングル | 13 |
| ** | 220 | VC688800 Bind Head Tapping Screw-B | A4.0X8 ZNC2BL | +バインドBタイト | 3pcs |

*New Parts (新規部品)

ランク: Japan only

PM4000

REAR MASTER ASSEMBLY (リア(MAS)Ass'y)



PM4000

Section A-A

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|--|--------------|-----------------|-----|
| 10 | VN046500 | <REAR MASTER ASSEMBLY> Rear Panel, Master | | PM4000(VN05940) | 19 |
| 20 | VN026600 | Circuit Board | EBO10 | リアパネル (MASTER) | 40 |
| 30 | VC082800 | Bonding Head Screw | 3.0X8 FCM3BL | EBO10シート | 01 |
| 40 | VN026700 | Circuit Board | EBO8 | ボンディング小ネジ | 01 |
| 50 | VC082800 | Bonding Head Screw | 3.0X6 FCM3BL | EBO8シート | 35 |
| 60 | VP486800 | Spacer | KGLS-8RT BL | ボンディング小ネジ | 01 |
| 70 | VN026200 | Circuit Board | CO | バックガイド Spacer | 03 |
| 90 | VK464300 | Bonding Head Screw | 4.0X8 FCM3BL | COシート | 12 |
| 100 | ES100020 | Hexagonal Nut | 4.0 ZNC2Y | ボンディング小ネジ | 01 |
| 110 | VN027500 | Connector Assembly | DC IN | フランジ付六角ナット | 01 |
| 110a | VN074000 | Connector | NK-27-32S | 束線 | 25 |
| 120 | VB511300 | Bind Head Screw | 3.0X8 FCM3BL | 丸型コネクタ | 17 |
| | | | | + バインド小ネジ | 01 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

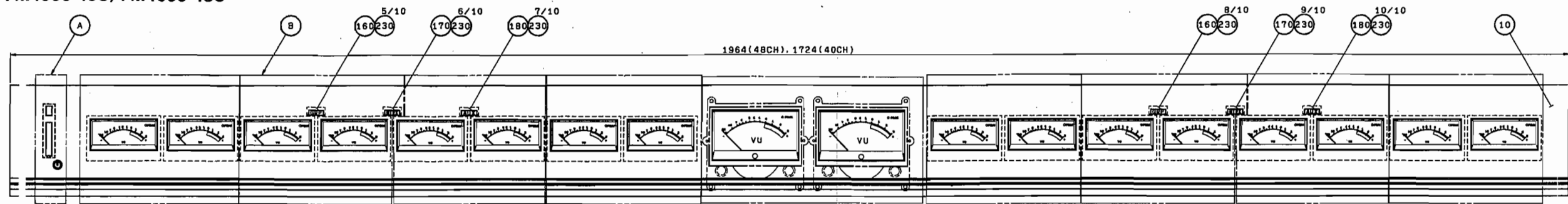
*New Parts (新規部品)

ランク : Japan only

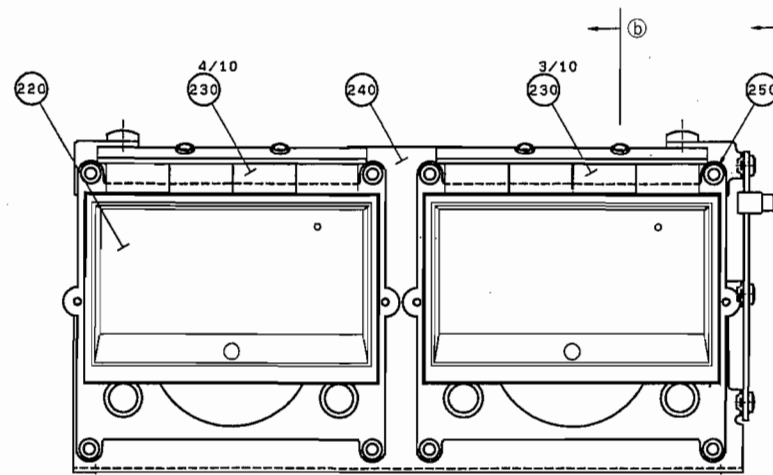
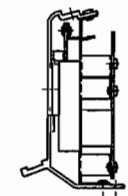
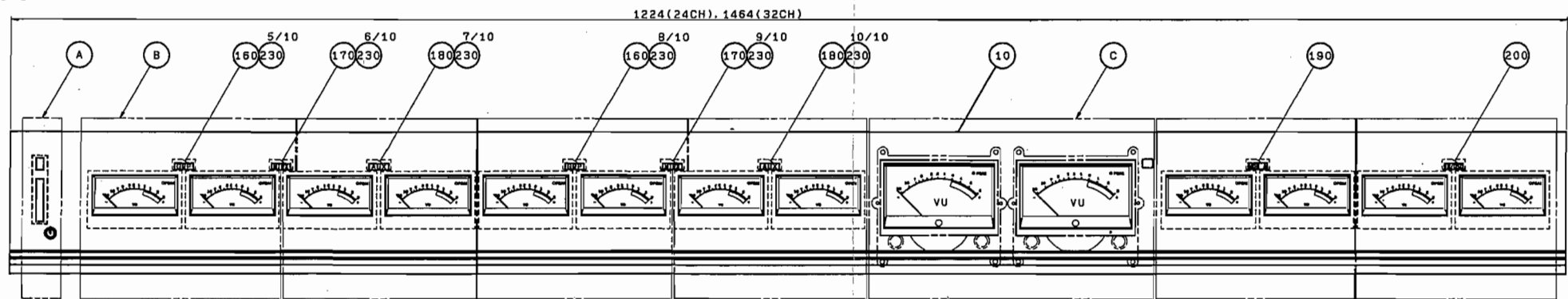


METER ASSEMBLY (メーターAss'y)

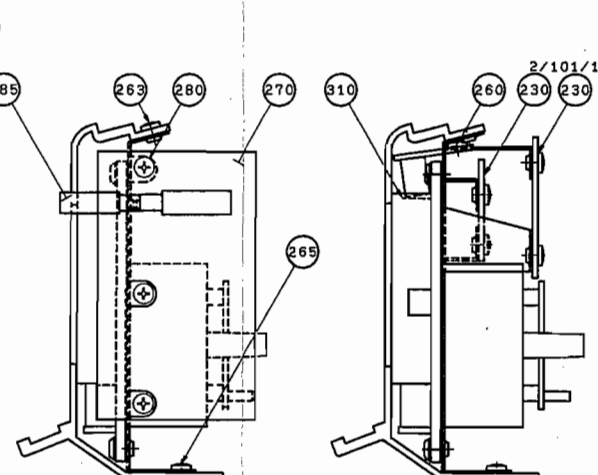
- PM4000-40C, PM4000-48C



- PM4000-24, PM4000-32

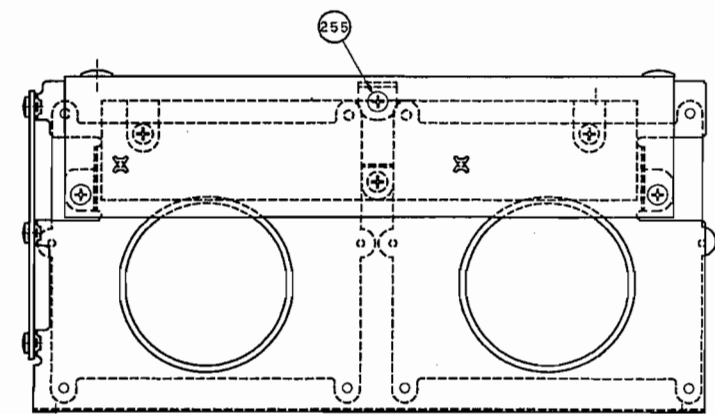


Section C (except METER PANEL)

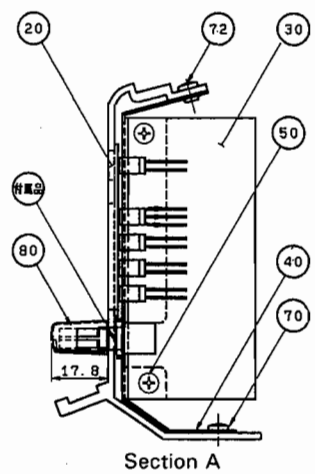


Section C-a

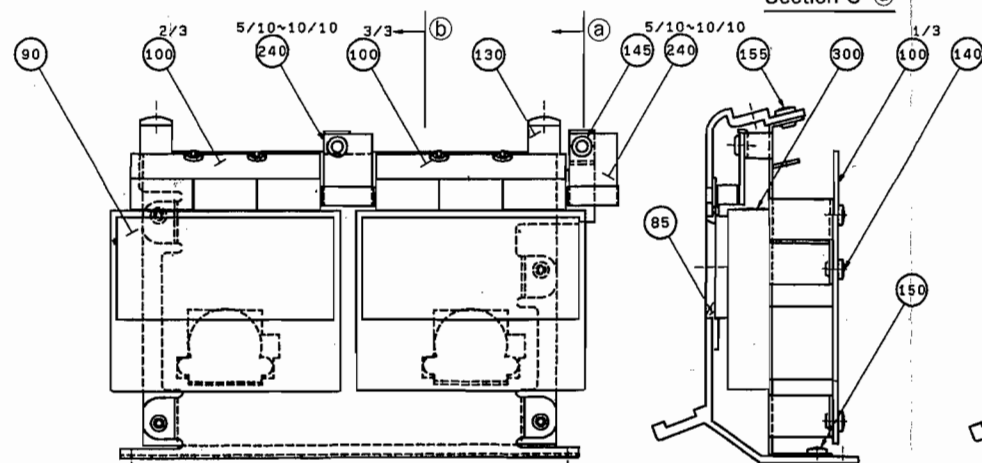
Section C-b



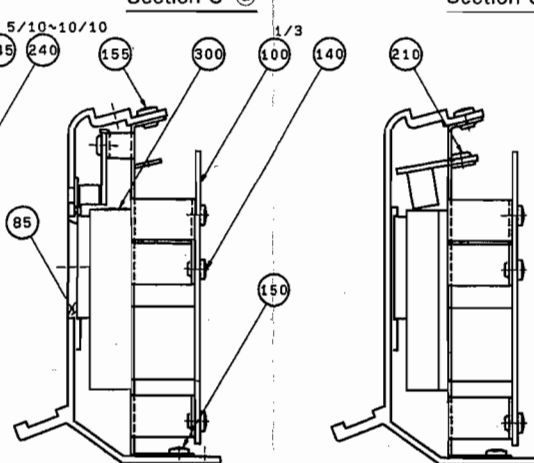
bottom side at section C (except METER PANEL)



Section A

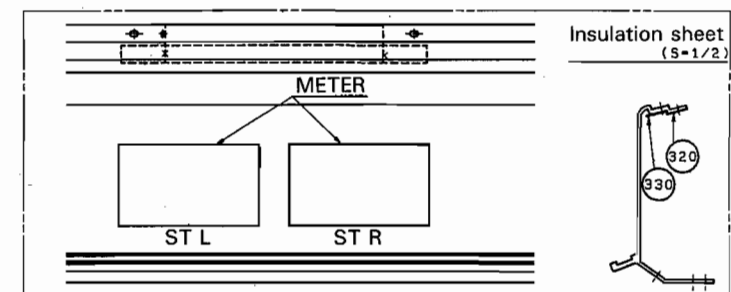


Section B (except METER PANEL)



Section B-a

Section B-b



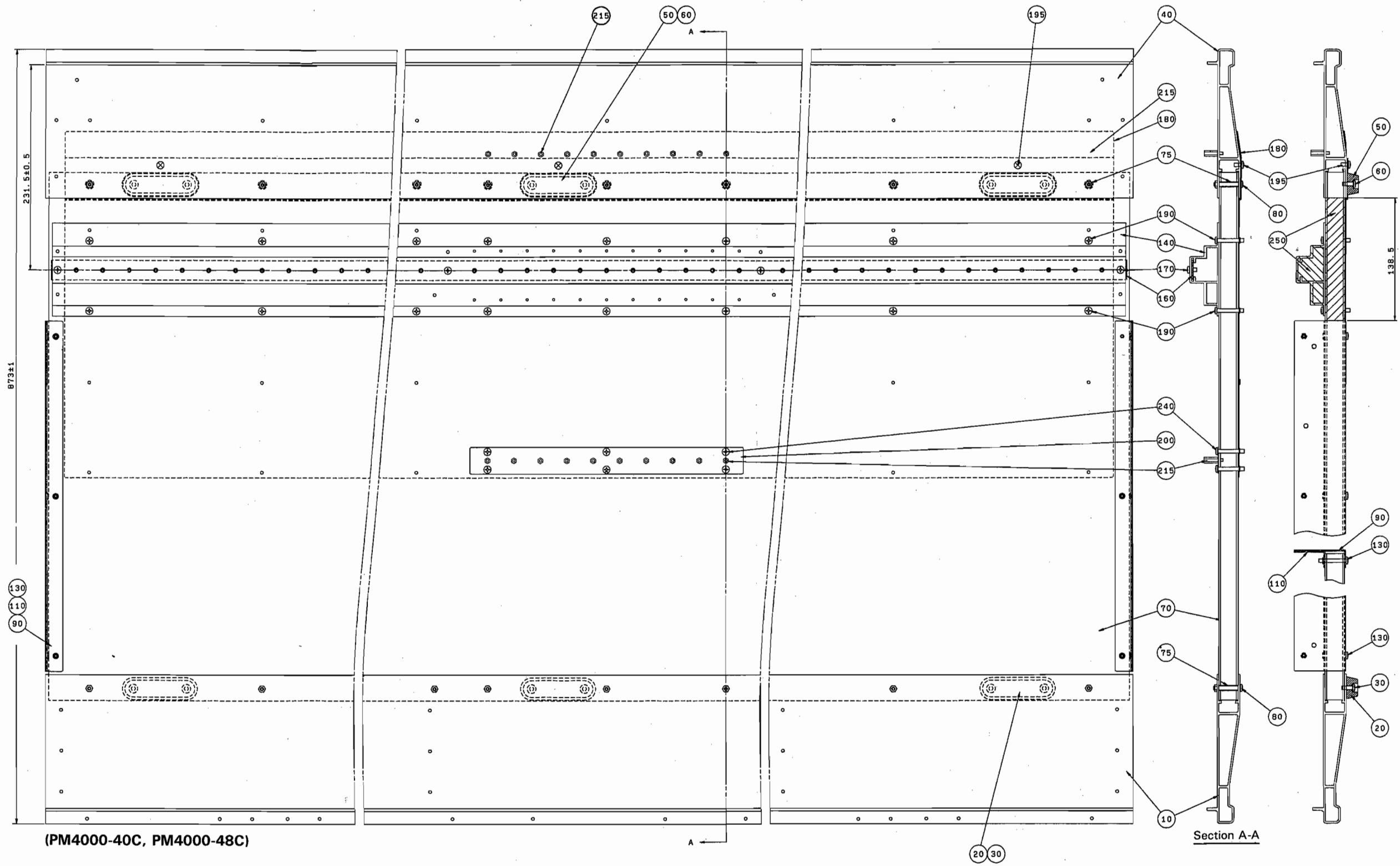
Insulation sheet (S=1/2)

PM4000

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|------------------------------------|------------------------|--------------------------|----------------|
| | -- | <METER ASSEMBLY> Meter Assembly | <メーターアッシー> メーターアッシー | PM4000 24CH (VN05950) | |
| | -- | Meter Assembly | メーターアッシー | 32CH (VN05960) | |
| | -- | Meter Assembly | メーターアッシー | 40CH (VN05970) | |
| | -- | Meter Assembly | メーターアッシー | 48CH (VN05980) | |
| * 10 | VN047400 | Meter Assembly | メーターパネル | 24CH | 63 |
| * 10 | VN047500 | Meter Assembly | メーターパネル | 32CH | 69 |
| * 10 | VN047600 | Meter Assembly | メーターパネル | 40CH | 73 |
| * 10 | VN047700 | Meter Assembly | メーターパネル | 48CH | 69 |
| * 20 | VN047800 | LED Cover | LEDカバー L | | 08 |
| * 30 | VN027200 | Circuit Board | PI | PIシート | 12 |
| * 40 | VN048000 | Metal Plate, Caution | コーション金具 | | 14 |
| * 50 | VB659000 | Bind Head Screw | 3.0X8 ZMC2BL | +バインド小ネジ | 2pcs |
| * 70 | EP600230 | Bind Head Tapping Screw-B | 3.0X8 ZMC2BL | +バインドBタイト | 24CH 1pc. |
| * 72 | VB659000 | Bind Head Screw | 3.0X8 ZMC2BL | +バインド小ネジ | 2pcs |
| * 80 | VN938800 | Knob | M-GY/S-GY | ノブ(シヨウ) | |
| * 85 | VN933300 | Escutcheon, Meter | PM4000 | MTエスカッション | 12/12/16/16pcs |
| * 90 | VN073700 | Meter | KPH-6 | アナログメーター | 12/12/16/16pcs |
| * 100 | VN027400 | Circuit Board | MTS1 | MTS1シート | 6/6/8/8pcs |
| * 130 | VN048500 | Holder, Meter | S | メーター金具(S) | 6/6/8/8pcs |
| * 140 | VB659000 | Bind Head Screw | 3.0X8 ZMC2BL | +バインド小ネジ | 24/24/32/32pcs |
| * 145 | CB068880 | Plastic Rivet | #1027 | ブラリベット | 8/8/6/6pcs |
| * 150 | EP600230 | Bind Head Tapping Screw-B | 3.0X8 ZMC2BL | +バインドBタイト | 12/12/16/16pcs |
| * 155 | EP600230 | Bind Head Tapping Screw-B | 3.0X8 ZMC2BL | +バインドBタイト | 12/12/16/16pcs |
| * 160 | VN048700 | LED Cover | GRP | LEDカバー | 2pcs |
| * 170 | VN048800 | LED Cover | MTRX | LEDカバー | 2pcs |
| * 180 | VN048900 | LED Cover | AUX | LEDカバー | 2pcs |
| * 190 | VN049000 | LED Cover | MON A | LEDカバー | 24/32CH 1pc. |
| * 200 | VN049100 | LED Cover | TB/OSC | LEDカバー | 24/32CH 1pc. |
| * 210 | CB068880 | Plastic Rivet | #1027 | ブラリベット | 24/24/32/32pcs |
| * 220 | VN073800 | Meter | | アナログメーター | 2pcs ST L,R |
| * 230 | VN027300 | Circuit Board | MTL | MTLシート | |
| * 240 | VN048600 | Holder, Meter | L | メーター金具(L) | |
| * 245 | -- | Connector Assembly | METER | 東線 | 2pcs (VN31830) |
| * 250 | CB816890 | Plastic Rivet | #590 | ブラリベット | 8pcs |
| * 255 | VB659000 | Bind Head Screw | 3.0X8 ZMC2BL | +バインド小ネジ | 6pcs |
| * 260 | CB068880 | Plastic Rivet | #1027 | ブラリベット | 4pcs |
| * 263 | EP600230 | Bind Head Tapping Screw-B | 3.0X8 ZMC2BL | +バインドBタイト | 2pcs |
| * 265 | EP600230 | Bind Head Tapping Screw-B | 3.0X6 ZMC2BL | +バインドBタイト | 2pcs |
| * 270 | VN027700 | Circuit Board | MSC | MSCシート | 24/32CH |
| * 280 | VB659000 | Bind Head Screw | 3.0X8 ZMC2BL | +バインド小ネジ | 24/32CH 3pcs |
| * 285 | VN309300 | Push Button | S GY | プッシュボタン(S) | 24/32CH |
| * 300 | VP243900 | Tape | PM S | 光拡散テープS | 12/12/16/16pcs |
| * 310 | VP244000 | Tape | PM L | 光拡散テープL | 2pcs |
| * 320 | VP498500 | Insulation Sheet | METER | 絶縁シート | |
| * 330 | VP742400 | Insulation Sheet | METER L | 絶縁シートL | |



■ BOTTOM BOARD ASSEMBLY (底板Ass'y)



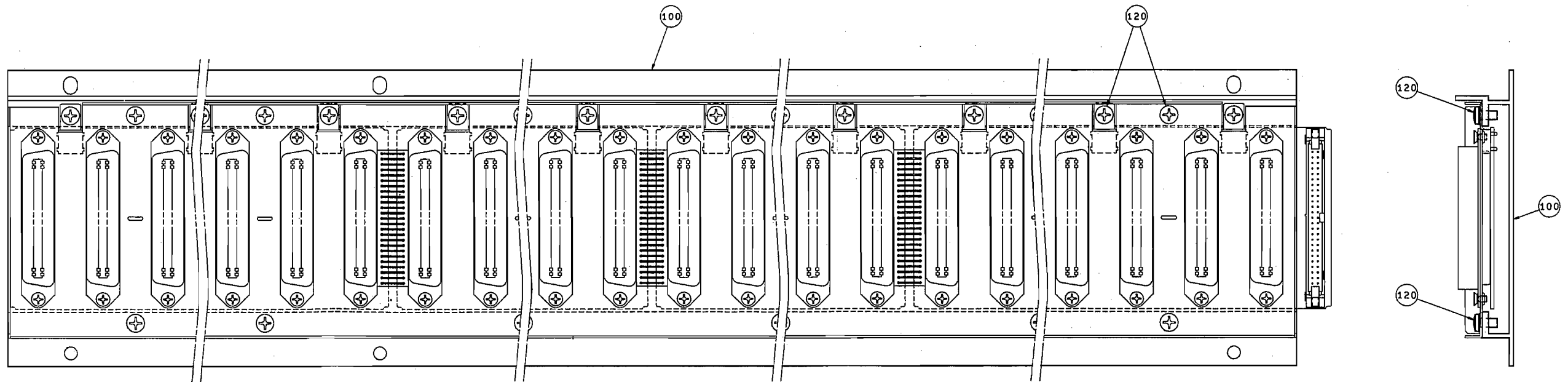
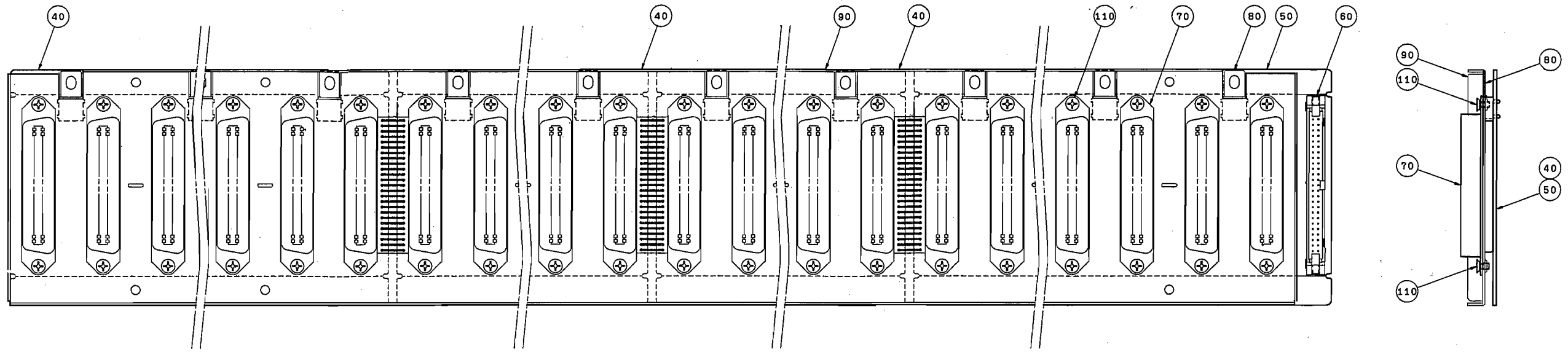
PM4000

| Ref. No. | Part No. | Description | 部 品 名 | Remarks | ランク | |
|----------|----------|--|-------------------------------|--------------------------|----------------|----|
| | -- | <BOTTOM BOARD ASSEMBLY> Bottom Board Assembly | <底 板 A s s y > 底 板 A s s y | PM4000 24CH (VN05840) | | |
| | -- | Bottom Board Assembly | 底 板 A s s y | 32CH (VN05850) | | |
| | -- | Bottom Board Assembly | 底 板 A s s y | 40CH (VN05860) | | |
| | -- | Bottom Board Assembly | 底 板 A s s y | 48CH (VN05870) | | |
| 10 | VN042000 | Bottom Stay-F | ボトムステー (F) | 24CH | 39 | |
| 10 | VN042100 | Bottom Stay-F | ボトムステー (F) | 32CH | 44 | |
| 10 | VN042200 | Bottom Stay-F | ボトムステー (F) | 40CH | 49 | |
| 10 | VN042300 | Bottom Stay-F | ボトムステー (F) | 48CH | 45 | |
| 20 | VN670900 | Foot | ミキサーレッグ | 3/3/4/4pcs | 07 | |
| 30 | VF462700 | Bind Head Tapping Screw-B | A4.0X16 FCM3BL | +パインドBタイト | 6/6/8/8pcs | 01 |
| 40 | VN042400 | Bottom Stay-R | ボトムステー (R) | 24CH | 57 | |
| 40 | VN042500 | Bottom Stay-R | ボトムステー (R) | 32CH | 62 | |
| 40 | VN042600 | Bottom Stay-R | ボトムステー (R) | 40CH | 66 | |
| 40 | VN042300 | Bottom Stay-R | ボトムステー (R) | 48CH | 45 | |
| 50 | VN670900 | Foot | ミキサーレッグ | 3/3/4/4pcs | 07 | |
| 60 | VF462700 | Bind Head Tapping Screw-B | A4.0X16 FCM3BL | +パインドBタイト | 6/6/8/8pcs | 01 |
| 70 | VN042800 | Honey Comb, Bottom Board | 底板ハニカム | 24CH | | |
| 70 | VN042900 | Honey Comb, Bottom Board | 底板ハニカム | 32CH | | |
| 70 | VN043000 | Honey Comb, Bottom Board | 底板ハニカム | 40CH | | |
| 70 | VN043100 | Honey Comb, Bottom Board | 底板ハニカム | 48CH | | |
| 75 | VN055600 | Spacer, Honey Comb | ハニカムスペーサー | 12/14/16/20pcs | 04 | |
| 80 | EG340260 | Bind Head Screw | 4.0X30 FCM3BL | +パインド小ネジ | 16/18/20/24pcs | 01 |
| 90 | VN043200 | Angle Bracket, Bottom Board | 1 L | 底板アングル 1 L | 2pcs | 09 |
| 110 | VN043400 | Angle Bracket, Bottom Board | 2 | 底板アングル 2 | 2pcs | 10 |
| 130 | EG340260 | Bind Head Screw | 4.0X30 FCM3BL | +パインド小ネジ | 6pcs | 01 |
| 140 | VN043600 | Stay-C | | ステー (C) | 24CH | 35 |
| 140 | VN043700 | Stay-C | | ステー (C) | 32CH | 39 |
| 140 | VN043800 | Stay-C | | ステー (C) | 40CH | 41 |
| 140 | VN043900 | Stay-C | | ステー (C) | 48CH | 40 |
| 160 | VN044100 | Holder, MD | | MD取付板 | 24CH | 20 |
| 160 | VN044200 | Holder, MD | | MD取付板 | 32CH | 21 |
| 160 | VN044300 | Holder, MD | | MD取付板 | 40CH | 21 |
| 160 | VN044400 | Holder, MD | | MD取付板 | 48CH | 20 |
| 170 | EG340360 | Bind Head Screw | 4.0X8 ZMC2BL | +パインド小ネジ | 3/3/4/4pcs | 01 |
| 180 | VN044500 | Stay-C, Bottom Board | | ステー (C) 裏板 | 24CH | 27 |
| 180 | VN044600 | Stay-C, Bottom Board | | ステー (C) 裏板 | 32CH | 28 |
| 180 | VN044700 | Stay-C, Bottom Board | | ステー (C) 裏板 | 40CH | 35 |
| 180 | VN044800 | Stay-C, Bottom Board | | ステー (C) 裏板 | 48CH | 33 |
| 190 | VQ023800 | Bind Head Tapping Screw-B | 4.0X30 ZMC2BL | +パインドBタイト | 16/18/20/24pcs | |
| 195 | VF462700 | Bind Head Tapping Screw-B | A4.0X16 FCM3BL | +パインドBタイト | 5/5/7/7pcs | 01 |
| 200 | VN044900 | Spacer, MB | F | MBスペーサー (F) | | 11 |
| 215 | VN045700 | Spacer, P.C.B. | F-523-15 | 基板スペーサー | 20pcs | 02 |
| 240 | VQ023800 | Bind Head Tapping Screw-B | 4.0X30 ZMC2BL | +パインドBタイト | 8pcs | |

*New Parts (新規部品)



■ BUS CONNECTOR ASSEMBLY (バスコネクタ-Ass'y)



● Bus connector assembly 36

● Bus Connector Assembly (バスコネクタ-Ass'y)

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|------------------------------------|----------------|------------------|-----|
| * | | <BUS CONNECTOR ASSEMBLY> | <バスコネクタ Ass'y> | PM4000 | |
| * | VN478300 | Bus Connector Assembly | バスコネクタ Ass'y | 40CH | 66 |
| * | VN478600 | Bus Connector Assembly | バスコネクタ Ass'y | 24CH/48CH | 74 |
| * | VN478700 | Bus Connector Assembly | バスコネクタ Ass'y | 32CH | 81 |
| * | VN478500 | Bus Connector Assembly | バスコネクタ Ass'y | 40/48CH | 70 |
| 40 | -- | Printed Board | プリント基板 | (XK371A0) | |
| 50 | -- | Printed Board | プリント基板 | BUS20 (XK373A0) | |
| 50 | -- | Printed Board | プリント基板 | others (XK377A0) | |
| 60 | -- | Header | ヘッダー | (VN31870) | |
| 70 | VA252000 | Connector | コネクタ | | 08 |
| 80 | -- | Lug Terminal | バスアースラグ | (VN65420) | |
| 90 | -- | Connector Plate | コネクタプレート | BUS20 (VN65430) | |
| 90 | -- | Connector Plate | コネクタプレート | BUS24 (VN65450) | |
| 90 | -- | Connector Plate | コネクタプレート | BUS28 (VN65460) | |
| 90 | -- | Connector Plate | コネクタプレート | BUS36 (VN65470) | |
| 100 | -- | Connector Stay-R | コネクターステー(R) | BUS20 (VN03670) | |
| 100 | -- | Connector Stay-R | コネクターステー(R) | BUS24 (VN03680) | |
| 100 | -- | Connector Stay-R | コネクターステー(R) | BUS28 (VN03690) | |
| 100 | -- | Connector Stay-R | コネクターステー(R) | BUS36 (VN03700) | |
| * | 110 | EC030030 Flat Head Screw | +皿小ネジ | | 01 |
| | 120 | VC688800 Bind Head Tapping Screw-B | +バインドBタイト | | 01 |

*New Parts (新規部品)

ランク : Japan only

● Connector Assembly (束線)

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|-----------------------------|-----------|----------------|-----|
| * | | <CONNECTOR ASSEMBLY> | <束線> | PM4000 | |
| * | 10 | VN123000 Connector Assembly | 束線 | FAN | 14 |
| * | 20 | VB304300 Connector Housing | コネクタハウジング | | 01 |
| * | 30 | VB936800 Connector Contact | コンタクト | | 01 |
| * | 30 | VN073900 Fan | DCファン | | 11 |
| * | 10 | VN122900 Connector Assembly | 束線 | LAMP CONNECTOR | 13 |
| * | 20 | VB304300 Connector Housing | コネクタハウジング | | 01 |
| * | 30 | VB936800 Connector Contact | コンタクト | | 01 |
| * | 30 | VA728100 XLR Connector | キャノンコネクタ | Lamp connector | 10 |
| * | 10 | VN027600 Connector Assembly | 束線 | EXT CONNECTOR | 17 |
| * | 20 | VB304500 Connector Housing | コネクタハウジング | | 01 |
| * | 20 | VB938400 Connector Housing | コネクタハウジング | | 01 |
| * | 30 | VB304300 Connector Housing | コネクタハウジング | | 01 |
| * | 40 | VB936800 Connector Contact | コンタクト | | 01 |
| * | 50 | VA729600 Connector | 丸型コネクタ | VCA/MUTE | 08 |
| * | 10 | VN027500 Connector Assembly | 束線 | DC CONNECTOR | 25 |
| * | 20 | LB015080 Connector Housing | ハウジング | | 01 |
| * | 30 | LB015100 Connector Housing | ハウジング | | 01 |
| * | 30 | LB101710 Terminal | 圧着端子 | | 01 |
| * | 40 | VN074000 Connector | 丸型コネクタ | DC POWER IN | 17 |
| * | 50 | BB068540 Lug Terminal | ラグ端子 | | 02 |
| * | 10 | VN122800 Connector Assembly | 束線 | TB CONNECTOR | 12 |
| * | 20 | VB936800 Connector Housing | コネクタハウジング | (VB30440) | 01 |
| * | 30 | VA728200 XLR Connector | キャノンコネクタ | TB INPUT | 09 |
| * | 40 | FG213100 Ceramic Cap. | セラコンB | | 01 |
| * | 10 | VN366300 Connector Assembly | 束線 | TB SW | 11 |
| * | 20 | VB936800 Connector Housing | コネクタハウジング | (VB30440) | 01 |
| * | 30 | VB936800 Connector Contact | コンタクト | TALKBACK ON | 08 |
| * | 30 | VN019200 Toggle Switch | トグルSW | | |
| * | 10 | VN366400 Connector Assembly | 束線 | SOLO SW | 14 |
| * | 20 | VB304300 Connector Housing | コネクタハウジング | | 01 |
| * | 20 | VB304500 Connector Housing | コネクタハウジング | | 01 |
| * | 30 | VB936800 Connector Contact | コンタクト | | 01 |
| * | 40 | VN019100 Push Switch | 照光プッシュSW | SOLO | 10 |

*New Parts (新規部品)

ランク : Japan only

BLANK MODULE

BL4000

PARTS LIST

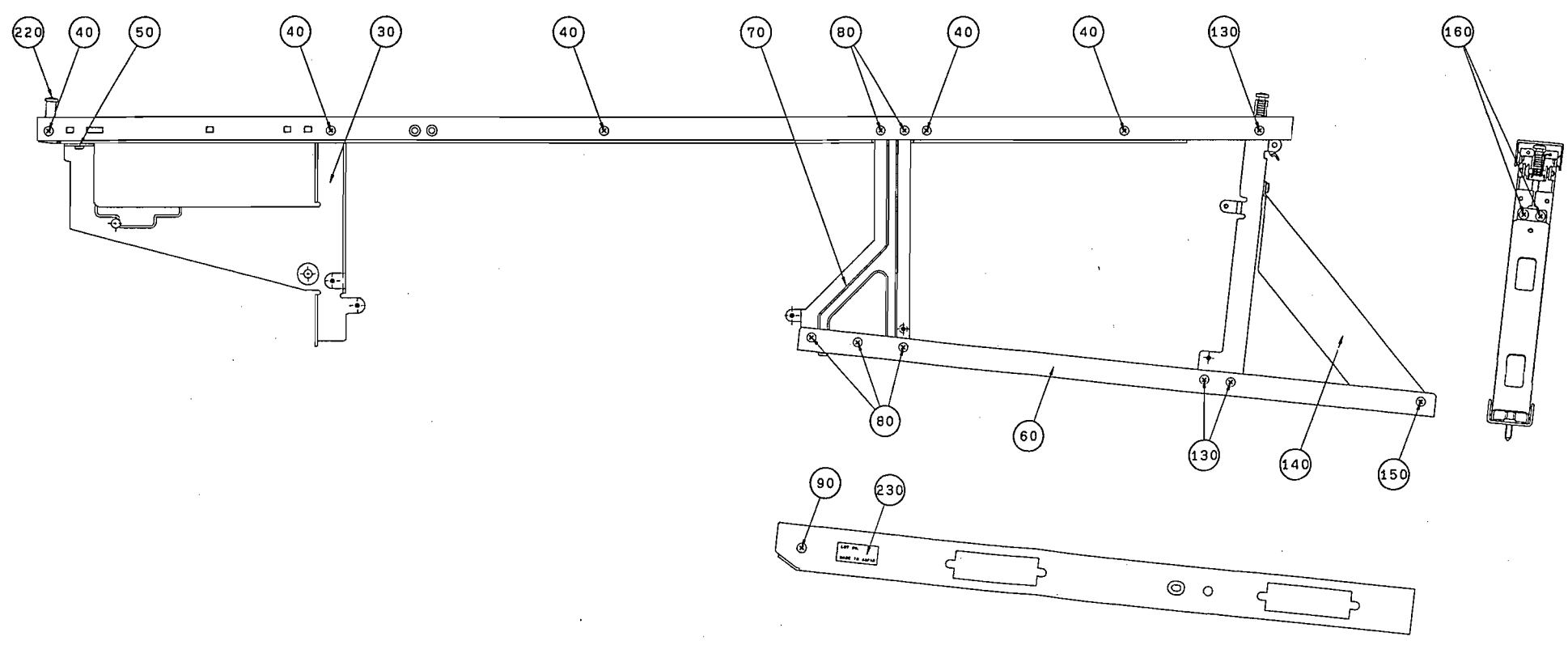
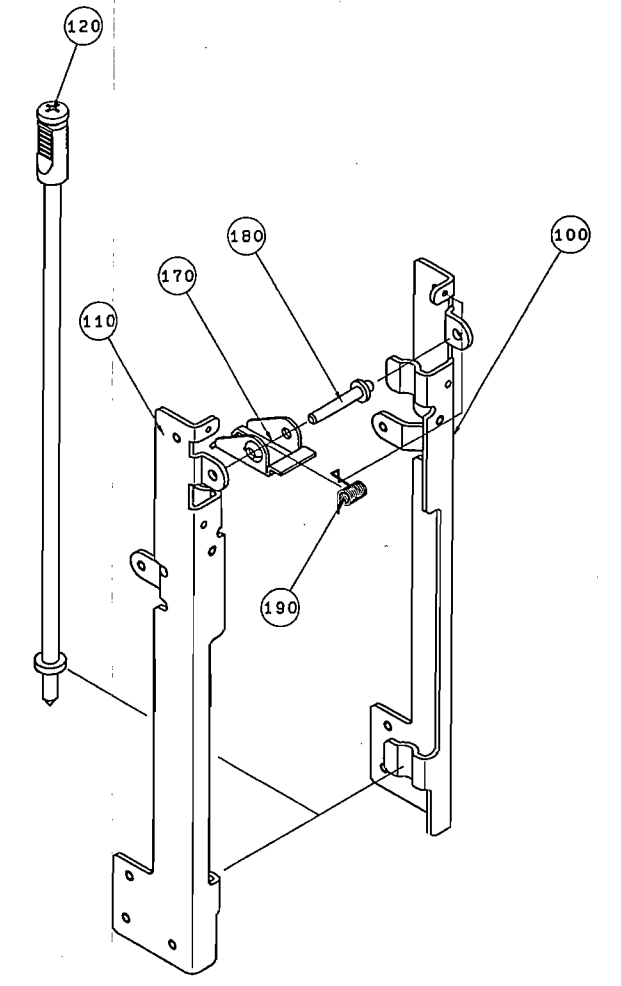
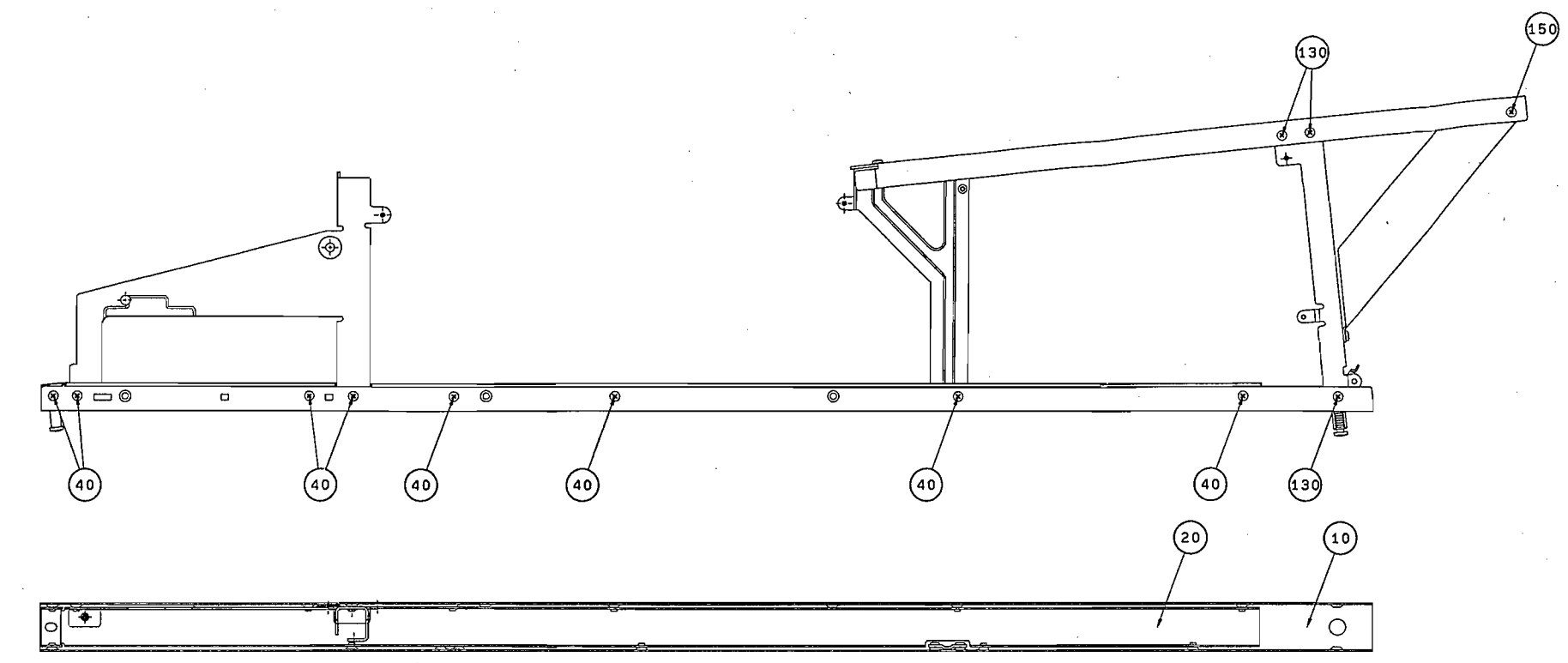
Notes DESTINATION ABBREVIATIONS

| | |
|--------------------------|---------------------------------|
| A : Australian model | J : Japanese model |
| B : British model | M : South African model |
| C : Canadian model | Q : South-east Asia model |
| D : German model | U : U.S.A. model |
| E : European model | V : General export model (110V) |
| F : French model | W : General export model (220V) |
| G : Belgian model | X : General export model |
| H : North European model | Y : Export model |
| I : Indonesian model | |

- 部品価格ランクは、変更になることがあります。
- Remarks欄に記されている数字は、使用個数です。
- 部品No.が“—”の部品は、サービス用部品として準備されておりません。
- The numbers with "pc." or "pcs" in "Remarks" show quantities for each unit.
- The parts with "—" in "Part No." are not available as spare parts.

BL4000 PARTS LIST

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク | |
|----------|----------------|--|--------------|-----------------------------------|-----------|----|
| | VP063100 -- | <BL4000> Rear Panel, Blank Module Blank Module | BL | <BL4000> リアパネルBL BLANKモジュール | (VP06280) | |
| | -- | <BLANK MODULE> Panel, Blank Module | | <BLANKモジュール> パネルBL | (VP06280) | |
| * 10 | VP062900 | Panel, Blank Module | (BL4000) | MDフュータ-アングル | | 12 |
| * 20 | VP274000 | Angle Bracket, Fader | (F) | MDアングル | | |
| * 30 | VN050300 | Angle Bracket, MD | | +皿小ネジ | 13pcs | |
| * 40 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL | +パインド小ネジ | 1pc. | |
| * 50 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL | MDボトムステー | | 13 |
| * 60 | VN053200 | Bottom Stay, MD | (MASTER) | MDアングル | | |
| * 70 | VN050500 | Angle Bracket, MD | (C) | +皿小ネジ | 5pcs | |
| * 80 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL | +パインド小ネジ | 1pc. | |
| * 90 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL | MDアングルL | | |
| * 100 | VN050600 | Angle Bracket, MD | (R) L | MDアングルR | | |
| * 110 | VN585500 | Angle Bracket, MD | (R) R | MD特殊ネジ | 1pc. | |
| * 120 | VN050800 | Screw, MD | L | +皿小ネジ | 6pcs | |
| * 130 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL | MDアングルH | | 07 |
| * 140 | VN655200 | Angle Bracket, MD | (MASTER) H | +皿小ネジ | 2pcs | |
| * 150 | EC030030 | Flat Head Screw | 3.0X6 ZNC2BL | +パインド小ネジ | 2pcs | |
| * 160 | EG330360 | Bind Head Screw | 3.0X6 ZNC2BL | MDストッパー | | |
| * 170 | VN670200 | Stopper, MD | | MDピン | | |
| * 180 | VN899800 | Pin, MD | | MDコイルバネS | | |
| * 190 | VP240800 | Coil Spring, MD | S | MD特殊ネジ | 1pc. | |
| * 220 | VN670700 | Screw, MD | S | LOTラベル | (CA80191) | |
| * 230 | -- | LOT Label | | | | |



INPUT TRANSFORMER

IT4000

PARTS LIST

Notes DESTINATION ABBREVIATIONS

| | |
|--------------------------|---------------------------------|
| A : Australian model | J : Japanese model |
| B : British model | M : South African model |
| C : Canadian model | Q : South-east Asia model |
| D : German model | U : U.S.A. model |
| E : European model | V : General export model (110V) |
| F : French model | W : General export model (220V) |
| G : Belgian model | X : General export model |
| H : North European model | Y : Export model |
| I : Indonesian model | |

- 部品価格ランクは、変更になることがあります。
- Remarks欄に記されている数字は、使用個数です。
- 部品No.が“—”の部品は、サービス用部品として準備されておられません。
- The numbers with “pc.” or “pcs” in “Remarks” show quantities for each unit.
- The parts with “—” in “Part No.” are not available as spare parts.

IT4000 PARTS LIST

| Ref. No. | Part No. | Description | 部品名 | Remarks | ランク |
|----------|----------|---------------------|---------------|-----------|-----------|
| | <IT4000> | | <IT4000> | | |
| | CB069250 | Cord Binder | BK-1 | インシュロックタイ | 2pcs 01 |
| | EG330360 | Bind Head Screw | 3.0X6 ZMC2BL | +バインド小ネジ | 2pcs 01 |
| | ES200100 | Hexagonal Nut | #1 3.0 FCB3BL | 六角ナット | 1pc. 01 |
| | VP228300 | Input Transformer | 112S-04478 | インプットトランス | 1pc. 16 |
| * | VP063200 | Angle Bracket, IT | IT | アングルIT | |
| | -- | Circuit Board | IT | ITシート | (VP12480) |
| | -- | Circuit Board | IT | ITシート | (VP12480) |
| | FG851470 | Ceramic Cap.-SL | 47P 50V J | セラコン (SL) | 01 |
| | FG851560 | Ceramic Cap.-SL | 56P 50V J | セラコン (SL) | 01 |
| | UA353100 | Mylar Cap. | 1000P 50V J | マイラーコン | 01 |
| | VB064300 | Metal Film Resistor | 560.0 1/4 F | 金属被膜抵抗 | 01 |
| | VB062300 | Metal Film Resistor | 75.0 1/4 F | 金属被膜抵抗 | 01 |
| | VB067700 | Metal Film Resistor | 13.0K 1/4 F | 金属被膜抵抗 | 01 |
| | VA074500 | Metal Film Resistor | 11.0K 1/4 F | 金属被膜抵抗 | 01 |
| | HF756330 | Carbon Resistor | 3.3K 1/4 J | カーボン抵抗 | 01 |
| | VA252100 | Connector | HQ-BT 5P TE | MQコネクタ | 01 |
| | -- | Connector | 07HQ-BT 7P TE | MQコネクタ | (VB09500) |