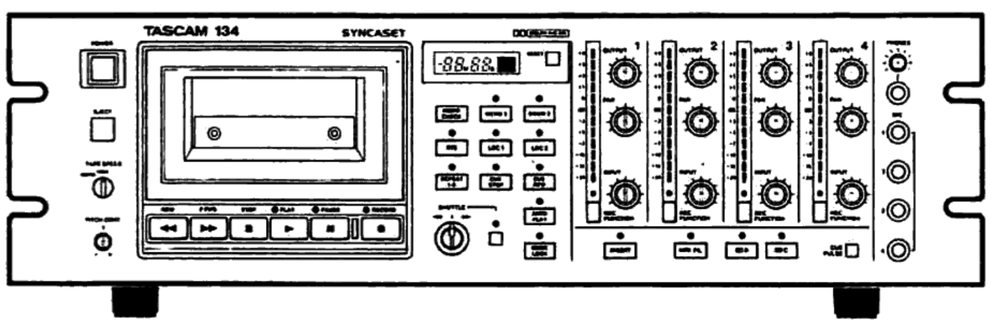
TASCAM
TEAC Professional Division



SERVICE MANUAL

134/134B

SYNCASET

NOTES

As regards the resistors and capacitors, refer to the circuit diagrams and the PCB ass'y drawings contained in this manual.

* PC boards shown viewed from parts side.
* Parts marked with * require longer deliver time.
* ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components – refer to the TEAC Parts List and ensure exact replacement.
* Parts not shown in the parts lists, or parts, though listed, having no parts numbers, are not general "ready-to-supply" parts.

注意

標準抵抗,コンデンサーは省略してあります。回路図および基板図を参照してください。

1. プリント基板図は部品面が示されています。
2. ＊印の部品は納期が若干かかります。 あらかじめご了承ください。
3. ⚠ 印は安全規格重要部品です。 交換するときは必ずティアック指定の部品を使用してください。
4. リストされていない部品は原則としてサービス供給部品として取扱っていません。

INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLICANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

Effective : AUGUST, 1992 4A0270

5704062400

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1. SPECIFICATIONS
仕様

MECHANICAL

Tape : Compact cassette, C-30 to C-90, CrO2/Type II only
Track Format : 4-track, 4-channel
Head : 4-channel Record/Play head (permalloy) x 1
4-channel Erase head (ferrite) x 1
Motor : DC servo capstan motor x 1
DC reel motor x 1
DC ancillary motor x 1
Tape Speed : 3-3/4 ips (9.5 cm/sec)/1-7/8 ips (4.8 cm/sec)
Tape Speed Accuracy : within +/-1 % (at both High and Low speeds)
Pitch Control : +/-12 % (approx.)
Wow and Flutter :
3-3/4 ips(9.5 cm/sec) : 0.04 % WRMS, +/-0.06 W.peak
1-7/8 ips(4.8 cm/sec) : 0.05 % WRMS, +/-0.8 W.peak
Fast Winding Time : 70 seconds (C-60) (approx.)
Dimensions(WxHxD) : 19" x 5-7/8" x 14"
(482 mm x 149 mm x 355 mm)
Weight : 19-13/16 lbs. (9 kg)

ELECTRICAL

Line Input : RCA jack x 4
Input Impedance : 20k ohms, unbalanced
Nominal Input Level : -10 dBV (0.3 V)
Mic Input : 1/4" jack x 4
Input Impedance : 50k ohms, unbalanced
Nominal Input Level : -60 dBV (0.1 V)
Line Output : RCA jack x4
Output Impedance : 100 ohms, unbalanced
Nominal Input Level : -10 dBV (0.3 V)
Monitor Output : RCA jack x2
Output Impedance : 100 ohms, unbalanced
Nominal Output Level : -10 dBV (0.3 V)
Monitor Output : XLR jack x2 (134B only)
Minimum Load Impedance : 600 ohms
Ouput Impedance : 100 ohms, balanced
Nominal Output Level : +4 dBm (1.23 V)
Headphone Output : 1/4" jack x 1
Maximum Output Level : 100 mW (8-ohm load)

Reference Record Level : 1 kHz, 250 nWb/m = 0 dB on the level meter ; Dolby level (200 nWb/m) = -1 dB on the meter)
Bias : 100 kHz
Equalization :
3-3/4 ips(9.5 cm/sec) : 3180 μs + 35 μs
1-7/8 ips(4.8 cm/sec) : 3180 μs + 70 μs
Frequency Response:
3-3/4 ips(9.5 cm/sec) : 40 Hz to 16 kHz +/-3 dB
1-7/8 ips(4.8 cm/sec) : 40 Hz to 12.5 kHz +/-3 dB
Signal-to-Noise Ratio : 59 dB (without Dolby, ref. 3% THD, WTD)
68 dB (with Dolby B at 5 kHz or higher)
78 dB (with Dolby C at 1 kHz or higher)
Total Harmonic Distortion : less than 1% (at 1 kHz, 160 nWb/m)
Crosstalk : Better than 55 dB
Erasure : Better than 70 dB
Power Requirements :

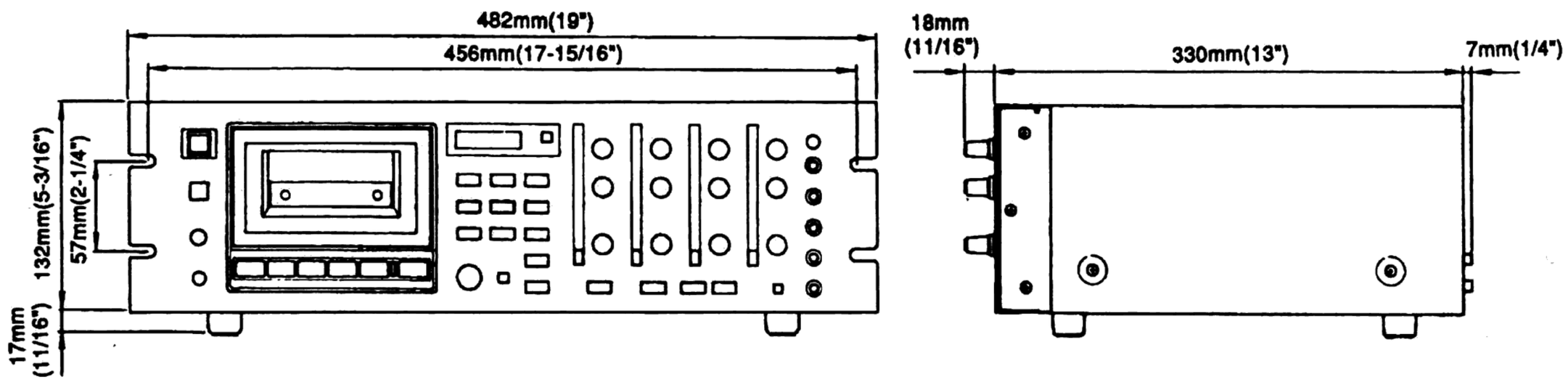
USA/Canada :	120 V	AC, 60 Hz, 29 W
Europe :	230 V	AC, 50 Hz, 29 W
UK/Australia :	240 V	AC, 50 Hz, 29 W
Japan :	100 V	AC, 50-60 Hz, 29 W

In these specifications, 0 dBV is referenced to 1.0 Volt. Actual voltage levels are also given in parenthesis. To calculate the 0 dB = 0.775 Volt reference level (i.e., in a 600-ohm circuit) add 2.2 dB to the listed dB value ; i.e., -10 dBV (re : 1 V) = -7.8 dB (re : 0.775 V)

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol "□□" are trademarks of Dolby Laboratories Licensing Corporation.

■ Changes in specifications and features may be made without notice or obligation.

＊仕様および外観は、改善のため予告なく変更することがあります。



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2. REMOVAL OF EXTERNAL CONPONENTS

外装部品の外し方

Disassemble in number-order
番号順に外して下さい

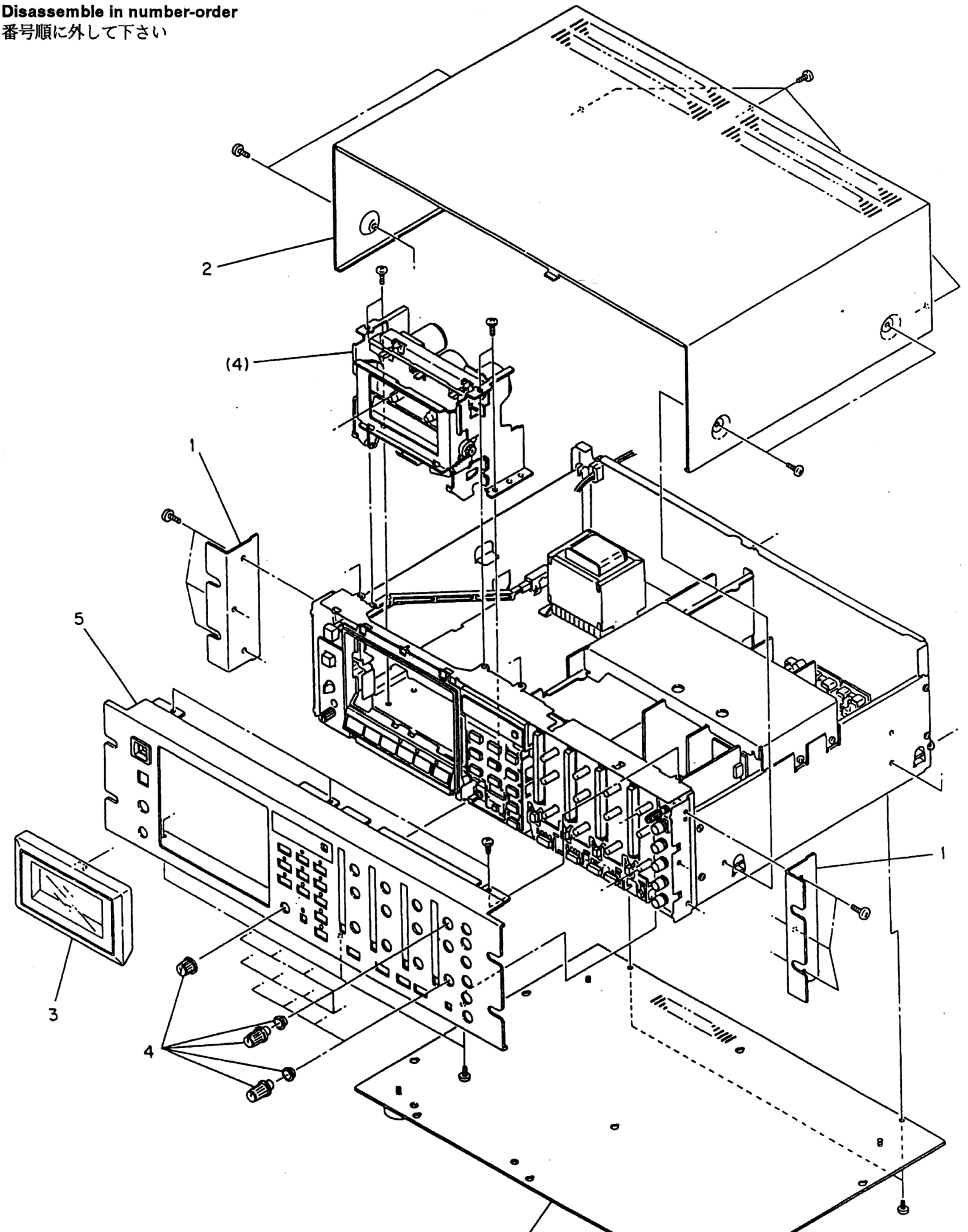


Fig. 2-1

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3. MECHANICAL CHECKS AND ADJUSTMENTS
機構部の確認と調整

3-1. Test Tape/Equipment

1. Cassette Torque Meter
   - Sony model TW-2111A – for checking takeup tension and back tension
   - Sony model TW-2231 – for checking F.FWD/REW torque.
2. Mirror Tape
   - TEAC model MXT-111 (High Speed)
   - TEAC model MTT-111N (Normal Speed)
     – for checking tape speed and wow and flutter (repro method)
   - TEAC model MTT-5561 (blank tape, chrome type)

3-2. Pinch Roller Pressure

1. Attach a spring scale to the pinch arm.
2. Push up the cassette switch (transport protection lever), then while holding the cassette switch up, press the PLAY button to engage the pinch roller and capstan shaft.
3. Pull the spring scale in direction indicated in Fig. 3-1 until the pinch roller fully loses contact with the capstan shaft ; then slowly ease the scale so the pinch roller moves back toward the capstan shaft.
4. Note the reading on the spring scale the moment the pinch roller again starts rotating. The scale should read 380 to 500 g.

3-3. Tape Positioning

Adjustment Tools :
- Head adjustment jig "A" : Part No. 5736006600
- Head adjustment jig "B" : Part No. 5736006700
- Repro/play head spacer ; 0.1mm : Part No. 5800595000
  0.2mm : Part No. 5800595100
- Erase head spacer ; 0.1mm : Part No. 5800556200
  0.2mm : Part No. 5801197800

3-1. テスト・テープ

1. カセット・トルク・メータ
   - ソニー製 TW-2111A
     テイクアップ, バックテンション・トルク・チェック
   - ソニー製 TW-2231
     F.FWD, REW トルク・チェック
2. ミラー・テープ
   - TEAC MTT-902
     テープ・パス・チェック
3. テスト・テープ
   - TEAC MXT-111 (High Speed)
   - TEAC MTT-111N (Normal Speed)
     テープ・スピード・チェック
     ワウ・フラッタ（再生法）チェック
   - TEAC MTT-5561
     ブランク・テープ（クロム・タイプ）

3-2. ピンチローラ圧着力

1. ピンチ・アームにバネ秤を掛ける。
2. カセット・イン・スイッチ・アームを上方に押し、PLAYボタンを押して、プレイ・モードにする。測定中、スイッチ・アームは上方に押し続けること。
3. ピンチ・ローラがキャプスタン・シャフトから完全に離れるように秤を矢印の方向（図3-1）に引っ張た後、ピンチ・ローラが再びキャプスタン・シャフトに接触するように徐々に戻す。
4. ピンチ・ローラが回り始めるときの値を読む。
   規格：380～500 g

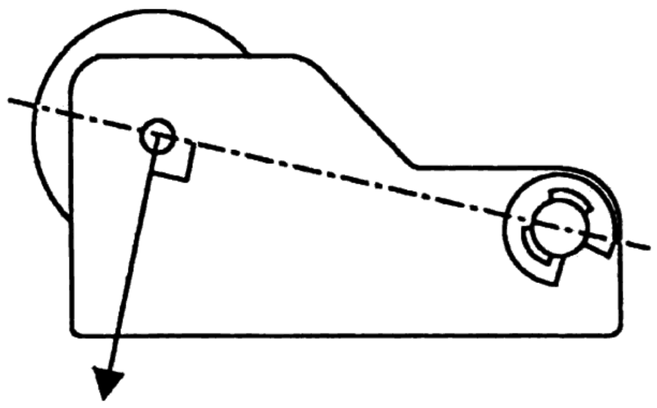


Fig. 3-1

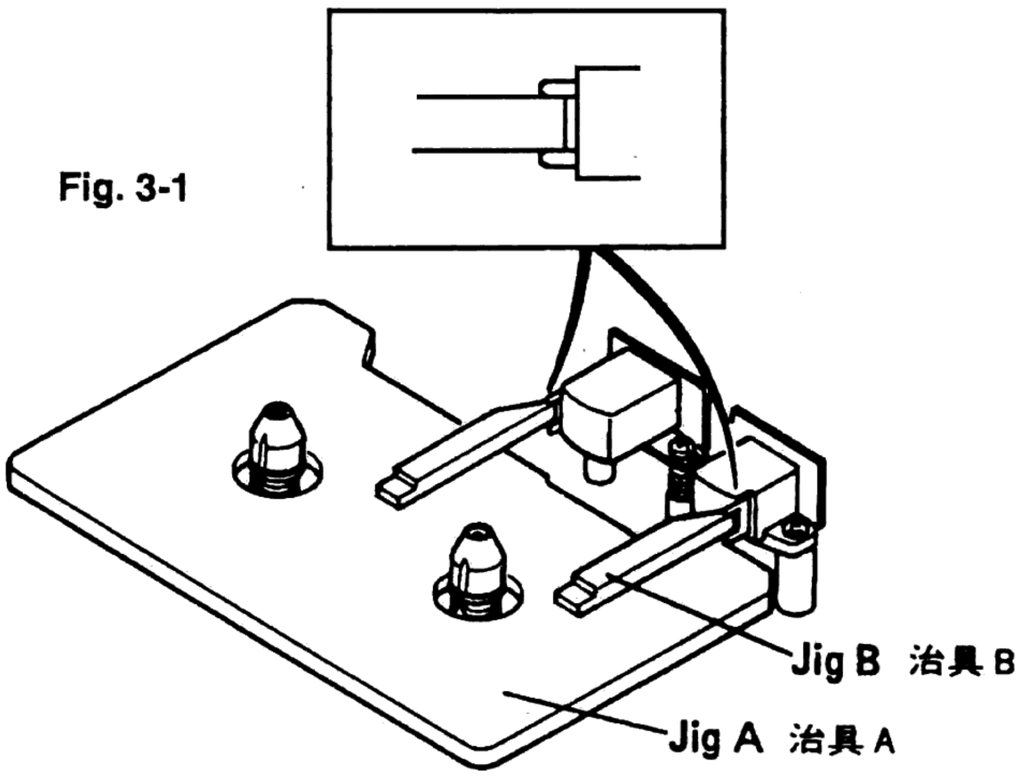
3-3. テープ走行

調整治具
- ヘッド調整治具A：品番 5736006600
- ヘッド調整治具B：品番 5736006700

R/Pヘッド・スペーサ 0.1mm：品番 5800595000
0.2mm：品番 5800595100
消去ヘッド・スペーサ 0.1mm：品番 5800556200
0.2mm：品番 5801197800

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Fig. 3-1



1. Erase head height

1. Set jig "A" as shown in Fig. 3-1, and activate PLAY mode.
2. Place jig "B" so its end comes in between the upper and lower tape guides on the head and check that the jig snugly fits between the guides. If necessary, raise or lower the head height by increasing the number of spacers between the erase head and head base.

2. Repro/play head height

3. Check and adjust the repro/play head height in a similar way you did for the erase head.

3. Repro/play head height

4. Refer to Fig. 3-2 and connect the channel 1 TAPE OUT to the vertical input of an oscilloscope, and connect the channel 2 TAPE OUT to the horizontal input of the scope.
5. Set tape speed to HIGH, play the 315 Hz and 6.3 kHz signals on test tape MXT-1161 and adjust azimuth screw (Fig. 3-3) for 0 degree phase shift between channels 1 and 2.
6. Check for 45 degrees or less of phase shift between channels 2 and 3, as well as between channels 2 and 4.

4. Rechecking erase head height

7. Run mirror tape MTT-902 and check that an equal amount of the erase head core for channels 1 and 4 is seen in the mirror. Check also for parallelism of the tape to the head.

5. Tape running head height

8. Run the mirror tape and check to see that the tape does not rub on any tape guide edge.

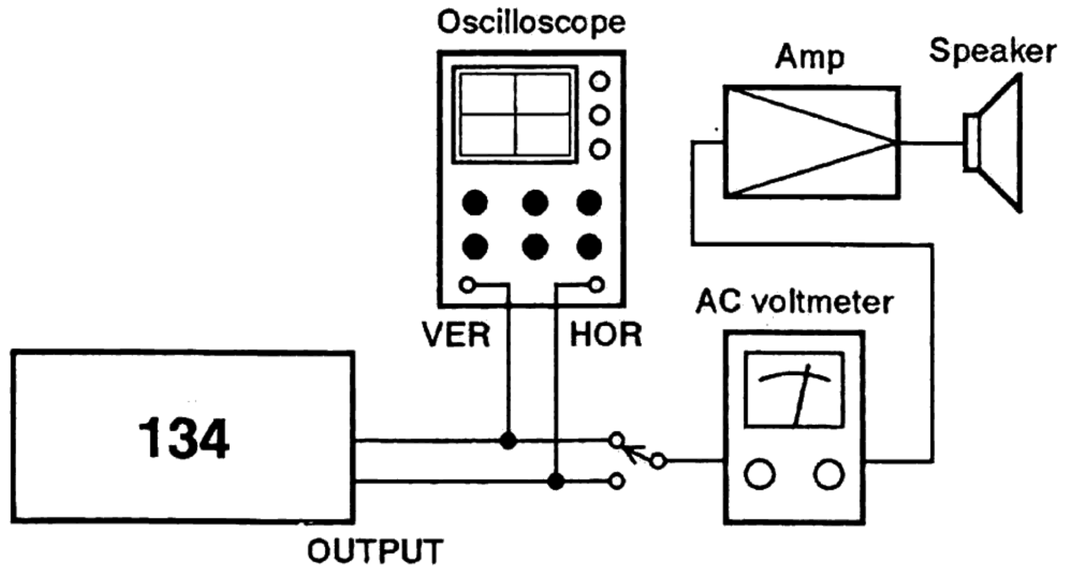


Fig. 3-2

1. 消去ヘッドの高さ調整
   1). 図3-1のように治具Aをセットし、PLAYモードにする。
   2). 治具Bを消去ヘッドのテープ・ガイドに挿入したとき、治具Bがスムーズに動くことを確認する。 そうでない場合は、消去ヘッドとヘッド・ベースに間にあるスペーサを追加または除去することにより調整する。
2. R/Pヘッドの高さ調整
   3). 消去ヘッドの高さ調整と同様に確認または調整する。
3. R/Pヘッドのアジマス調整
   4). 図3-2のように CH1のTAPE OUTをオシロスコープのVER側に、CH2のTAPE OUTを HOR側に接続する。
   5). テープ・スピードを HIGHにし、テスト・テープ MXT-1161の 315Hzと6.3kHzを再生して、CH1とCH2の位相が 0°になるようにアジマス調整ネジ（図3-3）を調整する。

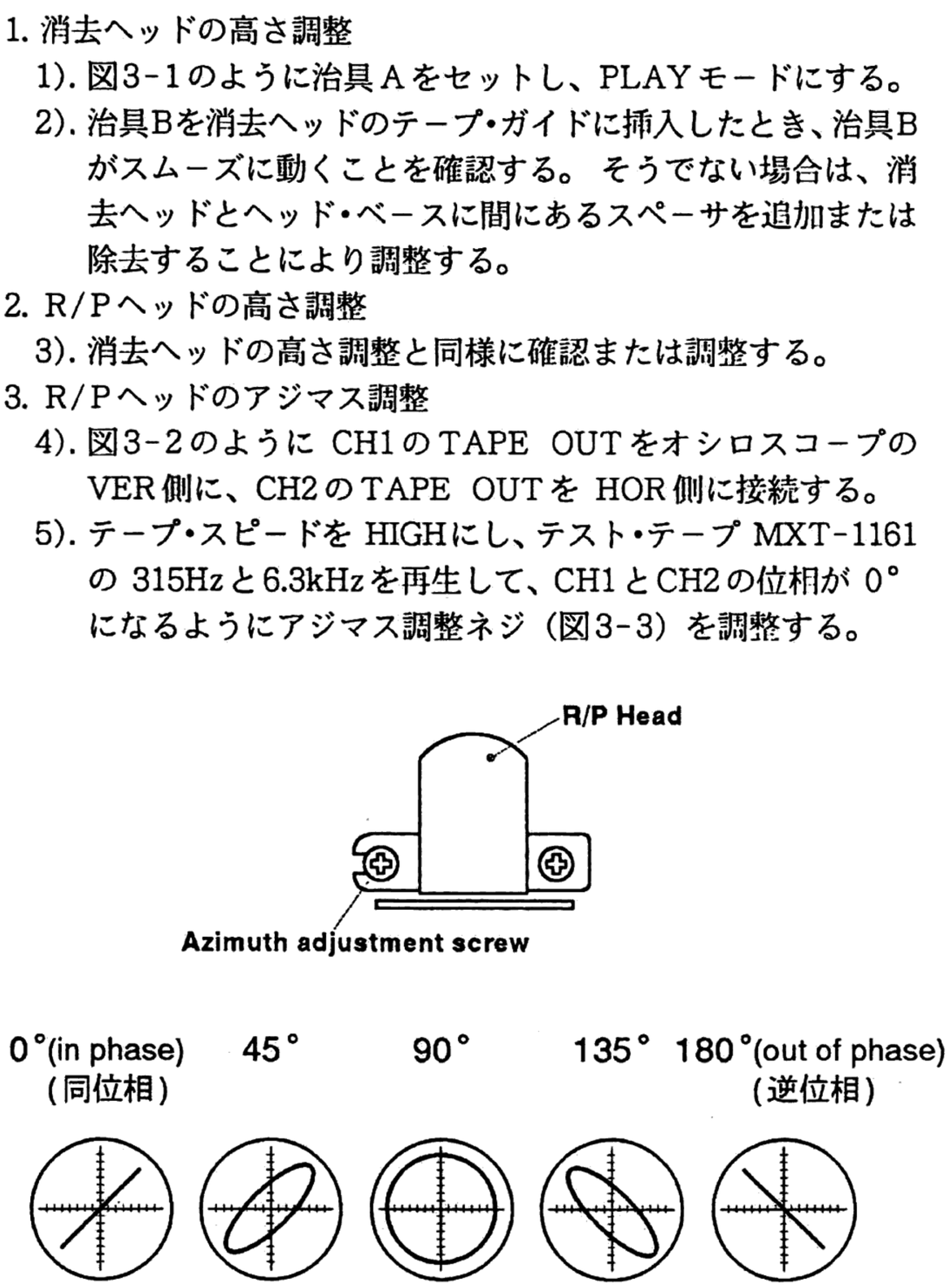


Fig. 3-3

   6). CH2-CH3, CH2-CH4の位相が 45° 以内であることを確認する。
4. 消去ヘッドの高さ確認
   7). ミラー・テープ MTT-902を走行させたとき、消去ヘッドのコアが CH1と CH4で同量見えていることを確認する。
5. テープ走行の確認
   8). ミラー・テープを走行させ、各ガイド部でテープのカールが無いことを確認する。

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3-4. Reel Torque

Takeup torque and back tension

1. Load a cassette torque meter (TW-2111A), activate play mode and take a reading from the torque meter. If the reading seesaws, take the mean reading. Specs are as follows :

   Takeup torque (right reel table side) : 25 to 60 g•cm
   Back tension (left reel table side) : 2 to 6 g•cm

2 F.FWD/REW torque

Load cassette torque meter TW-2231 and measure starting torque as read on the torque meter the instant F.FWD/REW is pressed. Specs are as follows :

F.F torque (right reel table side) : 80 g•cm or more
REW torque (left reel tale side) : 80 g•cm or more

5. Tape Speed

1. Connect a frequency counter to any TAPE OUT jack whatever as shown in Fig. 3-4.
2. Set the pitch control dial to its center position.
3. Turn POWER on.
4. Load a test tape and play it for 1 minute or more for the capstan motor to warm up.
5. Play the half way of the tape and adjust potentiometer R26 (at high speed) /R27 (at normal speed) on the CONT M PCB (Fig. 4-1) for 3000 +/-10 Hz as read on the frequency counter.
6. After adjustment, check the following at both the beginning and the end of tape :

   Frequency reading : 3000 +/-60 Hz
   Speed fluctuation : less than 30 Hz

3-6. Wow and Flutter

ote : Measurement shall be repeated at beginning of tape, at its half way and at its end. (When taking measurement at the beginning of tape, wind the tape until tape pack on the right reel exceeds the first mark on the scale on the cassette shell ; similarly, wind the tape until tape pack on the left reel exceeds the first mark on the scale for easurement at the tape end.

1. Connect a wow and flutter meter to the 134 as shown in Fig. 3-4.
2. Load a test tape and play it.
3. Note the reading on the meter. Specs are as follows :

   0.05 % or less at HIGH speed (JIS weighted)
   0.06 % or less at NORMAL speed (JIS weighted)

3-4. リール・トルク

1. テイクアップ・トルク／バックテンション
   カセット・トルク・メータ（TW-2111A）を装填後、プレイ・モードにし、トルク・メータの値を読む。（振れのある場合は中心値とする） 規格値は次の通り。
   テイクアップ・トルク(右リール台) : 25～60 g・cm
   バックテンション　（左リール台) : 2～ 6 g・cm
2. F.FWD／REW トルク
   カセット・トルク・メータ（TW-2231）を装填し、F.FWD動作およびREW動作の起動トルクをそれぞれ測定する。
   F.FWDトルク（右リール台) : 80 g・cm以上
   REWトルク　（左リール台) : 80 g・cm以上

3-5. テープ速度

1. 図3-4のように、周波数カウンタを TAPE OUTジャックのいずれかに接続する。
2. ピッチ・コントロール・ダイヤルを中央にセットする。
3. POWERスイッチを ONにする。
4. キャプスタン・モータを回転させ、ウォーミングアップするために、テスト・テープを装填し少なくとも1分間そのままにしておく。
5. テスト・テープの中間部を再生させて、周波数カウンタの値が3000±10 Hzになるように CONT M PCBの半固定抵抗（図4-1）を調整する。
   High Speed　: R26
   Normal Speed : R27
6. 調整後、テープの巻始めと巻終わりで、下記の値が得られることを確認する。
   速度偏差 : 3000±60 Hz
   変動幅　: 30 Hz以内

3-6. ワウ・フラッタ

注意：測定は再生法により、テープの巻始め、中間部、巻終わりでそれぞれ行なってください。（但し、カセット・ハーフの巻始めと巻終わりの1目盛りは除く）

1. 図3-4のように、ワウ・フラッタ・メータをデッキに接続する。
2. テスト・テープを装填し、再生させる。
3. ワウ・フラッタ値を測定する。規格値は次の通り。
   High Speed　: 0.05％以内（JIS聴感補正値）
   Normal Speed : 0.06％以内（JIS聴感補正値）

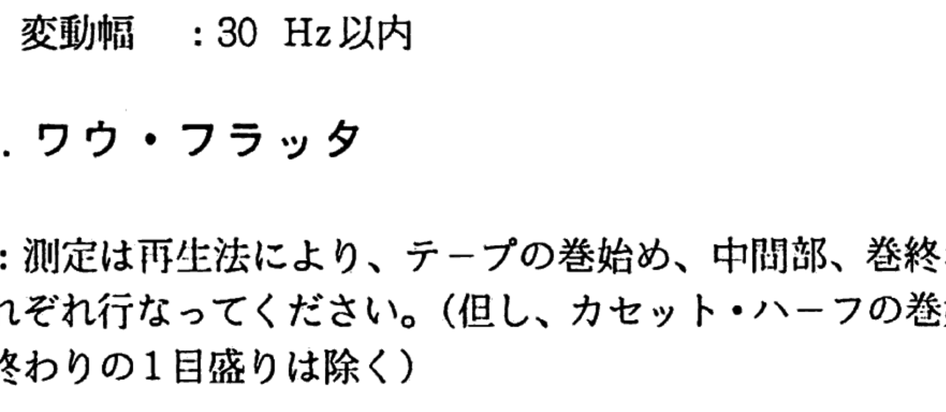
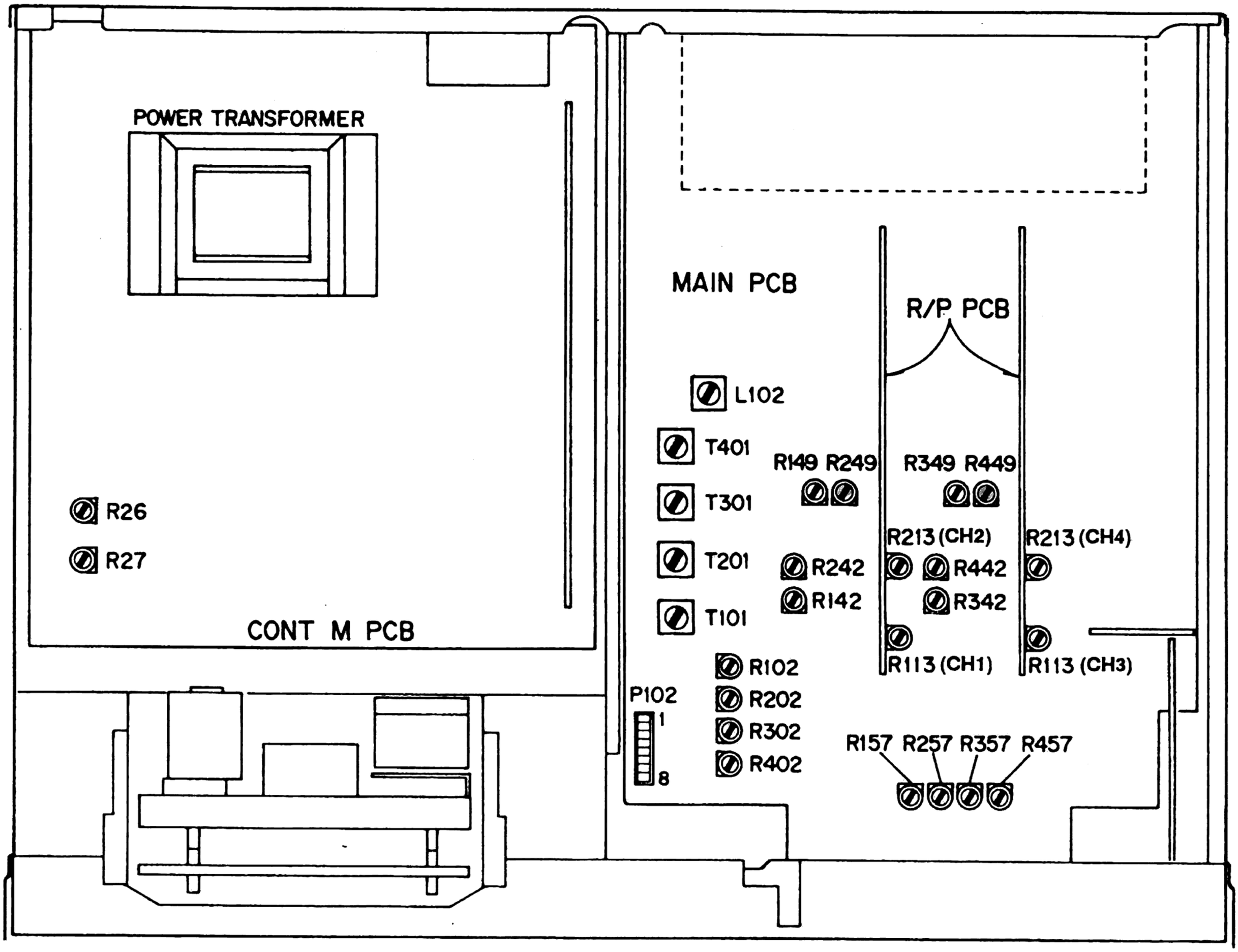


Fig. 3-4

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4. AMPLIFIER SECTION CHECKS AND ADJUSTMENTS

アンプ部の確認と調整



R113, R213	Reproduce Reference Level	再生基準レベル
R142 (R242～R442)	Reproduce Frequency Response	再生周波数特性
R157 (R257～R457)	Meter Level	メーター・レベル
L102	Bias OSC. Frequency	バイアス発振周波数
T101 (T201～T401)	Bias Amp. (Erase)	バイアス・アンプ (消去)
R102 (R202～R402)	Bias Set	バイアス・セット
R149 (R249～R449)	Record Reference Level	録音基準レベル

Fig. 4-1 Adjustment and test point location

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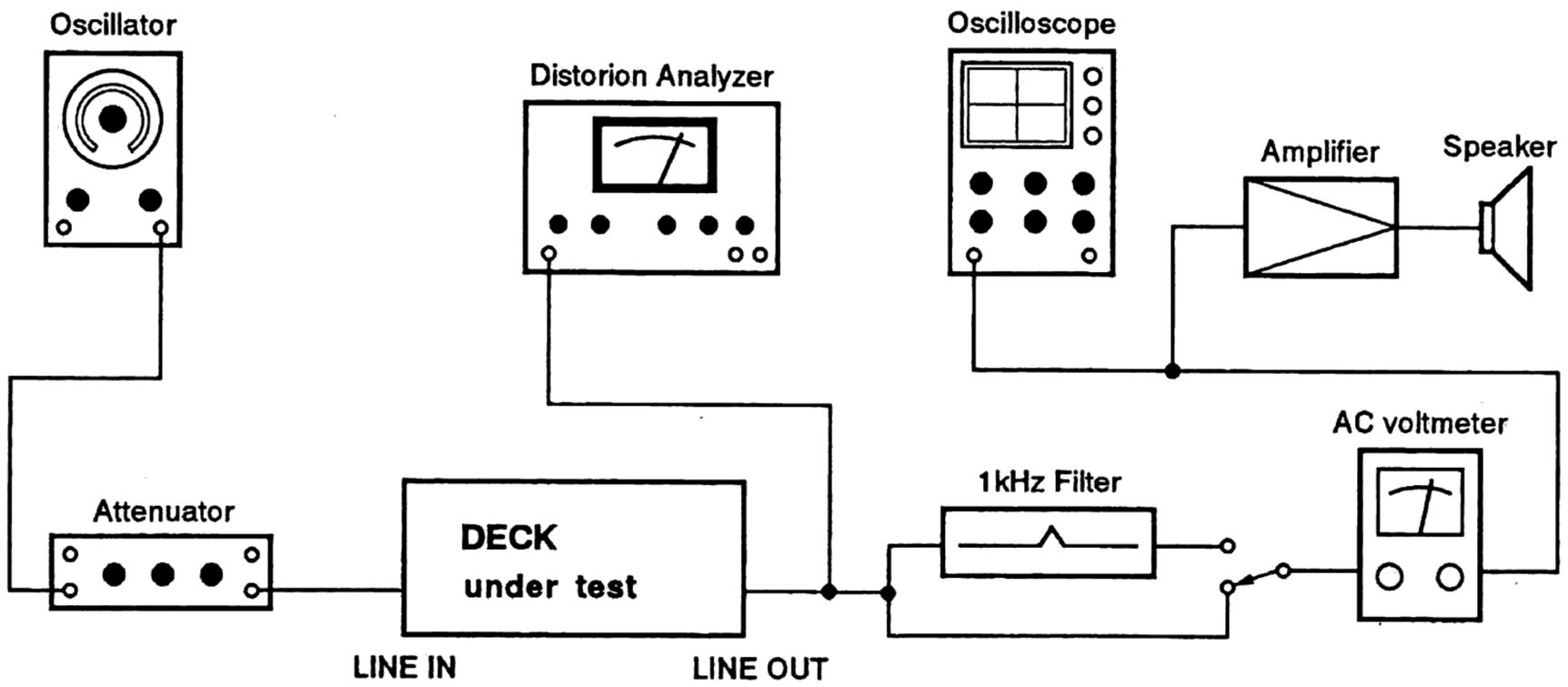


Fig.4-2 Basic test setup

基本測定接続図

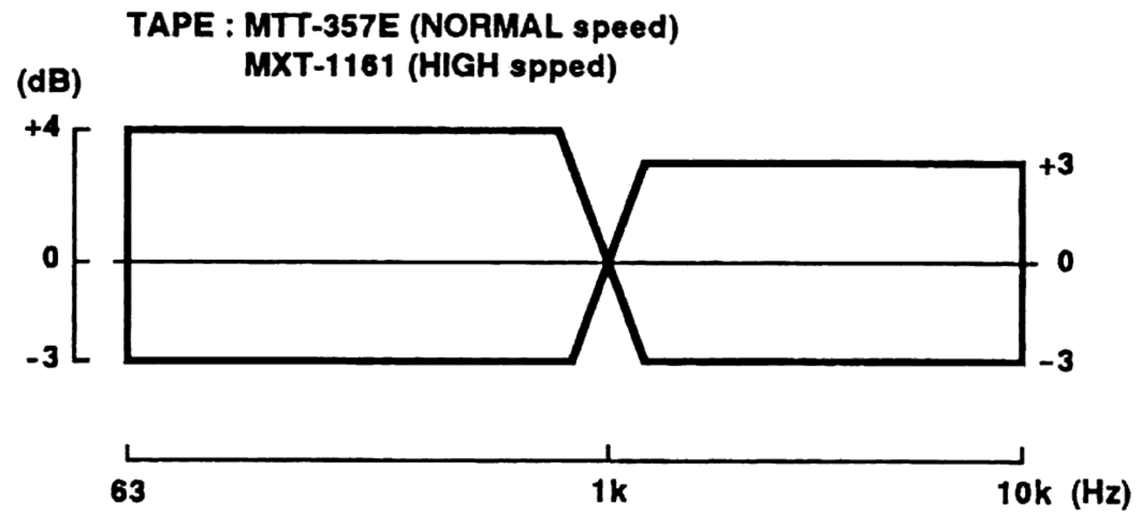


Fig.4-3 Playback frequency response

再生周波数特性

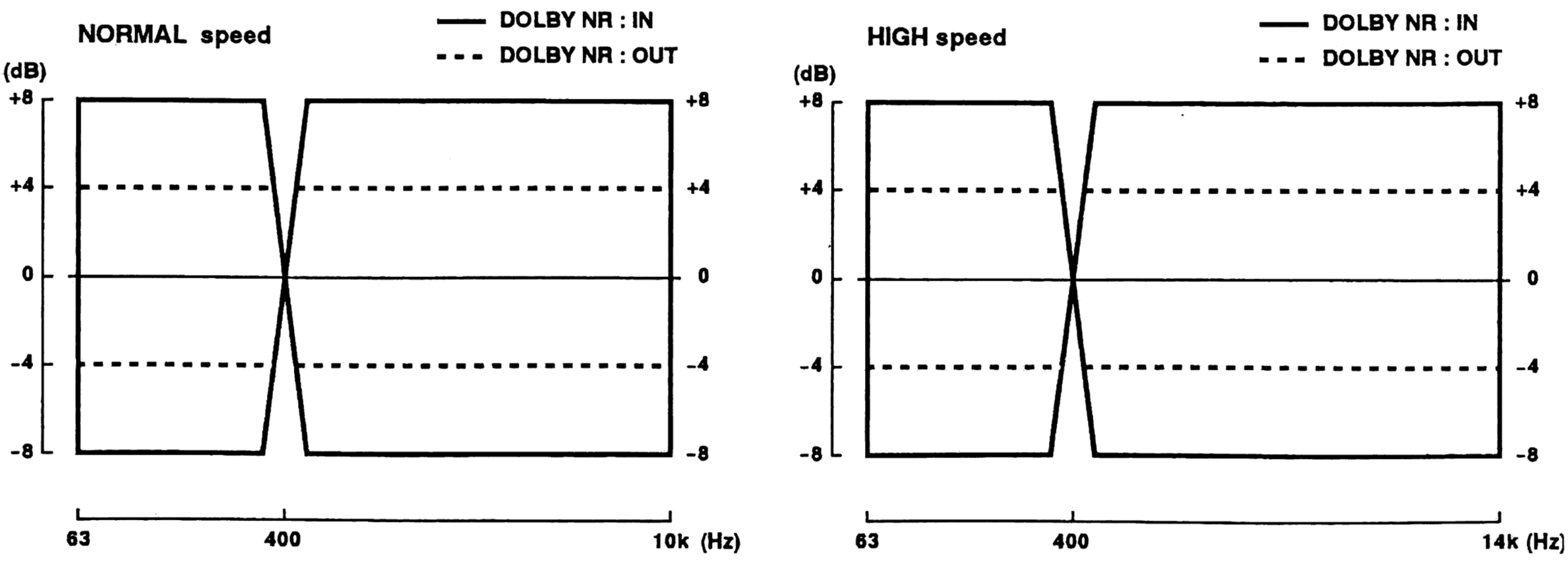


Fig.4-4 Overall frequency response

録再周波数特性

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4-1. PRECAUTIONS

1. Before performing adjustments or checks, clean and demagnetize the entire tape path.
2. The AC voltmeter used in the procedures must have an input impedance of 1 MΩ or more.
3. 0 dBV corresponds 1.0 V.
4. For blank tape use TEAC MTT-5561 or equivalent tapes.
5. Indication, for example, "R142 (R242 to R442)" means that R142 is for channel 1, R242 for channel 2, R342 for channel 3 and so on.
6. Refer to Figure 4-1 for location of adjustment points.

4-2. PLAYBACK SYSTEM

Test Mode : PLAY
Measurement Point : LINE OUT Jack (unless otherwise specified)

Adjustment Item	Preliminary	Input Signal	Adjustment Point	Measurement Method / Value Adjusted For
1. Reproduce Reference Level	Connection : Fig.4-2 Tape Speed : Normal	MTT – 150	R113, R213	-10 dBV at output Specs : -11 ± 1.5 dBV Level Fluctuation : within 1 dB Level Difference between Channels : within 1 dB Set TR4 OUTPUT LEVEL to HIGH and check that the level increased by 10 ± 1.5 dB at line output 4.(After checking this, be sure to return the switch to its NORM position.)
2. Meter Level	Same as above	Same as above	Check only	With item 1 adjusted as specified above, check for the level of ▯▯ ± 1 dot as read on the meters.
3. Reproduce Frequency Response	Connection : Fig.4-2 Tape Speed : Normal	MTT – 357E	R142 (R242~R442)	Same output level at 10 kHz and 1 kHz Specs : Fig.4-3
	Tape Speed : High	MXT – 1161	Check only	Specs : Fig.4-3
4. Level Difference between Channels	Connection : Fig.4-2 Tape Speed : High	MXT – 1161	Check only	within 3 dB (within the limits of reproduce frequency response)
5. Level Fluctuation	Same as above	Same as above	Check only	63 Hz~6.3 kHz, within 2 dB 6.3 kHz~10 kHz, within 3 dB
6. Reproduce S/N ratio	Connection : Fig.4-2	——	Check only	Measure output when leader tape is played back with the unit set for nominal output level , and compare this reading with nominal output level. Difference : 51 dB or more at HIGH ; 50 dB or more at NORMAL. (DIN AUDIO) Deference between channels : 4 dB or less

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4-3. MONITOR SYSTEM

Test Mode : STOP
Signal Input : LINE IN Jack (unless otherwise specified)
Measurement Point : LINE OUT Jack (unless otherwise specified)

Adjustment Item	Preliminary	Input Signal	Adjustment point	Measurement method / Value Adjusted For
1. Input Level	Connection : Fig.4-2 REC FUNCTION sw : ON	400 Hz/-10 dBV (nominal input)	INPUT controls	-10dBV at output
2. Meter Level	Same as above	Same as above	R157 (R257~R457)	With item 1 adjusted as specified above, adjust for 0 dB as read on the meters.
3. MPX - FILTER	Same as above	19 kHz/-10 dBV	Check only	Engage the MPX FIL switch and check for a 30 dB drop or more at each output.
4. MONITOR Ouput Level	Connection : Fig.4-2 REC FUNCTION sw : ON	400 Hz/-10 dBV (nominal input)	OUTPUT controls	1. -10 dBV at the MONITOR OUT L RCA jack when turning PAN all the way to the left ; and +4 ± 1 dBm (100k-ohm load) /+2.5 ± 1 dBm (600-ohm load) at the XLR type L connector (134B only). 2. Check for -10 ± 1 dBV at the MONITOR OUT R RCA jack when turning PAN all the way to the right ; and +4 ± 1 dBm (100k-ohm load) /+2.5 ± 1 dBm (600-ohm load) at the XLR type R connector (134B only). Check also for -12 ± 2 dBV at the RCA jack when turning PAN to its center position.
5. PHONES Output Level	Same as above	Same as above	PHONES control	100 mW (under 8 ohms) or more at the PHONES jack when turning the PHONES control to its maximum position with the OUTPUT controls adjusted as in item 4.
6. MIC Input	Same as above	400 Hz/-60 dBV	Check only	-10 ± 2 dBV at MONITOR OUT L and R when plugging the test signal into MIC IN with the OUTPUT controls adjusted as item 4.
7. MIC S/N	Same as above	No input	Check only	Under the same conditions as in item 6 above, turn off the MIC IN signal, measure the level at MONITOR L and R and compare this reading with the reference level of -10 dBV. The difference should be 54 dB or greater (DIN AUDIO).
8. Monitor S/N	Same as above	No input	Check only	70 dB or greater (DIN AUDIO) as determined by measuring levels at MONITOR OUT L and R with only one REC FUNCTION engaged ; and 60 dB or greater (DIN AUDIO) when all REC FUNCTIONs engaged.
9. Monitor Frequency Response	Same as above	LINE IN :-10 dBV MIC IN :-60 dBV	Check only	LINE IN ~ MONITOR OUT (RCA jack) : 20 Hz ~ 20 kHz ±2 dB MIC IN ~ MONITOR OUT (RCA jack) : 40 Hz ~ 20 kHz ±2 dB LINE IN ~ MONITOR OUT (XLR jack, 134B only) : 20 Hz ~ 20 kHz +1 dB/-3 dB

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4-4. RECORDING SYSTEM

Test Mode : REC/PLAY (unless otherwise specified)
Signal Input : LINE IN jack
Measurement Point : LINE OUT jack (unless otherwise specified)

Adjustment Item	Preliminary	Input Signal	Adjustment point	Measurement Method / Value Adjusted For
1. Bias Oscillator Frequency	Frequency counter connected between terminals # 1 and GND of P102 REC FUNCTION sw : ON for all channels ; Transport : REC/PAUSE	——	L102	100 +/-0.1 kHz as read on frequency counter
2. Bias Amp. (Erase)	Oscilloscope connected between terminals # 1 (3,5,7) and GND of P102 (with the scope's probe set to × 10) REC FUNCTION sw : ON Transport : REC/PAUSE	——	T101 (T201~T401)	Maximum output as read on the scope connected bwtween the specified teminals of P102 : Terminals # 1 and GND – for Ch.1 # 3 and GND – for Ch.2 # 5 and GND – for Ch.3 # 7 and GND – for Ch.4
3. Bias Set	Connection : Fig.4-2 Tape speed : NORMAL	-44 dBV (-34 dB with respect to nominal input)	R102 (R202~R402)	Same output level at 400 Hz and 10 kHz signals as read off tape during recording them one after another
4. Record Reference Level	Connection : Fig.4-2 Tape speed : NORMAL	400 Hz/-14 dBV (-4 dB with respect to nominal input)	R149 (R249~R449)	-14 dBV output as read off tape during recording Specs : -14 ± 2 dBV
	Tape speed : HIGH	Same as above	Check only	Specs : -14 ± 2 dBV
5. Record Distortion	Connection : Fig.4-2	Same as above	Check only	1.6 % or less
6. Rec/Repro Frequency Response	Connection : Fig.4-2 DOLBY NR : ON, OFF	-44 dBV (-34 dB with respect to nominal input)	Check only	Specs : Fig.4-4
7. Level Difference between Channels	Connection : Fig.4-2 DOLBY NR : OFF	Same as above	Check only	Within 3 dB for 63 Hz to 6.3 kHz Within 4 dB for 6.3 kHz to 10 kHz (all within the limits of rec/repro frequency response)
8. Rec/Repro Level Fluctuation	Same as above	Same as above	Check only	Within 1 dB for 400 Hz Within 2 dB for 63 Hz to 6.3 kHz Within 3 dB for 6.3 kHz to 14 kHz (all within the limits of rec/repro frequency response)
9. Crosstalk between Tracks	Connection : Fig.4-2 REC FUNCTION sw : ON for all channels DOLBY NR : OFF	125 Hz, -10 dBV into Ch.1 and 3 ; No signal into Ch.2 and 4	Check only	Compare the output level from Ch.1 and 3 with that from Ch.2 and 4 as read off tape during recording. Level difference : 35 dB or more In a similar way, check also the reverse : leakage from Ch.2 and 4 into Ch.1 and 3.

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Adjustment Item	Preliminary	Input Signal	Adjustment Point	Measurement Method / Value Adjusted For
10. Channel Separation	Connection : Fig.4-2 (1 kHz B.P.F. inserted) REC FUNCTION sw : ON for all channels DOLBY NR : OFF	1 kHz, -10 dBV into Ch.1 and 3 ; No signal into Ch.2 and 4	Check only	Compare the output level from ch.1 and 3 with that from Ch.2 and 4 as read off tape during recording. Level difference : 45 dB or more In a similar way, check also the reverse : leakage from Ch.2 and 4 into Ch.1 and 3.
11. Cross-erase	Connection : Fig.4-2 DOLBY NR : OFF	10 kHz, -10 dBV into Ch.1 and 3	Check only	Record tracks 1 and 3, and play the recording to measure their playback level, then erase tracks 2 and 4 to check for level drop of 1.5 dB or less in output from tracks 1 and 3. In a similar way, check also the reverse : recording tracks 2 and 4, erasing tracks 1 and 3.
12. Erasure Ratio	Connection : Fig.4-2 (1 kHz B.P.F. inserted) DOLBY NR : OFF	1 kHz, 0 dBV (+10 dB with respect to nominal input)	Check only	Erase a part of a recorded section and play the tape to compare the level from the remaining recorded section with that from the erased section. Level difference between them : 65 dB or more
13. Rec/Repro S/N ratio	Connection : Fig.4-2 DOLBY NR : OFF	No input	Check only	Compare the output from the "no-signal" recording with nominal output level. Level difference between them : 49 dB or more (DIN AUDIO) at HIGH speed ; 48 dB or more (DIN AUDIO) at NORMAL speed Difference in S/N ratio between channels : 4 dB or less
14. Sync Crosstalk	Same as above	10 kHz/-10 dBV	Check only	Put only one track into record at a time by pressing its REC FUNCTION and measure the output level from the other tracks. The reading should be -10 dBV or less.
15. Dolby NR Effect	Connection : Fig.4-2	No input	Check only	1. With Dolby NR switched OFF, record a "no" signal, rewind tape and play the "no-signal" recording to measure the output level through a CCIR/ARM filter. Then calculate signal-to-noise ratio. 2. Repeat step 1 only with Dolby B NR switched ON, signal-to-noise ratio should increase by 7.5 dB or more relative to the number obtained without Dolby NR in step 1. 3. Repeat step 1 only with Dolby C NR switched ON, signal-to-noise ratio should increase by 17 dB or more relative to the number obtained without Dolby NR in step 1.

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4-1. 注意

1. アンプ部の調整の前に、消去ヘッド, 録/再ヘッド, テープ走行部分をそれぞれ充分消磁し、クリーナ液で清掃して下さい。
2. レベル計は、入力インピーダンス1MΩ以上のものを使用して下さい。
3. 0dBV＝1.0Vで表示しています。
4. ブランク・テープは、TEAC MTT-5561または相当品を使用して下さい。
5. R142（R242～R442）と記されているボリュームの部番は、CH1（CH2～CH4）を示します。
6. 調整個所は、図4-1を参照して下さい。

4-2. 再生系

モード：PLAY
測定個所：LINE OUT端子（特に指示のある場合を除く）

調整項目	準備・設定	入力信号	調整個所	測定方法・調整値
1. 再生基準レベル	接続：Fig.4-2 TAPE SPEED：NORMAL	MTT－150	R113, R213	出力が－11dBVになるように調整 規格：－11±1.5dBV レベル変動：1dB以内 ch間レベル差：1dB以内 ch4は、TR4 OUTPUT LEVEL切替スイッチをHIGHにしたとき、出力レベルが10±1.5dB上がること。（確認後は、NORMALに戻すこと）
2. メータ・レベル	同上	同上	チェック	1項の状態のとき、メータ指示は□□±1ドットのこと。
3.再生周波数特性	接続：Fig.4-2 TAPE SPEED：NORMAL	MTT－357E	R142（R242～R442）	10kHzのレベルが、1kHzのレベルと同じになるように調整 規格：Fig.4-3
	TAPE SPEED：HIGH	MXT－1161	チェック	規格：Fig.4-3
5. チャネル間レベル差	接続：Fig.4-2 TAPE SPEED：HIGH	MXT－1161	チェック	再生周波数特性規格内において、ch間レベル差は3dB以内
6. レベル変動	同上	同上	チェック	63Hz～6.3kHz：2dB以内 6.3kHz～10kHz：3dB以内
7. 再生S／N	接続：Fig.4-2	——	チェック	基準出力状態で、リーダー・テープ部を再生した時のノイズ・レベルと基準出力との比（DIN AUDIO） HIGH SPEED：51dB以上 NORMAL SPPED：50dB以上 チャネル差：4dB以内

4-3. モニター系

モード： STOP
信号入力： LINE IN端子（特に指示のある場合を除く）
測定個所： LINE OUT端子（特に指示のある場合を除く）

調整項目	準備・設定	入力信号	調整個所	測定方法・調整値
1. 入力レベル	接続：Fig.4-2 REC FUNC. SW：ON	400Hz/－10dBV （基準入力）	INPUTつまみ	出力が、－10dBVになるように調整
2. メータ・レベル	同上	同上	R157（R257～R457）	1項の状態で、メータ指示が0dBになるように調整
3. MPX－FILTER	同上	19kHz/－10dBV	チェック	MPX－FILTER SWをONにしたとき、出力が30dB以上下がること。

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調 整 項 目	準 備・設 定	入 力 信 号	調 整 個 所	測 定 方 法・調 整 値
4. モニター出力	接続：Fig.4-2 REC FUNC. SW：ON	400Hz/-10dBV	OUTPUTつまみ	1. PANつまみを左側（L側）一杯に回したとき、MONITOR L OUT（RCA jack）の出力が-10dBVになるように調整する。 2. PANつまみを右側（R側）一杯に回したときMONITOR R OUT（RCA jack）の出力は-10±1dBVであること。 PANつまみをセンターにしたときは、-12±2dBVであること。 3. MONITOR L, R OUT（RCA jack）の出力が-10dBVのとき、MONITOR L, R OUT（XLR jack, 134Bのみ）の出力は +4±1dBm（100kΩ負荷）であること。 （600Ω負荷時は +2.5±1dBm）
5. ヘッドホン出力	同 上	同 上	PHONESつまみ	4項の状態で、PHONESつまみを最大に回したとき、PHONES出力は100mW（8Ω負荷）以上あること。
6. マイク入力	同 上	400Hz/-60dBV	チェック	4項の状態で、MIC IN に信号を入力したとき、MONITOR L, R OUTの出力は -10±2dBVであること。
7. マイクS/N	同 上	無信号	チェック	6項の状態から入力を切ったとき、MONITOR L, RのS/Nは54dB以上（DIN AUDIO）
8. モニターS/N	同 上	無信号	チェック	1chのみ REC FUNC. SWをONにしたとき、MONITOR L, RのS/Nは70dB以上 全ch REC FUNC. SWをONにしたときは60dB以上（DIN AUDIO）
9. モニター周波数特性	同 上	LINE IN： -10dBV MIC IN： -60dBV	チェック	LINE IN ～ MONITOR OUT（RCA jack）： 20Hz ～ 20kHz ±2dB MIC IN ～ MONITOR OUT（RCA jack）： 40Hz ～ 20kHz ±2dB LINE IN ～ MONITOR OUT（XLR jack, 134Bのみ）：20Hz ～ 20kHz +1dB/-3dB

4-4. 録音系

モード： REC/PLAY（特に指示のある場合を除く）
信号入力： LINE IN端子
測定個所： LINE OUT端子（特に指示のある場合を除く）

調 整 項 目	準 備・設 定	入 力 信 号	調 整 個 所	測 定 方 法・調 整 値
1. バイアス発振周波数	P102の1番端子とGND間に周波数カウンタを接続 REC FUNC. SW：全ch ON REC/PAUSE状態	——	L102	周波数が、100±0.1kHzになるように調整
2. バイアス・アンプ（消去）	P102の1(3,5,7)番端子とGND間にオシロスコープを接続 （＊プローブはX10にて使用） REC FUNC. SW：ON REC/PAUSE状態	——	T101（T201～T401）	下記の端子間の出力が最大になるように調整 ch1：P102の1番端子－GND間 ch2：P102の3番端子－GND間 ch3：P102の5番端子－GND間 ch4：P102の7番端子－GND間
3. バイアス・セット	接続：Fig.4-2 TAPE SPEED：NORMAL	-44dBV （基準入力に対して-34dB）	R102（R202～R402）	録音・再生したとき、400Hzと10kHzが同レベルになるように調整

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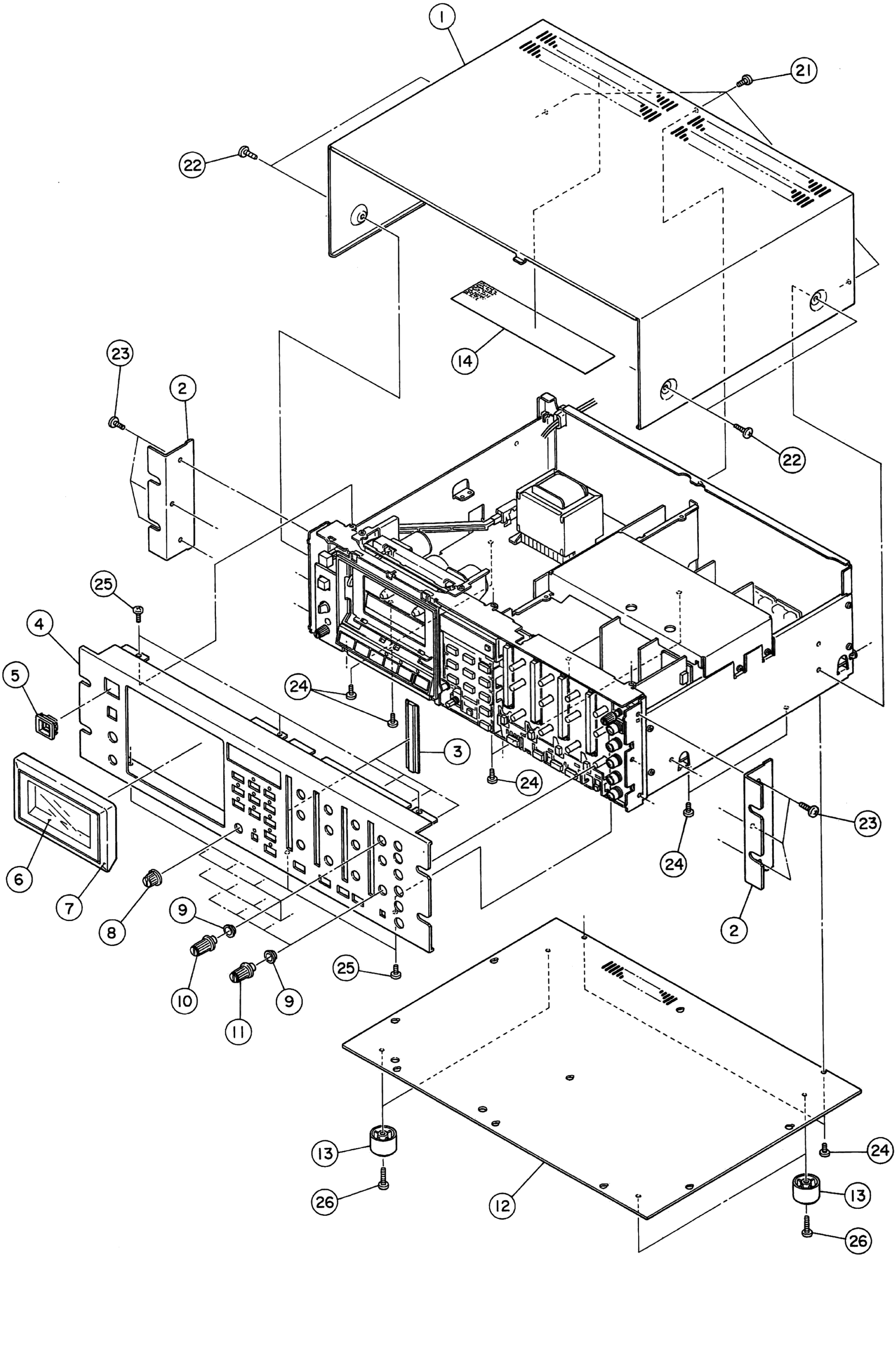
調整個所	準備・設定	入力信号	調整個所	測定方法・調整値
4. 録音基準レベル	接続：Fig.4-2 TAPE SPEED：NORMAL	400Hz/-14dBV (基準入力に対して -4dB)	R149 (R249～R449)	録音・再生したとき、出力が -14dBVになるように調整 規格：-14 ± 2dBV
	TAPE SPEED：HIGH	同上	チェック	規格：-14 ± 2dBV
5. 録音歪率	接続：FIg.4-2	400Hz/-14dBV	チェック	4項の状態で、歪率は1.6％以下
6. 録再周波数特性	接続：Fig.4-2 DOLBY NR：ON, OFF	-44dBV (基準入力に対して -34dB)	チェック	規格：Fig.4-4
7. チャネル間レベル差	接続：Fig.4-2 DOLBY NR：OFF	同上	チェック	録再周波数特性規格内におけるch間レベル差 63Hz～6.3kHz：3dB以内 6.3kHz～10kHz：4dB以内
8. 録再レベル変動	同上	同上	チェック	録再周波数特性規格内におけるレベル変動 400Hz：1dB以内 63Hz～6.3kHz：2dB以内 6.3kHz～14kHz：3dB以内
9. トラック間 クロストーク	接続：Fig.4-2 REC FUNC. SW：全ch ON DOLBY NR：OFF	1,3ch： 125Hz/-10dBV 2,4ch：無信号	チェック	録音・再生したとき、1,3chの再生出力と2,4chの再生出力との比： 35dB以上 2,4ch→1,3chの場合も同様
10. チャネル セパレーション	接続：Fig.4-2 (1kHz B.P.F.使用) REC FUNC. SW：全ch ON DOLBY NR：OFF	1,3ch： 1kHz/-10dBV 2,4ch：無信号	チェック	録音・再生したとき、1,3chの再生出力と2,4chの再生出力との比： 45dB以上 2,4ch→1,3chの場合も同様
11. クロス消去	接続：Fig.4-2 DOLBY NR：OFF	1,3ch： 10kHz/-10dBV	チェック	1,3chを録音し再生してレベルを確認後、2,4chを消去したとき、1,3chの再生レベルの低下：1.5dB以内 2,4ch→1,3chの場合も同様
12. 消去率	接続：Fig.4-2 (1kHz B.P.F.使用) DOLBY NR：OFF	1kHz/0dBV (基準入力に対して +10dB)	チェック	録音部分の一部を残して消去した後、再生したときの未消去部分との比： 65dB以上
13. 録再S／N	接続：Fig.4-2 DOLBY NR：OFF	無信号	チェック	基準出力と無信号録再出力レベルとの比： (DIN AUDIO) HIGH SPEED ：49dB以上 NORMAL SPEED：48dB以上 チャネル差：4dB以内
14. シンククロストーク	同上	10kHz/-10dBV	チェック	REC FUNC. SWを1chずつONにしたとき、録音中に他chに洩れる信号は -10dBV以下（基準レベル以下）であること。
15. DOLBY効果	接続：Fig.4-2	無信号	チェック	1. DOLBY NRがOFFの状態で無信号録音し、CCIR/ARMのフィルターを通して再生しS/Nを測定する。 2. DOLBY B NRがONの状態で無信号録音し、CCIR/ARMのフィルターを通して再生したときのS/N値と1.のS/N値との比は、7.5dB以上であること。 3. DOLBY C NRがONの状態で無信号録音し、CCIR/ARMのフィルターを通して再生したときのS/N値と1.のS/N値との比は、17dB以上であること。

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5. EXPLODED VIEWS AND PARTS LISTS

分解図とパーツリスト

EXPLODED VIEW-1



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EXPLODED VIEW-1

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	*5801350900	BONNET(B)	
1- 2	*5801348700	ANGLE	
1- 3	*5801500301	COVER,METER	
1- 4	*5801499300	PANEL,FRONT	
1- 5	*5801486600	ESCUTCHEON,P-N15-A	
1- 6	*5801501800	WINDOW,CASSETTE	
1- 7	*5801500700	LID,CASSETTE	
1- 8	5801098600	KNOB ASSY	
1- 9	*5801511100	COLLAR	
1-10	5801511001	KNOB ASSY(PAN)	
1-11	5801510901	KNOB ASSY(INPUT)	
1-12	*5801342500	PLATE,BOTTOM	
1-13	*5504676000	FOOT	
1-14	*5801499600	FILTER,BONNET [C]	
1-21	*5783773006	SCREW,BIND B-TITE M3X6(BLK ZN)	
1-22	*5800612400	SCREW,BONNET M3X8(BLK)	
1-23	*5783534008	SCREW,BIND B-TITE M4X8(BLK NI)	
1-24	*5730017600	SCREW,BIND BR-TITE M3X6	
1-25	*5783533006	SCREW,BIND B-TITE M3X6(BLK NI)	
1-26	*5783034020	SCREW,BIND S-TITE M4X20	

INCLUDED ACCESSORIES

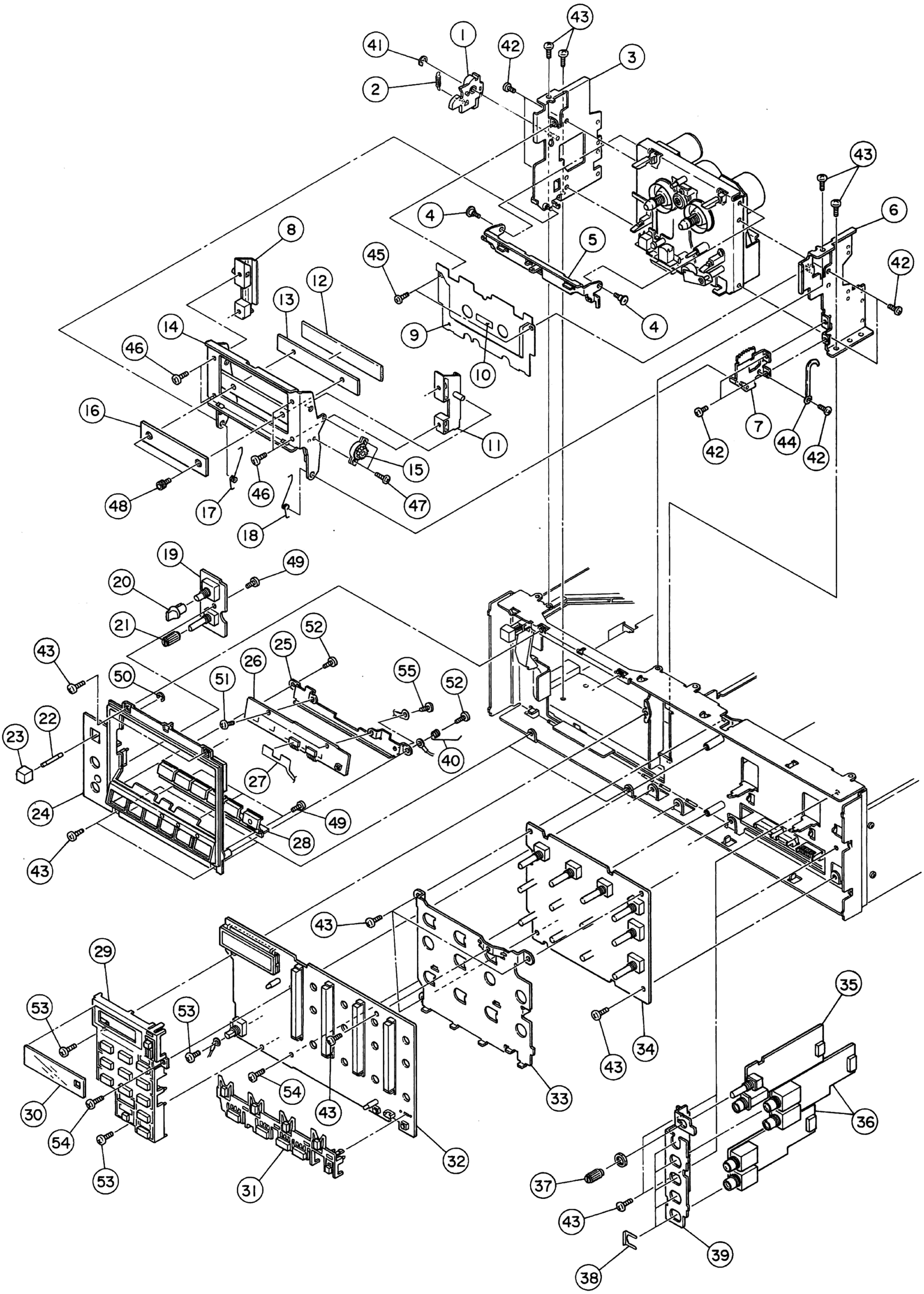
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	*5700136501	OWNER'S MANUAL [J]	
	*5700136601	OWNER'S MANUAL [C,E]	
	*5700137101	OWNER'S MANUAL [EXEPT J]	
	*5780315015	SCREW,OVAL COUN. M5X15(NI)	
	*5801512200	WASHER,5X12X3	
	*5785225000	WASHER,FIBER 5X10X0.5T(BLK)	

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [J]:JAPAN
[A]:AUSTRALIA

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EXPLODED VIEW-2



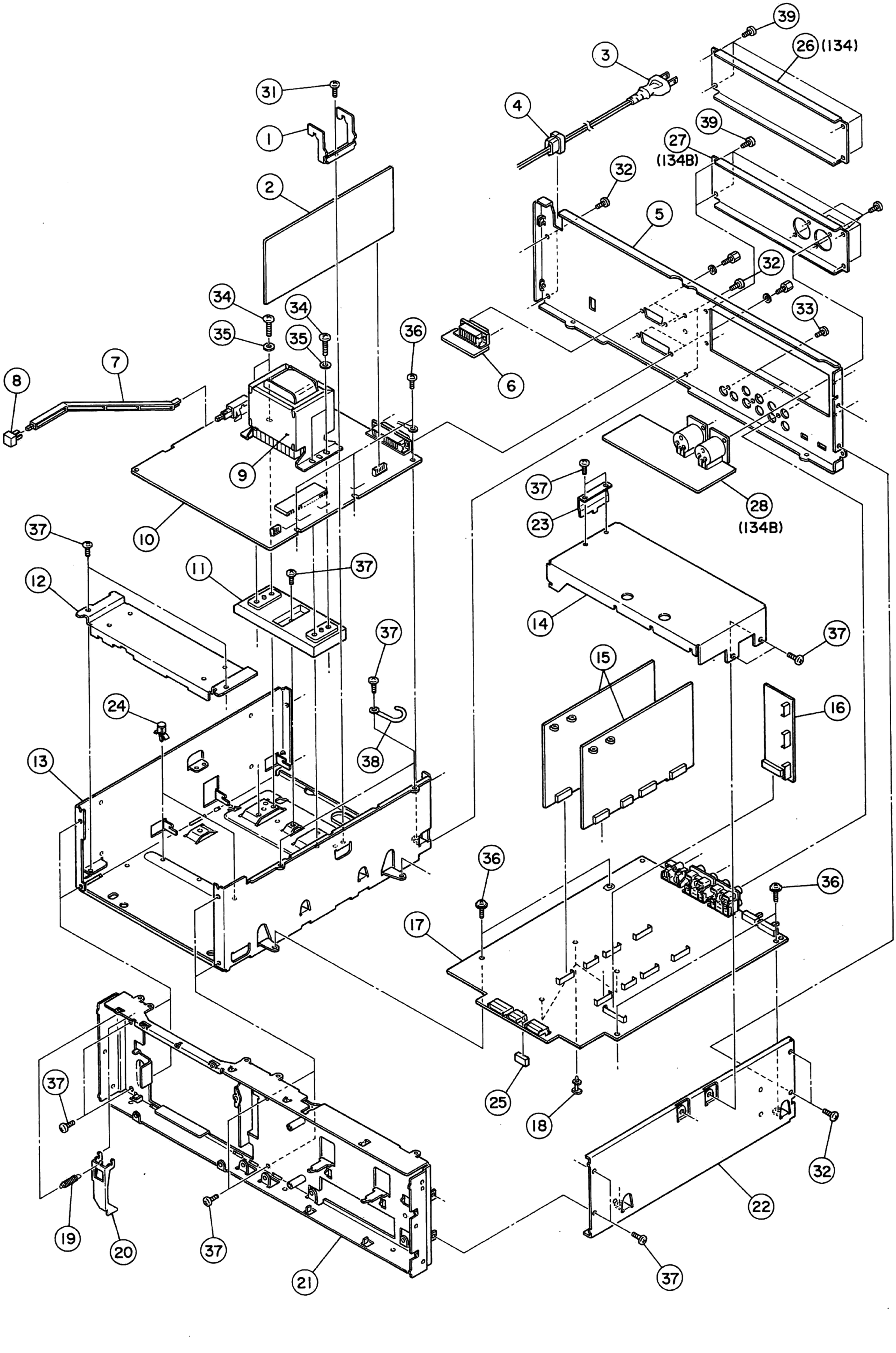
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REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	*5801501500	ARM,LOCK	
2- 2	*5801511300	SPRING,LOCK ARM	
2- 3	*5801510000	SIDE CHASSIS(L) ASSY	
2- 4	*5801511200	SCREW,STEP	
2- 5	*5801501900	ARM,SWITCH	
2- 6	*5801502400	CHASSIS(R),SIDE	
2- 7	*5801510100	SUB SIDE HOLDER ASSY	
2- 8	*5801344601	HOLDER(L)	
2- 9	*5801502200	PANEL,CASSETTE	
2-10	5225025500	LED,SLF601C(ORG)	
2-11	*5801344701	HOLDER(R)	
2-12	*5801503000	PAD(UL)	
2-13	*5801343600	SPACER	
2-14	*5801345000	HOLDER ASSY,CASSETTE	
2-15	*5800620500	DAMPER	
2-16	*5801503700	PANEL,TRIM	
2-17	*5801515800	SPRING(L),HOLDER	
2-18	*5801515900	SPRING(R),HOLDER	
2-19	*5200342100	P.CONT PCB ASSY	Refer to pages 26&32
2-20	5801412800	KNOB	
2-21	5801503600	KNOB,PITCH CONT.	
2-22	*5800472201	ROD,EJECT	
2-23	5801503800	BUTTON,EJECT(P-N15-A)	
2-24	*5801502500	ESCUTCHEON,LID	
2-25	*5801500500	BRACKET(OP),PCB	
2-26	*5200342200	OPSW PCB ASSY	Refer to pages 28&33
2-27	*5801501701	SHEET,INSULATION	
2-28	5801502600	BUTTON(1),OPERATION	
2-29	5801502700	BUTTON(2),OPERATION	
2-30	*5801500600	WINDOW,COUNTER 2T	
2-31	5801499900	BUTTON(3),OPERATION	
2-32	*5200342600	METER PCB ASSY	Refer to pages 27&32
2-33	*5801499500	BRACKET(VR),PCB	
2-34	*5200342500	MONITOR PCB ASSY	Refer to pages 31&34
2-35	*5200343000	H.PHONE PCB ASSY	Refer to pages 30&34
2-36	*5200341700	MIC AMP PCB ASSY	Refer to pages 30&34
2-37	5801501400	KNOB,MONITOR VOL.	
2-38	*5317005800	PLATE(S),MOUNT	
2-39	*5801500000	BRACKET,JACK	
2-40	*5801520500	SPRING,EARTH	
2-41	*5786003000	E-RING,E-3	
2-42	*5783002605	SCREW,PAN S-TITE M2.6X5	
2-43	*5730017600	SCREW,BIND BR-TITE M3X6	
2-44	*5786713400	CLIP,HARNESS 3.2X6.0X47	
2-45	*5783522604	SCREW,PAN S-TITE M2.6X4(BLK NI)	
2-46	*5781162606	SCREW,BIND TAP M2.6X6(BLK NI)	
2-47	*5783032004	SCREW,BIND S-TITE M2X4	
2-48	*5781713003	SCREW,CAP M3X3(BLK NI)	
2-49	*5783602608	SCREW,BIND P-TITE M2.6X8	
2-50	*5786002500	E-RING,E-2.5	
2-51	*5780003004	SCREW,BIND M3X4	
2-52	*5783543008	SCREW,BIND P-TITE M3X8(BLK NI)	
2-53	*5783723008	SCREW,BIND B-TITE M3X8	
2-54	*5780003008	SCREW,BIND M3X8	
2-55	*5780053005	SCREW,BIND SEMS-F M3X5	

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EXPLODED VIEW-3

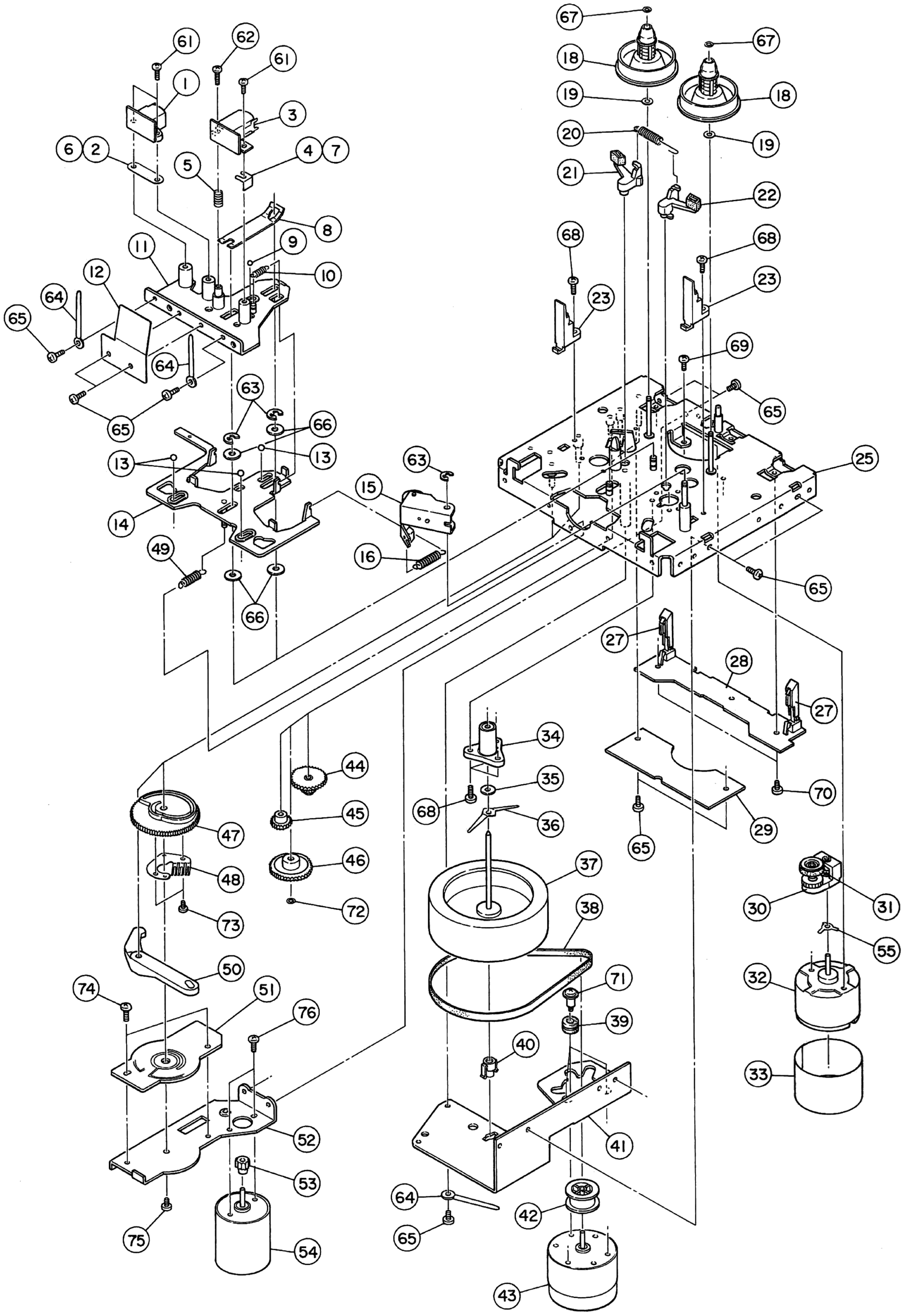
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
3- 1	*5801499800	PLATE(C),PCB PRESSURE	
3- 2	*5200342000	CONT S PCB ASSY	Refer to pages 27&33
3- 3	⚠*5128047000	CORD,AC [UK]	
	⚠*5350008300	CORD,AC [A]	
	⚠*5350012200	CORD,AC 3P [C]	
	⚠*5350015200	CORD,AC [J]	
	⚠*5350017500	CORD,AC [E]	
	⚠*5350017800	CORD,AC [US]	
3- 4	⚠*5317003400	BUSSING,2271 [EXCEPT C]	
	⚠*5317005600	BUSSING,2272 [C]	
3- 5	*5801502801	PANEL,REAR	
3- 6	*5200342300	CN PCB ASSY	Refer to pages 28&33
3- 7	*5801500400	ROD,JOINT	
3- 8	1678822807	BUTTON,POWER	
3- 9	⚠ 5320062800	TRANS.,POWER	
3-10	*5200341940	CONT M PCB ASSY [E,UK,A]	Refer to pages 29&33
	*5200341900	CONT M PCB ASSY [J,US,C]	Refer to pages 29&33
3-11	*5801349500	HOLDER,TRANS	
3-12	*5801502100	BASE,MECHA.	
3-13	*5801343002	CHASSIS,MAIN	
3-14	*5801499700	PLATE,PCB PRESSURE	
3-15	*5200341600	R/P PCB ASSY	Refer to pages 31&34
3-16	*5200342900	JOINT PCB ASSY	Refer to pages 26&32
3-17	*5200342800	MAIN PCB ASSY	Refer to pages 25&32
3-18	*5730041500	SUPPORT,PCB MPS-10-0	
3-19	*5801511400	SPRING,EJECT ARM	
3-20	*5801501600	ARM,EJECT	
3-21	*5801500800	CHASSIS,FRONT	
3-22	*5801499400	CHASSIS,SIDE	
3-23	*5801501200	PLATE,SUPPORT	
3-24	*5787060700	SPACER,PUSH PS-7	
3-25	*5801533800	CUSHION,L20XW6XH11	
3-26	*5801537700	PANEL,XLR A [134]	
3-27	*5801537800	PANEL,XLR B [134B]	
3-28	*5200351600	BAL PBC ASSY [134B]	Refer to pages 30&34
3-31	*5730017600	SCREW,BIND BR-TITE M3X6	
3-32	*5783533008	SCREW,BIND B-TITE M3X8(BLK NI)	
3-33	*5783543008	SCREW,BIND P-TITE M3X8(BLK NI)	
3-34	*5783034022	SCREW,BIND S-TITE M4X22	
3-35	*5785012400	WASHER,4.5X10X0.8T	
3-36	*5783073008	SCREW,PAN CAP S-TITE M3X8	
3-37	*5730017600	SCREW,BIND BR-TITE M3X6	
3-38	*5786713400	CLIP,HARNESS 3.2X6.0X47	
3-39	*5783613008	SCREW,C-TITE M3X8(BLK NI)	

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [J]:JAPAN
[A]:AUSTRALIA

Parts marked with * require longer delivery time.

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EXPLODED VIEW-4



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EXPLODED VIEW-4

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
4- 1	5378600901	HEAD,ERASE 4T4CH	
4- 2	*5800556200	SPACER,HEAD	
4- 3	5378601200	HEAD,R/P 4T4CH	
4- 4	*5800595000	SPACER,A 0.1MM	
4- 5	*5800931300	SPRING,HEAD	
4- 6	*5801197800	SPACER,EH 0.2MM	
	*5801357800	SPACER,EH 0.05MM	
4- 7	*5800595100	SPACER,B 0.2MM	
	*5801357700	SPACER,H R/P 0.05MM	
4- 8	*5801481400	SPRING,PRESSURE	
4- 9	*5540055000	STEEL BALL,20 ✓	
4-10	*5801005700	SPRING,HEAD BASE	
4-11	*5801472400	HEAD BASE(4) ASSY	
4-12	*5801476100	SHEET,HEAD SHIELD	
4-13	*5540056000	STEEL BALL,30	
4-14	*5801475000	SLIDER ASSY	
4-15	5800955400	PINCH ROLLER ARM ASSY(R)	
4-16	*5800955800	SPRING(R),PINCH ROLLER	
4-17	Vacant		
4-18	5801480700	REEL TABLE S ASSY	
4-19	*5800539800	WASHER,1.7X4X0.3T	
4-20	*5801475700	SPRING,BRAKE	
4-21	*5801475300	BRAKE ARM(L) ASSY	
4-22	*5801475500	BRAKE ARM(R) ASSY	
4-23	5800117400	GUIDE,CASSETTE	
4-24	Vacant		
4-25	*5801471401	MECHA. CHASSIS S4 ASSY	
4-26	Vacant		
4-27	*5301754500	SW.,LEAF MTS1016IMVJ0	
4-28	*5210333900	SW PCB	Refer to page 28
4-29	*5200343200	SENSOR PCB ASSY	Refer to pages 28&33
4-30	*5801473000	DRIVING PULLEY ASSY	
4-31	5801474500	GEAR,REEL MOTOR	
4-32	*5370002502	MOTOR,DC REEL	
4-33	*5800235900	PLATE,SHIELD	
4-34	*5800106200	HOUSING ASSY,CAPSTAN	
4-35	*5800729400	WASHER(A),TEFLON	
4-36	*5801197900	SPRING(U),THRUST	
4-37	*5800735101	CAPSTAN ASSY	
4-38	5800735500	BELT,CAPSTAN	
4-39	*5534537001	GOM,NON VIBRATION	
4-40	*5801198100	THRUST PLATE(F)	
4-41	*5801198001	FW PLATE(P)	
4-42	*5801198200	PULLY,CAPSTAN 12.7	
4-43	5370008700	MOTOR,CAPSTAN DC EG-530KD-2B	
4-44	*5801474300	GEAR C ✓	
4-45	*5801474101	GEAR A ✓	
4-46	*5801474200	GEAR B ✓	
4-47	*5801474600	CAM,CONTROL ✓	
4-48	*5801474700	PLATE,CONTACT	
4-49	*5801476200	SPRING,BASE ARM	
4-50	*5801474800	ARM,BASE	
4-51	*5210334000	CAM PCB	
4-52	*5801474000	BRACKET,ASSIST MOTER	
4-53	*5801474400	GEAR,MOTOR	

Parts marked with * require longer delivery time.

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EXPLODED VIEW-4

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
4-54	*5370010300	MOTOR,ASSIST DC MXN-13FB12F	
4-55	*5801494600	SPRING,THRUST	
4-61	*5780012006	SCREW,BIND M2X6(NI)	
4-62	*5730029400	SCREW,PWA2*8FNI	
4-63	*5786002000	E-RING,E-2	
4-64	*5786713400	CLIP,HARNESS 3.2X6.0X47	
4-65	*5783002605	SCREW,PAN S-TITE M2.6X5	
4-66	*5785313000	WASHER,POLYS. 3X6X0.5T	
4-67	*5785331200	WASHER,POLYS. 1.2X3.0X0.5T	
4-68	*5783032606	SCREW,BIND S-TITE M2.6X6	
4-69	*5780002603	SCREW,BIND M2.6X3	
4-70	*5783032004	SCREW,BIND S-TITE M2X4	
4-71	*5730033100	SCREW,SHOULDER M2.6X5-2	
4-72	*5785331500	WASHER,POLYS. 1.5X4X0.5T	
4-73	*5781112004	SCREW,BIND TAPP.#2 M2X4	
4-74	*5783032605	SCREW,BIND S-TITE M2.6X5	
4-75	*5780002004	SCREW,BIND M2X4	
4-76	*5780003003	SCREW,BIND M3X3	

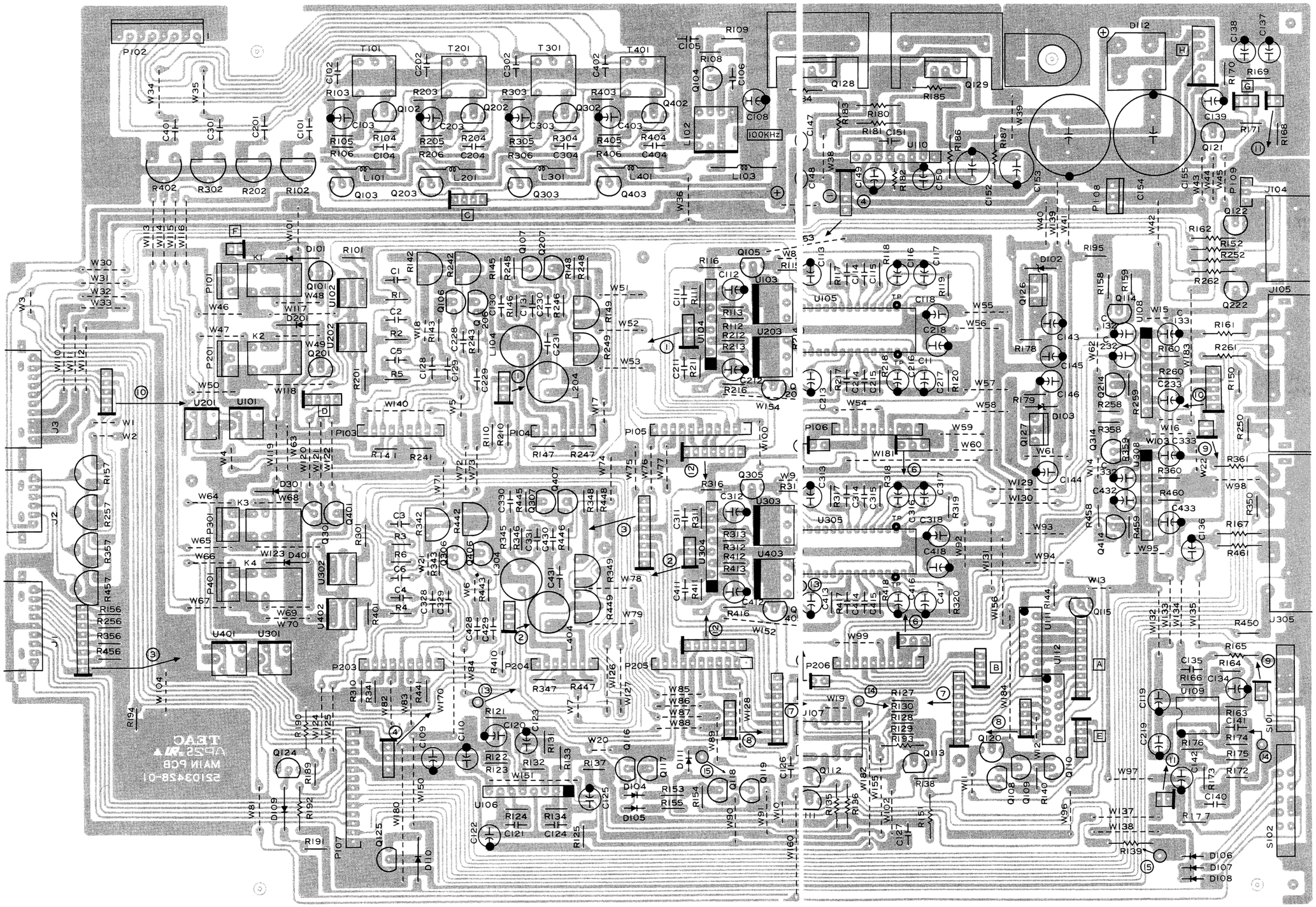
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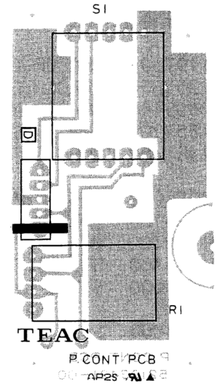
6. PC BOARDS AND PARTS LIST

基板図とパーツリスト

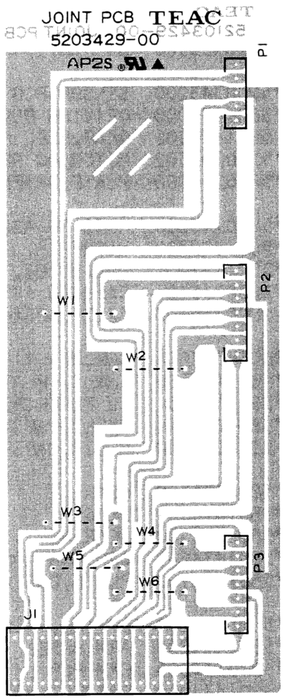
MAIN PCB ASSY



P. CONT PCB ASSY

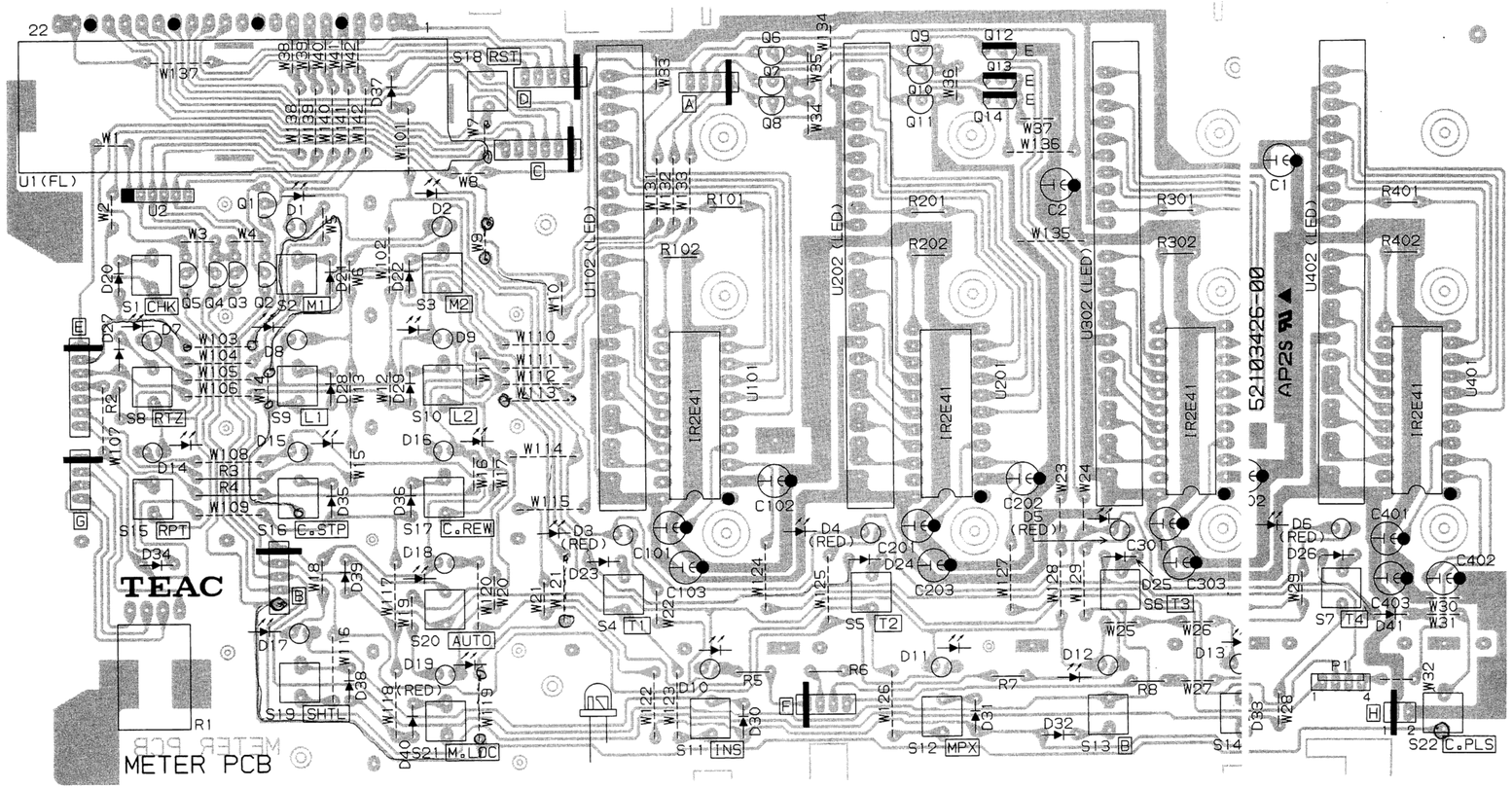


JOINT PCB ASSY

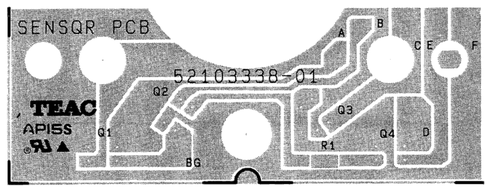


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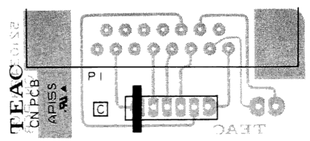
METER PCB ASSY



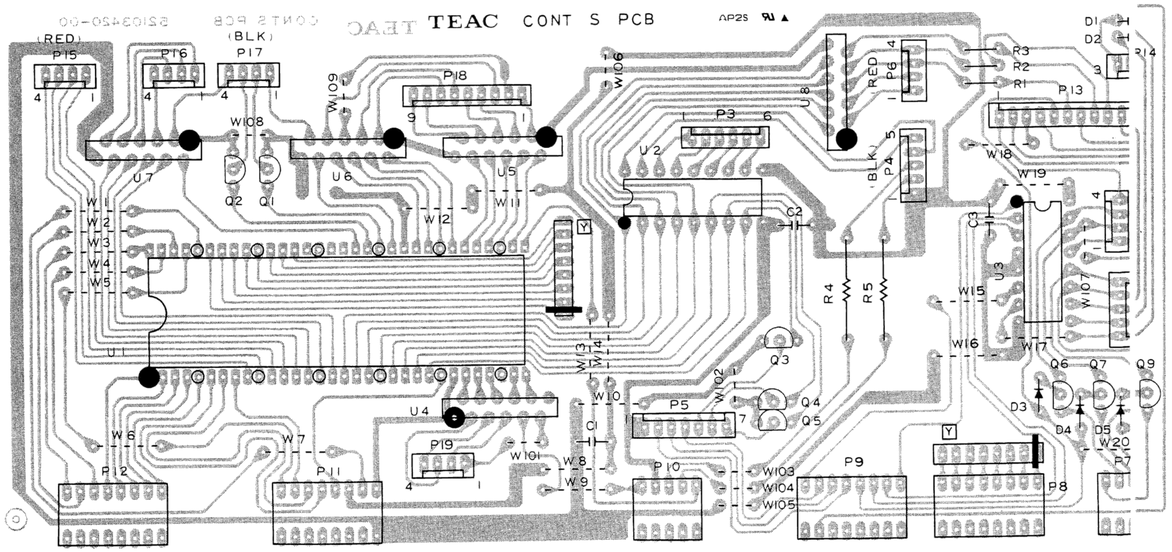
SENSOR PCB ASSY



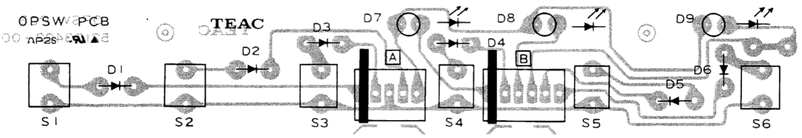
CN PCB ASSY



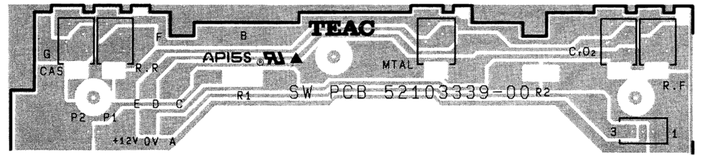
CONT S PCB ASSY



OPSW PCB ASSY

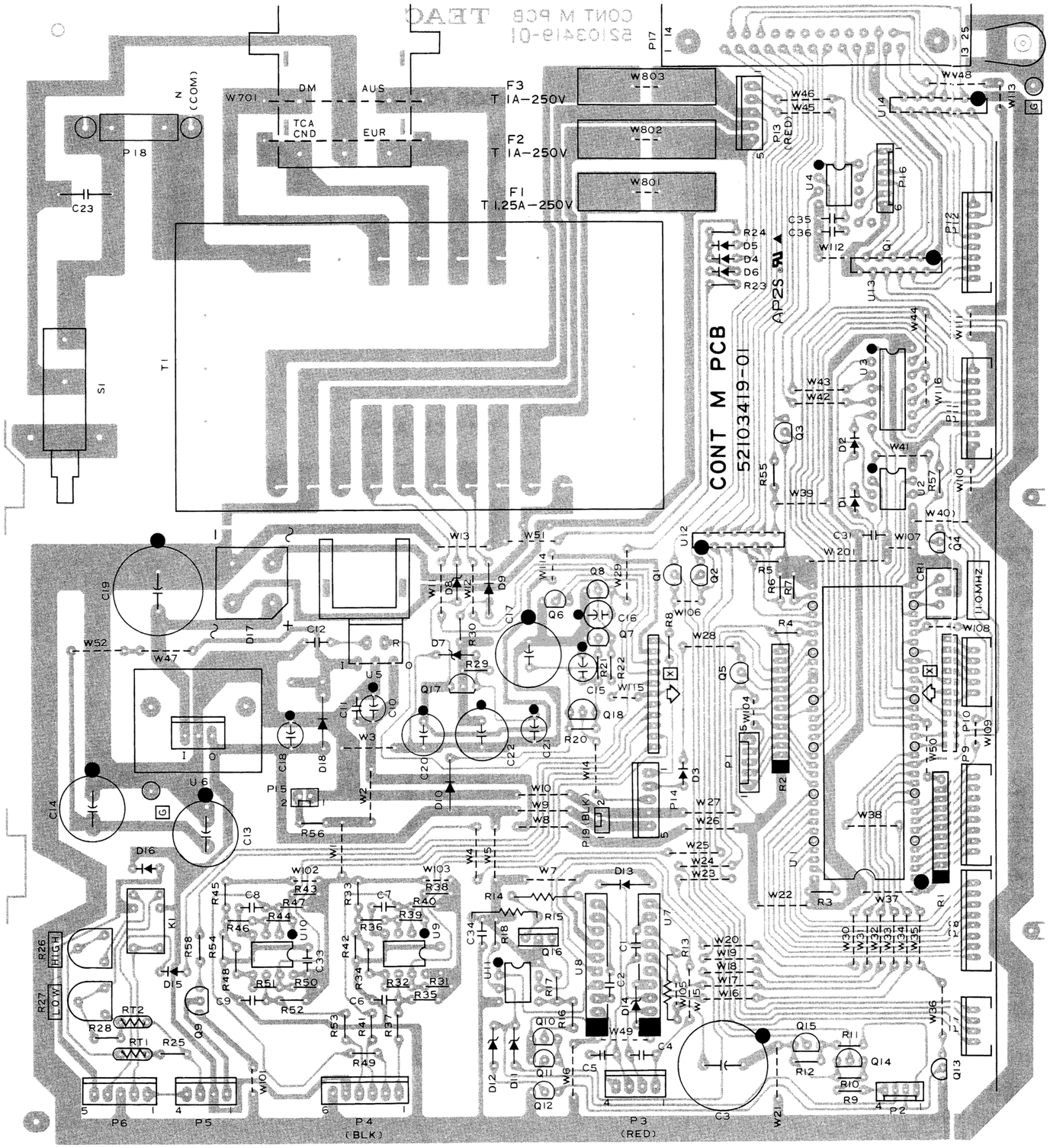


SW PCB

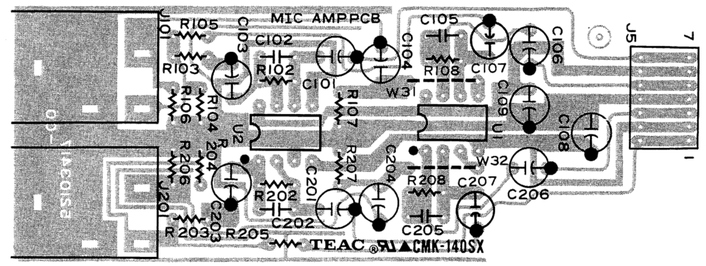


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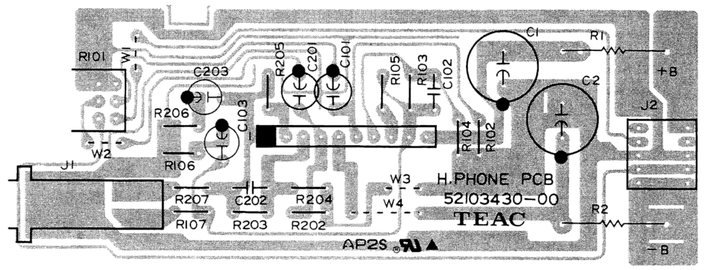
CONT M PCB ASSY



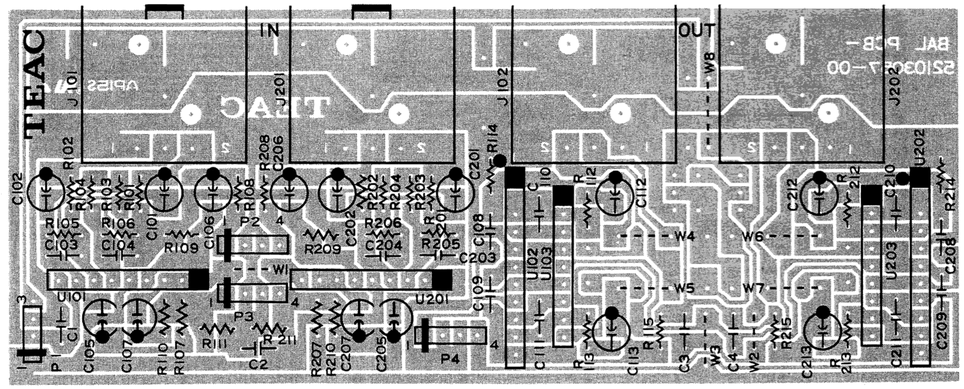
MIC AMP PCB ASSY



H. PHONE PCB ASSY

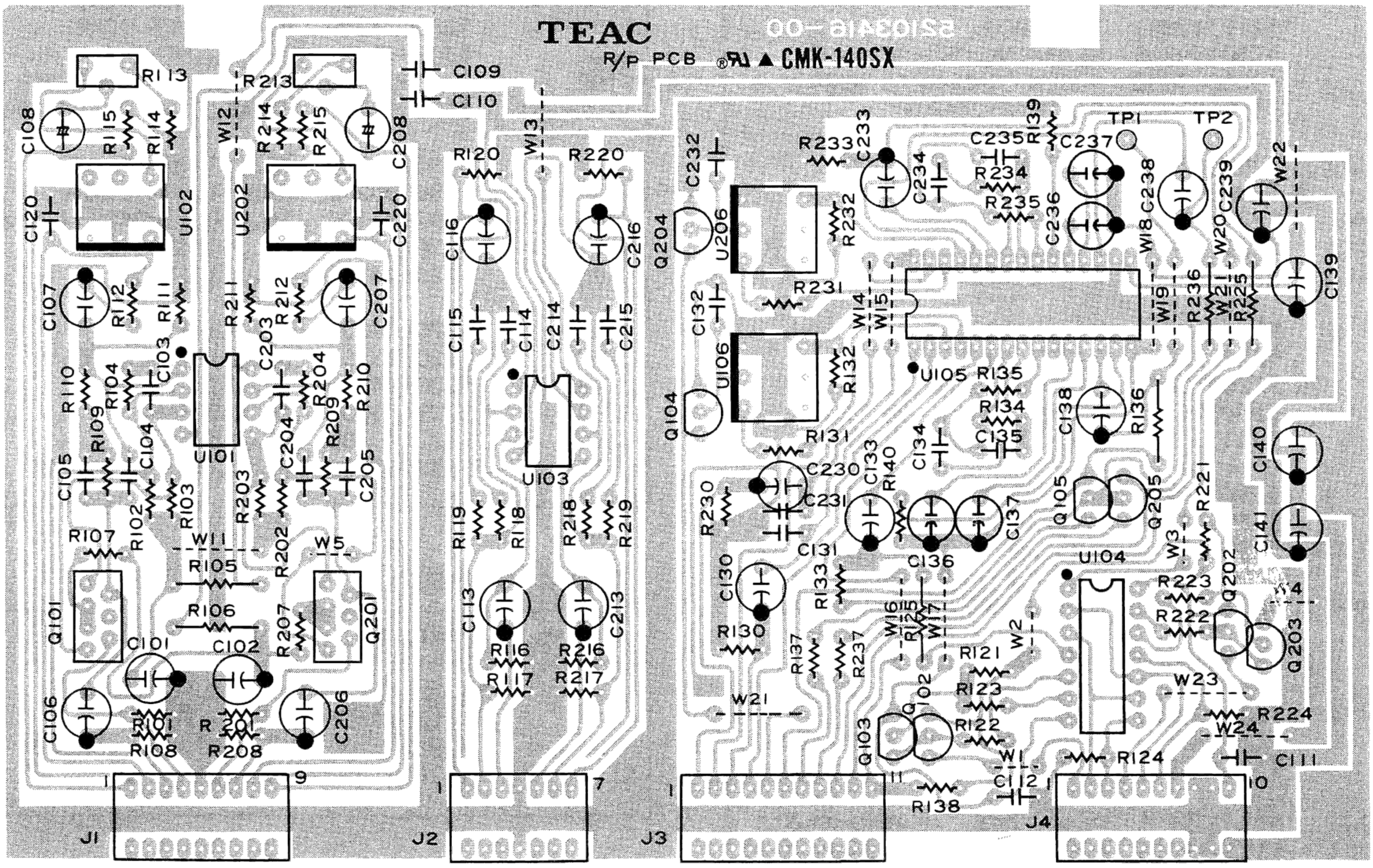


BAL PCB ASSY [134B]

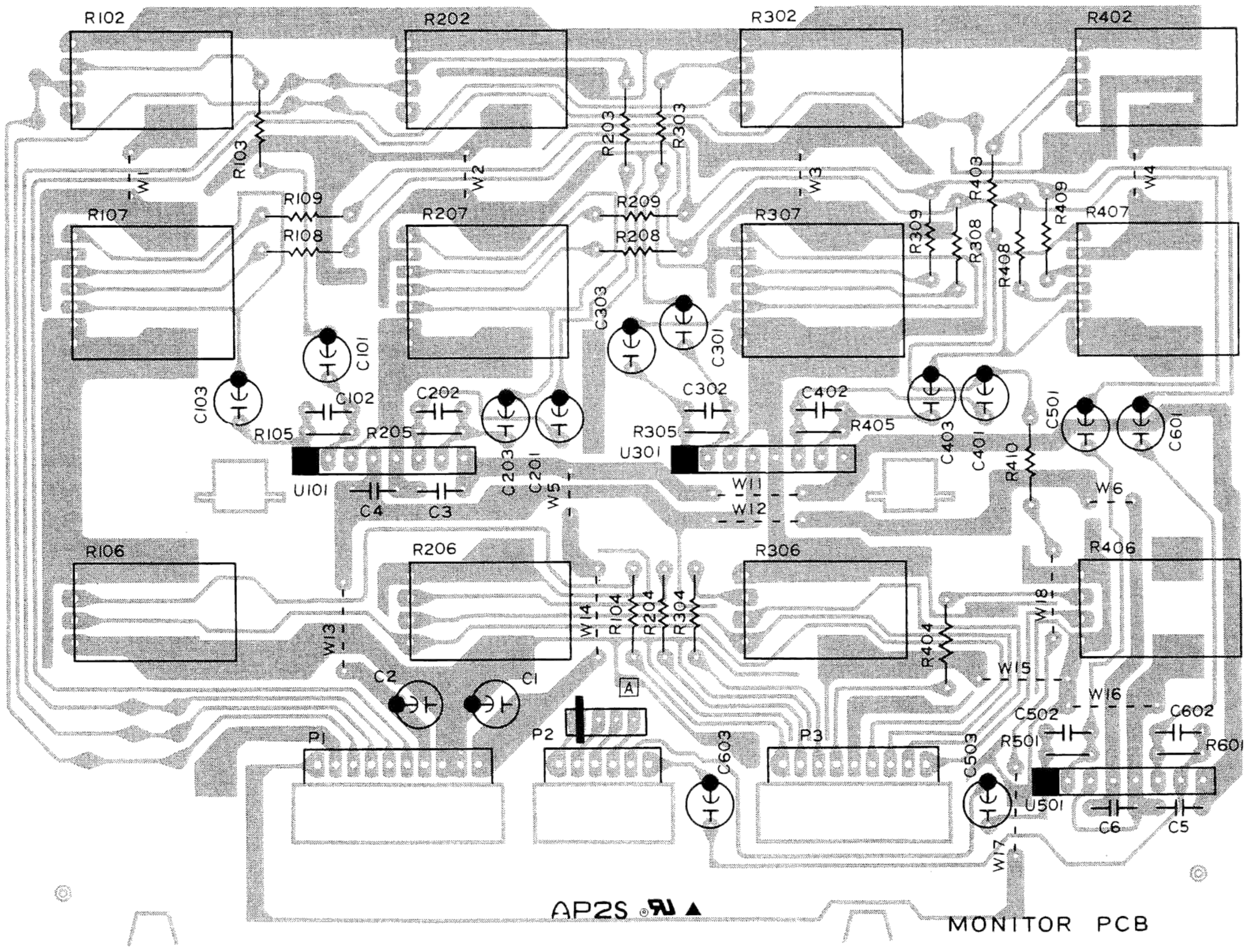


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R/P PCB ASSY



MONITOR PCB ASSY



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MAIN PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
		*5200342800	MAIN PCB ASSY
		*5210342801	MAIN PCB
		5730039200	HEATSINK,OSH-2425-SPL
		5780003008	SCREW,BIND HEAD M3X8
		5555590000	PLATE(A),EARTH
C154,155	⚠	5260467310	C.,ELEC. 4700UF/25V
C160	⚠	12908842	C.,CC 0.1UF/50V
D101-401		5224012920	DIODE,1S2473
D102,103		5224574401	DIODE,ZENER RD7.5EL2 FR
D104-108		5224015020	DIODE,1SS133T-77
D109,110		5224012920	DIODE,1S2473
D111		5224015020	DIODE,1SS133T-77
D112	⚠	5228010800	SILICON STACK,S2VB10
J1		5334076300	SOCKET,CONN. 9P TKC-U
J2		5334076100	SOCKET,CONN. 6P TKC-U
J3		5334076400	SOCKET,CONN. 10P TKC-U
J104		5330514500	JACK,PIN 2P(BLK)
J105 J305		5330509500	JACK,4P YKC21-0062
K1-4		5290013700	RELAY,SY-12W-K
L101-401		5286029400	COIL,CHOKE 10UH LAL04KB
L102		5286043000	COIL,OSC. 100KHZ
L103		5286029400	COIL,CHOKE 10UH LAL04KB
L104-404		5286008700	COIL,CHOKE 8.2MH
P101		5336126300	PLUG,CONN. 8263-0312(WHT)
P102		5336126800	PLUG,CONN. 8263-0812(WHT)
P103,203		5336279900	PLUG,CONN. IL-SDD-9P-S2T
P104,204		5336279700	PLUG,CONN. IL-SDD-7P-S-2T
P105,205		5336280100	PLUG,CONN. IL-SDD-11P-S2T
P106,206		5336280000	PLUG,CONN. IL-SDD-10P-S2T
P107		5336280300	PLUG,CONN. IL-SDD-13P-S2T
P108		5336135300	PLUG,CONN. 8263-0312(RED)
P109		5336249300	PLUG,CONN. B03B-PH-K-S(WHT)
P201		5336135300	PLUG,CONN. 8263-0312(RED)
P301		5336137300	PLUG,CONN. 8263-0312(BLK)
P401		5336145300	PLUG,CONN. 8263-0312(YEL)
Q101-401		5232255720	TR.,DIGI. DTC124ES
Q102-402		5230782200	TR.,2SC2002L
Q103-403		5232256820	TR.,DIGI. DTB143ES
Q104		5230780920	TR.,2SC2603F
Q105-405		5231762020	TR.,2SD1450S/T
Q106-406		5232255720	TR.,DIGI. DTC124ES
Q107-407		5232255720	TR.,DIGI. DTC124ES
Q108		5232255720	TR.,DIGI. DTC124ES
Q109,110		5232254820	TR.,DIGI. DTA124ES
Q111,112		5231762020	TR.,2SD1450S/T
Q113		5232255720	TR.,DIGI. DTC124ES
Q114-414		5231762020	TR.,2SD1450S/T
Q115		5232254820	TR.,DIGI. DTA124ES
Q116,117		5232008420	FET.,2SK381D
Q118		5232255720	TR.,DIGI. DTC124ES
Q119-121		5232254820	TR.,DIGI. DTA124ES
Q122,222		5231762020	TR.,2SD1450S/T
Q124		5232008420	FET.,2SK381D
Q125		5232255720	TR.,DIGI. DTC124ES
Q126	⚠	5231762800	TR.,2SD1913R
Q127	⚠	5230509700	TR.,2SB1274R
Q128	⚠	5231762800	TR.,2SD1913R
Q129	⚠	5230509700	TR.,2SB1274R
R102-402		5280021900	R.,TRIMMER 100KB
R142-442		5280021200	R.,TRIMMER 6.8KB

Parts marked with * require longer delivery time.

MAIN PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
R149-449	5280021300	R.,TRIMMER 10KB
R157-457	5280021300	R.,TRIMMER 10KB
S101	5300917000	SW.,SLIDE 2-2
S102	5300916700	SW.,SLIDE 2-3 SSSU
T101-401	5320062700	TRANS,BIAS ERASE 100K
U101-401	5286000200	COIL,TRAP 100KHZ
U102-402	5286000200	COIL,TRAP 100KHZ
U103-403	5292810600	FILTER,LOWPASS 22KHz
U104,304	5220444000	IC.,NJM4565LD
U105,305	5220444700	IC.,CXA1330S
U106	5220444000	IC.,NJM4565LD
U107	5220036200	IC.,DIGI. LC4966
U108,308	5220444000	IC.,NJM4565LD
U109	5220418800	IC.,M5218P
U110	5220425800	IC.,M5230LA
U111,112	5232260800	TR.,ARRAY DT5A124E

P.CONT PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342100	P.CONT PCB ASSY
	*5210342100	P.CONT PCB
R1	5282025500	VR.,1S1UVR 1.5KBX2
S1	5301207300	SW.,ROTARY 2-2

JOINT PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342900	JOINT PCB ASSY
	*5210342900	JOINT PCB
J1	5336282300	SOCKET,CONN. IL-SDD-13S-S2L2
P1	5336279500	PLUG,CONN. IL-SDD-5P-S2T
P2,3	5336279700	PLUG,CONN. IL-SDD-7P-S2T

METER PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342600	METER PCB ASSY
	*5210342600	METER PCB
	5801500100	HOLDER,FL
	5801500200	SPACER,METER
	5801503201	SPACER,LED L=9.5
D1,2	5225018500	LED,SLR-34DU3F
D3-6	5225013500	LED,SLR-34VR3F(RED)
D7-18	5225018500	LED,SLR-34DU3F
D19	5225013500	LED,SLR-34VR3F(RED)
D20-41	5224017820	DIODE,MA165P-TA5
P1	5336249400	PLUG,CONN. B04B-PH-K-S(WHT)
Q1-8	5232259320	TR.,DIGI. UN4112
Q9-11	5232257920	TR.,DIGI. UN4212
Q12-14	5232257420	TR.,DIGI. DTB113EV
R1	5282018800	VR.,20KW 1S1UVR 11
S1-22	5302110900	SW.,EQV 215 05R
U1	5347017900	FL COUNTER,5-BT-121GK
U2	5242123000	R.,ARRAY RYLA-5J223
U101-401	5220441600	IC.,1R2E41
U102-402	5296007700	LEVEL METER UNIT,GL112J13

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CONT S PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342000	CONT S PCB ASSY
	*5210342000	CONT S PCB
D1,2	5224015020	DIODE,ISS133T-77
D3-6	5224015020	DIODE,ISS133T-77
P1	5336255400	PLUG,CONN. B04B-PH-K-K(BLK)
P2	5336251500	PLUG,CONN. B05B-PH-K-R(RED)
P3	5336249600	PLUG,CONN. B06B-PH-K-S(WHT)
P4	5336255500	PLUG,CONN. B05B-PH-K-K(BLK)
P5	5336249700	PLUG,CONN. B07B-PH-K-S(WHT)
P6	5336251400	PLUG,CONN. B04B-PH-K-R(RED)
P7	5336281400	SOCKET,CONN. IL-SDD-4S-S2L2
P8,9	5336281800	SOCKET,CONN. IL-SDD-8S-S2L2
P10	5336281500	SOCKET,CONN. IL-SDD-5S-S2L2
P11,12	5336281800	SOCKET,CONN. IL-SDD-8S-S2L2
P13	5336250100	PLUG,CONN. B11B-PH-K-S(WHT)
P14	5336249300	PLUG,CONN. B03B-PH-K-S(WHT)
P15	5336251400	PLUG,CONN. B04B-PH-K-S(RED)
P16	5336249400	PLUG,CONN. B04B-PH-K-S(WHT)
P17	5336255400	PLUG,CONN. B04B-PH-K-K(BLK)
P18	5336249900	PLUG,CONN. B09B-PH-K-S(WHT)
P19	5336249400	PLUG,CONN. B04B-PH-K-S(WHT)
Q1-9	5232255720	TR.,DIGI. DTC124ES
R4 R5	5181978000	R.,INCOMB. F50 15 OHM
U1	5220088100	IC.,DIGI. M5M82C255ASP
U2	5232253300	TR.,ARRAY LB1240
U3	5220055900	IC.,TC74HC138P
U4-8	5232260900	R.,ARRAY DT5C124E

SENSOR PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200343200	SENSOR PCB ASSY
	*5210333801	SENSOR PCB
Q1-4	5228017200	PHOTO REF.,NJL5161KB-F1

CN PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342300	CN PCB ASSY
	*5210342300	CN PCB
	5334055000	SOCKET,CONN. 15P

OPSW PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200342200	OPSW PCB ASSY
	*5210342200	OPSW PCB
	5801501301	SPACER,LED L=4.1
D1-6	5224017820	DIODE,MA165P-TA5
D7	5225013600	LED,SLR-34MG3F(GRN)
D8	5225018500	LED,SLR-34DU3F
D9	5225013500	LED,SLR-34VR3F(RED)
S1-6	5302110900	SW.,EQV 215 05R

CONT M PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
		*5200341900	CONT M PCB ASSY [J,US,C]
		*5200341940	CONT M PCB ASSY [E,UK,A]
		*5210341901	CONT M PCB
		5730039200	HEATSINK,OSH-2425-SPL
		5780003008	SCREW,BIND M3X8
		5800990100	HEATSINK
		5783723008	SCREW,BIND B-TITE M3X8
		5332015800	HOLDER,FUSE [E,UK,A]
		5555590000	PLATE(A),EARTH
		5730007500	COVER,CAPASITOR [E,UK,A]
C3	⚠	5260466710	C.,ELEC. 3300UF/16V
C13	⚠	5260466110	C.,ELEC. 2200UF/16V
C19	⚠	5260466810	C.,ELEC. 3300UF/25V
C23	⚠	5267703800	SPARK KILLER,4700PF/400V M
CR1		5347022400	OSC,CERAMIC 11.00MHZ
D1-6		5224015020	DIODE,ISS133T-77
D7		5224579501	DIODE,ZENER RD33EL2
D8		5224573201	DIODE,ZENER RD5.1EL2
D9,10		5224016720	DIODE,ISR35-200A
D11		5224572001	DIODE,ZENER RD3.3EL2
D12		5224574401	DIODE,ZENER RD7.5EL2
D13	⚠	5224016720	DIODE,ISR35-200A
D14		5224574401	DIODE,ZENER RD7.5EL2
D15,16		5224015020	DIODE,ISS133T-77
D17	⚠	5228010800	SILICON STACK,S2VB10
D18	⚠	5224016720	DIODE,ISR35-200A
F1	⚠	5142187000	FUSE,1.25A-250V(T) [E,UK,A]
F2,3	⚠	5041140000	FUSE,1A-250V(T) [E,UK,A]
K1		5290013700	RELAY,SY-12W-K
P1		5336249500	PRUG,CONN. B05B-PH-K-S(WHT)
P2		5336249400	PLUG,CONN. B04B-PH-K-S(WHT)
P3		5336135400	PLUG,CONN. 8263-0412(RED)
P4		5336137600	PLUG,CONN. 8263-0612(BLK)
P5		5336126400	PLUG,CONN. 8263-0412(WHT)
P6		5336126500	PLUG,CONN. 8263-0512(WHT)
P7		5336279400	PLUG,CONN. IL-SDD-4P-S2T
P8,9		5336279800	PLUG,CONN. IL-SDD-8P-S2T
P10		5336279500	PLUG,CONN. IL-SDD-5P-S2T
P11,12		5336279800	PLUG,CONN. IL-SDD-8P-S2T
P13		5336135500	PLUG,CONN. 8263-0512(RED)
P14		5336126500	PLUG,CONN. 8263-0512(WHT)
P15		5336249200	PLUG,CONN. B02B-PH-K-S(WHT)
P17		5334078300	SOCKET,CONN. 25P
P18		5327007200	TERMINAL,2P [E,UK,A]
P19		5336255200	PLUG,CONN. B02B-PH-K-K(BLK)
Q1,2		5232254820	TR.,DIGI. DTA124ES
Q3-8		5232255720	TR.,DIGI. DTC124ES
Q9		5231763300	TR.,2SD1809
Q10-13		5232255720	TR.,DIGI. DTC124ES
Q14,15		5230780920	TR.,2SC2603F
Q16		5231763000	TR.,2SD1380R
Q17,18		5230012920	TR.,2SA1015GR
R1		5242123500	R.,ARRAY RYLS-10J223
R2		5242117600	R.,ARRAY RYLS12J223
R13		5241270510	R.,INCOMB. 1.0/1W

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [J]:JAPAN
[A]:AUSTRALIA

Parts marked with * require longer delivery time.

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CONT M PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
R14	⚠	5241270510	R.,INCOMB. 1.0/1W
R15	⚠	5241273710	R.,INCOMB. 22/1W
R26		5280020700	R.,TRIMMER 1KB
R27		5280020700	R.,TRIMMER 1KB
RT1		5228015700	THERMISTOR,SDT-09 90 OHM
RT2		5228015400	THERMISTOR,SDT-02 20 OHM
S1	⚠	5300054700	SW.,PUSH SDDLD 1-1
U1		5220829301	IC.,MICOM. UPD78C12ACW-F40
U2		5220829200	LSI.,M6M80011P
U3		5220067200	IC.,DIGI. HD74HC32P
U4		5220075200	IC.,DIGI. M75701P
U5		5220430300	IC.,L78MR05
U6	⚠	5220434800	IC.,M5F7812L
U7,8		5220427800	IC.,BA6209
U9,10		5220426300	IC.,BA6993
U11		5220407200	IC.,LM2904
U12		5232260800	TR.,ARRAY DT5A124E
U13,14		5232260900	TR.,ARRAY DT5C124E

MIC AMP PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200341700	MIC AMP PCB ASSY
	*5210341700	MIC AMP PCB
J101,201	5330017400	JACK,4P
J5	5336281700	SOCKET,CONN. IL-SDD-7S-S2L2
U1,2	5220418800	IC.,M5218P

H.PHONE PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200343000	H.PHONE PCB ASSY
	*5210343000	H.PHONE PCB
J1	5330014400	JACK,SINGLE FJ332NB-M
J2	5336281500	SOCKET,CONN. IL-SDD-5S-S2L2
R1,2	5241274810	R.,INCOMB. 62/1W J FF
R101	5282419800	VR.,10KAX2 IS2UVR 9
U101	5220446000	IC.,LA6515

BAL PCB ASSY [134B]

REF.NO.	PARTS NO.	DESCRIPTION
	*5200351600	BAL PCB ASSY
	*5210305700	BAL PCB
J102,202	5334042100	PLUG,XLR CONN. XLB3-32
U102,202	5242117800	R.,ARRAY RMN Z8178
U103,203	5220431100	IC.,NJM5532S

R/P PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
		*5200341600	R/P PCB ASSY
		*5210341600	R/P PCB
J1		5336281900	SOCKET,CONN. IL-SDD-9S-S2L2
J2		5336281700	SOCKET,CONN. IL-SDD-7S-S2L2
J3		5336282100	SOCKET,CONN. IL-SDD-11S-S2L2
J4		5336282000	SOCKET,CONN. IL-SDD-10S-S2L2
Q101,201		5232008600	FET.,2SK389BL
Q102,202		5232254820	TR.,DIGI. DTA124ES
Q103,203		5232255720	TR.,DIGI. DTC124ES
Q104,204		5232255720	TR.,DIGI. DTC124ES
Q105,205		5231762020	TR.,2SD1450S/T
R105	⚠	5183578000	R.,INCOMB. 1/4W 100
R106	⚠	5183578000	R.,INCOMB. 1/4W 100
R113,213		5280036100	R.,TRIMMER 4.7KB
TP1,2		5544750000	PIN,CONBINATION
U101		5220418800	IC.,M5218P
U102,202		5292806200	FILTER,LOWPASS 100KHZ
U103		5220418800	IC.,M5218P
U104		5220041100	IC.,DIGI. BU4066B
U105		5220444700	IC.,CXA1330S
U106 U206		5292805600	FILTER,LOWPASS MPX

MONITOR PCB ASSY

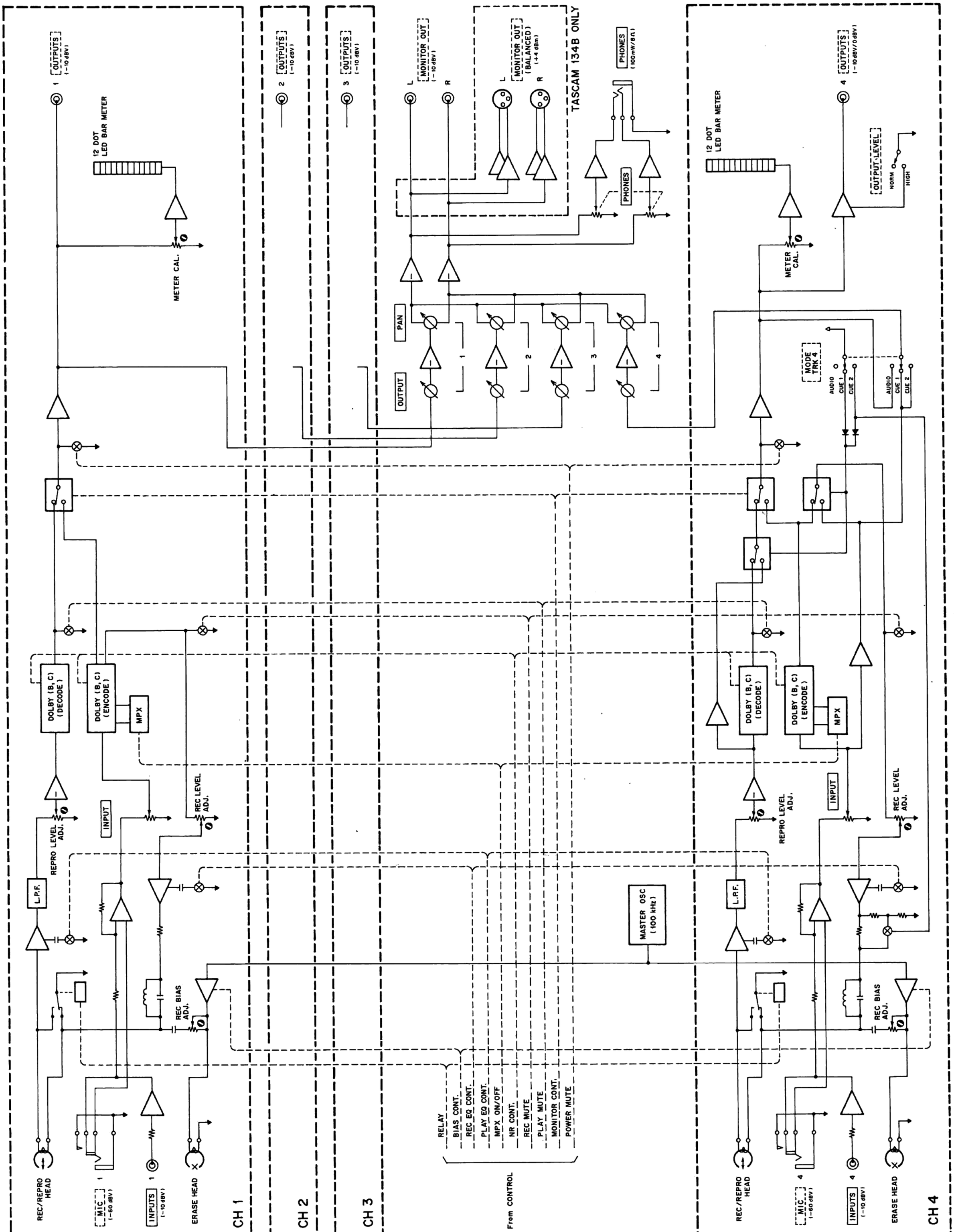
REF.NO.	PARTS NO.	DESCRIPTION
	*5200342500	MONITOR PCB ASSY
	*5210342500	MONITOR PCB
P1	5334076800	PLUG,CONN. 10P TKC-U
P2	5334076500	PLUG,CONN. 6P TKC-U
P3	5334076700	PLUG,CONN. 9P TKC-U
R102-402	5282025400	VR.,10K IS1UVR
R106-406	5282025400	VR.,10K IS1UVR
R107-407	5282419700	VR.,5KAC IS2UVR
U101	5220444000	IC.,NJM4565LD
U301	5220444000	IC.,NJM4565LD
U501	5220444000	IC.,NJM4565LD

Parts marked with * require longer delivery time.

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7. BLOCK DIAGRAM

ブロック・ダイアグラム

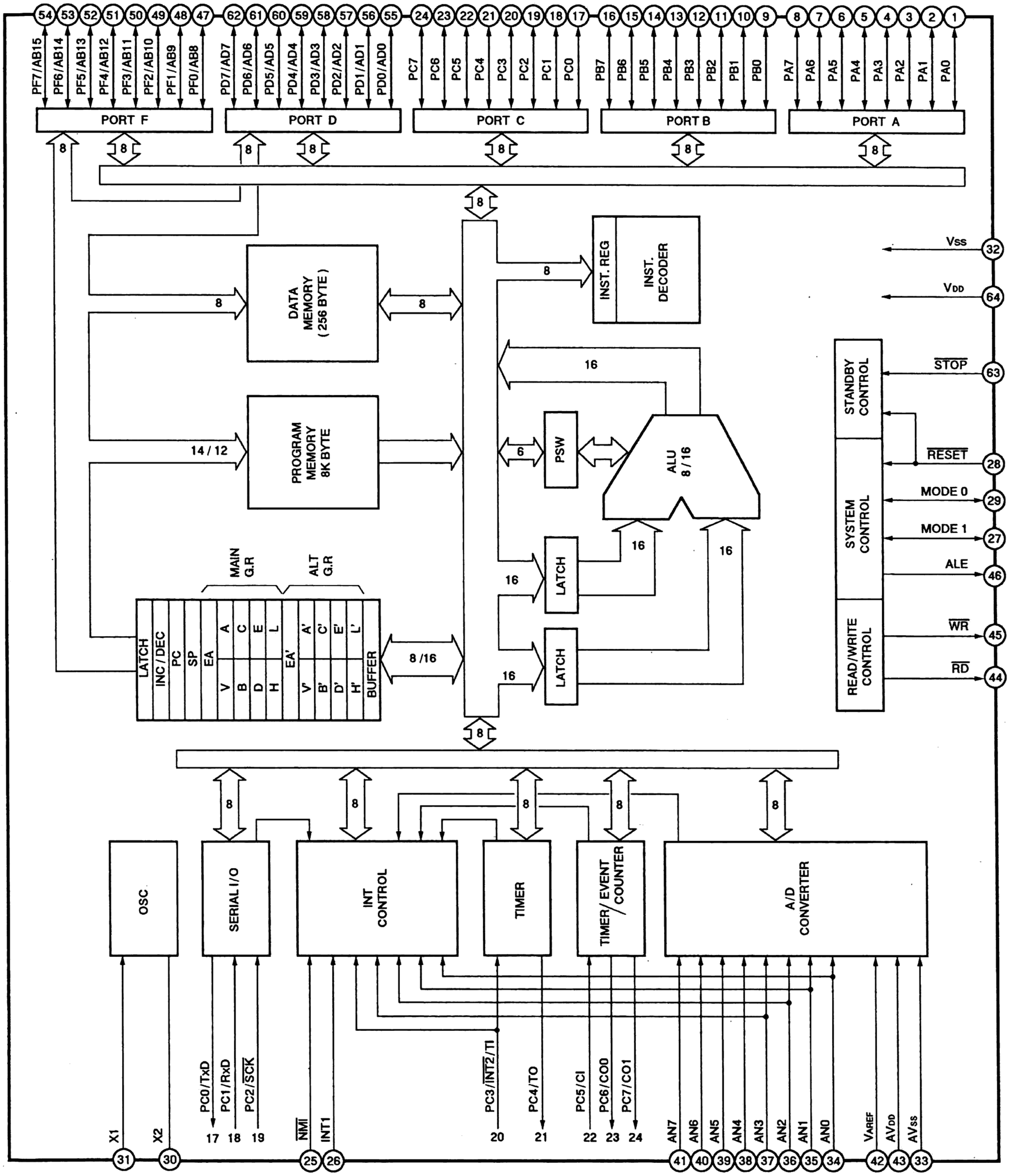


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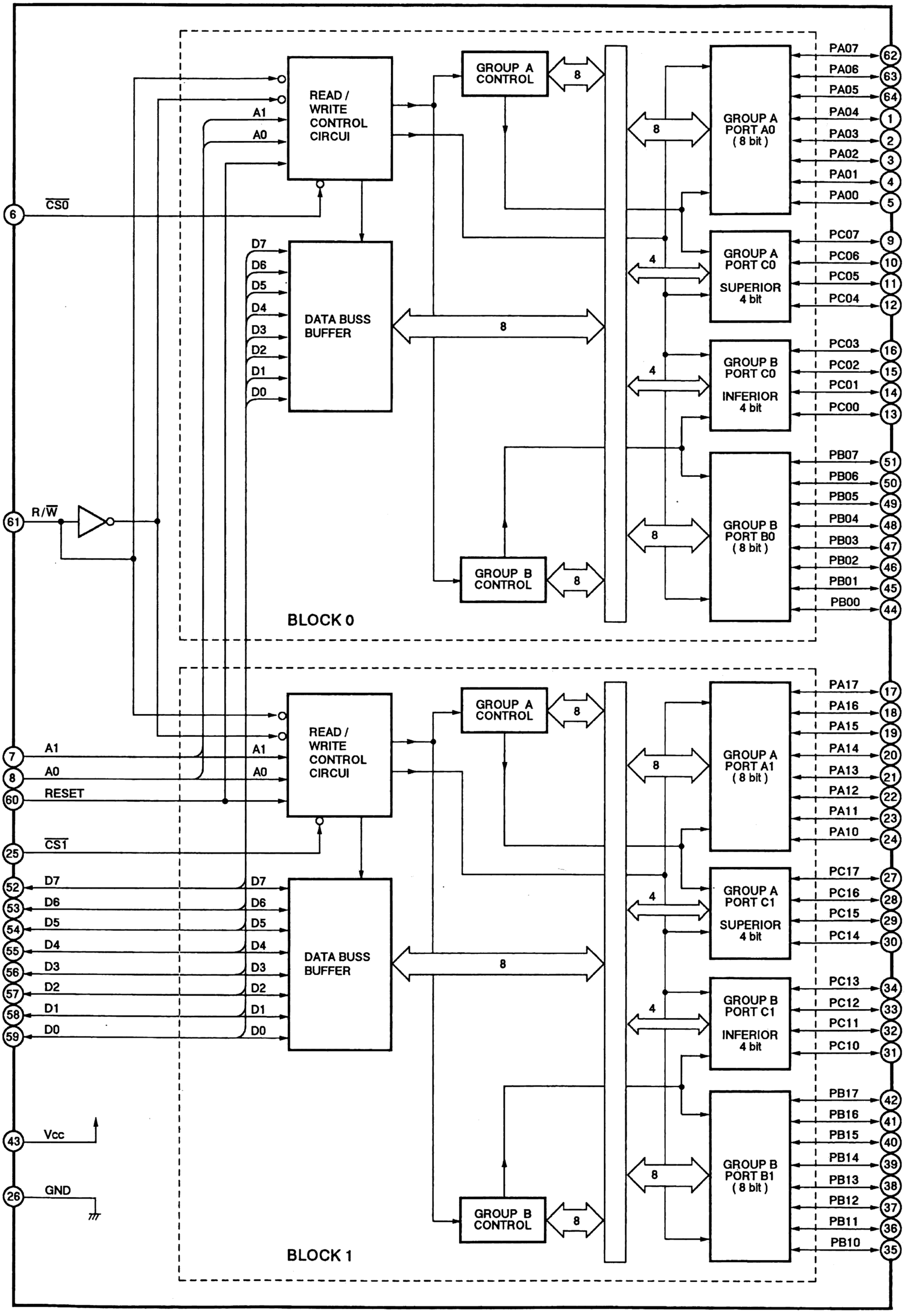
8. IC BLOCK DIAGRAMS

IC ブロック・ダイアグラム

μPD78C12ACW

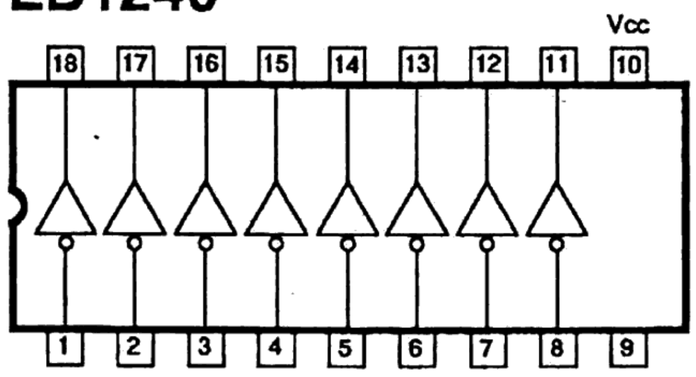


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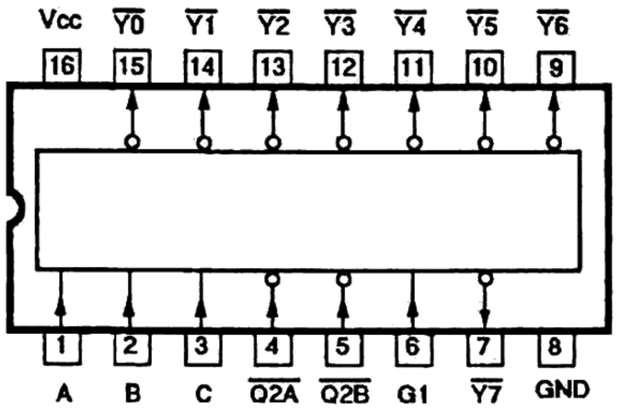
www.hifiengine.com

LB1240



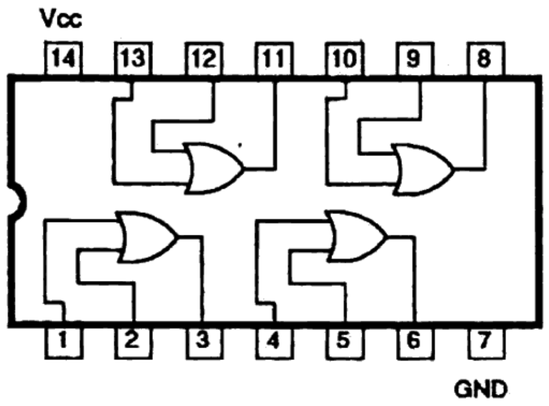
TC74HC138AP

3-TO-8 LINE DECODER



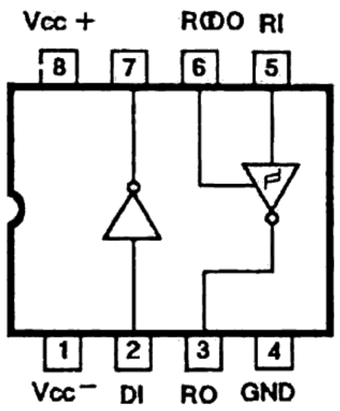
HD74HC32P

QUAD 2-INPUT OR GATES

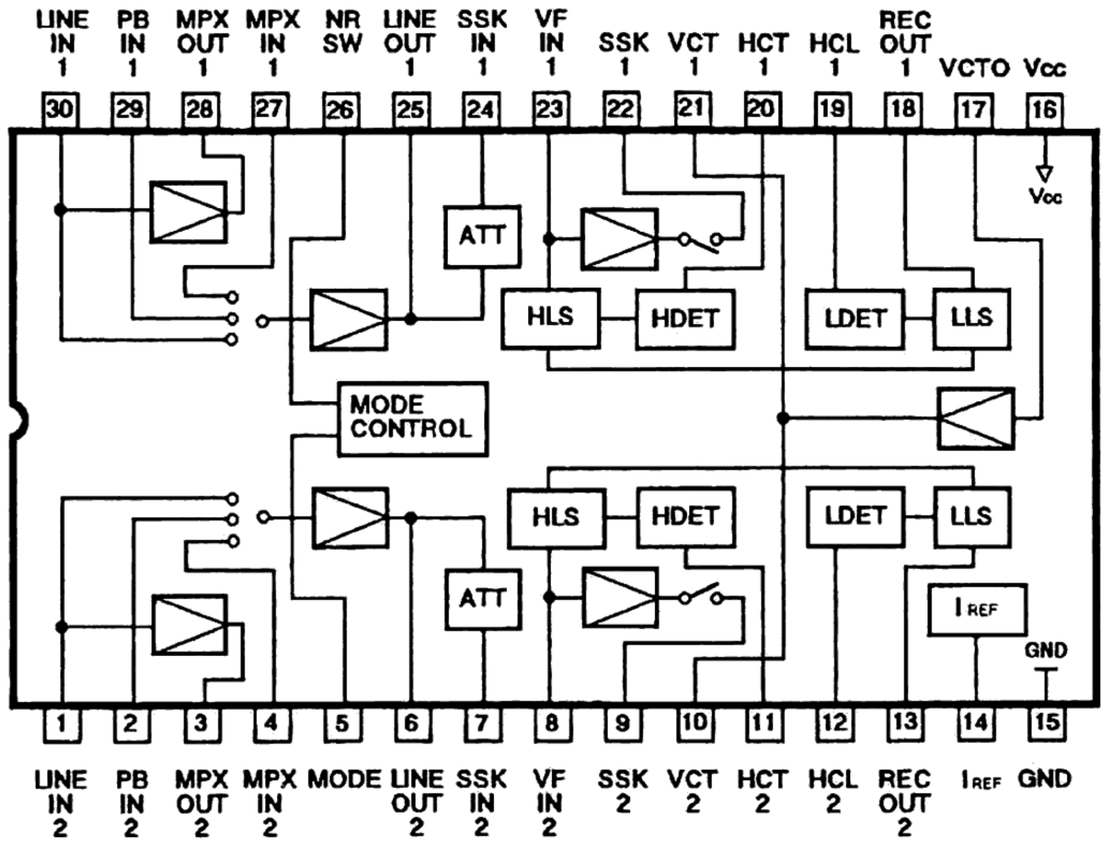


M751701P

RS-232C
LINE DRIVER
AND RECEIVER

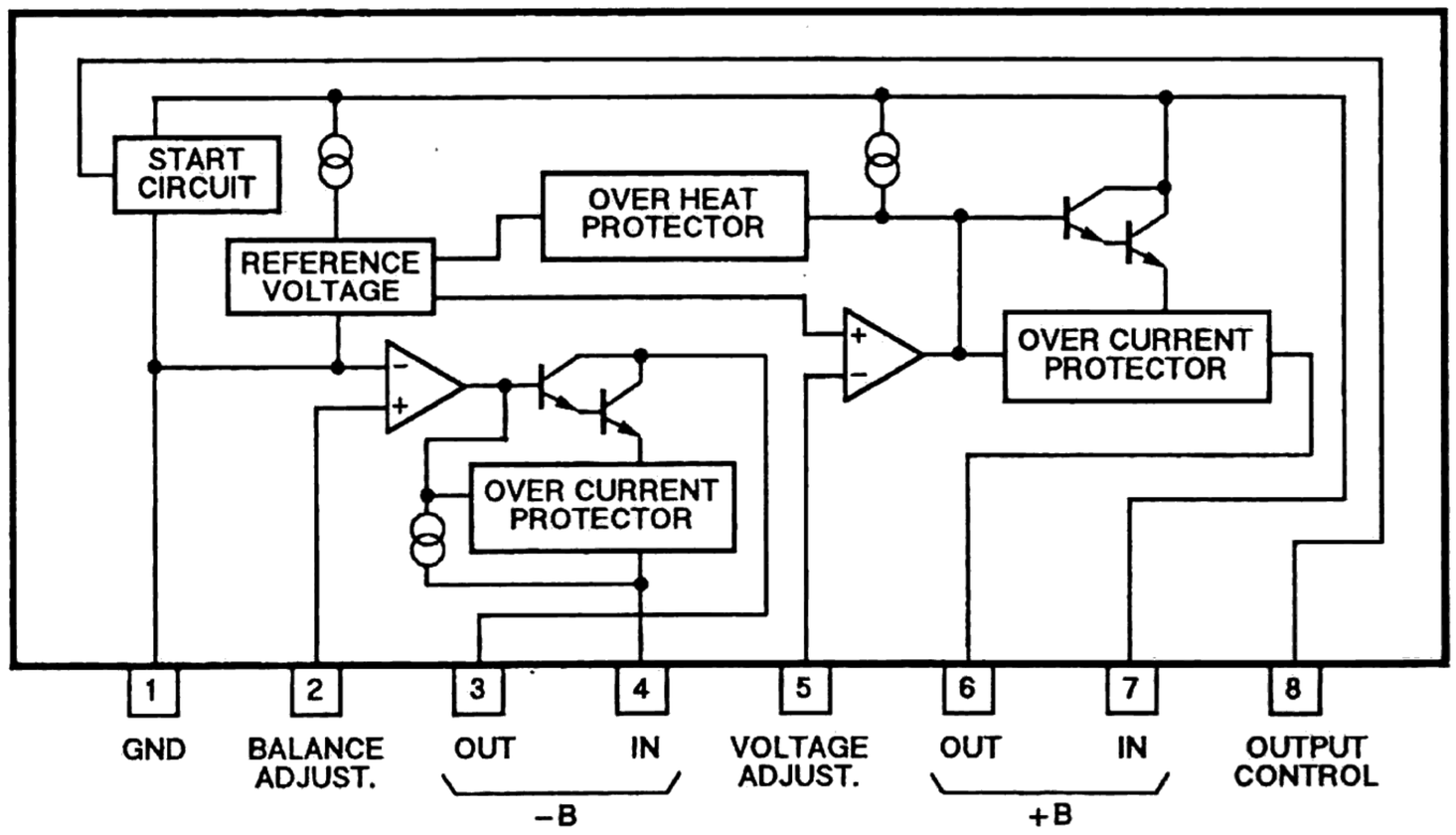


CXA1330S



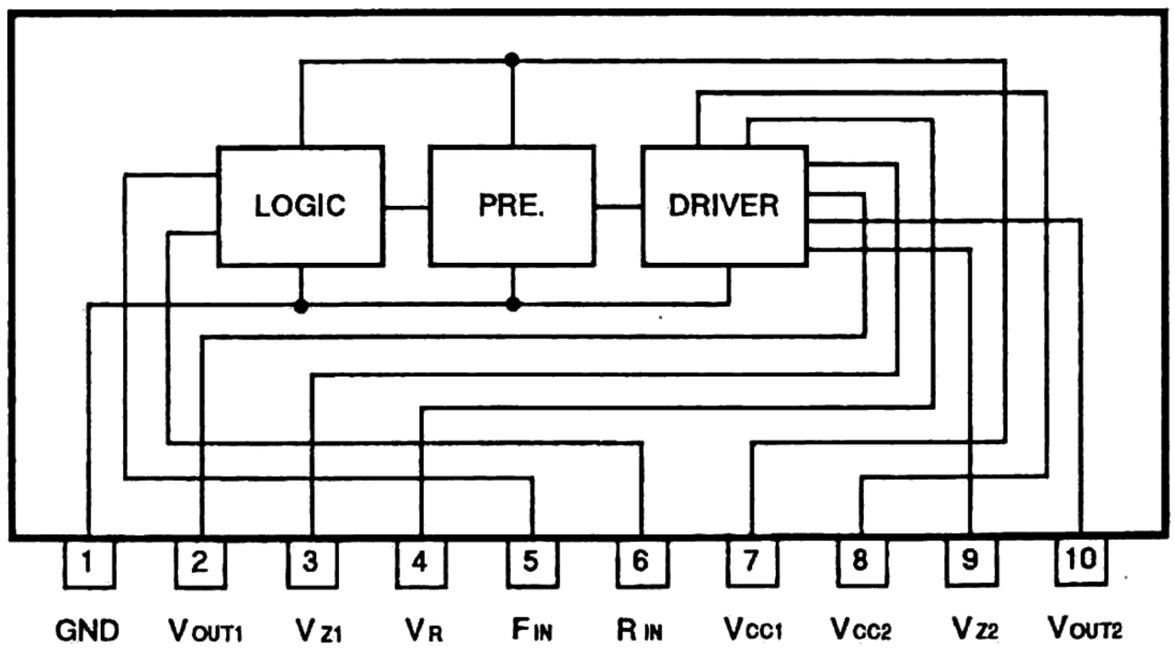
M5230LA

VOLTAGE REGULATOR



BA6209

MOTOR INVERTING IC

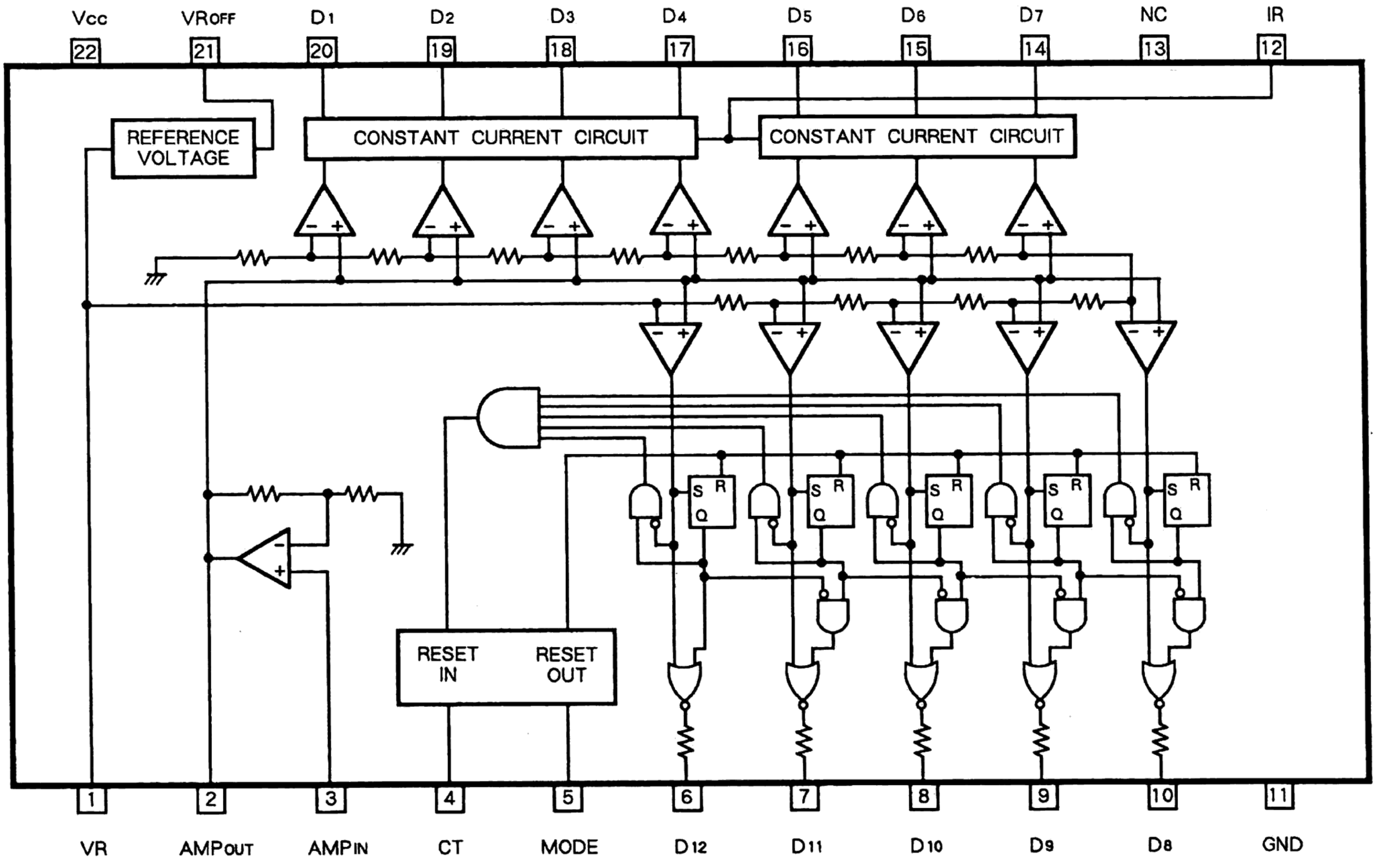


FIN	RIN	VOUT1	VOUT2
H	H	L	L
L	H	L	H
H	L	H	L
L	L	L	L

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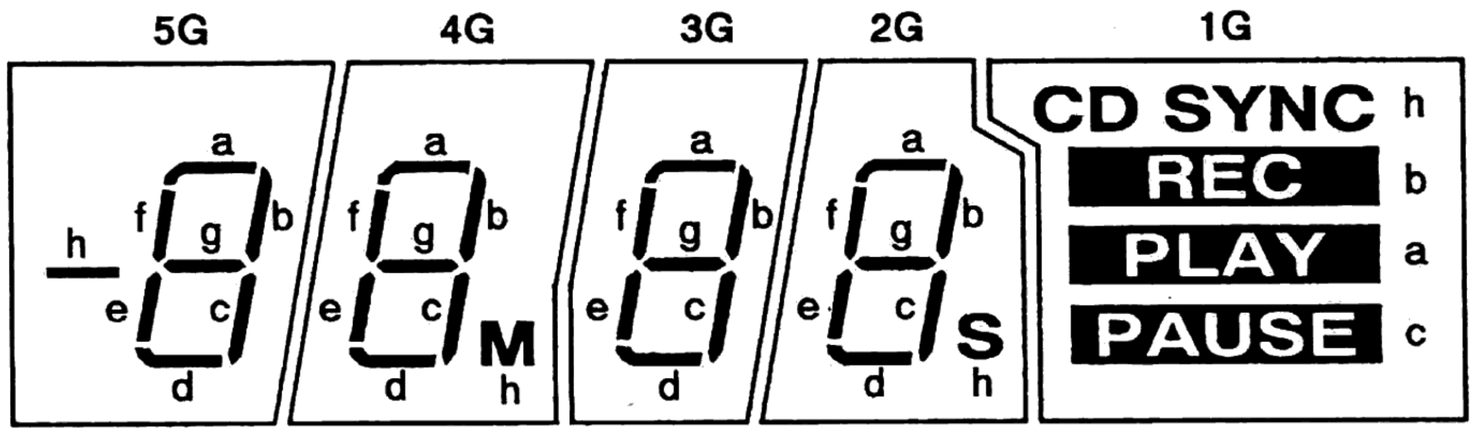
IR2E41

123 DOT LED LEVEL METER DRIVER



5-BT-121GK

FL COUNTER



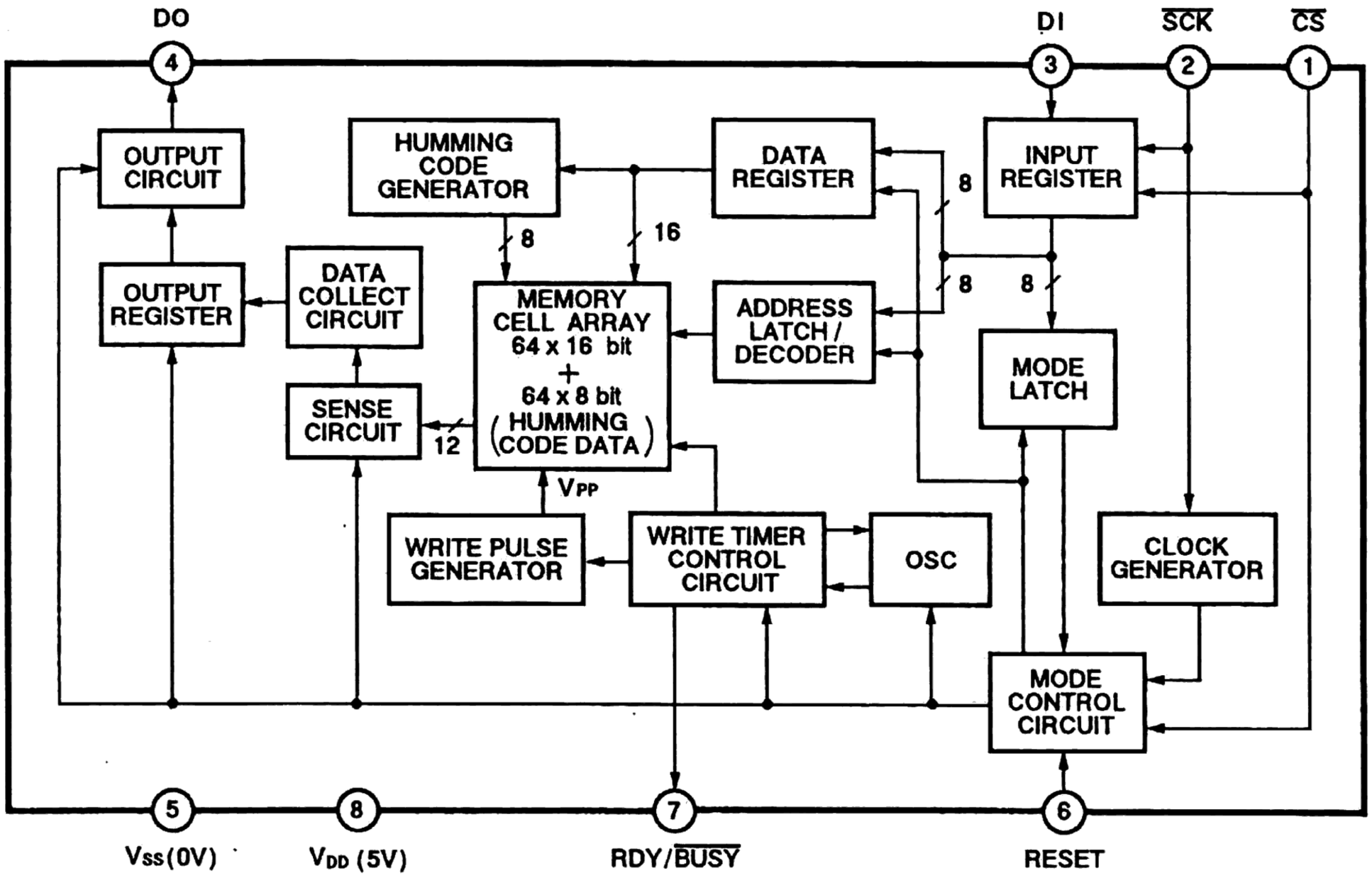
Pin Asignment

Pin No.	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	F2	F2	NP	P1	P2	P3	P4	P5	P6	P7	P8	NC	NC	NC	5G	4G	3G	2G	1G	NP	F1	F1
	Filament		No Pin	Anode								No Connection			Grid					No Pin	Filament	

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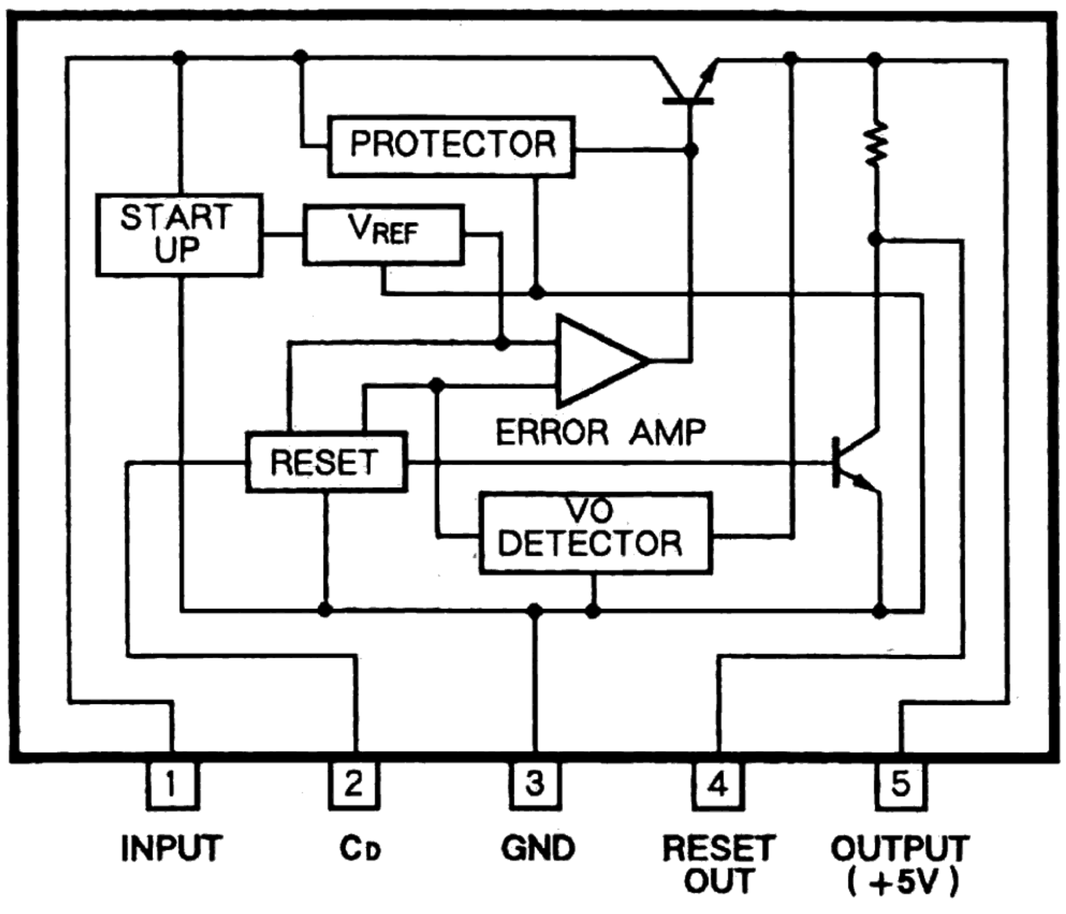
M6M80011P

1024-BIT (64-WORD BY 16-BIT) CMOS ELECTRICALLY ERASABLE AND PROGRAMMABLE ROM



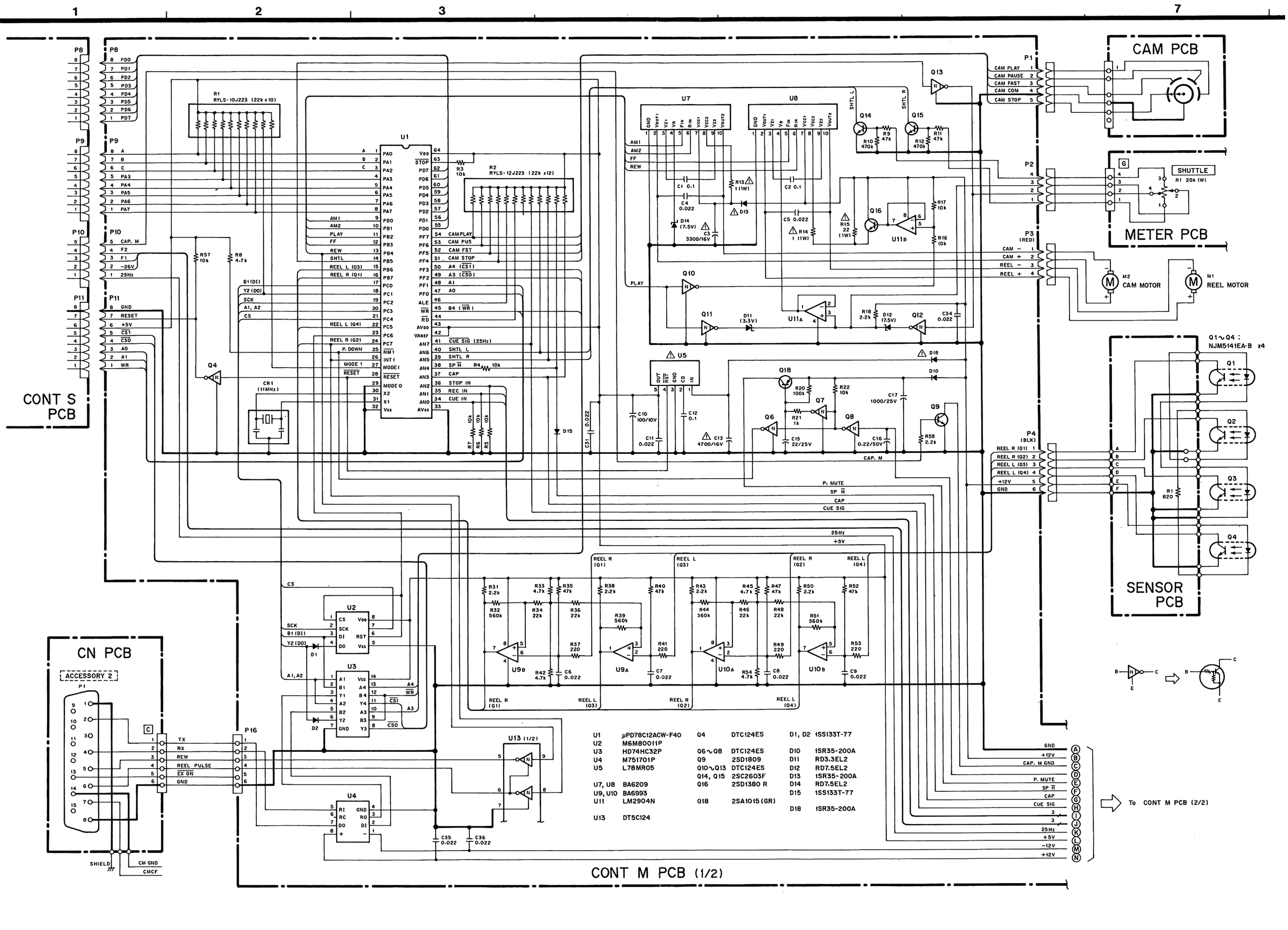
L78MR05

VOLTAGE REGURATOR WITH RESET



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TASCAM TEAC Professional Division SCHEMATIC DIAGRAM 134/134B CONT M PCB (1/2)



U6	M5F7812L	D3∿D6	1SS133T-77
		D7	RD33EL2
U12	DT5A124E	D8	RD5.1EL2
U13, U14	DT5C124E		
		D16	1SS133T-77
Q1, Q2	DTA124ES	D17	S2VB10
Q3	DTC124ES		
Q5	DTC124ES		
Q17	2SA1015 (GR)		

CONT S PCB

P12: 8 UP/DOWN OUT, 7 TAPE SP H/L OUT, 6 PLAY TALLY OUT, 5 FF TALLY OUT, 4 REW TALLY OUT, 3 PAUSE TALLY OUT, 2 STOP TALLY OUT, 1 REC TALLY OUT

P7: 4 PLAY IN, 3 FF IN, 2 REW IN, 1 PAUSE IN

REMOTE CONTROL

P17: 1 PLAY IN, 2 FF IN, 3 REW IN, 4 PAUSE IN, 5 STOP IN, 6 REC IN, 7 CUE IN, 8 UP/DOWN, 9 TAPE SP H/L OUT, 10 PLAY TALLY OUT, 11 GND, 12 FF TALLY OUT, 13 REW TALLY OUT, 14 PAUSE TALLY OUT, 15 STOP TALLY OUT, 16 REC TALLY OUT, 17 +5V, 18 CAP. M GND, 19 P. MUTE, 20 SP H, 21 CAP, 22 CUE SIG, 23 3, 24 3, 25 25Hz

+5V

Q1 PLAY IN, Q2 FF IN

U12: REW IN, PAUSE IN, STOP IN, REC IN, CUE IN

U13: UP/DOWN, TAPE SP H/L OUT, PLAY TALLY OUT

U14: FF TALLY OUT, REW TALLY OUT, PAUSE TALLY OUT, STOP TALLY OUT, REC TALLY OUT

Q3, R55 10k

Q5, D3

To CONT M PCB (1/2): A GND, B +12V, C CAP. M GND, D P. MUTE, E SP H, F CAP, G CUE SIG, H 3, I 3, J 25Hz, K +5V, L −12V, M +12V, N

CONT M PCB (2/2)

P5: 1 GND, 2 +12V, 3 B, 4 A — M3 CAPSTAN MOTOR

P6: 1 VR, 2 VR, 3 GND, 4 H, 5 L

HIGH SPEED ADJ. RT1 SDT-09, R26 1k (B), R25 1.5k

LOW SPEED ADJ. RT2 SDT-02, R27 1k (B), R28 560

D16, K1 SY-12W-K

R1 1.5k (B) x2, PITCH CONT, NORM, HIGH, S1, TAPE SPEED

P. CONT PCB

P15: 2, 1 — R56 470 — CASSETTE HALF LIGHT SLF601C

U6 OUT IN, +12V, C18 10/16V, C19 3300/25V, D17

C20 100/35V, D7 (33V), C21 2.2/50V, C22 330/50V, R29 2.2k, Q17, R30 4.7

F1, −26V, D8 (5.1V), F2

R23 2.2k, D6, D4, D5, R24 10k

W801, W802, W803, F1, F2, F3

U.S.A., CANADA: T1, 6 240V, 5 230V, 4 120V, 3 100V, W701, POWER, S1, C23 4700pF/400V, 1 COM, N — U.S.A., CANADA

U.S.A., CANADA, JAPAN — W801, W802, W803 : SHORTING
EUROPE, U.K., AUSTRALIA — F1 : T1.25A 250V, F2, F3 : T1A 250V

P13 (RED): 5 AC, 4 GND, 3 AC, 2 −12V, 1 +12V — H

P14: 5 +12V, 4 GND — F; 3 P. MUTE, 2 CUE SIG, 1 25Hz — G

MAIN PCB

P19 (BLK): 1 +12V, 2 GND — H

METER PCB

AUSTRALIA: T1, 6 240V, 5 230V, 4 120V, 3 100V, W701, POWER, S1, P18, C23 4700pF/400V, 1 COM — CONT M PCB

U.K.: T1, 6 240V, 5 230V, 4 120V, 3 100V, W701, POWER, S1, P18, C23 4700pF/400V, (BRN) LIVE, (BLU) NEUTRAL, 1 COM — CONT M PCB

EUROPE: T1, 6 240V, 5 230V, 4 120V, 3 100V, W701, POWER, S1, P18, C23 4700pF/400V, 1 COM — CONT M PCB

JAPAN: T1, 6 240V, 5 230V, 4 120V, 3 100V, POWER, S1, C23 4700pF/400V, 1 COM — CONT M PCB

1 2 3 7

A B C D E

U1 M5M82C255ASP
U2 LB1240
U3 TC74HC138AP
U4 ∼ U8 DT5C124E

Q1 ∼ Q9 DTC124ES

D1 ∼ D6 1SS133T-77

D1 ∼ D6 MA165P
D7 SLR-34MG3F (GRN)
D8 SLR-34DU3F
D9 SLR-34VR3F (RED)

S1 ∼ S6 EVQ 215 05R

MAIN PCB
OPSW PCB
METER PCB
CONT S PCB
CONT M PCB

1 2 7

A B C D E

R105 100 (NF) +7V
R102 2.7k R103 2.7k U101A
C101 100/16V
R104 1k C103 0.0022
C104 47p (CE) C105 0.01 R110 12k
C107 22/25V
R112 3.3k
U102 L.P.F.
R113 4.7k (B)
C108 10/16V (BP)
Q101
R109 330k
C106 220/6.3V R108 100k
R101 33k R107 2.7k
R111 47k C120 1200p (PP) R114 3.3k R115 100k
C109 0.022 (CE)
C110 0.022 (CE)
C111 0.022 (CE)
C112 0.022 (CE) R124 100k
U104B U104C
R121 10k R122 10k R123 10k
Q102 Q103
U104A U104D
R221 10k R222 10k R223 10k R224 100k
Q202 Q203
+7V
−7V

R202 2.7k R203 2.7k U101B
C102 100/16V
R204 1k C203 0.0022
C204 47p (CE) C205 0.01 R210 12k
C207 22/25V
R212 3.3k
U202 L.P.F.
R213 4.7k (B)
C208 10/16V (BP)
Q201
R209 330k
C206 220/6.3V R208 100k
R201 33k R207 2.7k
R211 47k C120 1200p (PP) R214 3.3k R215 100k
R106 100 (NF) −7V

R230 100k C231 220p (CE) C230 1/50V
C232 2700p (PP) R232 5.6k
Q204
MPX U206
R231 3.3k
R225 4.7k R233 100k R139 1k
C233 2.2/50V
C234 0.0022 C235 0.0022 R234 24k R235 560
C239 10/25V
C236 0.56 C237 0.33 C238 2.2/50V
+7V
−7V

R119 33k C115 0.068
R118 47k
C114 47p (CE)
C116 22/25V
U103A
C113 10/25V R117 100k R116 100k R120 47k
+7V

R219 33k C215 0.068
R218 47k
C214 47p (CE)
C216 22/25V
U103B
C217 100k C213 10/25V C216 100k R220 47k
−7V

U105
LINE IN 2 PB IN 2 MPX OUT 2 MPX IN 2 NR SW LINE OUT 2 SSKIN 2 VFIN 2 VSSK 2 VCT 2 TCH 2 TCL 2 REC OUT 2 VCTO Vcc
30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
LINE IN 1 PB IN 1 MPX OUT 1 MPX IN 1 MODE LINE OUT 1 SSKIN 1 VFIN 1 VSSK 1 VCT 1 TCH 1 TCL 1 REC OUT 1 IREF GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

U106
MPX
R131 3.3k
Q104
C130 1/50V R130 100k C131 220p (CE) C132 2700p (PP) R132 5.6k
C133 2.2/50V R125 4.7k R133 100k
C134 0.0022 C135 0.0022 R134 24k R135 560
C136 0.56 C137 0.33 C138 2.2/50V R140 27k
TP.1 TP.2
R136 10k R236 10k
Q105 Q205
C139 10/25V R137 10k R237 10k
R138 10k
C141 100/16V C140 100/16V

U101 M5218P
U102, U202 LPF
U103 M5218P
U104 BU4066
U105 CXA1330S
U106, U206 MPX FILTER

Q101, Q201 2SK389 BL
Q102, Q202 DTA124ES
Q103, Q203 DTC124ES
Q104, Q204 DTC124ES
Q105, Q205 2SD1450

R/P PCB

J1 PLAY OUT L | EQ OUT L | CANCEL L | PLAY IN L | GND | PLAY IN R | CANCEL R | EQ OUT R | PLAY OUT R
To MAIN PCB P103 (CH1, 2)
To MAIN PCB P203 (CH3, 4)

J2 R. OUT L | R. EQ L | R. IN L | GND | R. IN R | R. EQ R | R. OUT R
To MAIN PCB P104 (CH1, 2)
To MAIN PCB P204 (CH3, 4)

J3 LINE IN R | PLAY IN R | LINE IN L | PLAY IN L | MPX SW | R. OUT L | R. MUT L | R. MUT R | R. OUT R | NR SW | MODE
To MAIN PCB P105 (CH1, 2)
To MAIN PCB P205 (CH3, 4)

J4 MON SIG L | MONI OUT L | PLAY IN L | MON SIG R | MONI OUT R | PLAY IN R | −7V | GND | GND | +7V
To MAIN PCB P106 (CH1, 2)
To MAIN PCB P206 (CH3, 4)

TASCAM SCHEMATIC DIAGRAM 134/134B METER PCB

TEAC Professional Division

1 2 3 7

A B C D E

CONT M PCB

CONT S PCB

MONITOR PCB

METER PCB

U102 +8 +5 +3 +1 0 -1 -3 -5 -7 -10 -15 -20

U101 VR AMP IN CT MODE D12 D11 D10 D9 D8 GND Vcc VR OFF D1 D2 D3 D4 D5 D6 D7 NC IR

C101 4.7/16V C102 6.8/16V C103 10/16V R101 120 R102 56k

+5V +12V

CH1 CH2 CH3 CH4

U201, U202 C201-C203 R201, R202

U301, U302 C301-C303 R301, R302

U401, U402 C401-C403 R401, R402

C1 10/16V C2 10/16V

P19 (BLK) +12V GND

P1 METER 4 METER 3 METER 2 METER 1

P2 SHUTTLE R1 20k (W)

P1 (BLK) Y2 (LED) Y0 Y1 Y2

P2 (RED) Y3 Y4 Y5 Y6 Y7

P3 a b c d e f

P4 (BLK) g h F F +5V

P5 -26V PA4 PA5 PA6 P1 P2 P3

P6 (RED) P4 P5 P6 P7

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14

U2 (22k x5)

U1 REC PLAY PAUSE M S

MEMO CHECK D1 D20 S1

MEMO 1 D2 D21 S2

MEMO 2 D3 D22 S3

TRK 1 D4 D23 S4

TRK 2 D5 D24 S5

TRK 3 D6 D25 S6

TRK 4 D7 D26 S7

RTZ D8 D27 S8

LOC 1 D9 D28 S9

LOC 2 D10 D29 S10

INSERT D11 D30 S11

MPX FIL D12 D31 S12

DOLBY B D13 D32 S13

DOLBY C D14 D33 S14

REPEAT 1-2 D15 D34 S15

CUE STOP D16 D35 S16

CUE REW D17 D36 S17

RESET D18 D37 S18

SHUTTLE D38 S19

AUTO PLAY D39 S20

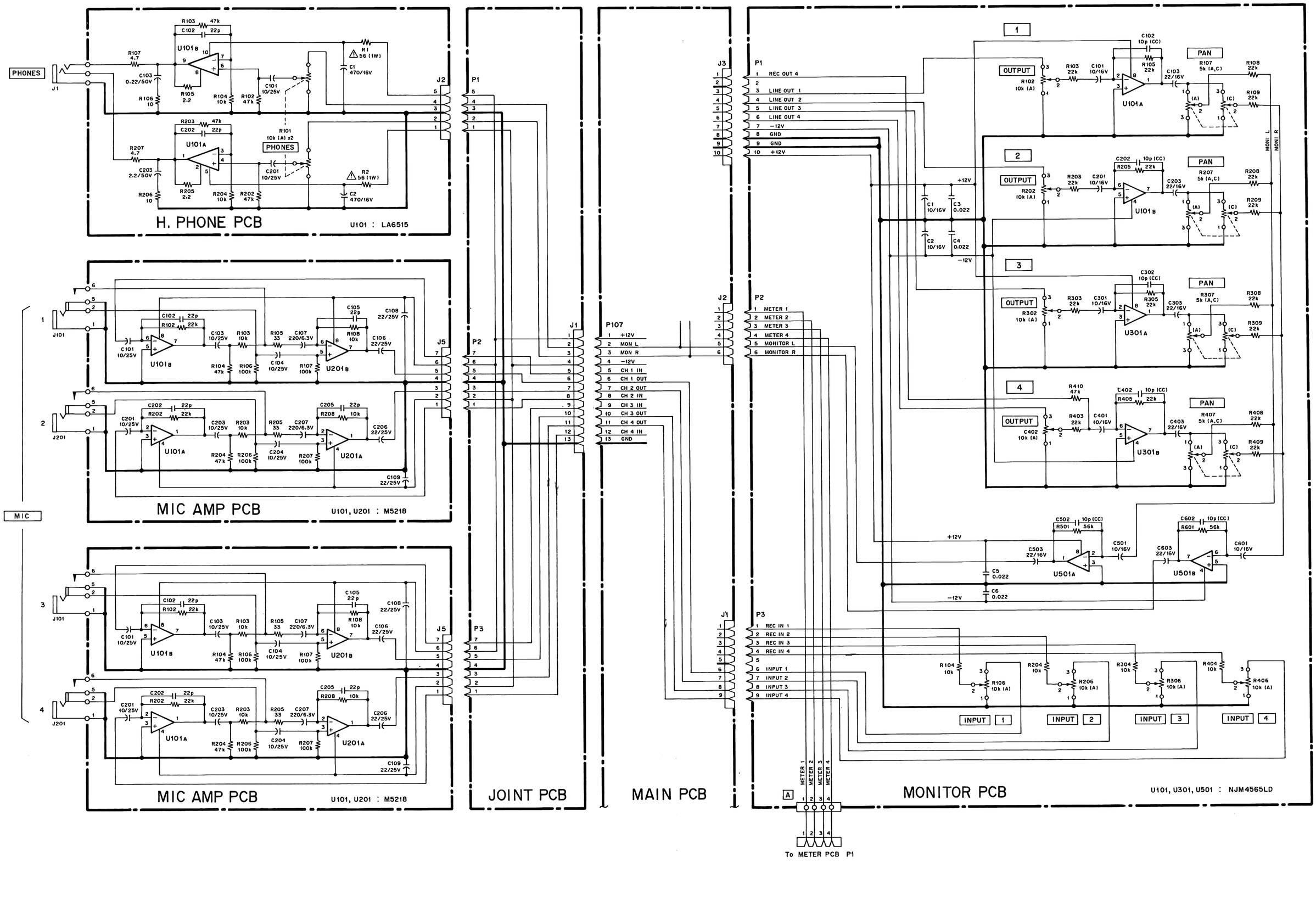
MODE LOCK D19 D40 S21

CUE PULSE D41 S22

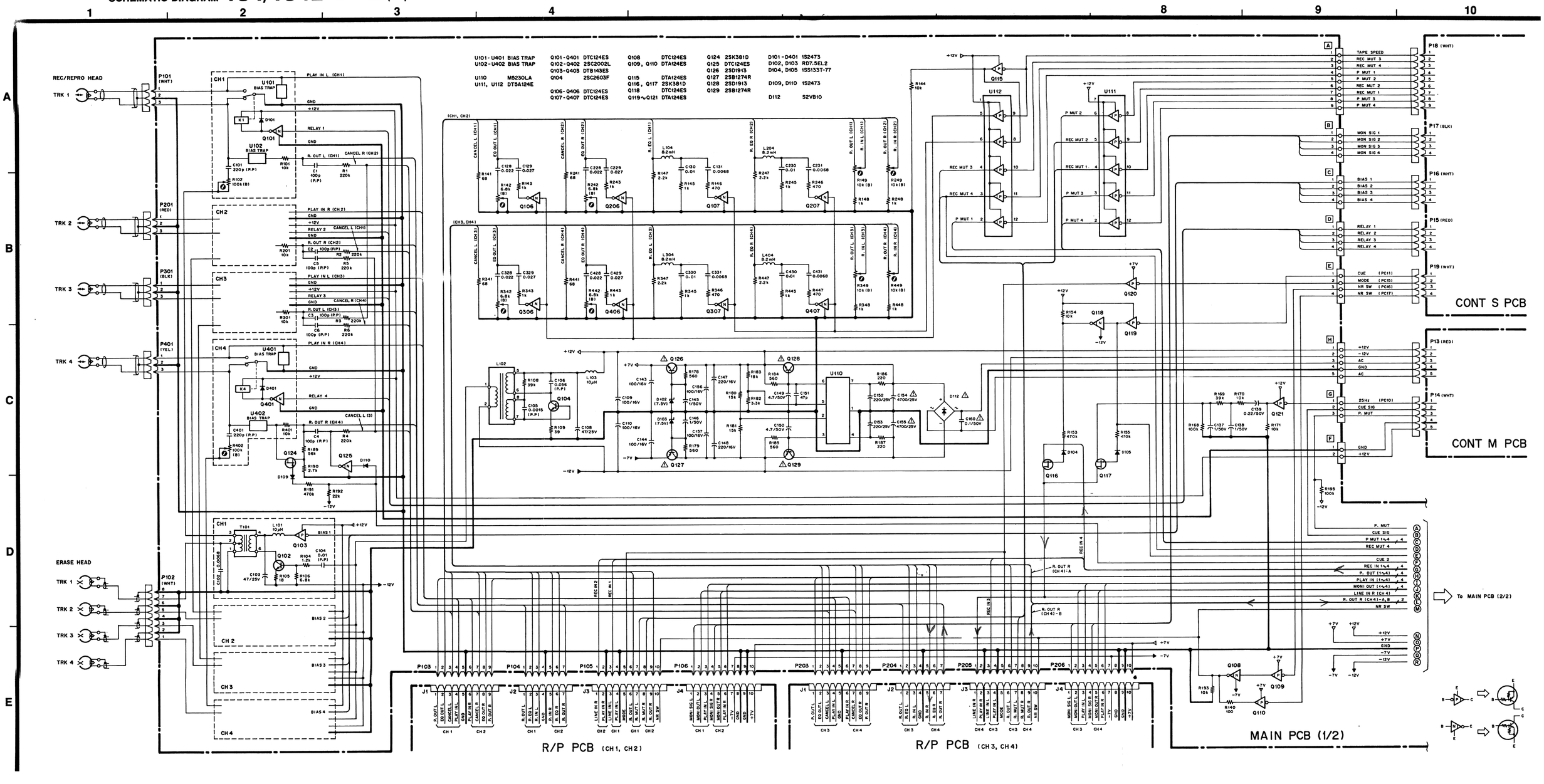
R2 820 R3 820 R4 820 R5 820 R6 820 R7 820 R8 820

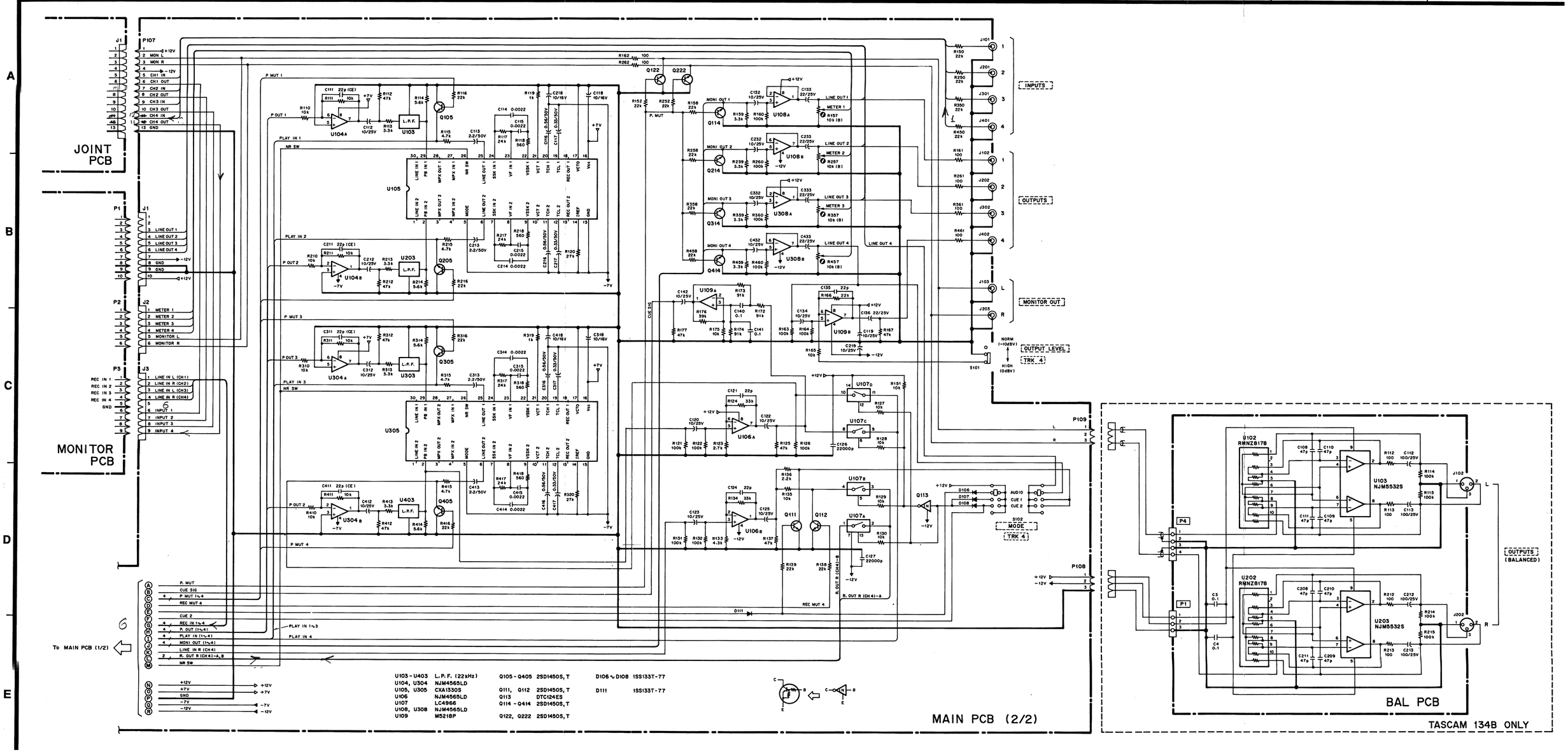
U1	5-BT-121GK
U2	RYLS-5J223
U101-U401	IR2E41
U102-U402	GL-112J13
Q1 ∿ Q8	UN4112
Q9 ∿ Q11	UN4212
Q12 ∿ Q14	DTB113EA
D1, D2	SLR-34DU3F
D3 ∿ D6	SLR-34VR3F (RED)
D7 ∿ D18	SLR-34DU3F
D19	SLR-34VR3F (RED)
D20 ∿ D41	MA165P
S1 ∿ S22	EVQ 215 05R

TASCAM TEAC Professional Division SCHEMATIC DIAGRAM 134/134B MONITOR PCB, H. PHONE PCB, MIC AMP PCB



SCHEMATIC DIAGRAM 134/134B MAIN PCB (1/2)




JOINT PCB
MONITOR PCB
MAIN PCB (2/2)
BAL PCB
TASCAM 134B ONLY
INPUTS
OUTPUTS
MONITOR OUT
OUTPUT LEVEL
TRK 4
MODE
OUTPUTS (BALANCED)
To MAIN PCB (1/2)
U103 - U403 L.P.F. (22kHz)
U104, U304 NJM4565LD
U105, U305 CXA1330S
U106 NJM4565LD
U107 LC4966
U108, U308 NJM4565LD
U109 M5218P
Q105 - Q405 2SD1450S, T
Q111, Q112 2SD1450S, T
Q113 DTC124ES
Q114 - Q414 2SD1450S, T
Q122, Q222 2SD1450S, T
D106 ~ D108 1SS133T-77
D111 1SS133T-77

TASCAM
TEAC Professional Division

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