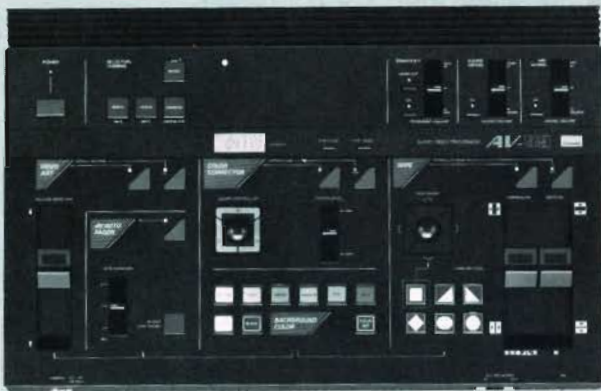


SERVICE MANUAL

AUDIO VIDEO PROCESSOR

SANSUI AV-99



CAUTION

1. Parts identified by the Δ symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

•SPECIFICATIONS

Video section (VCR-A/B, CAMERA)

VIDEO INPUT sensitivity/Impedance

..... 1.0 Vp-p/75 ohms
(unbalanced)

VIDEO OUTPUT level/Impedance

..... 1.0 Vp-p/75 ohms
(unbalanced)

Frequency response (video signal)

..... 5 Hz ~ 7 MHz -2 dB

AUDIO INPUT sensitivity/Impedance

..... -6 dBs/47 kohms

AUDIO OUTPUT level/Impedance

..... -6 dBs/less than 10 kohms

Frequency response (audio signal)

MONITOR (AUDIO) OUTPUT
..... 20 Hz ~ 100 kHz -3 dB

Video signal system NTSC color signal

Audio section

Input sensitivity/Impedance

AUDIO INPUT 150 mV/47 kohms

MIC 0.5 mV/10 kohms

Frequency response

AUDIO INPUT → AUDIO OUTPUT (VCR, MONITOR)

..... 20 Hz ~ 100 kHz -3 dB

Output level/Impedance .. 150 mV/less than 10 kohms

Maximum output level 1V/less than 10 kohms

Camera terminal

Power consumption 7 watts (maximum)
12V DC
Round 10-Pin J type

Others

Power requirements 120/220/240V
50/60 Hz

For U.S.A. and Canada

..... 120V (60 Hz)

Power consumption 50 watts (with camera)

Dimensions 430 mm (16-15/16") W

103 mm (4-1/16") H

285 mm (11-1/4") D

Weight 4.1 kg (9.0 lbs) net

5.1 kg (11.2 lbs) packed

* Design and specifications subject to changes without notice for improvements.

Sansui

SANSUI ELECTRIC CO., LTD.

CAUTION

1. The symbols, UL, CSA, SA, BS, UK, EU, AS, XX <EXPORT> and XX-V <EXPORT(V)> on the parts list and the schematic diagram mean followings respectively.

- UL..... Manufactured for U.S.A market.
(Underwriters Laboratories approved model.)
- CSA..... Manufactured for Canadian market.
- SA..... Manufactured for South African market.
- BS, UK..... Manufactured for United Kingdom market.
- EU..... Manufactured for European market.
- AS..... Manufactured for Australian market.
- XX <EXPORT>..... Standard Version with Inner Voltage Selector.
- XX-V <EXPORT(V)>..... Standard Version with Outer Voltage Selector.
- NON MARK..... Common Parts.

2. Some printed circuit boards are not supplied as the assembled. To separate these in this service manual, the stock No's are not indicated at the ends of the board names. However, the individual parts on the circuit boards are provided by orders.

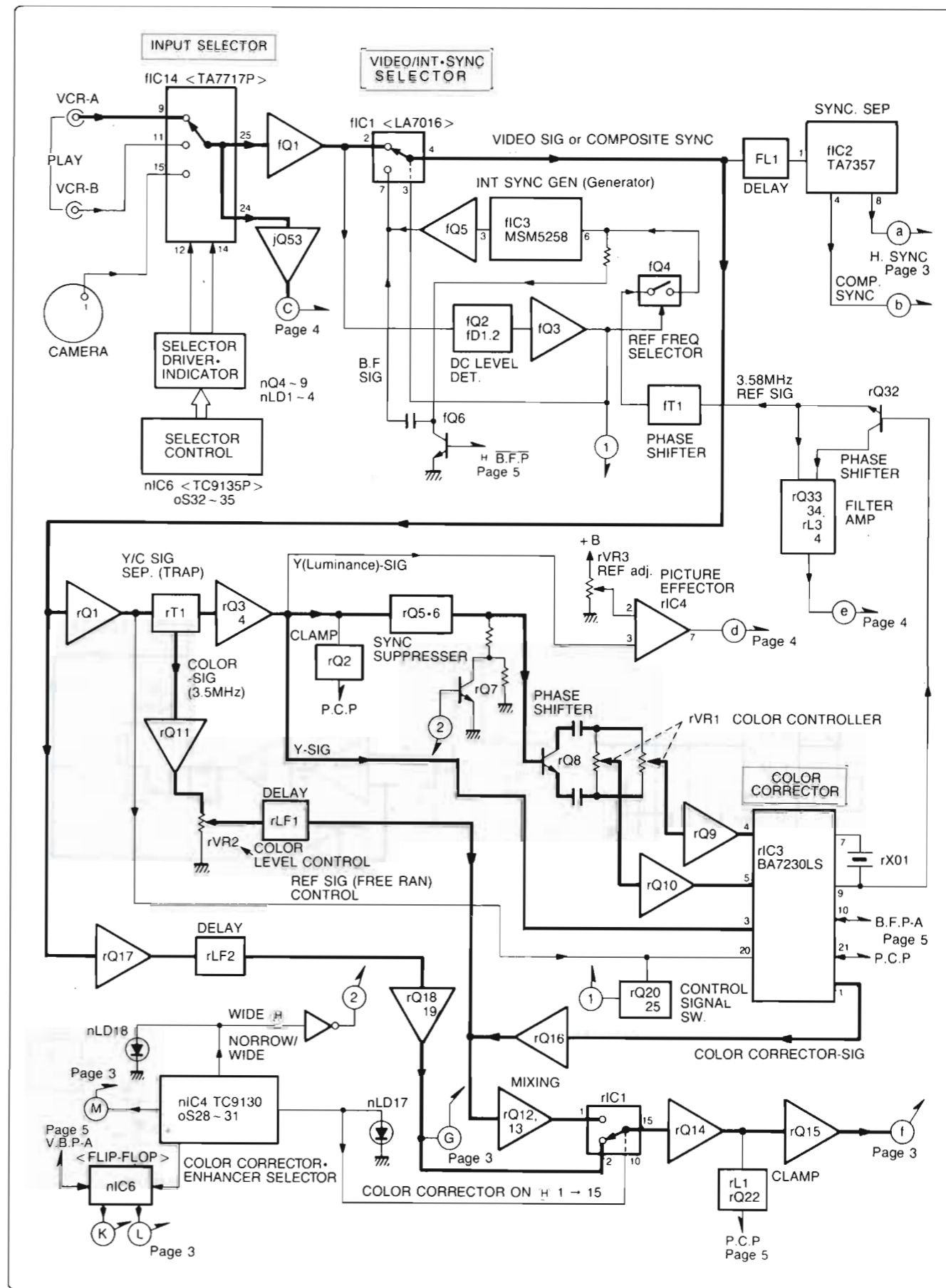
3. Since some of capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on February 1983.

4. Abbreviations in this service manual are as follows.

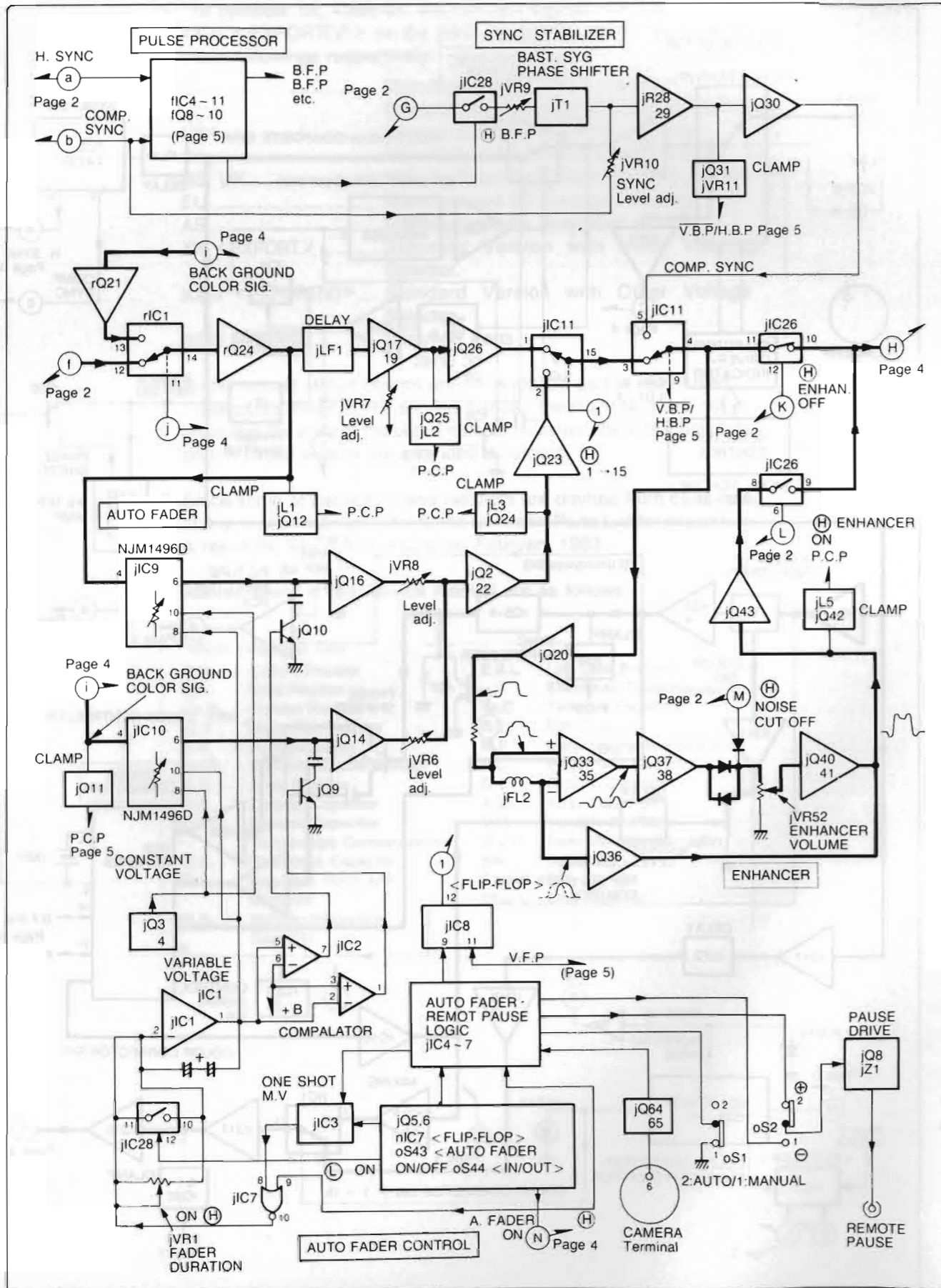
•Abbreviations List

C.R. : Carbon Resistor	E.B.L. : Low Leak Bi-Polar
S.R. : Solid Resistor	Electrolytic Capacitor
Ce.R. : Cement Resistor	Ta.C. : Tantalum Capacitor
M.R. : Metal Film Resistor	F.C. : Film Capacitor
F.R. : Fusing Resistor	M.P. : Metalized Paper Capacitor
N.I.R. : Non-Inflammable Resistor	P.C. : Polystyrene Capacitor
A.R. : Array Resistor	G.C. : Gimmic Capacitor
C.C. : Ceramic Capacitor	A.C. : Array Capacitor
C.T. : Ceramic Capacitor,	V.R. : Variable Resistor
Temperature Compensation	S.V.R. : Semi Variable Resistor
E.C. : Electrolytic Capacitor	SW. : Switch
E.L. : Low Leak Electrolytic	Chip R. : Chip Resistor
Capacitor	Chip C. : Chip Capacitor
E.B. : Bi-Polar Electrolytic	
Capacitor	

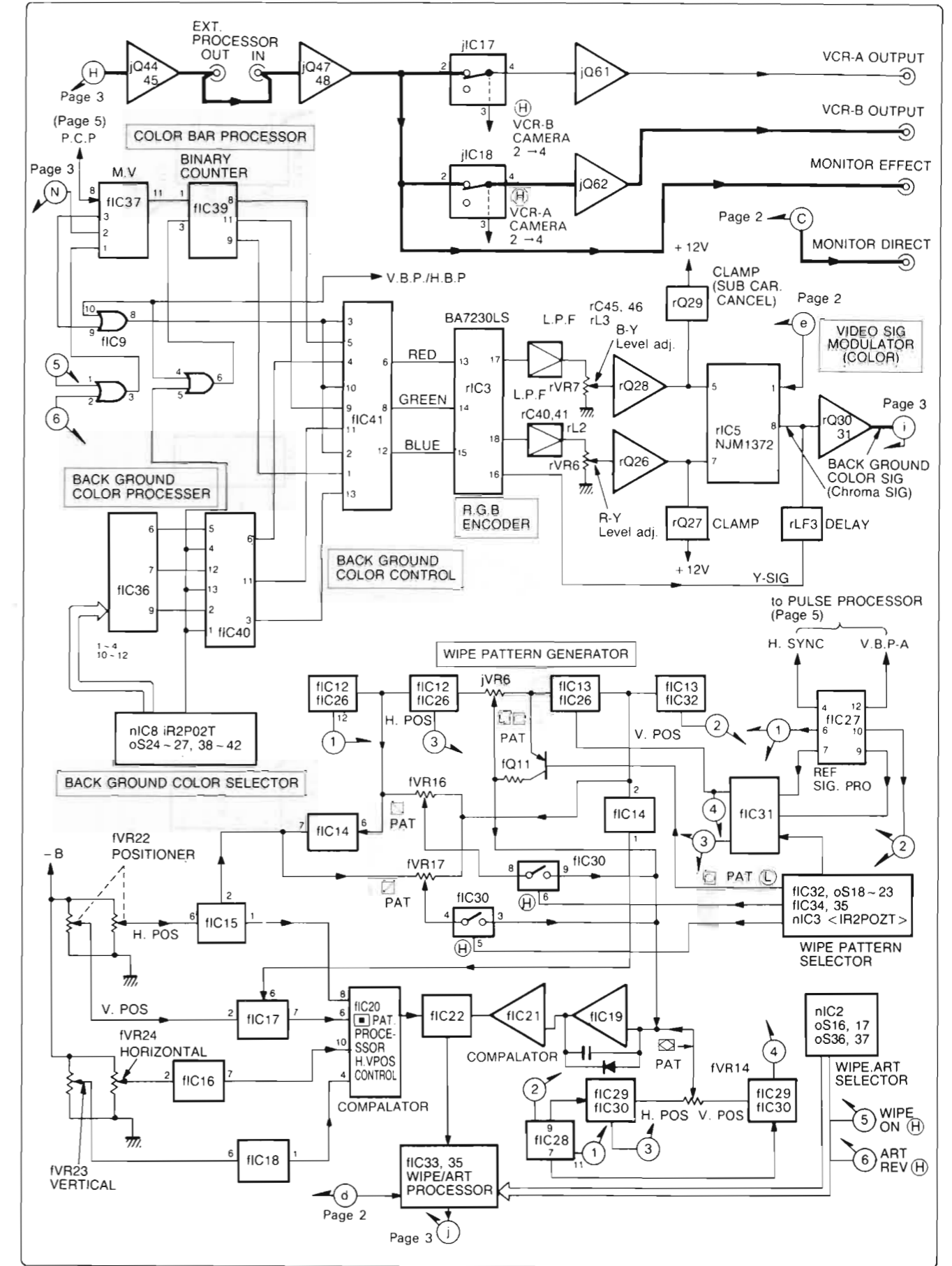
1. BLOCK DIAGRAM 1-1. INPUT SELECTOR and COLOR CORRECTOR Section



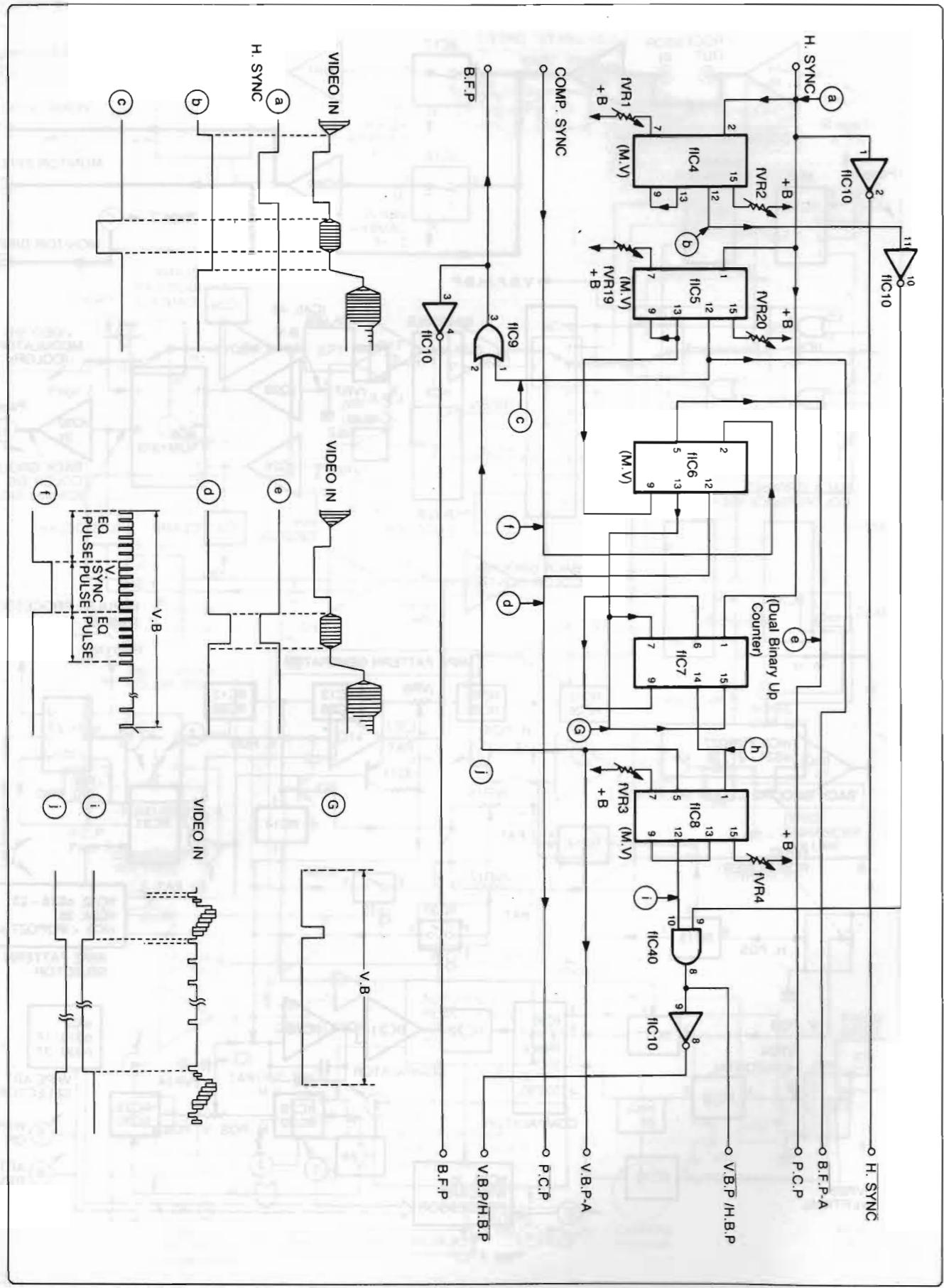
1-2. AUTO FADER and ENHANCER Section



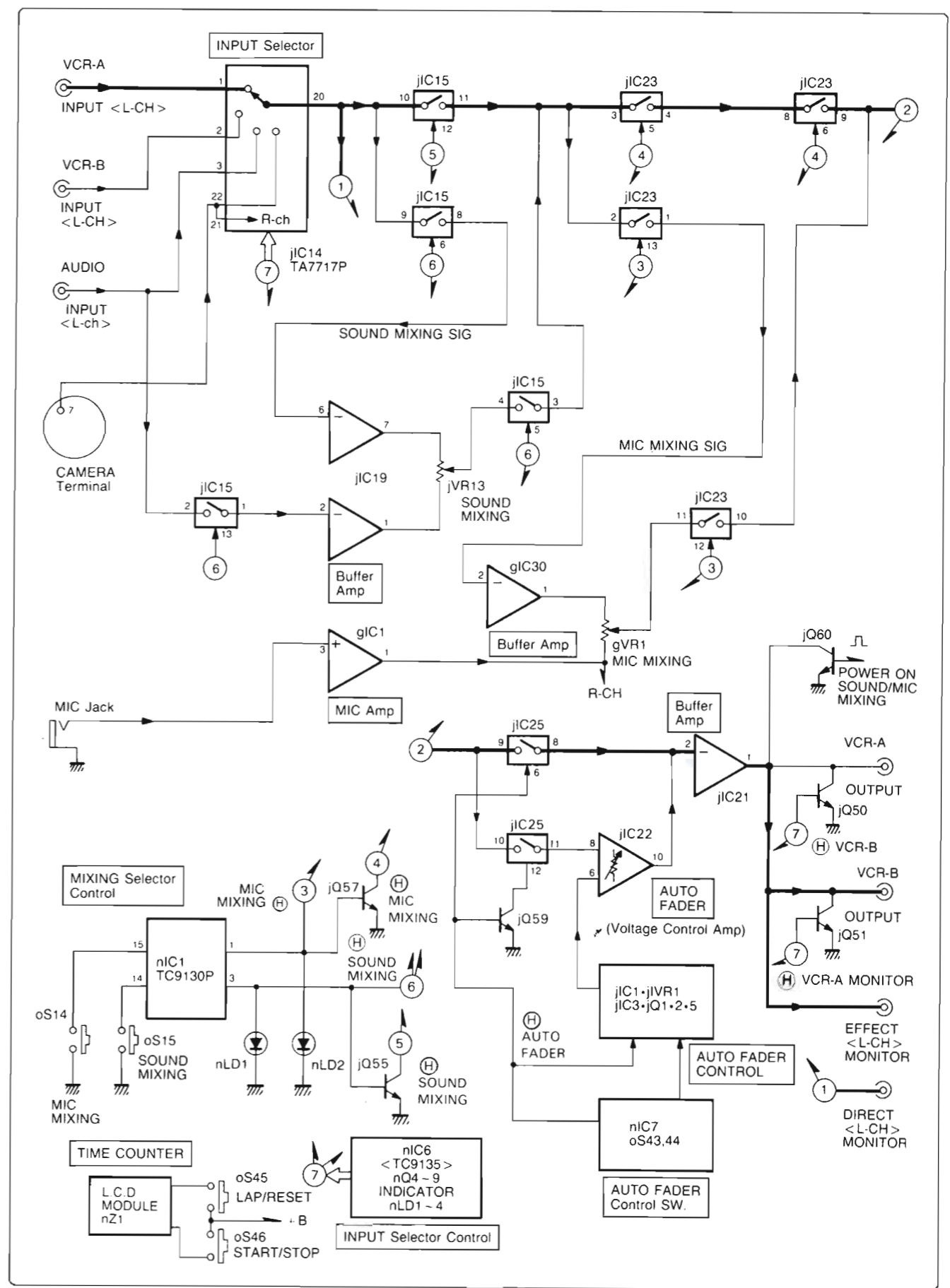
1-3. BACKGROUND COLOR and WIPE PATTERN Generator Section



1-4. Pulse Processor Section

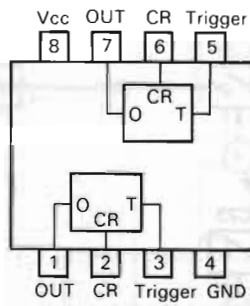


1-5. AUDIO Section

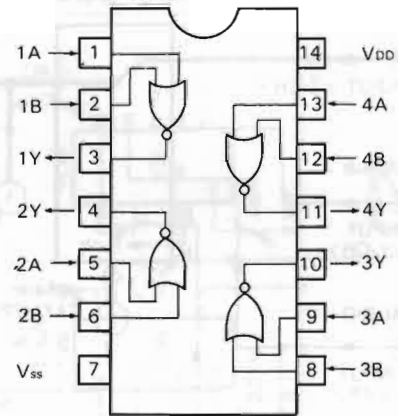


2. INTERIOR BLOCK DIAGRAM & TERMINAL FUNCTION OF IC

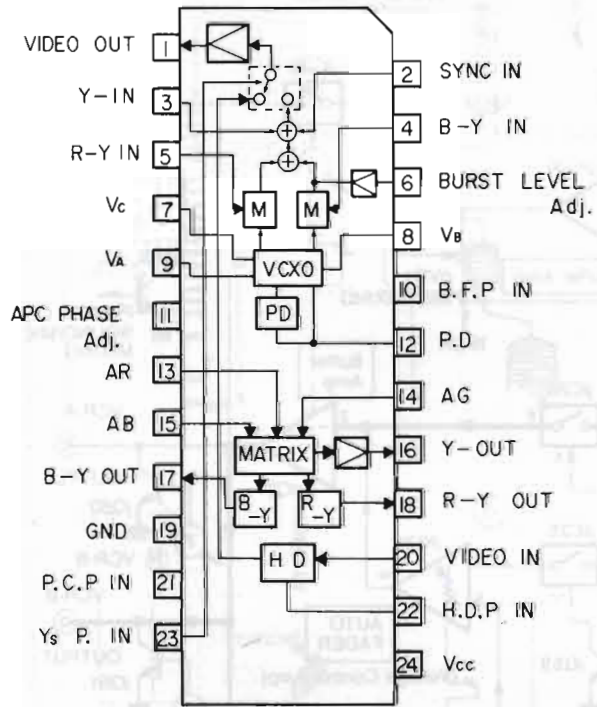
•BA226 (One Shot Multi Timer)



•BU4001B/MSM4001BRS/TC4001P (Quad NOR)



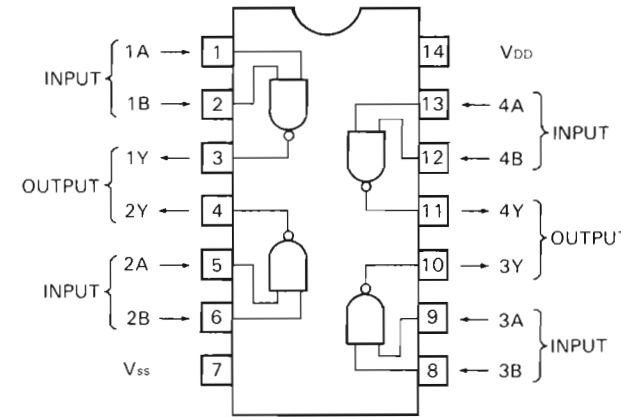
•BA7230LS (NTSC Method RGB Encoder)



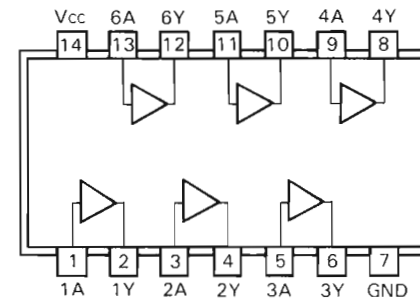
•Terminal Function <BA7230LS>

Pin No.	Terminal Name	Function and Operation
1	Output terminal:	NTSC composite signal is outputted ($V_o = 2V_{p-p}$)
2	SYNC IN terminal	Horizontal synchronizing signal is inputted.
3	Luminance signal input terminal:	Luminance signal synthesized from RGB signals is inputted.
4	Color difference signal input terminal:	$E_B - E_Y$ signal is inputted.
5	Color difference signal input terminal:	$E_R - E_Y$ signal is inputted.
6	Color burst adjustment:	A semi-variable resistor is connected for adjusting the amplitude of color burst signal.
7	VCO terminal:	
8	VCO terminal:	
9	VCO terminal:	
10	BFP input terminal:	BFP (burst flag pulse) is inputted.
11	APC adjustment terminal:	A semi-variable resistor is connected for adjusting color burst phase.
12	Filter terminal:	A PLL filter is connected.
13	R signal input terminal:	R signal is inputted.
14	G signal input terminal:	G signal is inputted.
15	B signal input terminal:	B signal is inputted.
16	Luminance signal output terminal:	Luminance signal based on RGB signals is outputted.
17	Color difference signal output terminal:	$E_B - E_Y$ signal is outputted.
18	Color difference signal output terminal:	$E_R - E_Y$ signal is outputted.
19	GND terminal:	This terminal is connected to GND.
20	VIDEO IN terminal:	VIDEO signal is inputted.
21	PCP input terminal:	PCP (pedestal clamp pulse) is inputted.
22	HDP input terminal:	HDP (half down pulse) is inputted to reduce VIDEO signal by $-5dB$.
23	Ys input terminal:	Switching signals from switcher circuit are inputted.
24	Vcc terminal:	This terminal is connected to power supply.

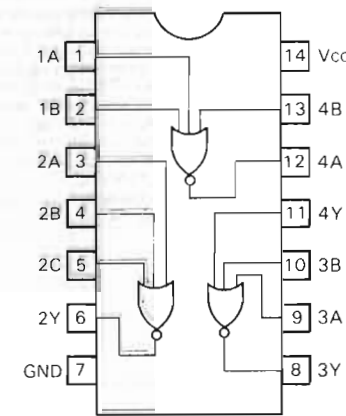
•BU4011B/MSM4011BRS/TC4011P (Quad NAND)



•HD7407P/M53207P/SN7407 (Hex Buffer)



•HD74LS27P/M74LS27P/MB74LS27P (Triple NOR)

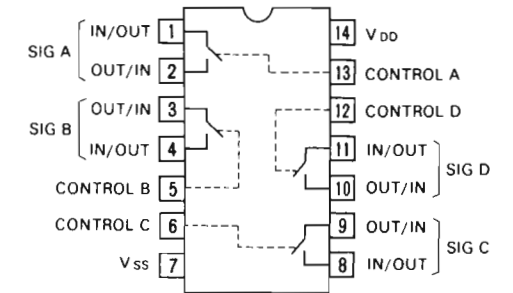


•Function Table <HD74LS123P/M74LS123P/MB74LS123M>

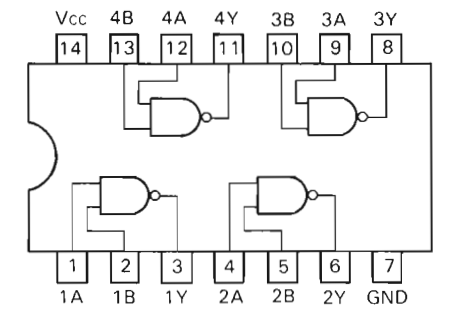
CLEAR	INPUT		OUTPUT	
	A	B	Q	\bar{Q}
L	X	X	L	H
X	H	X	L	H
X	X	L	L	H
H	L	H	H	L
H	L	L	H	L
L	L	H	H	L

X = "H" or "L"

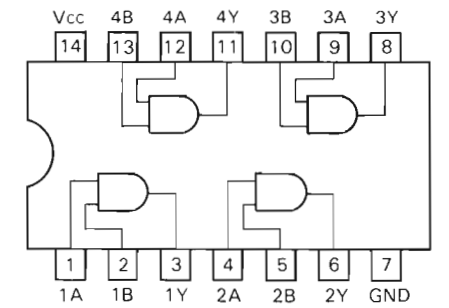
•BU4066B2/MSM4066BRS/TC4066BP (Quad Analog SW.)



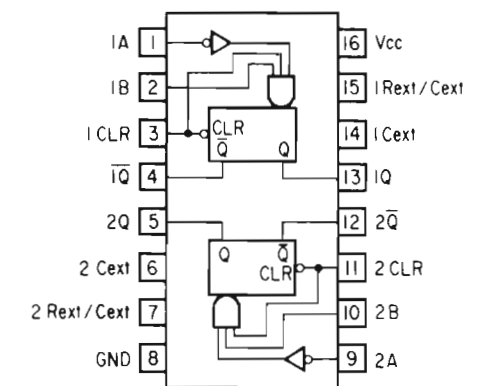
•HD74LS00P/MB74LS00P/TC74HC00P (Quad AND)



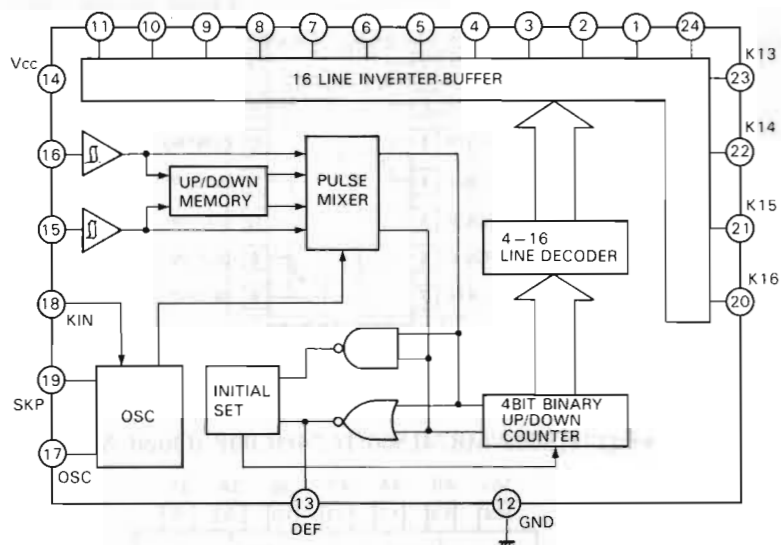
•HD74LS08P/M74LS08P/MB74LS08M (Quad AND)



•HD74LS123P/M74LS123P/MB74LS123M (Dual Multivibrators)



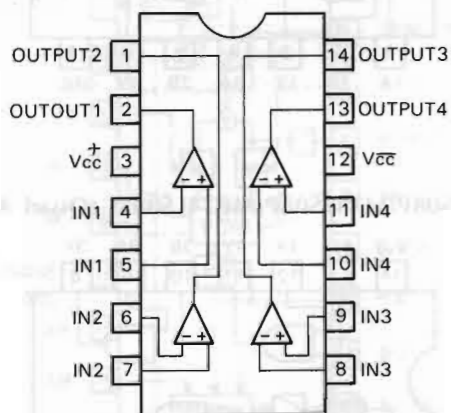
•IR2P02T (Electronic SW.)



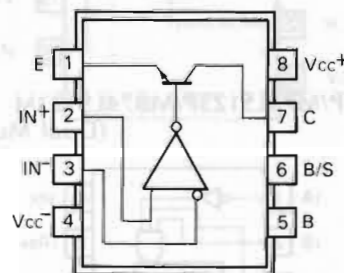
•Terminal Function <IR2P02T>

Pin No.	Symbols	Terminal Name	Function and Operation
1 ~ 11, 20 ~ 24	K1 ~ 16	Selection output terminals	These terminals are of open collector outputs and usable as potentiometer, VR, display and key switch in common.
12	GND	GND terminal	
13	DEF	AFT defeat output terminal	This terminal is of open collector output via 330 ohms and usable as AFT defeat, voice mute, LED erase, etc.
15	CHD	Selection down-direction input terminal	Usually connected to power voltage via a resistor. In response to the leading edge after, having been dropped to GND, selection output is shifted in the direction from K16 to K1.
16	CHU	Selection up-direction input terminal	Usually connected to power voltage via resistor. In response to the leading edge, after having been dropped to GND, the selection output is shifted in the direction from K1 to K16. By dropping CHU and CHD terminals to GND simultaneously, channel counter can be reset. Therefore, this terminal is convenient for initialization of direct selection operation or power-on operation. Since a Schmitt circuit is incorporated in this input terminal, the hysteresis potential can be set by an external resistor.
17	OSC	Oscillation terminal	By connecting CR, internal oscillation is enabled in key selection or skip operation. The standard oscillation frequency is 2 kHz.
18	KIN	Key input terminal	Oscillation begins at "H" level to shift the selection output. If the selection terminal has not yet been selected when the key is depressed, this terminal changes to a "H" level, so that selection starts shifting. If already selected, this terminal changes to a "L" level to stop shifting, so that selection operation has been completed.
19	SKP	Skip input terminal	Oscillation begins as "L" level to shift selection output. When 16 channels are used as 12 channels by use of the vacant channel skip input terminal, it is possible to skip unnecessary channels in response to CHU and CHD inputs during remote-control operation, because four remaining channels are connected to this SKP terminal and then to power voltage via a resistor.
14	Vcc	Power terminal	Operable power voltage range 9.6 to 14.4V.

•IR2339 (Quad Comparator)

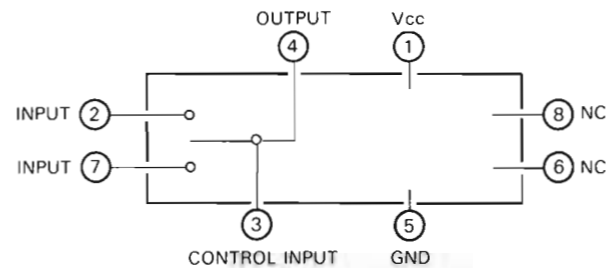


•IR9311 (Comparator)



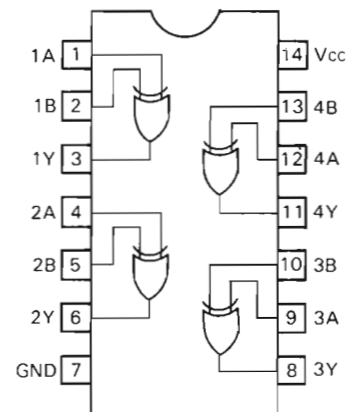
B: Balance
E: Emitter Output
C: Collector Output
B/S: Balance/Strobe

•LA7016 (Analog SW.)

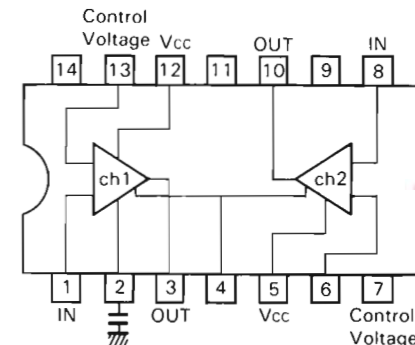


•Operational Condition
Pin ③ < 2.2V.....Pin ⑦ → ③
Pin ③ > 3.3V.....Pin ⑦ → ④

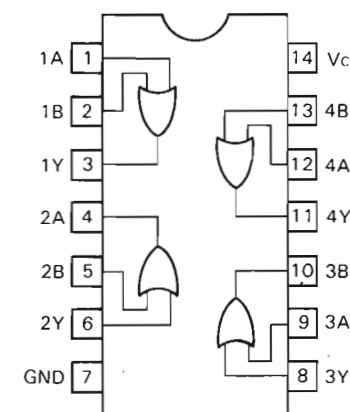
•M74LS86P/MB74LS86 (Quad Exclusive-OR)



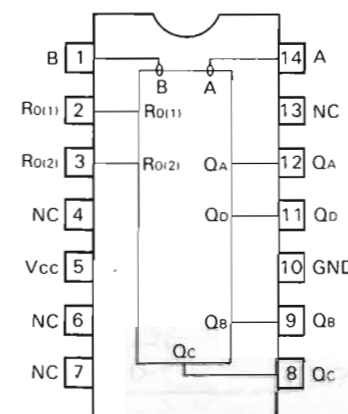
•LA2600 (Dual Electronic Volume)



•M74LS32P/MB74LS32 (Quad OR)



•M74LS93P (4 bit Binary Counter)



•Function Table <M74LS93P>

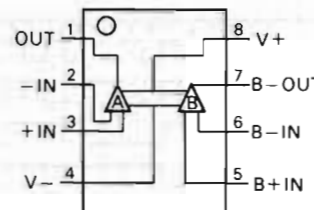
Reset Inputs		Outputs			
R ₀₍₁₎	R ₀₍₂₎	Q _a	Q _c	Q _b	Q _d
H	H	L	L	L	L
L	X	Count			
X	L	Count			

Countsequence*

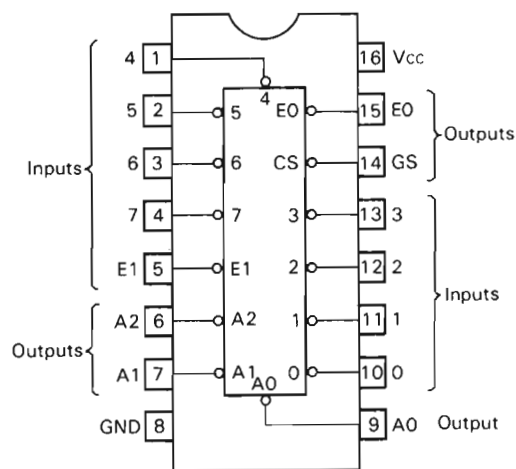
Count	Outputs			
	Q _a	Q _c	Q _b	Q _d
0	L	L	L	L
1	L	L	L	H
2	L	L	H	L
3	L	L	H	H
4	L	H	L	L
5	L	H	L	H
6	L	H	H	L
7	L	H	H	H
8	H	L	L	L
9	H	L	L	H
10	H	L	H	L
11	H	L	H	H
12	H	H	L	L
13	H	H	L	H
14	H	H	H	L
15	H	H	H	H

*1. Output Q_a Connect Input B
2. H:High Level, L:Low Level, X:"H" or "L"

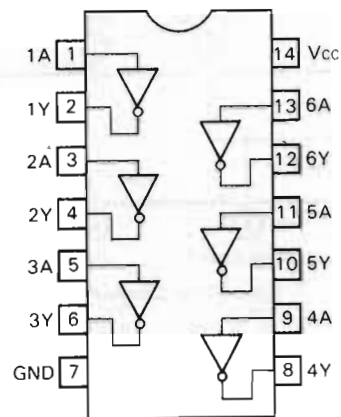
•IR94559/M5218P/NJM4558D/NJM4559D (OP Amp.)



•M74LS148P (8-line to 3-line Encoder)



•MB74LS04R (Hex Inverter)

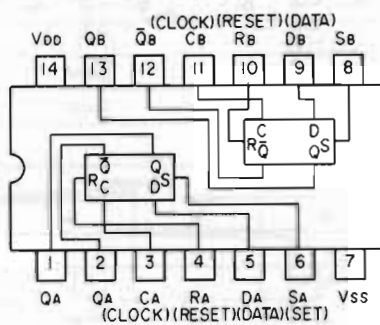


•Function Table <M74LS148>

EI	INPUT								OUTPUT				
	0	1	2	3	4	5	6	7	A2	A1	A0	GS	EO
H	X	X	X	X	X	X	X	X	H	H	H	H	H
L	H	H	H	H	H	H	H	H	H	H	H	L	L
L	X	X	X	X	X	X	X	L	L	L	L	H	H
L	X	X	X	X	X	X	L	H	L	L	H	L	H
L	X	X	X	X	X	L	H	H	L	H	L	L	H
L	X	X	X	L	H	H	H	H	H	L	L	L	H
L	X	X	L	H	H	H	H	H	H	L	H	L	H
L	X	L	H	H	H	H	H	H	H	L	L	L	H
L	L	H	H	H	H	H	H	H	H	H	L	L	H

*H:High Level, L:Low Level, X:"H" or "L"

•MB84013BM (Dual D-type Flip-Flop)

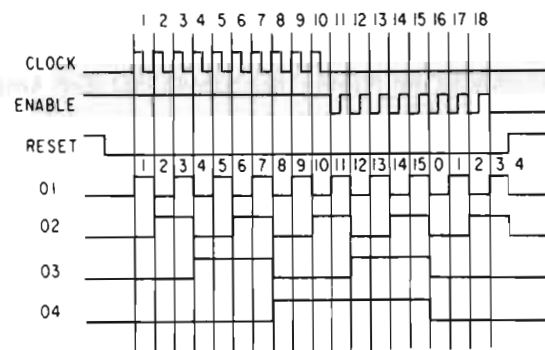
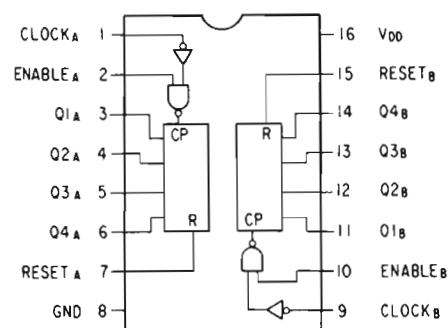


•Function Table <M84013BM>

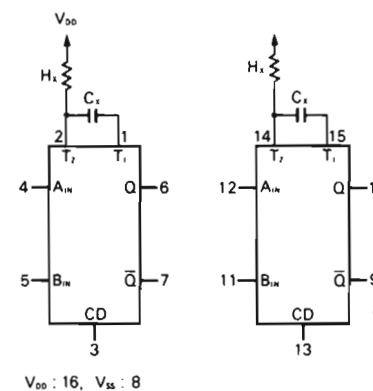
CLOCK	入 力			出 力	
	DATA	SET	RESET	Q _{n+1}	Q _n
—	L	L	L	L	H
—	H	L	L	H	L
—	X	L	L	Q _n	Q _n
X	X	L	H	L	H
X	X	H	L	H	L
X	X	H	H	L	L

H: High Level, L: Low Level, X: "H" or "L"
 Q_n: Output Signal before clock pulse
 Q_{n+1}: Output Signal after clock pulse

•MSM4520BRS/TC4520P/μPD4520BC (Dual Binary Up Counter)



•MSM4538RS/TC4538BP (Multivibrators)

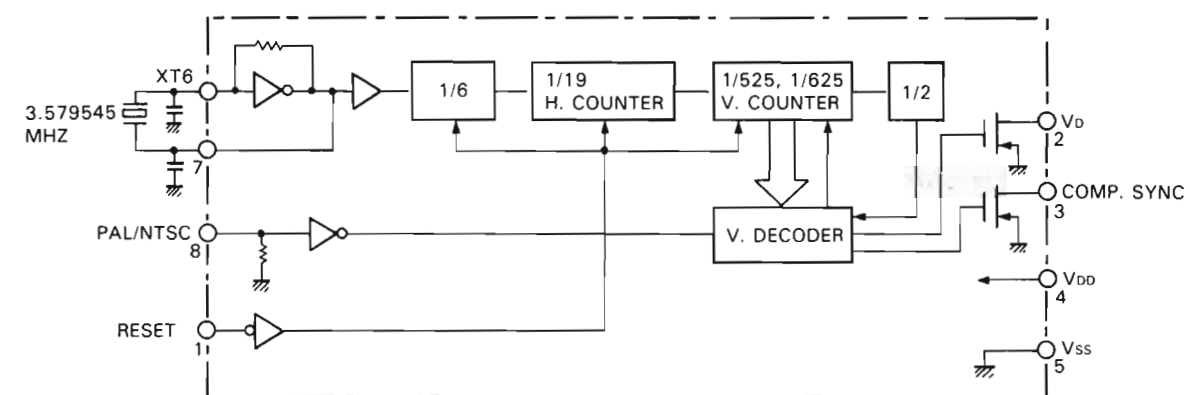


•Function Table <MSM4538RS/TC4538BP>

INPUT			OUTPUT		NOTE
A _n	B _n	CD	Q	Q̄	
H	H	H	H	L	OUTPUT ENABLE
L	H	H	L	H	INHIBIT
H	L	H	L	H	INHIBIT
L	L	H	H	L	OUTPUT ENABLE
*	*	L	L	H	INHIBIT

* : Don't Care

•MSM5258RS (SYNC SIG Generator)



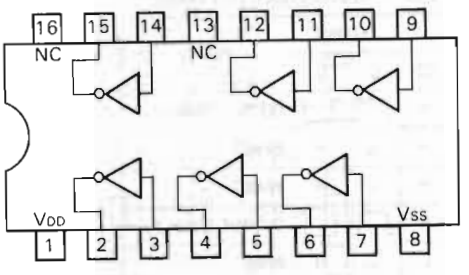
•Terminal Function <MSM5258RS>

Pin No.	Symbols	Terminal Name	Function and Operation
6, 7	XT, XT̄	Oscillator connecting terminals	An oscillator can be formed by externally connecting a quartz vibrator or a ceramic oscillator and a capacitor. Further, it is also possible to apply a signal of 3.58 MHz from outside through a coupling capacitor.
8	PAL/NTSC	NTSC or PAL switching terminal	A pull-down resistor is connected in side. NTSC is selected in response to a "L" level input; a PAL synchronizing signal is selected in response to a "H" level input. A composite synchronizing signal is outputted from COMP. SYNC terminal and a vertical synchronizing signal is outputted from V _D terminal. When oscillation freq. 3.579545 MHz is used:

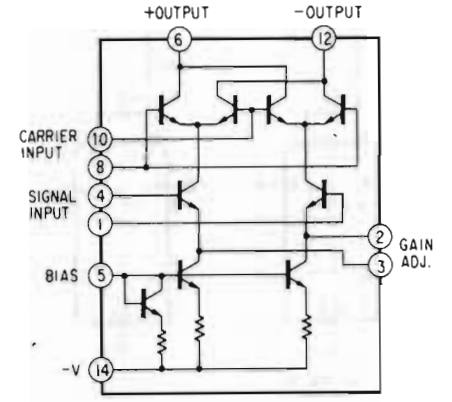
Method	Input	Hor. sync. freq.	Vert. sync. freq.
NTSC	"L"	15.7kHz	59.80Hz
PAL	"H"	15.7kHz	50.23Hz

Pin No.	Symbols	Terminal Name	Function and Operation
1	RESET	Reset input terminal	Internal counter is reset in response to a "L" level input, and V _D COMP. SYNC terminal changes to "L" level input, this terminal returns to the normal operation.
4, 5	V _{DD} V _{SS}	Power voltage terminal	V _{DD} is used at 4.3 to 6.0V. V _{SS} is used at 0V.
2	V _D	Vert. sync. signal output terminal	The output is of N-CH open drain. The amplitude of this output can freely be adjusted by externally connecting a pull-up or -down resistor.
3	COMP. SYNC	Composite sync. signal output terminal	The output is of N-CH open drain. The amplitude of this output can freely be adjusted by externally connecting a pull-up or -down resistor.

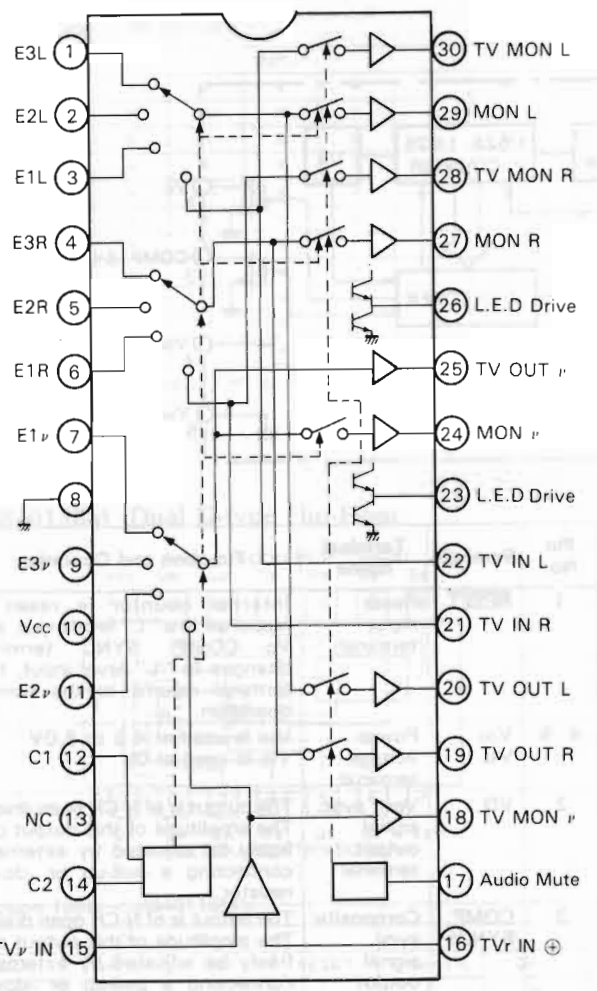
•MSM4049BRS/TC4049BP (Hex Inverter)



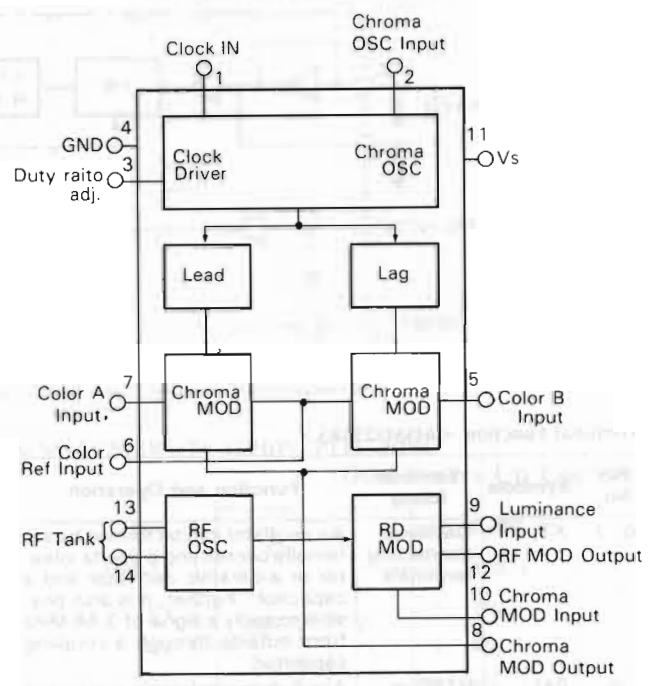
•NJM1496D (Double Balanced Mixer)



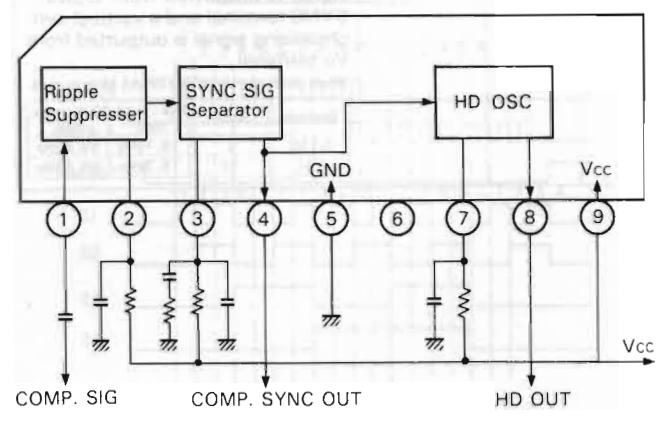
•TA7717P (Triple 4-ch Input Selector)



•NJM1372AD (Video SIG Modulator)



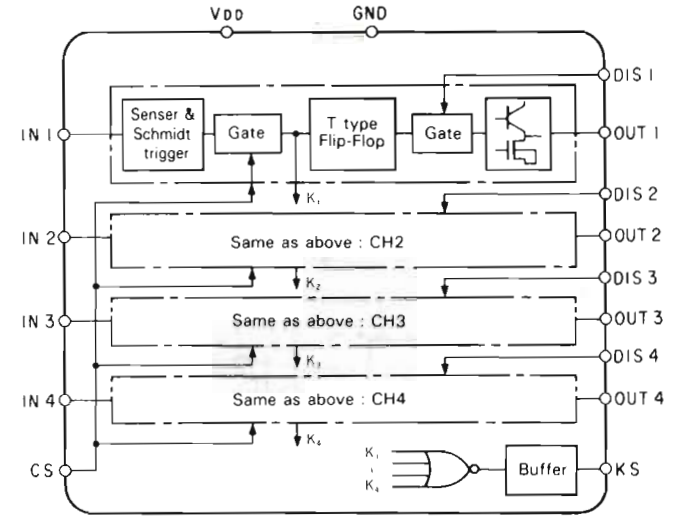
•TA7357AP (SYNC SIG Separator)



•Change Mode Table <TA7717P>

Control Input	VIDEO		AUDIO L		AUDIO R		
	TV _{OUTV}	MON _v	TV _{OUTL}	MON _L	TV _{OUTR}	MON _R	
Pin 14	Pin 12	Pin 25	Pin 24	Pin 20	Pin 29	Pin 19	Pin 27
H	H	TV	TV	TV	TV	TV	TV
H	L	E ₁	—	E ₁	—	E ₁	—
L	H	E ₂	E ₂	E ₂	E ₂	E ₂	E ₂
L	L	E ₃	E ₃	E ₃	E ₃	E ₃	E ₃

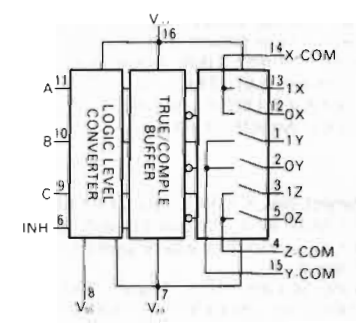
•TC9130P (Cyclic type Flip-Flop)



•Function Table <TC9130P>

Pin No.	Symbols	Terminal Name	Function and Operation
15 to 12	IN-1 to IN-4	Input signal terminals	When a voltage applied to these terminals changes from "H" to "L", the output of the corresponding channel is inverted.
1, 3, 5, 7	OUT-1 to OUT-4	Output terminals	Whenever the corresponding input terminal changes from "H" to "L", the output level is inverted. The output circuit is of complementary type of bipolar NPN transistor and Nch MOS FET.
2, 4, 6, 9	DIS-1 to DIS-4	Output-disable terminal	If this terminal is set to "L", the corresponding output terminal is fixed at "L" irrespective of the internal flip-flop condition. In this case, an input signal is receivable as usual.
10	CS	Input-disable terminal	If this terminal is set to "L", all the inputs from IN1 to 4 are disabled and the internal flip-flop condition is held.
11	KS	Input detection terminal	When a "L" signal is given to any one of the input terminals IN1 to 4, this terminal is changed to "L" level.
16	V _{DD}	Power voltage terminal	
8	GND	Ground terminal	

•TC4053BP (Triple 2-Channel Multiplexer)

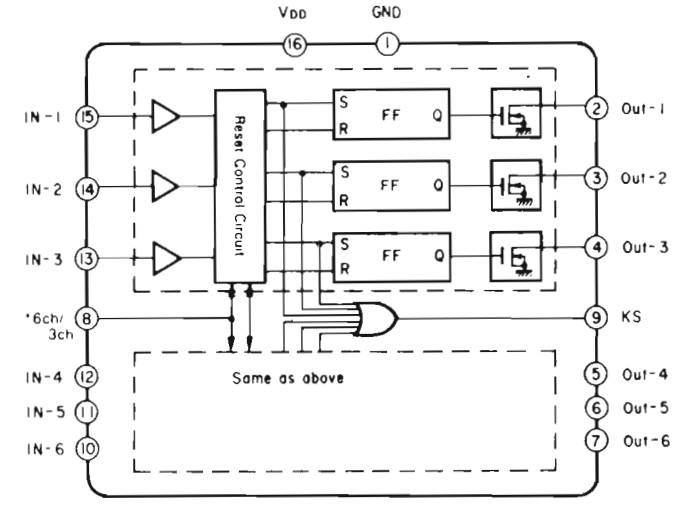


•Function Table <TC4053BP>

CONTROL INPUT	INHIBIT			"ON" CHANNEL
	C	B	A	
L	L	L	L	0X, 0Y, 0Z
L	L	L	H	1X, 0Y, 0Z
L	L	H	L	0X, 1Y, 0Z
L	L	H	H	1X, 1Y, 0Z
L	H	L	L	0X, 0Y, 1Z
L	H	L	H	1X, 0Y, 1Z
L	H	H	L	0X, 1Y, 1Z
L	H	H	H	1X, 1Y, 1Z
H	x	x	x	NONE

x = Don't Care

•TC9135P (6-ch Mutually Type Flip-Flop)

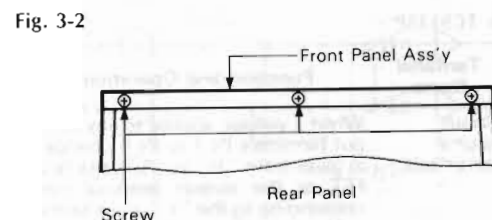
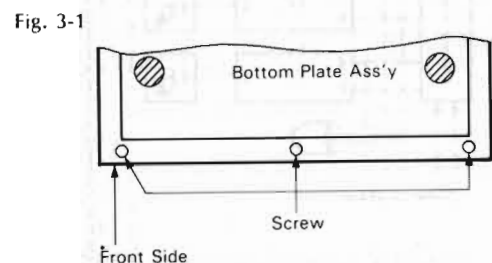


•Function Table <TC9135P>

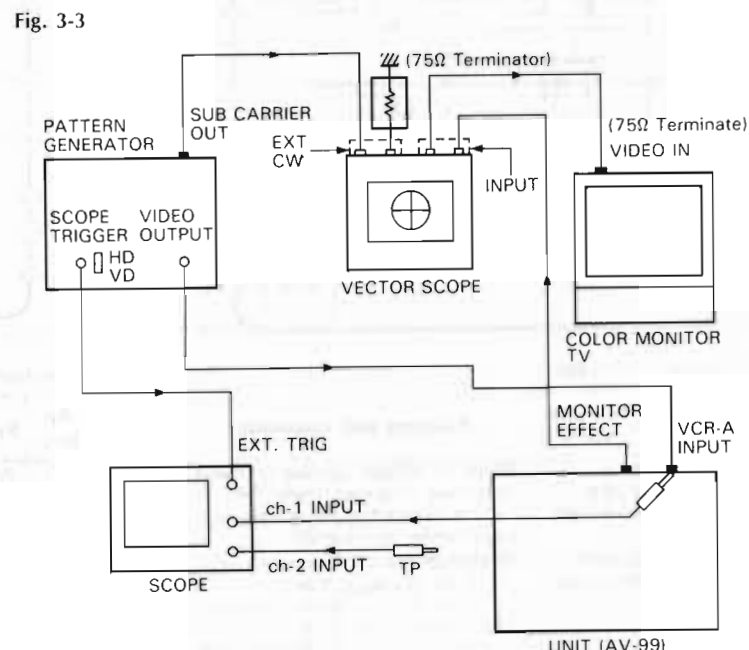
Pin Nos.	Symbols	Terminal Name	Function and Operation
10 to 15	IN-1 to IN-6	Input signal terminals:	When a voltage applied to any of input terminals IN-1 to IN-6 changes in level from "H" to "L", the Nch FET at the output terminal corresponding to the "L" input terminal is turned on, the other terminal outputs being turned off. These terminals can respond to both a mechanical key of feather touch type and a touch switch of touch sensor type.
2 to 7	Out-1 to Out-6	Output terminals:	When a voltage applied to the corresponding input terminal changes to "L", the Nch FET at the output terminal is turned on to change the output level to "L". This output status is kept at "L" level, even if the corresponding input terminal is returned to "H". However, when an input signal is applied to the other channels, the released Nch FET is turned off, the output being returned to "open" status. A maximum of 30 mA current can be passed through the Nch FET at the output, so that it is possible to directly drive an LED or a small relay.
9	KS	Input detection signal terminal:	The KS terminal output is kept at "H" level only while a "L" level signal is applied to any of the input terminals IN1 to IN6.
8	6/3	6ch/3chx2 Switch input terminal:	When this terminal is at "H" level, all the flip-flops in the six internal circuits are connected to each other as a mutually reset circuit. However, when at "L" level, the circuit is separated into two 3ch-mutually-reset circuits for IN-1 to IN-3 and IN-4 to IN-6.
16	V _{DD}	Power voltage terminal	
1	GND	Ground terminal	

3. ADJUSTMENTS

Conditions: 1. Remove front panel assembly from bottom cover assembly.
2. Arrange the connection as shown in Fig. 3-3. When no vector scope is used, connect MONITOR EFFECT terminal of the unit (AV-99) to VIDEO IN terminal of a color monitor TV.



•How to remove front panel assembly.
1) Remove POWER knob.
2) Remove three screws on the front side of bottom plate assembly. (See Fig. 3-1)
3) Remove three screws fastening rear panel and front panel assembly. (See Fig. 3-2)



3-1. Pulse Processor Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <EIA COLOR BAR> 2. Connection Point..... VCR-A INPUT Terminal.

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	Horizontal Blanking Pulse adj. (H.B.P)	ch-1 VCR-A INPUT Terminal, ch-2, TP-1 (IC4-Pin12) <F-5275>	rVR2, rVR1 <F-5275>	<p>1) Match the trailing edge of ch-2 input signal with the leading edge of the luminance signal of ch-1 input signal by rVR2. 2) Match the leading edge of ch-2 input signal with the end of the chrominance subcarrier of ch-1 input signal by rVR1.</p>	<ul style="list-style-type: none"> Set various switches to the condition where power is turned on. OSC SCOPE: TIME 10µsec, EXT. TRIG "H" (SCOPE TRIGGER H DRIVE), SLOPE "-", VERTICAL MODE "ALT". *See "Component Arrangement View of Printed Board" on page 25 with respect to the measuring and adjusting positions of board F-5275.
2	Burst-Flag Pulse adj. (B.F.P)	ch-1 VCR-A INPUT Terminal, ch-2, TP-2 (IC5-Pin12) <F-5275>	rVR20, rVR19 <F-5275>	<p>1) Match the trailing edge of ch-2 signal with the start of ch-1 color burst signal by rVR20. 2) Match the leading edge of ch-2 signal with the end of ch-1 color burst signal by rVR19.</p>	<ul style="list-style-type: none"> Set various switches to the condition where power is turned on. OSC SCOPE: TIME 2µsec, EXT. TRIG "H", SLOPE "-", VERT. MODE "ALT".
3	Vertical Blanking Pulse adj. (V.B.P)	ch-1 VCR-A INPUT Terminal, ch-2, TP-3 (IC8-Pin12) <F-5275>	rVR4, rVR3 <F-5275>	<p>1) Match the trailing edge of ch-2 signal with the start of ch-1 vertical blanking interval by rVR4. 2) Match the leading edge of ch-2 signal with the end of ch-1 vertical blanking interval by rVR3.</p>	<ul style="list-style-type: none"> Set various switches to the condition where power is turned on. OSC SCOPE: TIME 2msec, DELAY 0.2msec, EXT. TRIG "V" (SCOPE TRIGGER DRIVE), SLOPE "-", VERT. MODE "CHOP".
4	Color Bar Pulse adj.	ch-1 VCR-A INPUT Terminal, ch-2 TP-4 (IC41-Pin12) <F-5275>	rVR26 <F-5275>	<p>1) Match the trailing edge of the fourth pulse of ch-2 signal with the end of the chrominance subcarrier of ch-1 signal by rVR26.</p>	<ul style="list-style-type: none"> Select BACK GROUND COLOR/COLOR BAR. Set other switches to the condition where power is turned on. OSC SCOPE: TIME 10µsec, EXT. TRIG "H", SLOPE "-", VERT. MODE "ALT".

3-2. Output Signal Level Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <STAIR CASE•CHROMA OFF or EIA COLOR BAR•CHROMA OFF>
2. Connection Point..... VCR-A Terminal.

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	Luminance Signal Level adj.	ch-1 VCR-A INPUT Terminal, ch-2 MONITOR EFFECT Terminal (75Ω Terminator)	rVR7 <F-5274>	<p>1) Match the level b of ch-2 signal with that a of ch-1 signal by rVR7.</p>	<ul style="list-style-type: none"> Turn on WIPE. Set HORIZONTAL WIPE and VERTICAL WIPE control full upwards. Set other switches to the condition where power is turned on. OSC SCOPE: TIME 10µsec, EXT. TRIG "H", SLOPE "-", VERTICAL MODE "ALT". *See "Component Arrangement View of Printed Board" on page 24 with respect to the measuring and adjusting position of board F-5274.
2	SET-UP Level adj.	Same as above	rVR11 <F-5274>	<p>1) Match the level of ch-2 horizontal blanking interval with that of ch-1 input signal by rVR11.</p>	Same as above
3	Horizontal Synchronizing Signal Level adj.	Same as above	rVR10 <F-5274>	<p>1) Match the level of ch-2 synchronizing signal with that of ch-1 synchronizing signal by rVR10.</p>	Same as above

3-3. Color Corrector and R.G.B. Encode Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <EIA COLOR BAR>
2. Connection Point..... VCR-A INPUT Terminal, VECTOR SCOPE (See Fig. 3-1)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	3.58MHz Reference Frequency adj.	TP1 (JP32 or rR106) <F-5274>	rTC1 <F-5274>	1) Set the frequency counter to 3579.545kHz ± 50Hz by rTC1.	<ul style="list-style-type: none"> Remove PATTERN GENERATOR output from VCR-A INPUT terminal. (Or else, select VCR-B). Connect the frequency counter to TP-1. *See "Component Arrangement View of Printed Board" on page 24 with respect to the measuring and adjusting positions of board F-5274.
2	Color Burst Phase Control adj. (In case of using VECTOR SCOPE)	MONITOR EFFECT Terminal, VECTOR SCOPE, COLOR MONITOR TV.	rVR5 <F-5274>	1) Adjust vector scope coordinates so as to move along the ordinate by rVR5, when COLOR CONTROLLER (rVR1) is moved in the vertical direction.	<ul style="list-style-type: none"> Turn on COLOR CORRECTION. Set other switches to the condition where power is turned on. Adjust vector scope phase to the normal phase of each color, before performing this adjustment.
3	Color Burst Phase Control adj.	MONITOR EFFECT Terminal, COLOR MONITOR TV.	rVR5 <F-5274>	<p>1) Change the white (100%) portion on color monitor TV to pink color by rVR5.</p>	<ul style="list-style-type: none"> Set switches as above. Set COLOR CONTROLLER to R position.
4	Color Difference Signal Level adj. (R-Y)	MONITOR EFFECT Terminal, COLOR MONITOR TV.	rVR6 <F-5274>	1) Rotate rVR6 full clockwise. In this state, turn on AUTO FADER and confirm hue so as to be uniform on color monitor TV.	<ul style="list-style-type: none"> Turn on or off AUTO FADER and set BACK GROUND COLOR to COLOR BAR. Set other switches to the condition where power is turned on.

to be continued ▶

3 ADJUST

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
5	Color Difference Signal Level adj. (B-Y)	Same as above	rVR7 <F-5274>	1) Rotate rVR7 full counterclockwise. In this state, turn on AUTO FADER and confirm hue so as to be uniform on color monitor TV.	Same as above
6	Sub Carrier (3.58MHz) Canceler adj.	ch-2, TP-2 (rIC5-Pin8) <F-5274>	rVR8 <F-5274>	Fig. 3-12 1) Minimize the leak of sub-carrier on white signal portion (A) of ch-2 input signal by rVR8.	•Set various switches as above. •OSC SCOPE: TIME 10μsec, EXT TRIG "H", SLOPE "—".

3-4. AUTO FADER Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <EIA COLOR BAR> 2. Connection Point..... VCR-A INPUT Terminal.

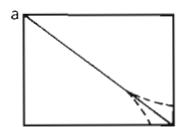

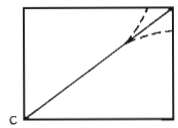

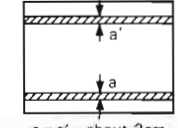

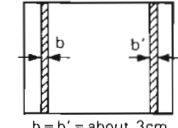

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	BACK GROUND COLOR Bias (1-2) Level adj.	ch-2, TP-3 (jIC10-Pin6) <F-5274>	jVR4 <F-5274>	Fig. 3-13 1) Set pedestal level of ch-2 input signal to DC+10V by jVR4.	•Set BACK GROUND COLOR to WHITE. •Turn on AUTO FADER. Set other switches to the condition where power is turned on. •OSC SCOPE: TIME 10μsec, EXT. TRIG "H", SLOPE "—". *See "Component Arrangement View of Printed Board" on page 24 with respect to the measuring and adjusting positions of board F-5274.
2	BACK GROUND COLOR Bias (2-1) Level adj.	ch-2, MONITOR EFFECT Terminal	jVR3 <F-5274>	Fig. 3-14 1) Adjust luminance signal of ch-2 input signal by jVR3 so that no other signals present on the luminance signal portion (A) and further the portion (A) becomes straight.	Same as above
3	Bias (1-1) Level adj.	ch-2, TP-4 (jIC9-Pin6) <F-5274>	jVR2 <F-5274>	Fig. 3-15 1) Set pedestal level of ch-2 input signal to DC+10V by jVR2.	•Set BACK GROUND COLOR to COLOR BAR. •Turn on AUTO FADER and set IN/CUT to IN (fade-in operation). Set other switches to the condition where power is turned on. •OSC SCOPE: TIME 10μsec, EXT. TRIG "H" SLOPE "—".
4	Bias (2-2) Level adj.	ch-2, MONITOR EFFECT Terminal	jVR5 <F-5274>	Fig. 3-16 1) Adjust ch-2 input signal wave form to a correct form by jVR5. Wave form is desheveled.	Same as above
5	AUTO FADER Level adj. (AUTO FADER)	ch-1, VCR-A INPUT Terminal, ch-2 MONITOR EFFECT Terminal	jVR8 <F-5274>	1) Match ch-1 input signal level with ch-2 input signal level by jVR8.	•OSC SCOPE: VERTICAL MODE "ALT". Set other switches as above.
6	AUTO FADER Level adj. (AUTO FADER By-Pass)	Same as above	jVR7 <F-5274>	1) Match ch-1 input signal level with ch-2 input signal level by jVR7, when AUTO FADER is off, by repeatedly turning on or off AUTO FADER switch.	Same as above
7	AUTO FADER Level adj. (BACK GROUND COLOR)	Same as above	jVR6 <F-5274>	1) Match ch-1 input signal level with ch-2 input signal level by jVR6, when AUTO FADER is on, by repeatedly turning on or off AUTO FADER switch.	•Turn on AUTO FADER and set IN/OUT to OUT (Fade-out operation) •Turn on WIPE and set HORIZONTAL and VERTICAL controls full downward toward you. Set other switches as above.

3-5. WIPE PATTERN Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <EIA COLOR BAR> 2. Connection Point..... VCR-A INPUT Terminal.

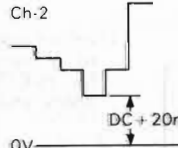
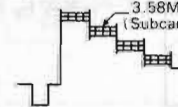
STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	Circle WIPE PATTERN adj. (In the horizontal direction)	ch-1, VCR-A INPUT Terminal, ch-2, TP-1 (rIC2-Pin1) MONITOR EFFECT Terminal, COLOR MONITOR TV.	rVR18, rVR5 <F-5273>	Fig. 3-17 1) Set a point A of ch-2 signal at the middle point of ch-1 burst signal (in the horizontal direction) by rVR18. 2) Set ch-2 signal wave form to about 8Vp-p by rVR5 so that the circle is symmetrical right and left in the horizontal direction on color monitor TV.	•Turn on WIPE and set WIPE PATTERN to \square . Set other switches to the condition where power is turned on. •OSC SCOPE: TIME 10μsec, EXT. TRIG "H", SLOPE "—", VERTICAL MODE "ALT". •Project wipe pattern on color monitor TV by HORIZONTAL control. *See "Component Arrangement View of Printed Board" on page 23 with respect to the measuring and adjusting positions on board F-5273.
2	Circle WIPE PATTERN adj. (In the vertical direction)	ch-1, VCR-A INPUT Terminal, ch-2 TP-2 (rIC13-Pin1) <F-5273> MONITOR TV.	rVR21, rVR7 <F-5273>	Fig. 3-18 1) Match B-portion of ch-2 signal with the end of ch-1 vertical blanking interval by rVR21. Further, check that the C-portion lies within the vertical blanking interval (in the vertical direction). 2) Set ch-2 signal wave form to about 7Vp-p by rVR7 so that the circle is symmetrical above and below in the vertical direction on color monitor TV.	•Set various switches as above. •OSC SCOPE: TIME 2msec, EXT. TRIG "V", SLOPE "—", VERTICAL MODE "CHOP".
3	Circle WIPE PATTERN Parameter adj.	MONITOR EFFECT Terminal, COLOR MONITOR TV.	rVR6 <F-5273>	1) Adjust the circle to a truly round shape as closely as possible by rVR6.	•Set various switches as above.
4	Diamond WIPE PATTERN Position adj. (In the horizontal direction)	Same as above	rVR12 <F-5273>	Fig. 3-19 1) Adjust angle positions A and B to horizontal middle position. x = y	•Turn on WIPE and set WIPE PATTERN to \square . Set other switches to the condition where power is turned on. •Project wipe PATTERN on the color monitor by HORIZONTAL control.
5	Diamond WIPE PATTERN Position adj. (In the vertical direction)	Same as above	rVR11 <F-5273>	Fig. 3-20 1) Adjust angle positions C and D to vertical middle position. x = y	Same as above
6	Diamond WIPE PATTERN form adj. (In the horizontal direction)	Same as above	rVR13 <F-5273>	Fig. 3-21 1) Adjust angles a and b so as to be equal to each other by rVR13 (symmetrical right and left).	Same as above
7	Diamond WIPE PATTERN form adj. (In the vertical direction)	Same as above	rVR15 <F-5273>	Fig. 3-22 1) Adjust angles c and d so as to be equal to each other by rVR15 (symmetrical above and below).	Same as above
8	Diamond WIPE PATTERN form parameter adj.	Same as above	rVR14 <F-5273>	Fig. 3-23 1) Adjust four corners so as to be inscribed to the screen edges by rVR14.	•Project WIPE PATTERN full on the screen by HORIZONTAL control. Set other switches as above.

to be continued ▶

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
9	Triangle (INV. Saw) WIPE PATTERN adj.	MONITOR EFFECT Terminal, COLOR MONITOR TV.	rVR17 <F-5273>	Fig. 3-24 	1) Adjust the diagonal line so as to connect two corners a and b on the screen by rVR17. • Set WIPE PATTERN to  . • Set the upper side of the diagonal line at corner a by HORIZONTAL WIPE control. • Set other switches as above.
10	Triangle (Saw) WIPE PATTERN adj.	Same as above	rVR16 <F-5273>	Fig. 3-25 	1) Adjust the diagonal so as to connect two corners c and d on the screen by rVR16. • Set WIPE PATTERN to  . • Set the lower side of the diagonal line at corner c by HORIZONTAL WIPE control. • Set other switches as above.
11	Square (Saw-2) WIPE PATTERN adj. (In the vertical direction)	Same as above	rVR10 <F-5273>	Fig. 3-26 	1) Adjust the width a of upper horizontally long and narrow rectangle so as to match that a' of lower horizontally long and narrow rectangle by rVR10. • Set WIPE PATTERN to  . • Project rectangles as shown on the color monitor TV by HORIZONTAL WIPE and VERTICAL WIPE controls. • Move the rectangle up and down by POSITIONER. • Set other switches as above.
12	Square (Saw-2) WIPE PATTERN adj. (In the horizontal direction)	Same as above	rVR9 <F-5273>	Fig. 3-27 	1) Adjust the width b of left vertically long and narrow rectangle so as to match that b' of right vertically long and narrow rectangle by rVR9. • Project rectangles as shown on the color monitor TV by HORIZONTAL WIPE and VERTICAL WIPE controls. • Move the rectangle right and left by POSITIONER. • Set other switches as above.
13	WIPE PATTERN Compensation adj.	Same as above	rVR8 <F-5273>	1) Select all the WIPE PATTERN (except WIPE PATTERN) switches and adjust rVR8 so that each wipe pattern selected by each switch does not remain both in WIPE NORMAL and WIPE REVERSE. 2) Check that the wipe pattern spreads full on the screen when HORIZONTAL WIPE and VERTICAL WIPE are set at a position 5mm downward away from the extreme upper position.	• Set HORIZONTAL WIPE and VERTICAL WIPE controls at a position 5mm upward away from the extreme lower position (extremely toward you). • POSITION Center Position • Select all the wipe patterns. • Select either WIPE NORMAL or REVERSE. • Be extremely careful doing this when WIDE PATTERN is set to  .

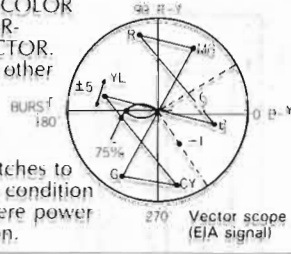

3-6. VIDEO ART Level and COLOR CORRECTOR Signal Adjustment

Conditions: 1. OSC Output..... PATTERN GENERATOR <EIA COLOR BAR> 2. Connection Point..... VCR-A INPUT Terminal.

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	VIDEO ART Level adj.	ch-2, TP-A (rIC4-Pin3) <F-5273>	rVR4 <F-5273>	Fig. 3-28 	1) Adjust SYNC tip of ch-2 input signal to DC + 20mV by rVR4. 2) The same as above both in VIDEO ART NORMAL and REVERSE. • Turn on VIDEO ART ON. VIDEO ART NORMAL and REVERSE. Set other switches to the condition where power is turned on. • OSC SCOPE: TIME 10µsec, EXT. TRIG "H", SLOPE "-", Input coupling switch "DC". • See "Component Arrangement View on Printed Board" on page 23 with respect to the measuring and adjusting positions on board F-5273.
2	COLOR CORRECTOR Signal adj.	ch-2, TP-B (rQ4 Emitter) <F-5273>	rT1 <F-5273>	Fig. 3-29 	1) Minimize subcarrier of ch-2 input wave form by rT1. • OSC SCOPE: Input coupling switch "AC". Others are the same as above.

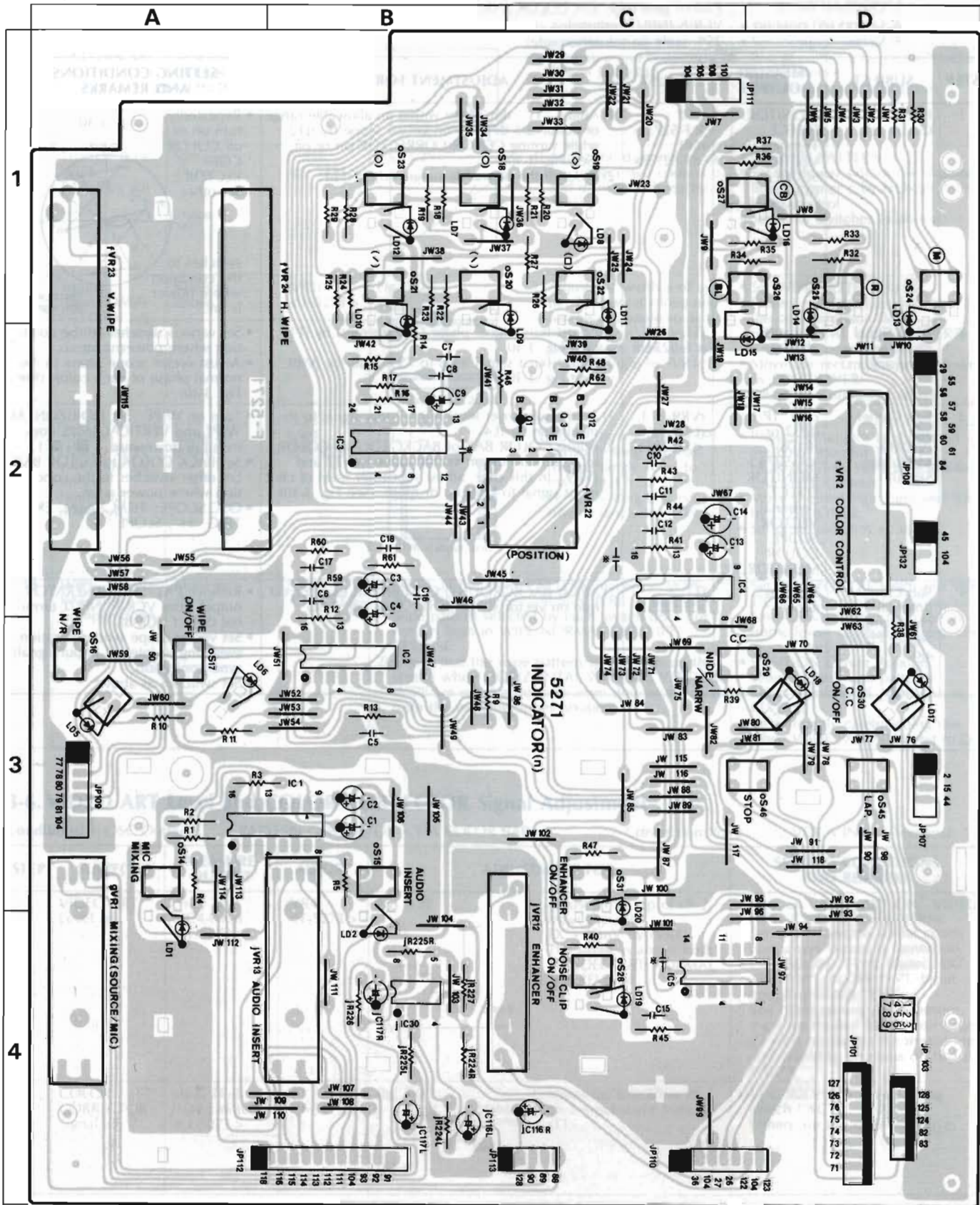
3-7. Hue Adjustment < In case of using VECTOR SCOPE >

Conditions: 1. Perform the adjustments after ten minutes or more have elapsed.
2. Perform the adjustments after Adjustments stated in Items 3-1 to 3-6 have been completed.
3. Oscillator output Pattern generator (EIA COLOR BAR)
4. Connected position VCR-A INPUT terminal
5. Vector scope 75% scale (in saturation rate).

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUSTMENT FOR	SETTING CONDITIONS AND REMARKS
1	Phase of Circuit adj.	MONITOR EFFECT Terminal, VECTOR SCOPE, COLOR MONITOR TV.	rLF2 <F-5273> rLF1 <F-5273>	1) Adjust "YL" dot phase within an allowable range of about ±5 degrees on vector scope by rLF2 while turning COLOR CORRECTOR on or off. (See Fig. 3-30) 2) If out of the allowable range, adjust rLF1.	• Repeatedly turn on or off COLOR CORRECTOR. Set other switches to the condition where power is on. 
2	Burst Signal Phase and Level adj.	Same as above	rT1, rVR9 <F-5274>	1) Adjust burst signal phase (180 degrees) by rT1. (See Fig. 3-30) 2) Adjust burst signal level to 75% scale by rVR9. (See Fig. 3-30)	• Set various switches to the condition where power is on. • Adjust vector scope phase to the normal phase of each color. (See Fig. 3-30)
3	Sub Carrier adj. (VIDEO Modulator Signal)	ch-2, TP-1 (JP32 or rR106) <F-5274> MONITOR EFFECT Terminal, VECTOR SCOPE, COLOR MONITOR TV.	rVR9, rT3, rL4 <F-5274>	1) Adjust subcarrier level of ch-2 input signal to its maximum by rL4. 2) Adjust COLOR BAR of BACKGROUND COLOR to a correct hue on vector scope by rT3 and rVR9. In this case, adjust subcarrier level of ch-2 input signal to 1.4Vp-p or more. (See Fig. 3-30)	• Turn on WIPE. Set HORIZONTAL WIPE and VERTICAL WIPE controls full downward. () • Set BACK COLOR to COLOR BAR. Set other switches to the condition where power is on. • OSC SCOPE: TIME 20µsec, EXT. TRIG "H", SLOPE "-".
4	Sub Carrier (Internal Synchronizing Signal) Phase adj.	Same as above	rT1 <F-5275>	1) Adjust BACKGROUND COLOR BAR to a correct hue on vector scope by rT1. (See Fig. 3-30)	• Remove PATTERN GENERATOR output from VCR-A INPUT terminal (Select VCR-B). • Set vector scope synchronization switching to internal (input signal) synchronization. • Set switches as above.

4. PARTS LOCATION & PARTS LIST

4-1. F-5271 Control Volume and Switch (WIPE·BACK GROUND COLOR etc.) Board (Stock No. 00951601)
Component Side



4-2. F-5272 Control Volume and Switch (SELECTOR·AV AUTO FADER etc.) Board (Stock No. 00951701)

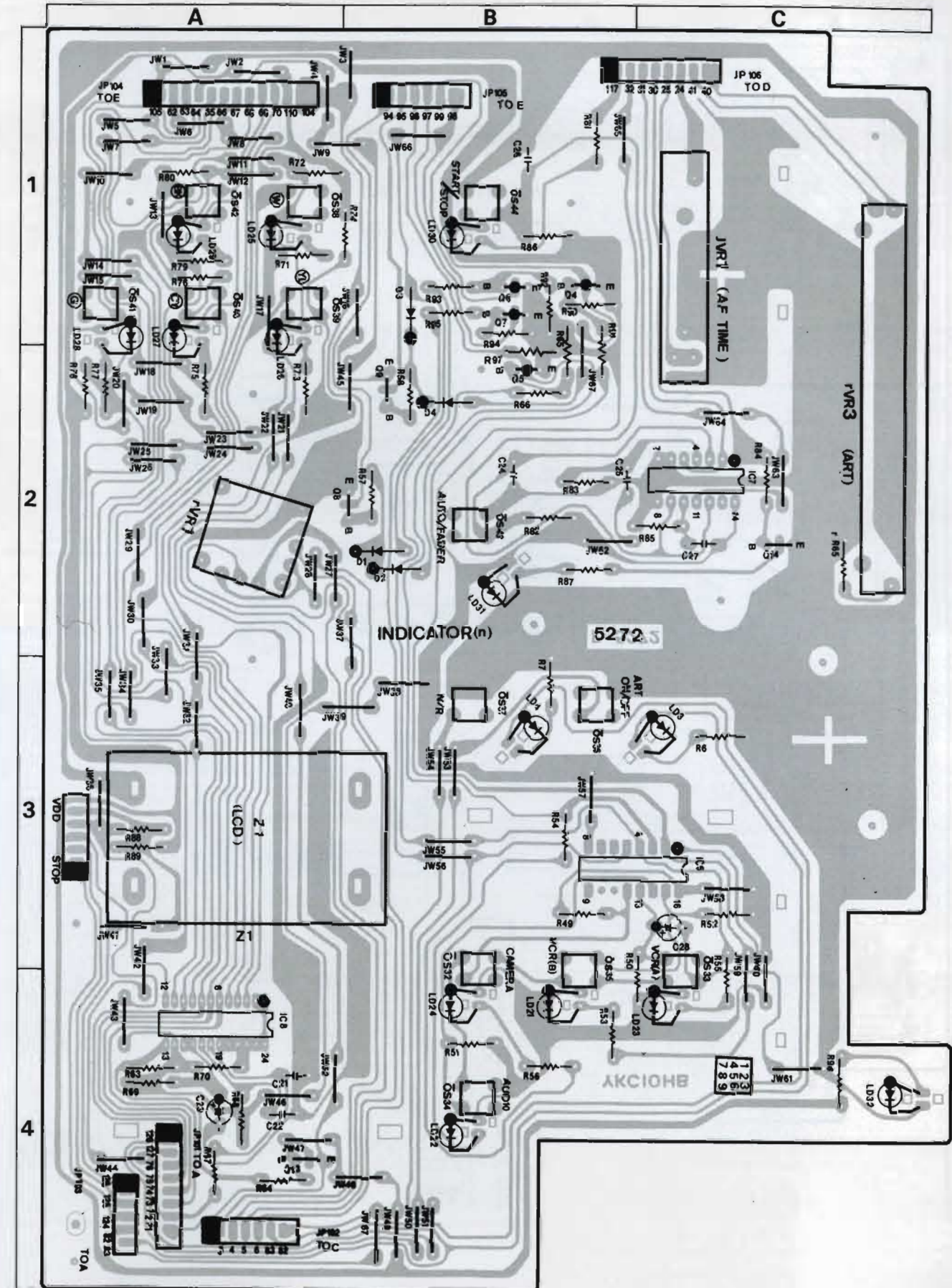
Parts List <F-5271>

Parts No.	Stock No.	Description
fVR22	48351600	10kΩ (B) V.R., POSITIONER
fVR23	48351500	10kΩ (B) V.R., VERTICAL
fVR24	48351500	10kΩ (B) V.R., HORIZONTAL
gVR1	48351300	50kΩ (B) V.R., MIC MIXING
•IC		
•iC30	07208900 or 46580100	NJM4558D-X M5218P
jVR13	48351400	100kΩ (B) V.R., SOUND MIXING
jVR12	48351100	5kΩ (B) V.R., ENHANCER VOLUME
•Transistor		
nQ1	46367001	2SA1115
nQ3	46367101	2SC2603
nQ12	46367101	2SC2603
nQ15	46367101	2SC2603
nQ18	48183400	DTA114YS
nQ19	48183400	DTA114YS
•IC		
nIC1	48239100	TC9130P
nIC2	48239100	TC9130P
nIC3	48353700	IR2P02T
nIC4	48239100	TC9130P
nIC5	07207300	MB84013BM
•Diode		
nD5	03117600 or 46086000	1S2473T77 1S1588TP-3
•LED		
nLD1	48126300	SEL2210S, SOUND MIXING
nLD2	48126300	SEL2210S, MIC MIXING
nLD5	48126300	SEL2210S, WIPE NORMAL/ REVERSE
nLD6	48126300	SEL2210S, WIPE ON
nLD7	46470300	SEL2410E, WIPE PATTERN
nLD8	46470300	SEL2410E, WIPE PATTERN
nLD9	46470300	SEL2410E, WIPE PATTERN
nLD10	46470300	SEL2410E, WIPE PATTERN
nLD11	46470300	SEL2410E, WIPE PATTERN
nLD12	46470300	SEL2410E, WIPE PATTERN
nLD13	46470300	SEL2410E, MAGENTA
nLD14	46470300	SEL2410E, RED
nLD15	46470300	SEL2410E, BLUE
nLD16	46470300	SEL2410E, COLOR BAR
nLD17	48126300	SEL2210S, COLOR CORRECTOR ON
nLD18	48126300	SEL2210S, NARROW/WIDE
nLD19	48126300	SEL2210S, NOISE CUT
nLD20	48126300	SEL2210S, ENHANCER ON
oS14	46708100	Push SW., MIC MIXING
oS15	46708100	Push SW., SOUND MIXING
oS16	46708100	Push SW., WIPE NORMAL/REVERSE
oS17	46708100	Push SW., WIPE ON
oS18	46708100	Push SW., WIPE PATTERN
oS19	46708100	Push SW., WIPE PATTERN
oS20	46708100	Push SW., WIPE PATTERN
oS21	46708100	Push SW., WIPE PATTERN
oS22	46708100	Push SW., WIPE PATTERN
oS23	46708100	Push SW., WIPE PATTERN
oS24	46708100	Push SW., MAGENTA
oS25	46708100	Push SW., RED
oS26	46708100	Push SW., BLUE
oS27	46708100	Push SW., COLOR BAR
oS28	46708100	Push SW., NOISE CUT
oS29	46708100	Push SW., NARROW/WIDE
oS30	46708100	Push SW., COLOR CORRECTOR ON
oS31	46708100	Push SW., ENHANCER ON
oS45	46708100	Push SW., LAP/RESET
oS46	46708100	Push SW., START/STOP
rVR2	48351000	1kΩ (B) V.R., COLOR LEVEL

Parts List <F-5272>

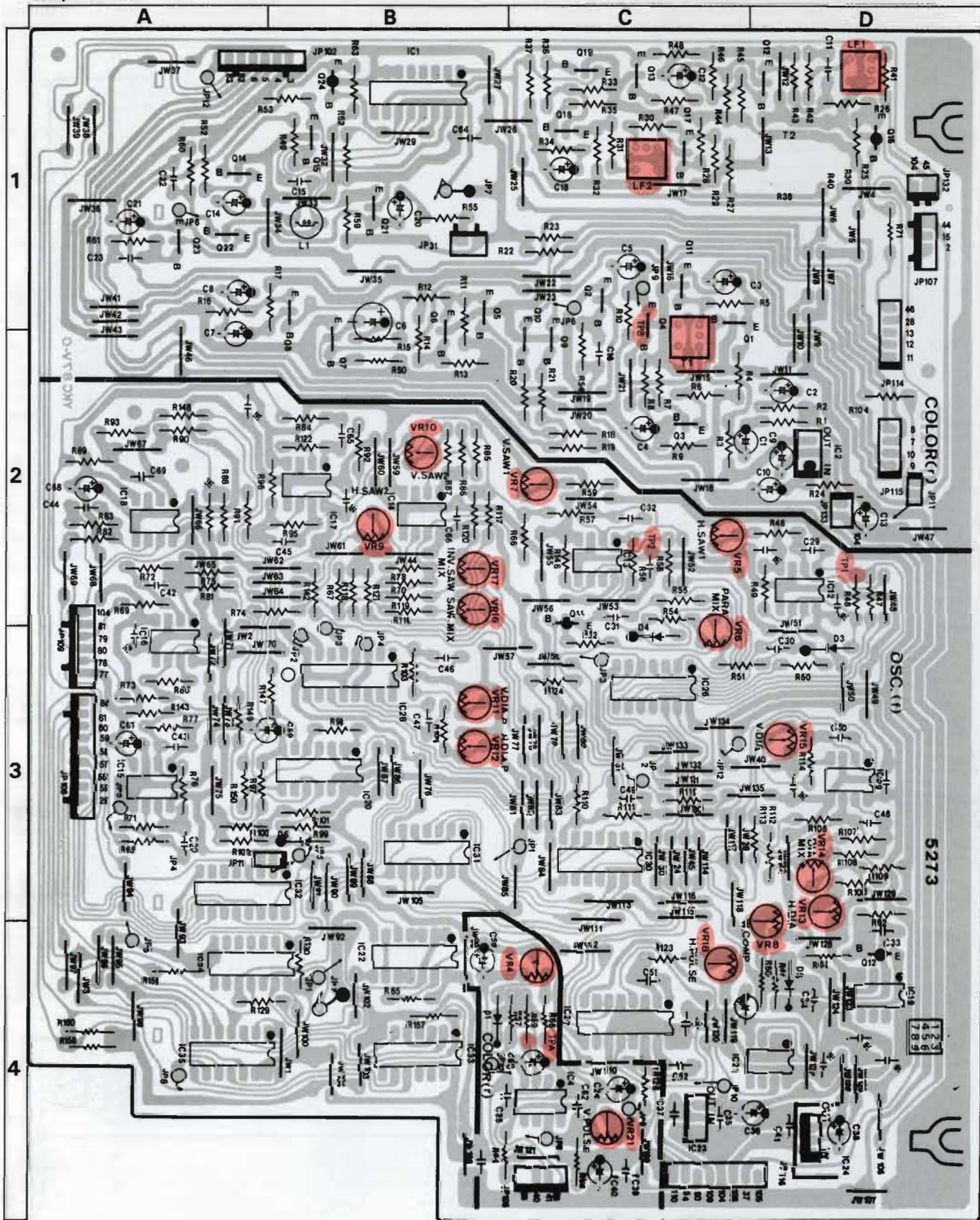
Parts No.	Stock No.	Description
jVR1	48351200	1MΩ (B) V.R., FADER DURATION
nZ1	48336400	Liquid Crystal Display Module
•Transistor		
nQ4	46367001	2SA1115
nQ5	46367001	2SA1115
nQ6	46367001	2SA1115
nQ7	46367001	2SA1115
nQ8	46367101	2SC2603
nQ9	46367101	2SC2603
nQ13	46367101	2SC2603
nQ14	46367101	2SC2603
nQ16	46367101	2SC2603
nQ17	48183400	DTA114YS
•IC		
nIC6	48109600	TC9135P
nIC7	07207300	MB84013BM
nIC8	48353700	IR2P02T
•Diode		
nD1	03117600 or 46086000	1S2473T77 1S1588TP-3
nD2	03117600 or 46086000	1S2473T77 1S1588TP-3
nD3	03117600 or 46086000	1S2473T77 1S1588TP-3
nD4	03117600 or 46086000	1S2473T77 1S1588TP-3
nD6	03117600 or 46086000	1S2473T77 1S1588TP-3
•LED		
nLD3	48126300	SEL2210S, VIDEO ART ON
nLD4	48126300	SEL2210S, VIDEO ART NORMAL/ REVERSE
nLD21	46470300	SEL2410E, VCR-B
nLD22	46470300	SEL2410E, AUDIO
nLD23	46470300	SEL2410E, VCR-A
nLD24	46470300	SEL2410E, CAMERA
nLD25	46470300	SEL2410E, WHITE
nLD26	46470300	SEL2410E, YELLOW
nLD27	46470300	SEL2410E, CYAN
nLD28	46470300	SEL2410E, GREEN
nLD29	46470300	SEL2410E, BLACK
nLD30	46470300	SEL2410E, AUTO FADER IN/OUT
nLD31	48126300	SEL2210S, AUTO FADER ON
nLD32	48126300	SEL2210S, POWER
oS32	46708100	Push SW., CAMERA
oS33	46708100	Push SW., VCR-A
oS34	46708100	Push SW., AUDIO
oS35	46708100	Push SW., VCR-B
oS36	46708100	Push SW., ART ON
oS37	46708100	Push SW., ART NORMAL/ REVERSE
oS38	46708100	Push SW., WHITE
oS39	46708100	Push SW., YELLOW
oS40	46708100	Push SW., CYAN
oS41	46708100	Push SW., GREEN
oS42	46708100	Push SW., BLACK
oS43	46708100	Push SW., AUTO FADER ON
oS44	46708100	Push SW., AUTO FADER IN/OUT
rVR1	48316200	1kΩ (B) V.R., COLOR CONTROLLER
rVR3	48351500	10kΩ (B) V.R., PICTURE EFFECTOR

Component Side



4-3. F-5273 WIPE PATTERN Generator and Color Control Board (Stock No. 00951801)

Component Side

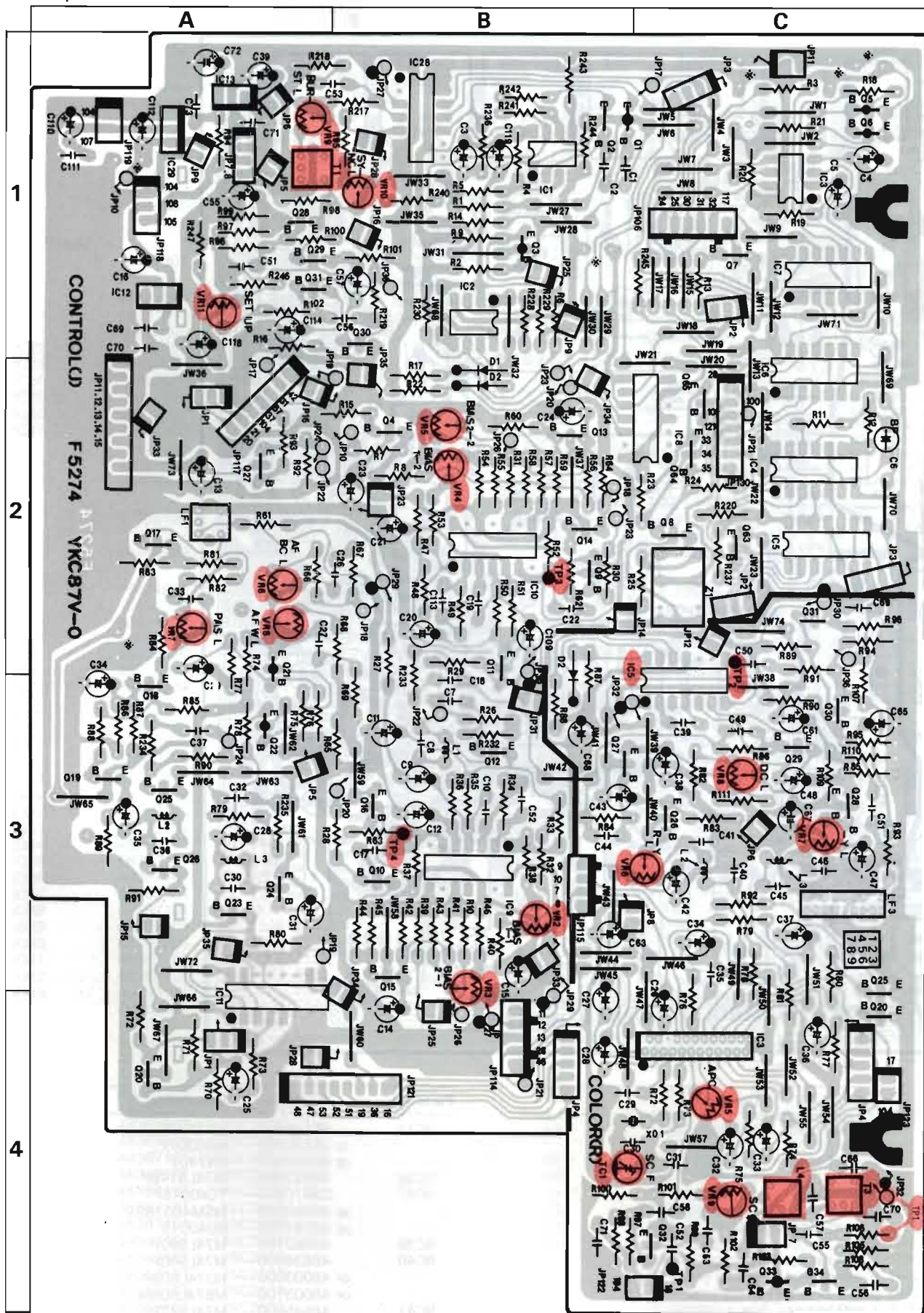


Parts List <F-5273>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
• Transistor			rVR6	46634300	10kΩ S.V.R., WIPE □ adj.
fQ11	48229400	DTA114TS	rVR7	46635100	220kΩ S.V.R., WIPE □ adj.
fQ12	46367001	2SA1115	rVR8	46634500	22kΩ S.V.R., WIPE COMP adj.
• IC			rVR9	46634300	10kΩ S.V.R., WIPE □ adj.
fIC12	03613800	NJM4559D-D	rVR10	46634300	10kΩ S.V.R., WIPE □ adj.
	or 48376600	IR94559 OP AMP	rVR11	46635100	220kΩ S.V.R., WIPE □ adj.
fIC13	03613800	NJM4559D-D	rVR12	46634500	22kΩ S.V.R., WIPE □ adj.
	or 48376600	IR94559 OP AMP	rVR13	46634900	100kΩ S.V.R., WIPE □ adj.
fIC14	03613800	NJM4559D-D	rVR14	46634300	10kΩ S.V.R., WIPE □ adj.
	or 48376600	IR94559 OP AMP	rVR15	46635300	470kΩ S.V.R., WIPE □ adj.
fIC15	03613800	NJM4559D-D	rVR16	46634300	10kΩ S.V.R., WIPE □ adj.
	or 48376600	IR94559 OP AMP	rVR17	46634300	10kΩ S.V.R., WIPE □ adj.
fIC16	03613800	NJM4559D-D	rVR18	46634500	22kΩ S.V.R., WIPE H adj.
	or 48376600	IR94559 OP AMP	rVR21	46635100	220kΩ S.V.R., WIPE V adj.
fIC17	03613800	NJM4559D-D	• Transistor		
	or 48376600	IR94559 OP AMP	rQ1	46367101	2SC2603
fIC18	03613800	NJM4559D-D	rQ2	46367101	2SC2603
	or 48376600	IR94559 OP AMP	rQ3	46393201	2SC2786
fIC19	03613800	NJM4559D-D	rQ4	46367101	2SC2603
	or 48376600	IR94559 OP AMP	rQ5	46367101	2SC2603
fIC20	48308000	IR2339	rQ6	46367101	2SC2603
fIC21	48369000	IR9311	rQ7	46367101	2SC2603
fIC22	48353400	TC74HC00P	rQ8	46367101	2SC2603
fIC23	46581200	NJM79M12A	rQ9	46367101	2SC2603
fIC24	48341300	NJM7812A	rQ10	46367101	2SC2603
fIC26	07224800	TC4066BP	rQ11	46367101	2SC2603
	or 48054500	MSM4066BRS	rQ12	46393201	2SC2786
	or 48063800	BU4066B	rQ13	46367101	2SC2603
fIC27	46122900	MSM4538RS	rQ14	46367101	2SC2603
	or 46160800	TC4538BP	rQ15	46367101	2SC2603
fIC28	46122900	MSM4538RS	rQ16	46367001	2SA1115
	or 46160800	TC4538BP	rQ17	46367101	2SC2603
fIC29	03613800	NJM4559D-D	rQ18	46393201	2SC2786
	or 48054500	MSM4066BRS	rQ19	46367101	2SC2603
	or 48063800	BU4066B	rQ21	46367101	2SC2603
fIC31	03604100	TC4011P	rQ22	46367101	2SC2603
	or 48050100	MSM4011BRS	rQ23	46367101	2SC2603
	or 48063700	BU4011B	rQ24	46367001	2SA1115
fIC32	46160500	TC4049BP	• IC		
	or 48050400	MSM4049BRS	rIC1	46545800	TC4053BP
fIC33	98003200	HD74LS00P	rIC2	46359400	L78N05
	or 98003300	MB74LS00	rIC4	48369000	IR9311
fIC34	46148500	HD7407P	• Diode		
	or 46220600	M53207P	rD1	03117600	1S2473T77
	or 46429500	SN7407		or 46086000	1S1588TP-3
fIC35	46545600	M74LS86P	rLF1	48350500	Low Pass Filter
	or 46863100	MB74LS86	rLF2	48350400	Low Pass Filter
• Diode			rLi	46204500	Inductor 10μH
fD3	03117600	1S2473T77	rT1	48350000	Trap Filter
	or 46086000	1S1588TP-3	rVR4	46633900	2.2kΩ S.V.R., VIDEO ART Level adj
fD4	03117600	1S2473T77			
	or 46086000	1S1588TP-3			
fD5	03117600	1S2473T77			
	or 46086000	1S1588TP-3			
fD6	03117600	1S2473T77			
	or 46086000	1S1588TP-3			
fC29	46692800	1000pF 50V F.C.			
fC31	46696000	0.022μF 50V F.C.			
fC32	46696800	0.047μF 50V F.C.			
fC46	46695800	0.018μF 50V F.C.			
fC47	46692800	1000pF 50V F.C.			
fC50	46696000	0.022μF 50V F.C.			
fC51	46692800	1000pF 50V F.C.			
fC52	46695800	0.018μF 50V F.C.			
fC74	08404000	1μF 50V E.C.			
fC75	08404000	1μF 50V E.C.			
fC76	08404000	1μF 50V E.C.			
rVR5	46634500	22kΩ S.V.R., WIPE □ adj.			

4-4. F-5274 AUTO FADER and COLOR CORRECTOR Board (Stock No. 00951901)

Component Side

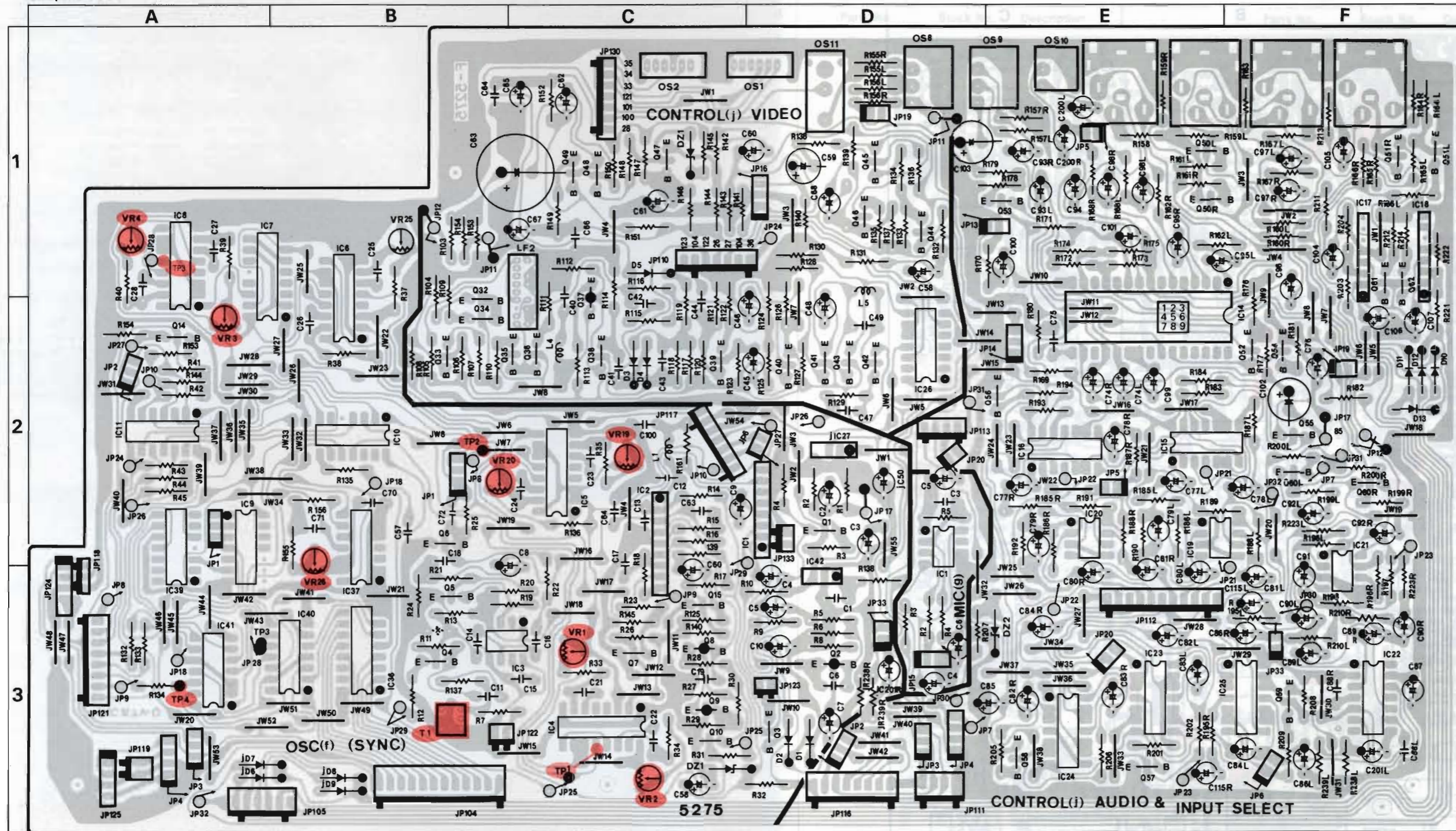


Parts List <F-5274>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
•Transistor					
jQ1	46367001	2SA1115	jC17	46695200	0.01μF 50V F.C.
jQ2	46367101	2SC2603	jC22	46695200	0.01μF 50V F.C.
jQ3	46367001	2SA1115	jC56	46673200	0.22μF 63V F.C.
jQ4	46367101	2SC2603	jC119	46297500	22μF 25V E.C.
jQ5	48229400	DTA114TS	jLF1	48354100	Low Pass Filter
jQ6	48229400	DTA114TS	jL1	46204500	Inductor 10μH
jQ7	46367101	2SC2603	jL2	46204500	Inductor 10μH
jQ8	46367001	2SA1115	jL3	46204500	Inductor 10μH
jQ9	46393201	2SC2786	jT1	48350100	Trap Filter
jQ10	46393201	2SC2786	jVR2	46634300	10kΩ S.V.R., FADER Pedestal Level adj.
jQ11	46367101	2SC2603	jVR3	46634700	47kΩ S.V.R., FADER BIAS Level adj.
jQ12	46367101	2SC2603	jVR4	46634300	10kΩ S.V.R., FADER Pedestal Level adj.
jQ13	46367101	2SC2603	jVR5	46634700	47kΩ S.V.R., FADER BIAS Level adj.
jQ14	46367101	2SC2603	jVR6	46633700	1kΩ (B) S.V.R., FADER SIG Level adj.
jQ15	46367101	2SC2603	jVR7	46633700	1kΩ (B) S.V.R., FADER SIG Level adj.
jQ16	46367101	2SC2603	jVR8	46633700	1kΩ (B) S.V.R., FADER SIG Level adj.
jQ17	46393201	2SC2786	jVR9	46633500	470Ω S.V.R., BAST SIG Level adj.
jQ18	46393201	2SC2786	jVR10	46634300	10kΩ S.V.R., SYNC SIG Level adj.
jQ19	46367101	2SC2603	jVR11	46634000	3.3kΩ S.V.R., SET-UP Level adj.
jQ20	46367101	2SC2603	jZ1	46630700	Relay
jQ21	46392001	2SA1175	•Transistor		
jQ22	46367001	2SA1115	rQ20	48230200	DTC124XS
jQ23	46367101	2SC2603	rQ25	46393201	2SC2786
jQ24	46367101	2SC2603	rQ26	46393201	2SC2786
jQ25	46367101	2SC2603	rQ27	46367101	2SC2603
jQ26	46367101	2SC2603	rQ28	46393201	2SC2786
jQ27	46367101	2SC2603	rQ29	46367101	2SC2603
jQ28	46393201	2SC2786	rQ30	46393201	2SC2786
jQ29	46367101	2SC2603	rQ31	46367101	2SC2603
jQ30	46367101	2SC2603	rQ32	46393201	2SC2786
jQ31	46367101	2SC2603	rQ33	46392001	2SA1175
jQ63	48230300	DTC124XS	rQ34	46393201	2SC2786
jQ64	46834300	DTC144ES	•IC		
jQ65	46834300	DTC144ES	ic1	07208900	NJM4558D-X
•IC					
ic1	07208900	NJM4558D-X	ic3	48273500	BA7230LS
or 46580100	M5218P		ic5	48310300	NJM1372AD
ic2	07208900	NJM4558D-X	rXO1	09300500	Quartz Crystal NC-18C
or 46580100	M5218P		•Diode		
ic3	48307900	BA226	rD2	03117600	1S2473T77
ic4	03604100	TC4011P	or 46086000	1S1588TP-3	
or 48050100	MSM4011BRS		rC35	46696800	0.047μF 50V F.C.
or 48063700	BU4011B		rC66	48388100	220pF 50V C.C.
ic5	03610500	TC4001BP	rTC1	46437500	Trimmer Capacitor 30pF
or 48050000	MSM4001BRS		rLF3	48336500	Filter
or 48067200	BU4001B		rL2	46313500	Inductor 1.2mH
ic6	03610500	TC4001BP	rL3	46313500	Inductor 1.2mH
or 48050000	MSM4001BRS		rL4	48388500	FM RF Coil
or 48067200	BU4001B		rT3	48350200	Trap Filter
ic7	03610500	TC4001BP	rVR5	46634300	10kΩ S.V.R., BAST Phase Cont. adj.
or 48050000	MSM4001BRS		rVR6	46634000	3.3kΩ S.V.R., ER-EY Level adj.
or 48067200	BU4001B		rVR7	46634000	3.3kΩ S.V.R., EB-EY Level adj.
ic8	07207300	MB84013BM	rVR8	46634100	4.7kΩ S.V.R., SUB Carrier Cancel adj.
ic9	46723700	NJM1496D	rVR9	46633900	2.2kΩ S.V.R., B. COLOR SUB Car. Phase adj.
ic10	46723700	NJM1496D	•Diode		
ic11	46545800	TC4053BP	id1	03117600	1S2473T77
ic12	46361500	L78N12	or 46086000	1S1588TP-3	
ic13	46359400	L78N05	id2	03117600	1S2473T77
ic28	07224800	TC4066BP	or 46086000	1S1588TP-3	
or 48054500	MSM4066BRS		ic6	48103400	1μF 50V E.B.
or 48063800	BU4066B				
ic29	46581200	NJM79M12A			

4-5. F-5275 Input Selector and Pulse Processor Board (Stock No. 00952001)

Component Side



Parts List

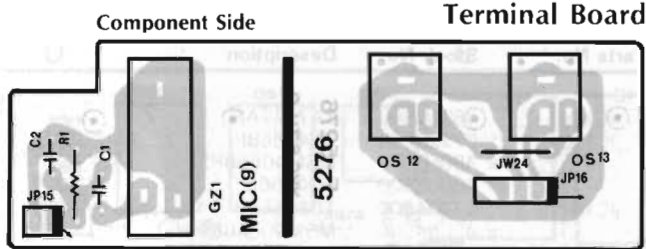
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
• Transistor			1Q15	46393201	2SC2786	11C6	46429800	MB74LS123M	11C11	46148500	HD7407P
1Q1	46367101	2SC2603	• IC			or 46720800	M74LS123P	or 46220600	M53207P		
1Q2	46367001	2SA1115	11C1	48116000	LA7016	or 48114600	HD74LS123P	or 46429500	SN7407		
1Q3	46367101	2SC2603	11C2	48310200	TA7357AP	03604500	TC4520P	48353600	M74LS148P		
1Q4	46393201	2SC2786	11C3	48310100	MSM5258RS	or 46723900	μPD4520BC	or 48050000	MSM4001BRS		
1Q5	46393201	2SC2786	11C4	46429800	MB74LS123M	or 48055500	MSM4520BRS	or 48050000	MSM4001B		
1Q6	46393201	2SC2786	or 46720800	M74LS123P		46429800	MB74LS123M	or 48067200	BU4001B		
1Q7	46393201	2SC2786	or 48114600	HD74LS123P		or 46720800	M74LS123P	48362100	M74LS93P		
1Q8	46367001	2SA1115	11C5	46429800	MB74LS123M	or 48114600	HD74LS123P	46636600	M74LS08P		
1Q9	46367001	2SA1115	or 46720800	M74LS123P		46721000	MB74LS32	or 48003000	HD74LS08P		
1Q10	46367101	2SC2603	or 48114600	HD74LS123P		or 46721100	M74LS32P	or 48003100	M874LS08M		
1Q14	46367101	2SC2603				46429700	MB74LS04M	46545400	M74LS27P		

Parts List <F-5275>

Parts No.	Stock No.	Description
fIC42	or 48067500	MB74LS27
	or 48067900	HD74LS27P
	46144200	NJM78M05A
	or 46359400	L78N05
•Diode		
fD1	03117600	1S2473T77
fD2	or 46086000	1S1588TP-3
	03117600	1S2473T77
fD2	or 46086000	1S1588TP-3
•Zener Diode		
fDZ1	46112900	05Z9.1-X
fC5	48103500	2.2 μ F 50V E.B.
fC13	46697600	0.1 μ F 50V F.C.
fC21	46692800	1000pF 50V F.C.
fC22	46692800	1000pF 50V F.C.
fC23	46692800	1000pF 50V F.C.
fC24	46692800	1000pF 50V F.C.
fC25	46692800	1000pF 50V F.C.
fC26	46695200	0.01 μ F 50V F.C.
fC27	46696000	0.022 μ F 50V F.C.
fC28	46696000	0.022 μ F 50V F.C.
fC63	46696800	0.047 μ F 50V F.C.
fC73	08404400	10 μ F 50V E.C.
fL1	46205100	Inductor 100 μ H
fT1	48350200	Trap Filter
fVR1	46634900	100k Ω S.V.R., H.B.P adj.
fVR2	46634500	22k Ω S.V.R., H.B.P adj.
fVR3	46634700	47k Ω S.V.R., V.B.P adj.
fVR4	46634900	100k Ω S.V.R., V.B.P adj.
fVR19	46634100	4.7k Ω S.V.R., B.F.P adj.
fVR20	46634300	10k Ω S.V.R., B.F.P adj.
fVR26	46634100	4.7k Ω S.V.R., B.COL.P adj.
•IC		
gIC1	07208900	NJM4558D-X
	or 46580100	M5218P
•Transistor		
jQ32	46367101	2SC2603
jQ33	46393201	2SC2786
jQ34	46367101	2SC2603
jQ35	46393201	2SC2786
jQ36	46367101	2SC2603
jQ37	46367001	2SA1115
jQ38	46367101	2SC2603
jQ39	46367101	2SC2603
jQ40	46393201	2SC2786
jQ41	46367101	2SC2603
jQ42	46367101	2SC2603
jQ43	46367101	2SC2603
jQ44	46367101	2SC2603
jQ45	46367101	2SC2603
jQ46	46367101	2SC2603
jQ47	46367101	2SC2603
jQ48	46367101	2SC2603
jQ49	46367101	2SC2603
jQ50	46367101	2SC2603
jQ51	46367101	2SC2603
jQ52	46367101	2SC2603
jQ53	46367101	2SC2603
jQ54	46367101	2SC2603
jQ55	46367101	2SC2603
jQ56	46367101	2SC2603
jQ57	46367101	2SC2603
jQ58	46367101	2SC2603
jQ59	46367101	2SC2603
jQ60	46367101	2SC2603
jQ61	46367101	2SC2603
jQ62	46367101	2SC2603

Parts No.	Stock No.	Description
•IC		
jIC14	48353800	TA7717AP
jIC15	07224800	TC4066BP
	or 48054500	MSM4066BRS
jIC16	or 48063800	BU4066B
	07224800	TC4066BP
jIC16	or 48054500	MSM4066BRS
	or 48063800	BU4066B
jIC17	48116000	LA7016
jIC18	48116000	LA7016
jIC19	07208900	NJM4558D-X
	or 46580100	M5218P
jIC20	07208900	NJM4558D-X
	or 46580100	M5218P
jIC21	07208900	NJM4558D-X
	or 46580100	M5218P
jIC22	48353900	LA2600
jIC23	07224800	TC4066BP
	or 48054500	MSM4066BRS
jIC24	or 48063800	BU4066B
	07224800	TC4066BP
jIC24	or 48054500	MSM4066BRS
	or 48063800	BU4066B
jIC25	07224800	TC4066BP
	or 48054500	MSM4066BRS
jIC26	or 48063800	BU4066B
	07224800	TC4066BP
jIC26	or 48054500	MSM4066BRS
	or 48063800	BU4066B
jIC27	46144600	NJM78M12A
	or 46361500	L78N12
•Diode		
jD3	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD4	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD5	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD6	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD7	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD8	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD9	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD10	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD11	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD12	03117600	1S2473T77
	or 46086000	1S1588TP-3
jD13	03117600	1S2473T77
	or 46086000	1S1588TP-3
•Zener Diode		
jDZ1	46100000	05Z3.9-X
jDZ2	46111100	05Z5.1-X
Δ jR171	00118000	22 Ω 1/4W F.R.
jC63	48166100	2200 μ F 25V E.C.
jC84	48103500	2.2 μ F 50V E.B.
jLF2	48336600	Filter
jL4	46205000	Inductor 68 μ H
jL5	46204500	Inductor 10 μ H
oS1	46177200	Slide SW., POLARITY
oS2	46177200	Slide SW., ON \leftrightarrow OFF
oS11	46547200	Jack, REMOTO PAUSE
oS4	48392300	3P Terminal Board, INPUT (VCR-A)
oS5	48392300	3P Terminal Board, OUTPUT (VCR-A)
oS6	48392300	3P Terminal Board, INPUT (VCR-B)
oS7	48392300	3P Terminal Board, OUTPUT (VCR-B)
oS8	48310000	3P Terminal Board, EFFECT
oS9	48310000	3P Terminal Board, DIRECT
	48352800	2P Terminal Board, AUDIO INPUT

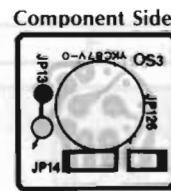
4-6. F-5276 MIC and EXT PROCESSOR



Parts List

Parts No.	Stock No.	Description
gC1	46697600	0.1μF 50V F.C.
gZ1	48354000	Jack, MIC
oS12	48354200	1P Terminal Board, EXT PROCESSOR OUT
oS13	48354200	1P Terminal Board, EXT PROCESSOR IN

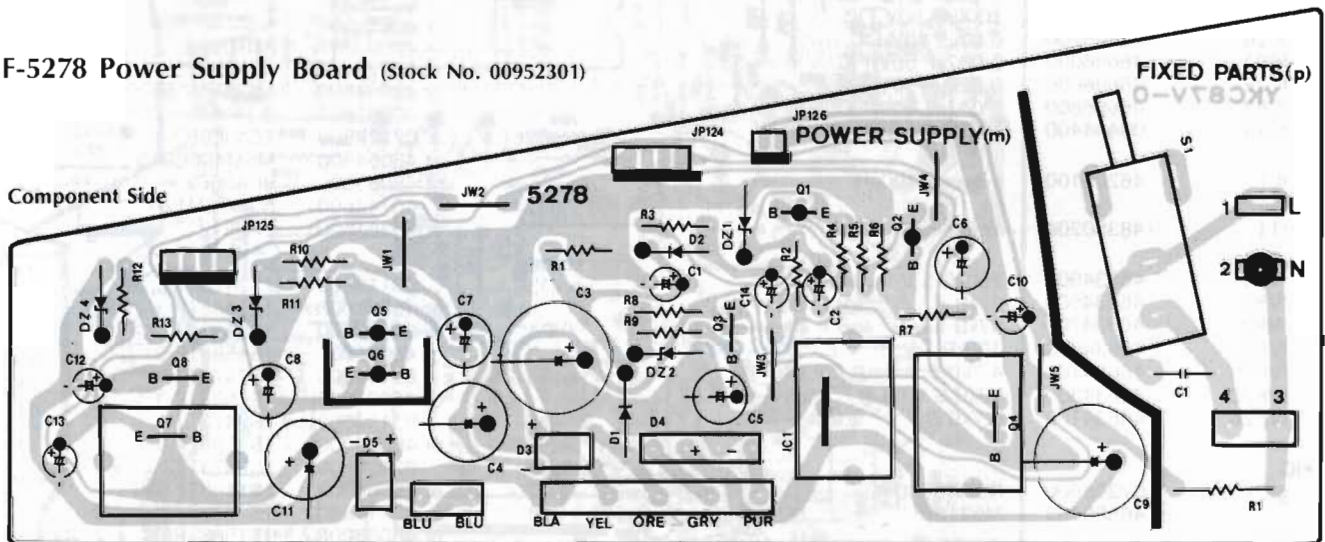
4-7. F-5277 CAMERA Connector Board



Parts List

Parts No.	Stock No.	Description
oS3	48114800	Video Camera Connector, CAMERA

4-8. F-5278 Power Supply Board (Stock No. 00952301)



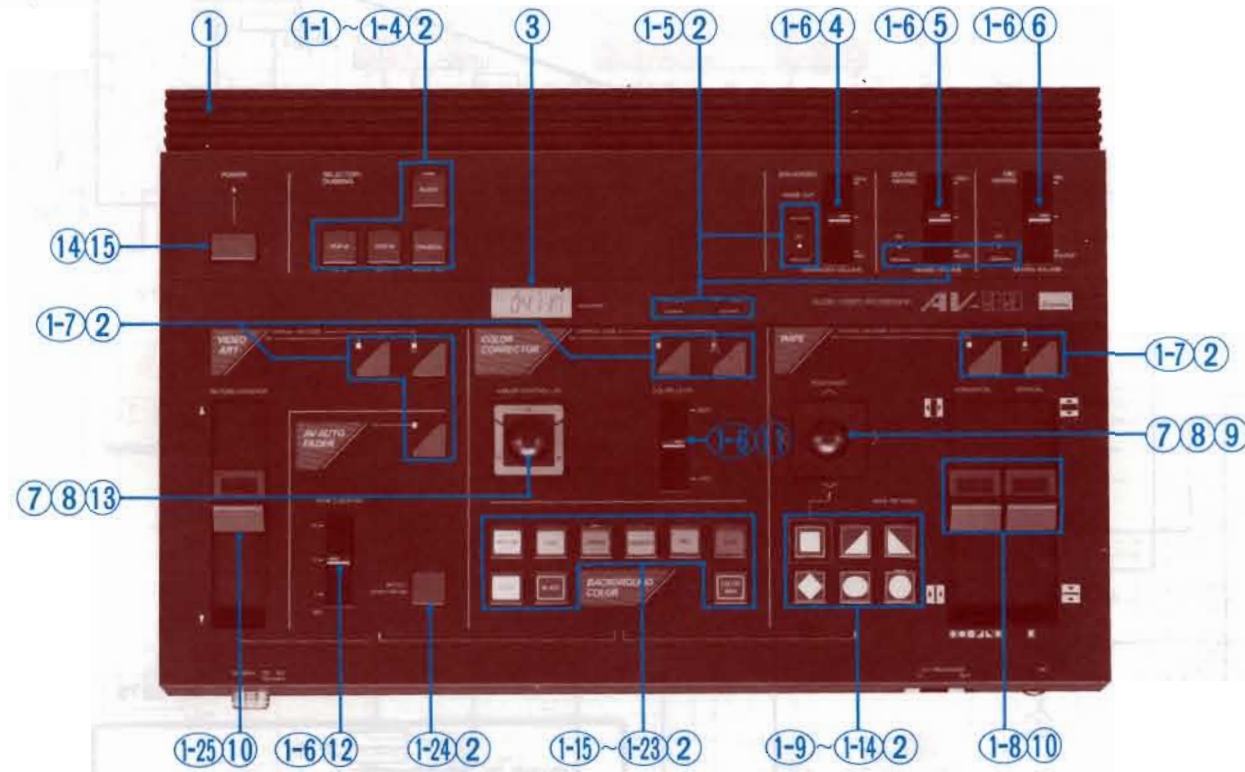
Parts List

Parts No.	Stock No.	Description
•Transistor		
mQ1	46367001	2SA1115
mQ2	46367001	2SA1115
mQ3	46367101	2SC2603
ΔmQ4	48150101	2SD1406
mQ5	46367001	2SA1115
ΔmQ6	48150801	2SB1015
ΔmQ7	48150101	2SD1406
mQ8	46367101	2SC2603
•IC		
ΔmIC1	48116100	SI-3122V
•Diode		
mD1	46260300	10E2
mD2	03117600	1S2473T77
	or 46086000	1S1588TP-3
ΔmD3	46273600	DBB10-B
Δ	or 46273700	DBB10-C
Δ	or 48192000	DBB10E
Δ	or 48192100	DBB10G
ΔmD4	03117000	RB152-LFF
Δ	or 48140200	RB152-LFA

Parts No.	Stock No.	Description
ΔmD5	46273600	DBB10-B
Δ	or 46273700	DBB10-C
Δ	or 48192000	DBB10E
Δ	or 48192100	DBB10G
•Zener Diode		
mDZ1	46113200	05Z10-X
mDZ2	46114100	05Z13-X
mDZ3	46114100	05Z13-X
mDZ4	46111700	05Z6.2-X
ΔmR2	46236500	470Ω 1/2W N.I.R.
ΔmR14	46248500	22Ω 1W N.I.R.
mC3	46134700	3300μF 25V E.C.
mC4	48448800	1000μF 35V E.C.
mC9	48166100	2200μF 25V E.C.
mC11	48219500	2200μF 16V E.C.
mC15	48390000	2200μF 25V E.C.
ΔpC1	46371700	4700pF 400V C.C.
ΔpS1	46413900	Push SW., POWER <XX-V-UL>
Δ	48065200	Push SW., POWER <CSA>

5. OTHER PARTS

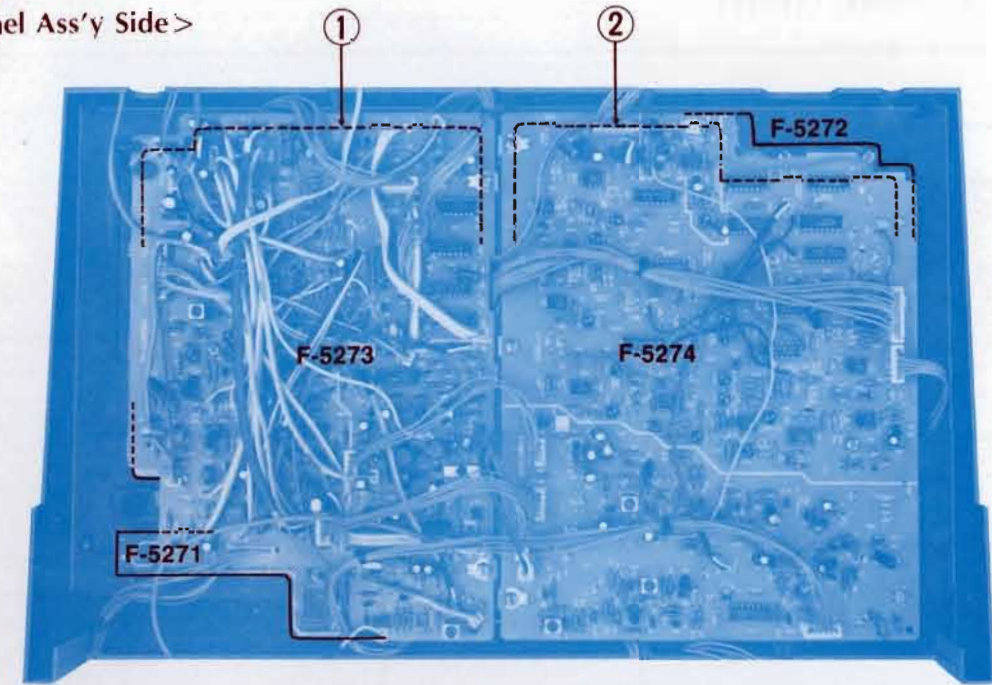
5-1. Top View < Front Panel Ass'y >



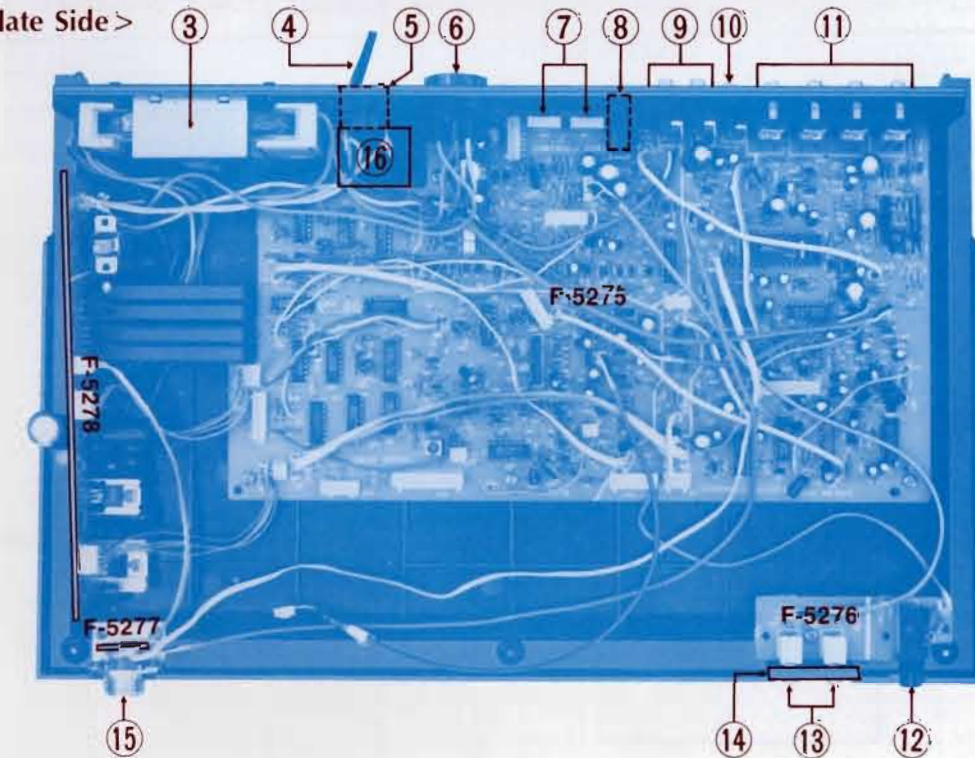
Parts List < Front Panel Ass'y >

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	27096600	Front Panel Ass'y	1-20	27098800	Push Knob, BLUE
1-1	27097900	Push Knob, VCR-A	1-21	27098900	Push Knob, WHITE
1-2	27098000	Push Knob, VCR-B	1-22	27099000	Push Knob, RED
1-3	27098100	Push Knob, AUDIO	1-23	27099100	Push Knob, GREEN
1-4	27098200	Push Knob, CAMERA	1-24	27112600	Push Knob, IN/OUT
1-5	27095200	Push Knob, START/STOP-LAP/PRESET-ENHANCER-SOUND MIXING-MIC MIXING	1-25	27097600	Slide Knob, PICTURE EFFECTOR
1-6	27097800	Slide Knob Ass'y, ENHANCER-SOUND MIXING-MIC MIXING-COLOR LEVEL-FADE DURATION	2	46708100	Push SW., AUDIO-VCR-A-VCR-B-CAMERA-ENHANCER ON-NOISE CUT, etc.
1-7	27095900	Push Knob, WIPE NORMAL/REVERSE-WIPE ON, etc.	3	48336400	Liquid Crystal Display Module, TIME COUNTER
1-8	27097700	Slide Knob, HORIZONTAL-VERTICAL	4	48351100	5kΩ (B) V.R., ENHANCER VOLUME
1-9	27099200	Push Knob, <input type="checkbox"/>	5	48351400	100kΩ (B) V.R., SOUND MIXING
1-10	27099300	Push Knob, <input type="checkbox"/>	6	48351300	50kΩ (B) V.R., MIC MIXING
1-11	27099400	Push Knob, <input type="checkbox"/>	7	27019500	Knob, POSITIONER-COLOR CONTROLLER
1-12	27099500	Push Knob, <input type="checkbox"/>	8	27097300	Volume Cover
1-13	27099600	Push Knob, <input type="checkbox"/>	9	48351600	10kΩ (B) V.R., POSITIONER
1-14	27099700	Push Knob, <input type="checkbox"/>	10	48351500	10kΩ (B) V.R., VERTICAL-HORIZONTAL-PICTURE EFFECTOR
1-15	27098300	Push Knob, COLOR BAR	11	48351000	1kΩ (B) V.R., COLOR LEVEL
1-16	27098400	Push Knob, BLACK	12	48351200	1MΩ (B) V.R., FADER DURATION
1-17	27098500	Push Knob, MAGENTA	13	48316200	1kΩ (B) V.R., COLOR CONTROLLER
1-18	27098600	Push Knob, YELLOW	14	27039800	Push Knob, POWER
1-19	27098700	Push Knob, CYAN	△ 15	46413900	Push SW., POWER <XX-V-UL>
			△ 16	48065200	Push SW., POWER <CSA>

5-2. Top View < Front Panel Ass'y Side >



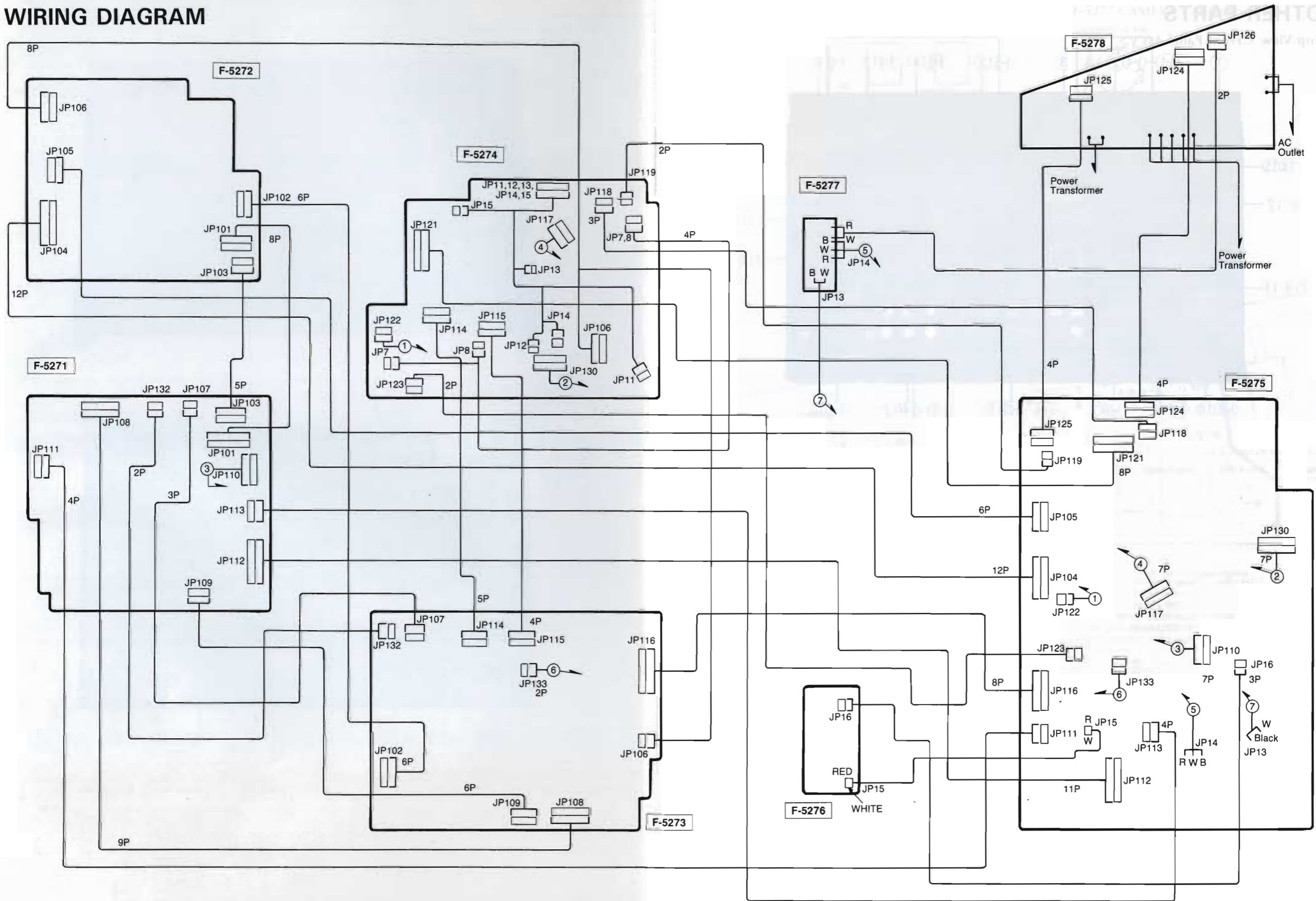
5-3. Top View < Bottom Plate Side >



Parts List < Front Panel Side-Bottom Plate Side >

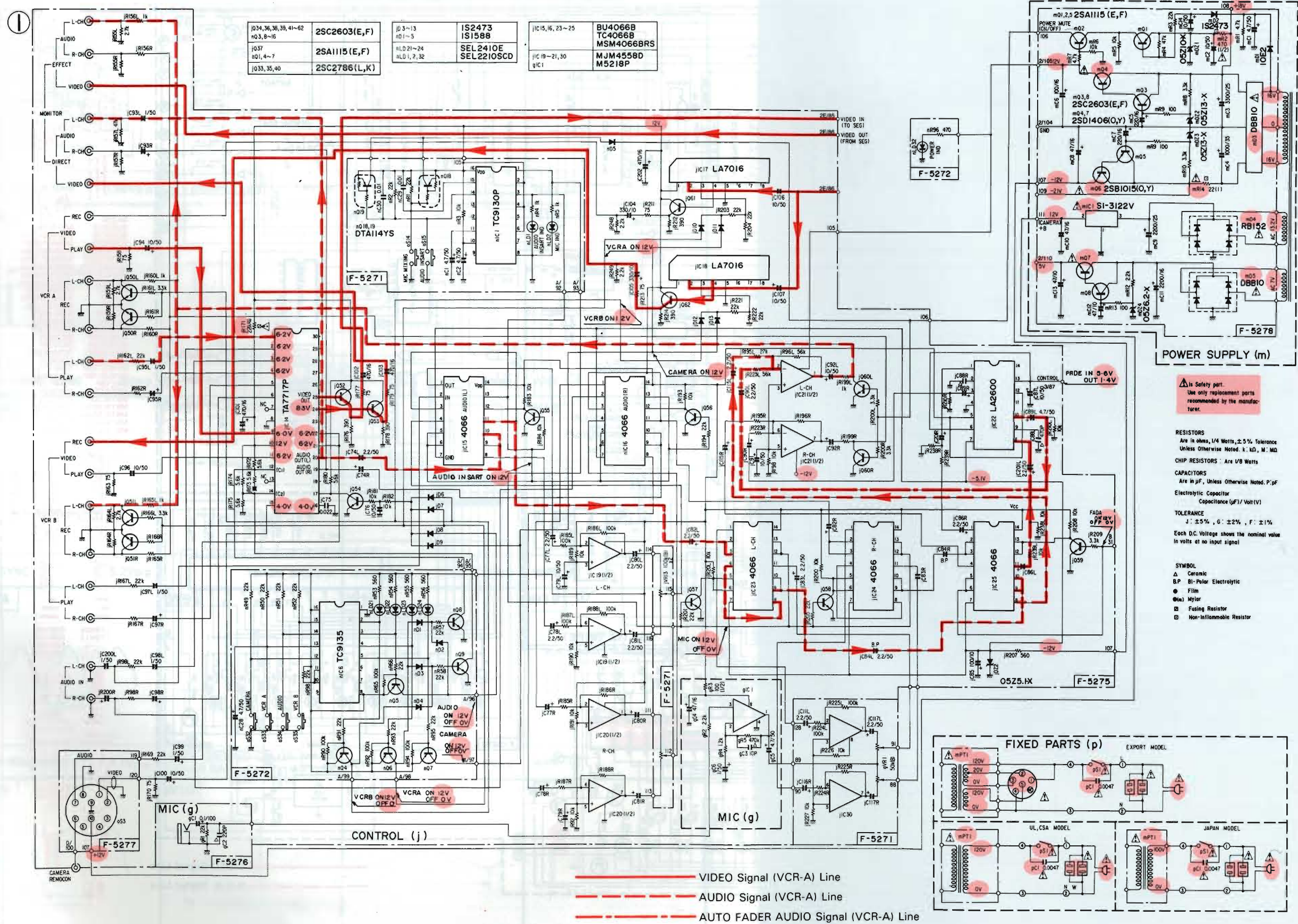
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	27108800	Insulation Plate (B)	7	46177200	Slide SW., CONTROL
2	27108700	Insulation Plate (A)	8	46547200	Jack, REMOTE PAUSE
△ 3	15023609	Power Transformer <XX-V>	9	48310000	3P Terminal Board, MONITOR
△ 3	15023602	Power Transformer 	10	48352800	2P Terminal Board, AUDIO INPUT
△ 3	15023603	Power Transformer <CSA>	11	48392300	3P Terminal Board, VCR-A, VCR-B
△ 4	46604400	Power Supply Cord <XX-V>	12	48354000	Jack, MIC
△ 4	48188000	Power Supply Cord 	13	48354200	EXT PROCESSOR
△ 4	48187700	Power Supply Cord <CSA>	14	27095600	Shading Sheet, EXT PROCESSOR
△ 5	46365000	AC Outlet <XX-V>	15	48114800	Connector, CAMERA
△ 5	48184400	AC Outlet <UL-CSA>	16	47770900	AC Cord Cover
△ 6	48175200	Voltage Selector Plug <XX-V>			

6. WIRING DIAGRAM

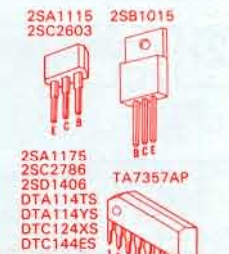


7. SCHEMATIC DIAGRAM 7-1. INPUT SELECTOR and AUDIO Section

• Design and specifications subject to change without notice for improvement.
 • La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 • Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



IC34, 36, 38, 41-62 IC3, 8-16	2SC2603(E,F)	IC3-13 IC1-5	IS2473 IS1588	IC15, 16, 23-25	BU4066B TC4066B MSM4066BRS
IC37 IC1, 4-7	2SA1115(E,F)	ALD21-24 ALD1, 2, 32	SEL2410E SEL2210SCD	IC19-21, 30 IC1	MJM4558D M5218P
IC33, 35, 40	2SC2786(L,K)				



POWER SUPPLY (m)

⚠ Safety part.
 Use only replacement parts recommended by the manufacturer.

RESISTORS
 Are in ohms, 1/4 Watts, ±5% Tolerance
 Unless Otherwise Noted: k, M, M, Ω

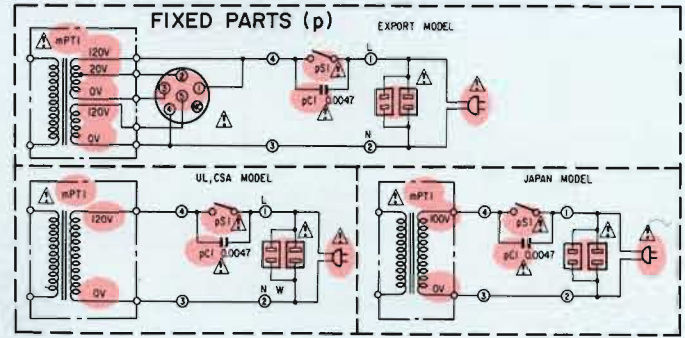
CHIP RESISTORS : Are 1/8 Watts
 CAPACITORS
 Are in μF, Unless Otherwise Noted: P, pF

Electrolytic Capacitor
 Capacitance (μF) / Volt (V)

TOLERANCE
 J: ±5%, G: ±2%, F: ±1%

Each D.C. Voltage shows the nominal value in volts of no input signal

SYMBOL
 Δ Ceramic
 B.P Bi-Polar Electrolytic
 ● Film
 ●(M) Mylar
 □ Fusing Resistor
 □ Non-Inflammable Resistor



— VIDEO Signal (VCR-A) Line
 - - - AUDIO Signal (VCR-A) Line
 - · - · AUTO FADER AUDIO Signal (VCR-A) Line

1

2

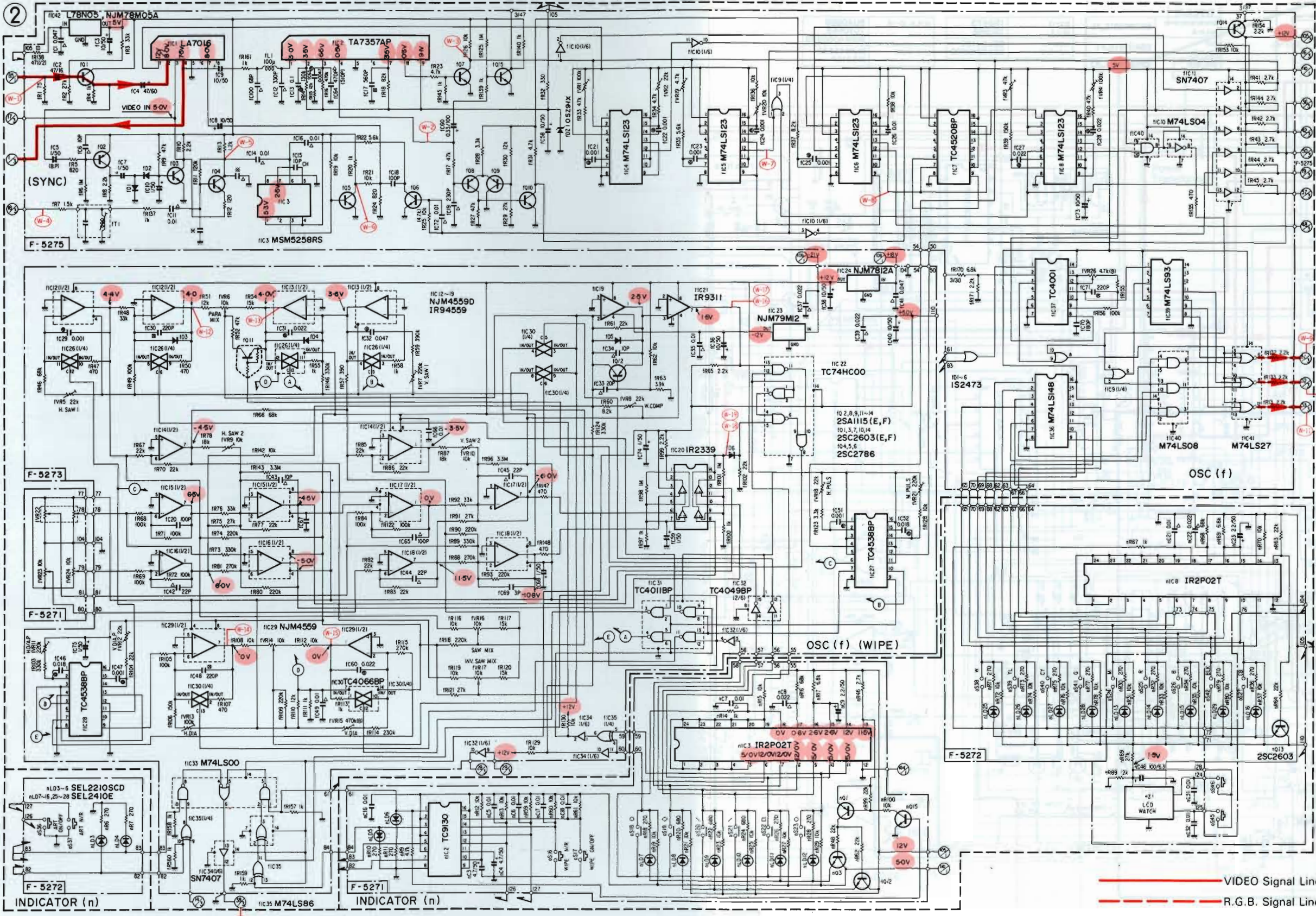
3

4

5

7-2-1. SYNC SIG Separator and WIPE PATTERN Generator Section

Design and specifications subject to change without notice for improvement. La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles. Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



- 2SA1115
- 2SC2603
- 2SA1175
- 2SC2786
- 2SD1406
- DTA1144TS
- DTA1144NS
- DTC124XS
- DTC144ES
- TA7357AP
- BA7230LS
- BA226
- BU4001B
- BU4011B
- BU4066B
- HD74LS00P
- HD74LS08P
- HD74LS27P
- HD74LS123P
- HD7407P
- IR2P02T
- IR2339
- IR9311
- IR94559
- LA2600
- M74LS08P
- M74LS27P
- M74LS32P
- M74LS86P
- M74LS93P
- M74LS123P
- M74LS148P
- M5218P
- M53207P
- MB74LS00
- MB74LS04M
- MB74LS08M
- MB74LS27
- MB74LS32
- MB74LS86
- MB74LS123M
- M8840138M
- MSM40018RS
- MSM40118RS
- MSM40498RS
- MSM40668RS
- MSM45208RS
- MSM4538RS
- MSM52588RS
- NUM1372AD
- NUM1496D
- NJM4558D
- NJM4559D
- SN7407N
- TA7717P
- TC74HC00P
- TC4001P
- TC4011P
- TC40498P
- TC40538P
- TC4066B
- TC4520P
- TC4538BP
- TC9130P
- TC9135P
- UPD45208C
- Set at S14 or S15
- NJM78M05A
- NJM78M12A
- SI-3122V
- DBB10B
- DBB10C
- DBB10E
- DBB10G
- RB152
- SEL2210S
- SEL2410E
- 05Z3.9
- 05Z5.1
- 05Z6.2
- 05Z9.1
- 05Z10
- 05Z13

VIDEO Signal Line
R.G.B. Signal Line

7-2-2. Waveforms of SYNC SIG Separator and WIPE PATTERNS Generator

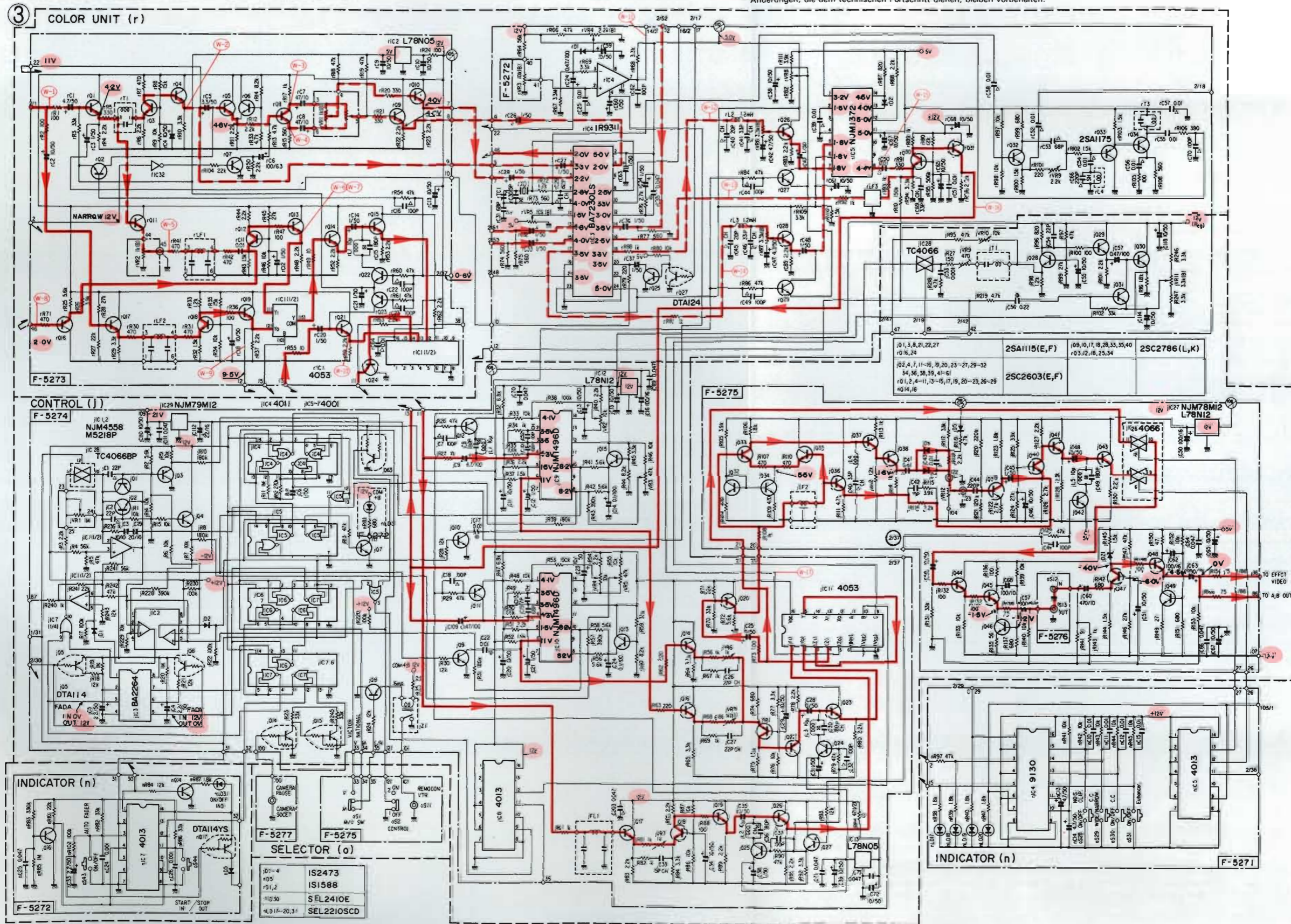
<p>W1</p>	<p>W6</p>	<p>W11</p>	<p>W16</p>
<p>EIA COLOR BAR 0.96Vp-p</p>	<p>H.V COMP SYNC. 5Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.7Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> 5Vp-p</p>
<p>W2</p>	<p>W7</p>	<p>W12</p>	<p>W17</p>
<p>H.V COMP. SYNC 6Vp-p</p>	<p>H.V COMP. SYNC 3.4Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 8Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> 5Vp-p</p>
<p>W3</p>	<p>W8</p>	<p>W13</p>	<p>W18</p>
<p>H SYNC. 5.2Vp-p</p>	<p>H SYNC. 4.0Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 6Vp-p</p>	<p>WIPE <input type="checkbox"/> 16Vp-p</p>
<p>W4</p>	<p>W9</p>	<p>W14</p>	<p>W19</p>
<p>3.579545MHz 1.1Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.7Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> 8Vp-p</p>	<p>WIPE <input type="checkbox"/> 16Vp-p</p>
<p>W5</p>	<p>W10</p>	<p>W15</p>	<p>W20</p>
<p>3.579545MHz 2.6Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.7Vp-p</p>	<p>WIPE <input checked="" type="checkbox"/> 8Vp-p</p>	<p><input type="checkbox"/> WIPE VERT. VR CENTER <input type="checkbox"/> HORI. VR 1/3 PICT. POSI. CENTER</p>

7-3-1. Waveforms of COLOR CORRECTOR and AUTO FADER

<p>W1</p>	<p>W6</p>	<p>W11</p>	<p>W16</p>
<p>0.9Vp-p</p>	<p>COLOR LEVEL DEEP 1.5Vp-p</p>	<p>VIDEO ART ON (GREEN) 5Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.9Vp-p</p>
<p>W2</p>	<p>W7</p>	<p>W12</p>	<p>W17</p>
<p>1.1Vp-p</p>	<p>COLOR LEVEL LIGHT 1.0Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.8Vp-p</p>	<p>0.7Vp-p</p>
<p>W3</p>	<p>W8</p>	<p>W13</p>	
<p>COLOR CORE. WIDE 0.5Vp-p</p>	<p>1.8Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 1.1Vp-p</p>	
<p>W4</p>	<p>W9</p>	<p>W14</p>	
<p>COLOR CORE. WIDE 0.5Vp-p</p>	<p>1.1Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.55Vp-p</p>	
<p>W5</p>	<p>W10</p>	<p>W15</p>	
<p>COLOR LEVEL DEEP 0.6Vp-p</p>	<p>BACK GROUND COLOR: WHITE 0.6Vp-p</p>	<p>BACK GROUND COLOR: COLOR BAR 0.22Vp-p</p>	

7-3-2. COLOR CORRECTOR and AUTO FADER Section

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 • Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

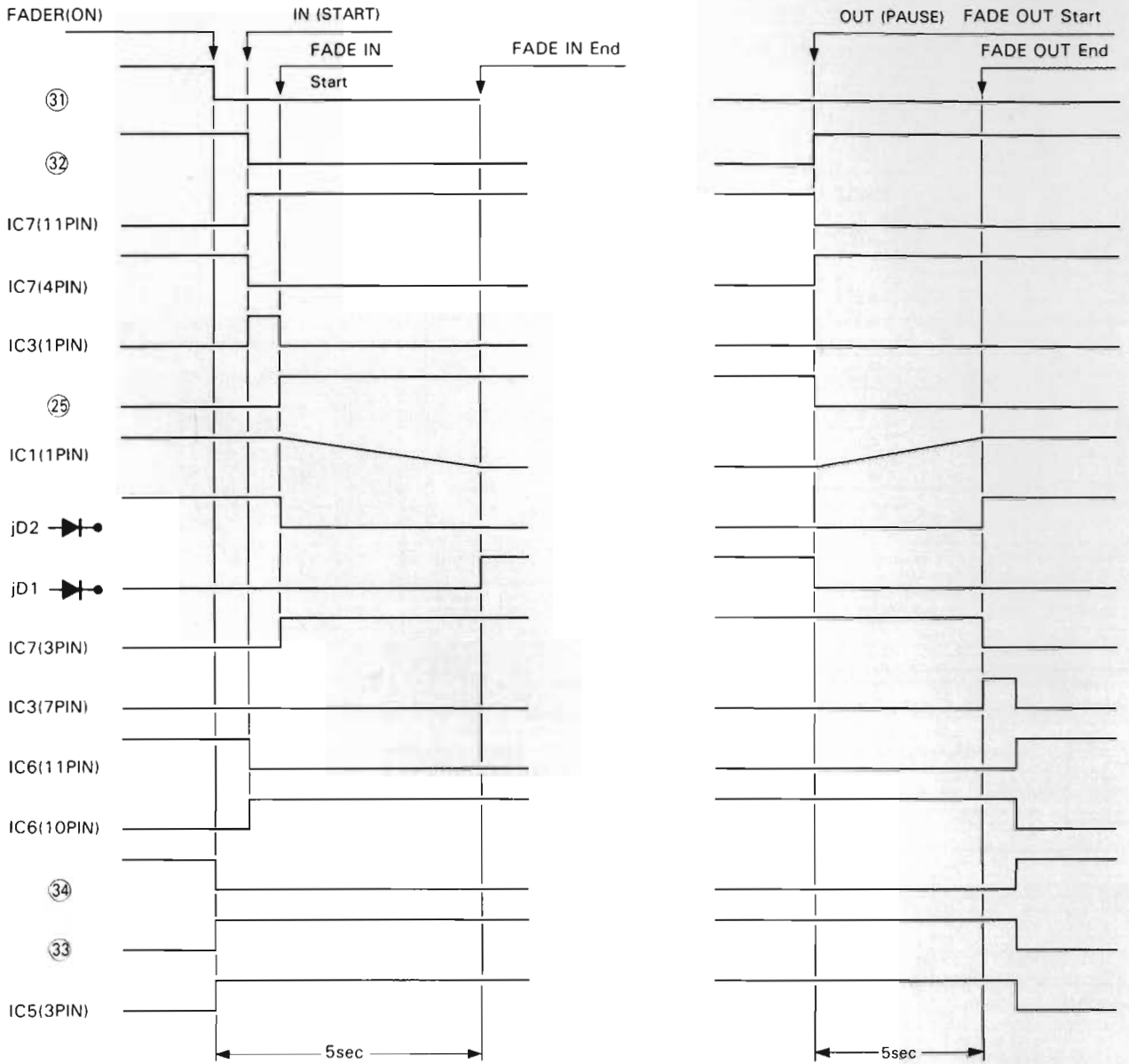


- 2SA1115
- 2SC2603
- 2SA1175
- 2SC2786
- 2SD1406
- DTA114TS
- DTA114YS
- DTC124XS
- DTC144ES
- 25B1015
- TA7357AP
- BA7230LS
- BA226
- BU4001B
- BU4011B
- BU4066B
- HD74LS00P
- HD74LS08P
- HD74LS127P
- HD74LS123P
- HD74LS139P
- IR2302T
- IR2339
- IR9311
- IR94559
- LA2600
- M74LS08P
- M74LS27P
- M74LS32P
- M74LS86P
- M74LS93P
- M74LS123P
- M74LS148P
- M5218P
- M53207P
- MB74LS00
- MB74LS04R
- MB74LS08M
- MB74LS127
- MB74LS128
- MB74LS139
- MB74LS138M
- MSM4011BR
- MSM4018BR
- MSM4049BR
- MSM4066BR
- MSM4520BR
- MSM4538BR
- MSM5258BR
- NJM1372AD
- NJM1496D
- NJM4558D
- NJM4559D
- SN7407N
- TA7717P
- TC74HC00P
- TC4001P
- TC4011P
- TC4048BP
- TC4053BP
- TC4066B
- TC4520P
- TC4538BP
- TC9130P
- TC9135P
- UPD4520BC
- NJM78M05A
- NJM78M12A
- SI-3122V
- DBB108
- DBB10C
- DBB10E
- DBB10G
- RB152
- SEL2210S
- SEL2410E
- 0523.9
- 0525.1
- 0526.2
- 0529.1
- 05210
- 05213

— VIDEO Signal Line
 - - - Luminance Signal Line/R.G.B Signal Line/Eb-Ev•Er-Ev Signal Line
 ····· Chroma Signal Line

1
2
3
4
5

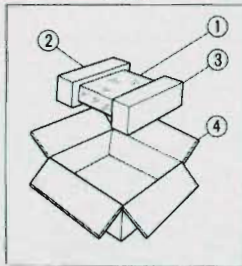
7-3-3. AUTO FADER Circuit Timing Chart



*FADE DURATION 5sec

8. PACKING LIST

Parts No.	Stock No.	Description
1	47858600	Vinyl Cover
2	27096200	Styrofoam Packing (Left)
3	27096300	Styrofoam Packing (Right)
4	27094900	Carton Case



9. ACCESSORY LIST

Stock No.	Description
46267300	Mini Plug Cord
48362200	Ultra Mini Plug Cord
38103300	PJP Cord
46991800	Operating Instruction

Sansui

SANSUI ELECTRIC CO., LTD.:
 SANSUI ELECTRONICS CORPORATION:
 SANSUI ELECTRONICS (U.K.) LTD.:
 SANSUI ELECTRONICS G.M.B.H.:

14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan
 PHONE: (03) 324-8891/TELEX: 232-2076 (International Division)
 1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.
 17150 South Margay Ave. Carson, California 90746 U.S.A.
 3036 Koapaka Street, Honolulu, Hawaii 96819 U.S.A.
 Unit 10A, Lyon Industrial Estate, Rockware Avenue, Greenford, Middx UB6, OAA, England
 Pau Ehrlich Strasse 8, 6074 Rödermark 2, West Germany