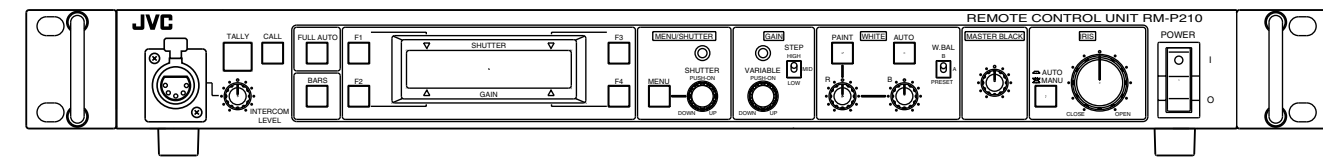


JVC

SERVICE MANUAL

REMOTE CONTROL UNIT

RM-P210U/RM-P210E



JVC

VICTOR COMPANY OF JAPAN, LIMITED

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(V.P.) A.I

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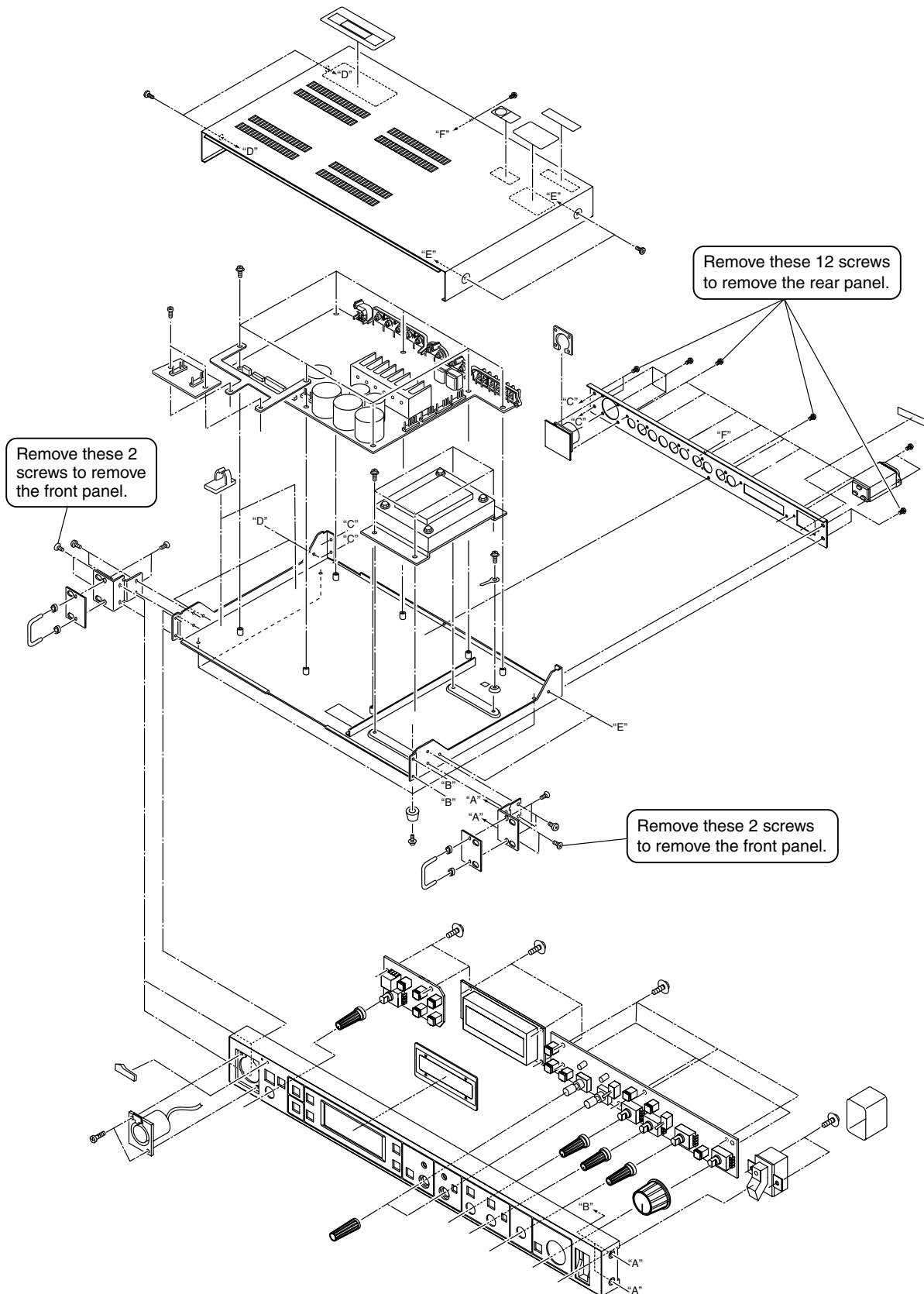
■ IMPORTANT SAFETY PRECAUTIONS

■ INSTRUCTIONS

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SECTION 1 SERVICE CAUTIONS AND DISASSEMBLY

1.1 REMOVAL OF EXTERNAL COVER



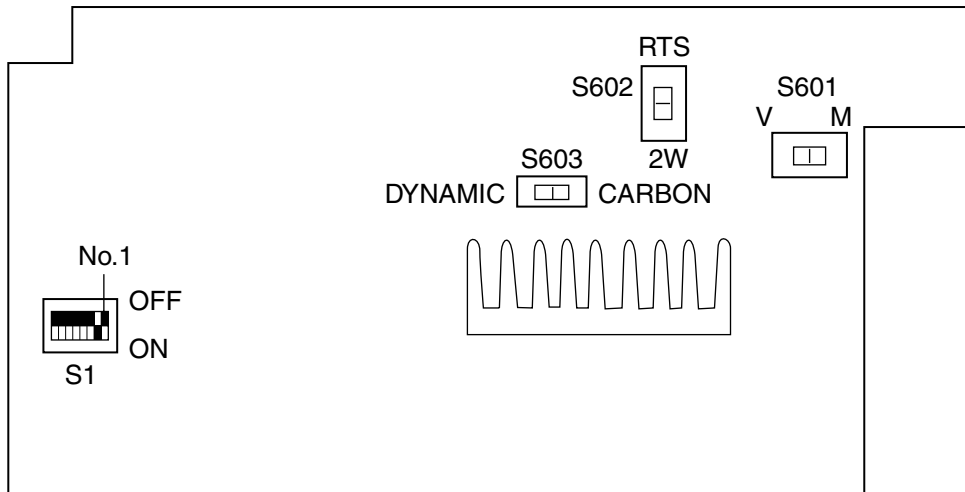
1.2 FUNCTIONS AND SETTINGS OF INTERNAL SWITCHES

1.2.1 MAIN Board

Symbol	Function	Factory Setting
S1	8-segment DIP switch to be set according to the destination type. No. 1 ON : PAL. OFF: NTSC No. 2 ON: Japan OFF: USA Nos. 3 to 8: Not used. (Set to OFF.)	U model: No. 1 OFF No. 2 OFF E model: No. 1 ON No. 2 OFF
S601	Tally input M/V switch M: Make contact (ON when shorted) V: Voltage (ON when AC or DC is applied)	U model: M E model: V

Symbol	Function	Factory Setting
S602	Intercom headset 2W/RTS switch. 2W: 2-wire intercom RTS: RTS intercom	U model: RTS E model: 2W
S603	Intercom headset microphone DYNAMIC/CARBON switch.	DYNAMIC

MAIN Board (Rear Side)

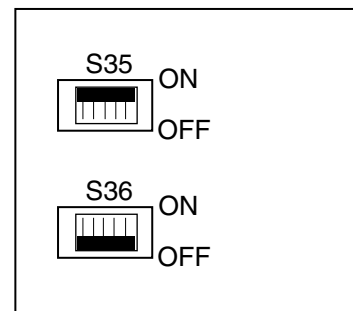


1.2.2 CC Board

Set switches S35 and S36 according to the connected camera cable.

CC Board

Symbol	Sony Cable CCZ-A100 (100 m)	JVC Cable	Factory Setting
S35	All ON	All OFF	All OFF
S36	All OFF	All ON	All ON



***HOW TO SET IT FOR USING SONY CABLE CCZ-A100.**

Sony cable can be used by changing the setting as below only when RM-P210 is connected with GY-DV550. Sony has many type of the cables but we can not check all the cable. Please do not use other than CCZ-A100.

1. GY-DV550 setting

Change the connection of the connector CN77 to CN83 on 516 CN board.

2. RM-P210 setting

- (1) Change the setting of the switch on CC board
 - a) S35 : All switch have to be set to ON (UP side).
 - b) S36 : All switch have to be set to OFF (DOWN side).
- (2) Re-adjustment of the transmit voltage (see "2.3 TRANSMIT VOLTAGE ADJUSTMENT")

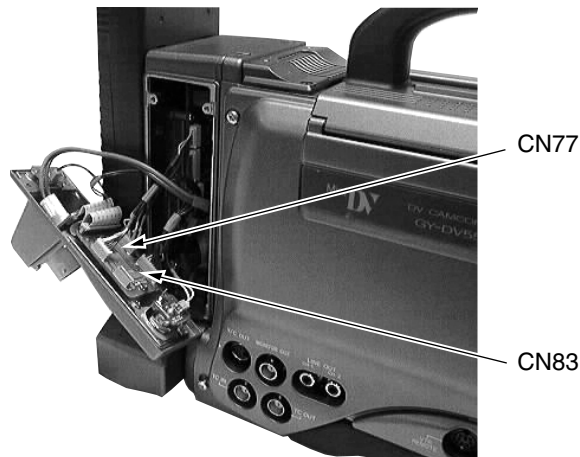
After re-adjustment, check the voltage between pin A and pin B in 26P connector of RM-P210. It MUST be less than 15V. If it was more than 15V, adjustment of the b) and c) (+17V and +19V adjustment) have to re-adjust to 15V from 16V.

- a) +15V supply adjustment : adjust to $15 \pm 0.2V_{bc}$
- b) +17V supply adjustment : adjust to $16 \pm 0.2V_{bc}$
- c) +19V supply adjustment : adjust to $16 \pm 0.2V_{bc}$

Note 1: If the Voltage was not readjusted the View Finder will be damaged due to the heating problem.

Note 2: Difference between Sony cable and JVC cable is the impedance.

JVC cable: 1.3 Ohm Sony cable: 0.8 Ohm.



1.3 ADJUSTMENT AND CHECK MODES

1.3.1 Starting the Service Modes and Front Panel Check Mode

The RM-P210 incorporates the following service modes for use in servicing. Each of the service modes can be entered at the same time as turning the RM-P210 ON and continues until it is turned OFF. Communications with the camera are not performed except in the normal mode.

The following table shows the names of the modes and their details.

Mode Name	Startup Method	Contents
Normal	Any other method than those described below.	This mode starts in normal operation by user.
Data Clear	Hold [FULL AUTO], [BARS] and [IRIS] buttons simultaneously while turning power ON.	All EEPROM and SRAM data are initialized.
Hardware Check	Hold [CALL], [F1] and [F2] buttons simultaneously while turning power ON.	Displays the program version. Check of LEDs, SW, VR, JOG dials, etc.
Adjustment	Hold [MENU], [F3] and [F4] buttons simultaneously while turning power ON.	For adjustments of supply voltage and cable length.

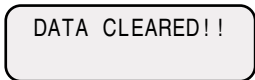
1.3.2 Data Clear Mode

Startup method

Hold the [FULL AUTO], [BARS] and [IRIS] buttons simultaneously while press the POWER switch.

Operation Details

When the unit is started in the Data Clear mode, all EEPROM and SRAM data is initialized and the following message appears in the LCD. After this, all operations are inhibited.



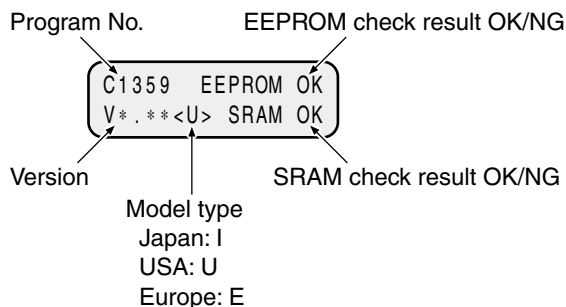
1.3.3 Hardware Check Mode

Startup method

Hold the **CALL**, **F1** and **F2** buttons simultaneously while pressing the POWER switch.

The LEDs other than TALLY lights.

When the unit is turned ON, the LCD shows the program number and software version as shown below (initial display).



The LCD also shows the results, either OK or NG, of the EEPROM and SRAM checking executed at the moment the unit is turned ON.

The SRAM check consists of verifying the data retention status at the moment the unit is turned ON. The SRAM is backed up by a super-capacitor. Therefore, “NG” is displayed even when the back-up power supply is down.

The initial display above disappears when any of the operations accompanied with the LCD display, described on the next page, is executed.

To view the initial display again, press the CALL button.

Operation details

Turning a button or terminal ON or OFF causes an operation as described below. The switches can be checked by turning the LEDs on or off. All LEDs are turned off at the moment the unit is turned ON

Check Point		Check Details	Remark
Buttons/ LEDs	CALL	Each press of this button should turn the LED on/off and the initial display appears when it is on.	
	FULL AUTO	Each press of this button should turn the LED on/off.	
	BARS	Each press of this button should turn the LED on/off.	
	F1 to F4	Each press of one of these buttons should turn the corresponding LED on/off.	
	MENU	Each press of this button should turn the LED on/off.	
	SHUTTER JOG	Each press should turn the LED on/off.	
	V.GAIN JOG	Each press should turn the LED on/off.	
	PAINT (WHITE)	Each press of this button should turn the LED on/off.	
	AUTO (WHITE)	Each press of this button should turn the LED on/off.	
	IRIS	Each press of this button should turn the LED on/off.	
Rear-panel terminal/ LED	TALLY	The green LED should light when TALLY PVW on the rear panel is Active and the red should light when TALLY PGM is Active. Only the red LED should light when both tallies are Active. No LED should light when no tallies are Active.	

With the checking of VR, JOG dials and switches, operating a control causes information to be displayed on the LCD. The LCD display is retained until other information is displayed on the LCD. However, pressing the CALL button displays the initial display.

Check Point		LCD Display	Check Details	Remark
VR	IRIS	IRIS 128	Turn this VR and confirm that data varies between 0 and 255. Turning clockwise should increase the value. This VR also controls the LCD contrast. It is Normal at the center. Turning the VR clockwise should increase contrast and counter-clockwise should decrease it. The LCD back light should be OFF at the most clockwise position.	
	MASTER BLACK	M.BLACK (SC FINE) 128	Turn this VR and confirm that data varies between 0 and 255. Turning it clockwise should increase the value. This VR also controls the SC FINE data output.	
	WHITE Bch	WHITE Bch(C) 128	Turn this VR and confirm that data varies between 0 and 255. Turning it clockwise should increase the value. This VR also controls the LENGTH HF data output	
	WHITE Rch	WHITE Rch(Y) 128	Turn this VR and confirm that data varies between 0 and 255. Turning it clockwise should increase the value. This VR also controls the LENGTH Y data output	
JOG	SHUTTER JOG	SHUT JOG(LENGTH) 20M	Turn this JOG and confirm that data is switched to 5M, 20M, 50M and 100M. Turning it clockwise should increase the value. The initial value when the unit is turned ON is 20M. This JOG also checks the JOG rotation and JOG hardware when LENGTH is selected in addition to SHUTTER JOG check.	
	V.GAIN JOG	V.GAIN JOG(SC) 0°	Turn JOG and confirm that data is switched to 0°, 90°, 180° and 270°. Turning clockwise should increase the value. The initial value when the unit is turned ON is 0°. This JOG also checks the JOG rotation and JOG hardware when SC COARSE is selected in addition to V.GAIN JOG check.	
SW	W.BAL	W.BAL(ASPECT) PRE(4:3)	Operate this SW and confirm that A, B and PRE are displayed correctly when the SW is in the corresponding position. This SW should also vary ASPECT internally: When A (16:9), B (Letter Box) and PRE (4:3) are displayed, the internal mode should vary accordingly.	
	STEP GAIN	GAIN(VOLT) LOW(15V)	Operate this SW and confirm that LOW, MID and HIGH are displayed correctly when the SW is in the corresponding position. This SW should also vary the supply voltage to the camera internally: When LOW (15 V), MID (17 V) and HIGH (19 V) are displayed, the internal voltage should vary accordingly.	When the unit is turned ON, 15 V is output regardless of the position of this SW, until this SW is changed to another position.
DIP SW	SW 1 to 8	DIP SW12345678 LLLLLLLLL	Set each SW to ON and OFF and confirm that the corresponding display changes to H (ON) or L (OFF).	

1.3.4 Adjustment Mode

The Adjustment mode is detailed in the description of the adjustment procedures. Please see section 2.2.

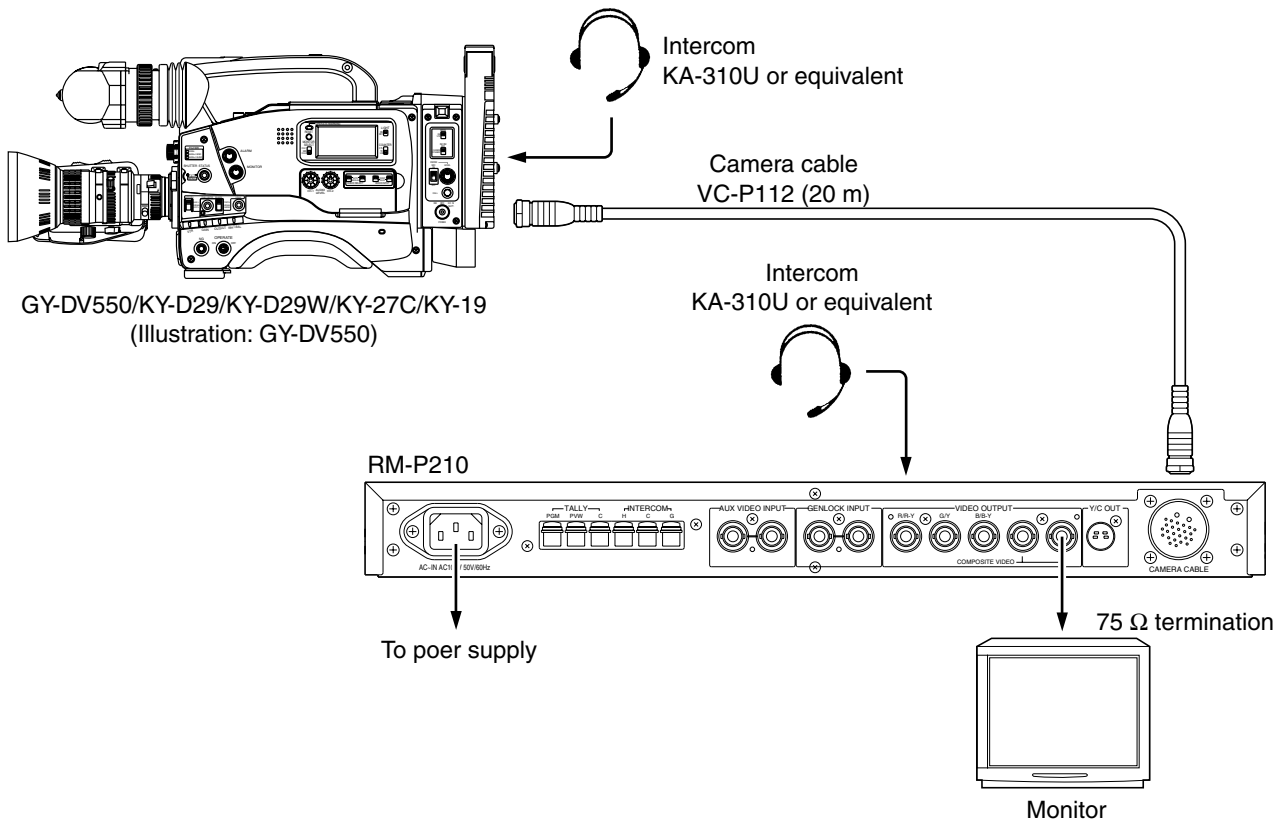
SECTION 2 ELECTRICAL ADJUSTMENTS

2.1 INSTRUMENTS REQUIRED FOR ADJUSTMENTS, THEIR SETUPS

2.1.1 Instruments to be Prepared

- (1) Color video camera: GY-DV550, KY-D29, KY-D29W, KY-27C or KY-19 (With the KY series camera, a KA-27 camera adapter is an additional requirement.)
- (2) Camera cable: VC-P112 (20 m)
(Always use a 20-meter cable. Correct adjustment is not possible with other cable lengths.)
- (3) Color monitor TV
- (4) Digital voltmeter (input impedance 10 M Ω or more)
- (5) Oscilloscope (2-trace scope)
- (6) 75 Ω termination resistance
- (7) Headset: KA-310U or a headset with 200 Ω to 600 Ω impedance at 1 kHz
- (8) IN MEGA CYCLE Chart (Part No. RESC-014)
- (9) Camera Extension Board (Part No. SCK2164) (Required when the connected camera model is the KY-29 or the KY-D29W.)

2.1.2 Standard Setup



2.1.3 Setup for Adjustments

- Complete the adjustments of the camera itself in advance.
- Use the same lighting and other conditions as those used in the camera adjustments.
- Set the camera switches as follows.

■ GY-DV550

POWER : RM
 MODE : RM
 OPERATE : RM
 VTR : STBY
 26 PIN OUT in Camera Setup Menu : RGB

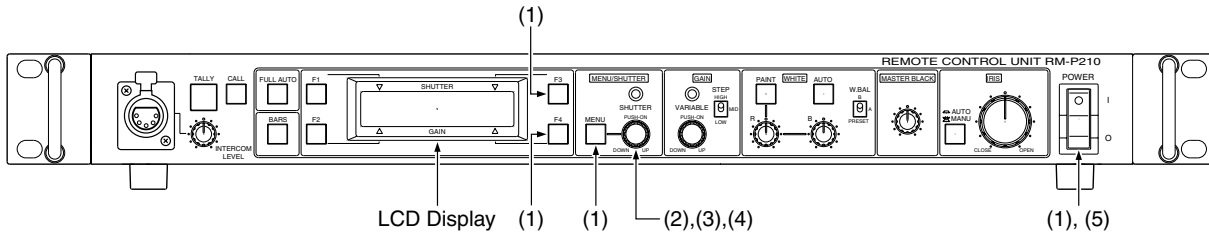
■ KY-D29, KY-D29W, KY-27C, KY-19 + KA-27

POWER : RM/VTR
 MODE : RM
 SIG : RGB
 OPERATE : ON/ST-BY

2.2 ADJUSTMENT MODE

Adjust the power supply of the RM-P210 by using the Adjustment mode (menu).

2.2.1 Procedures



(1) Starting the Adjustment mode

Hold the **[MENU]**, **[F3]** and **[F4]** buttons simultaneously while pressing the POWER switch ON. All of the front panel LEDs light in the Adjustment mode.

(2) Selecting the adjustment item

Turn the **[SHUTTER]** potentiometer to select a menu item, and then press the **[SHUTTER]** potentiometer. The “→” cursor moves to the adjustment value area, indicating that the adjustment is ready.

(3) Adjustment method

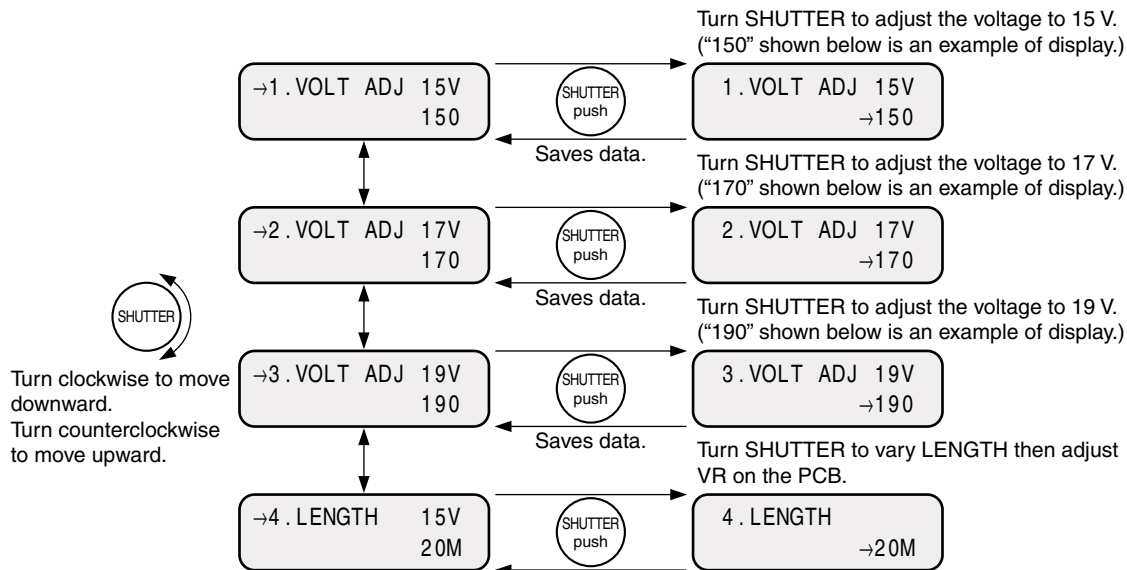
After selecting the adjustment item, turn the **[SHUTTER]** potentiometer again to adjust the value. See the description of each adjustment item for details. Note that “4. LENGTH” is not used in the adjustments.

(4) Saving the adjustment data

After adjustment, press the **[SHUTTER]** potentiometer to save the adjusted data. The display returns to the adjustment item selection menu in step (2).

(5) Exiting from the Adjustment mode

Press the **[POWER]** switch to OFF.

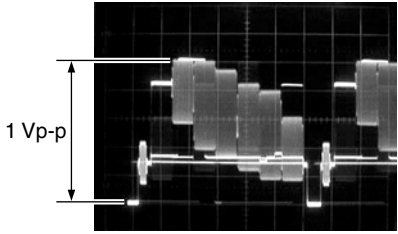
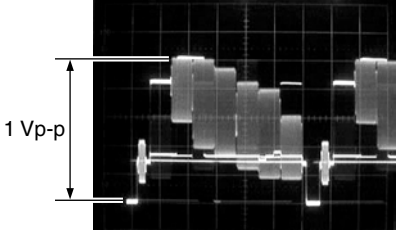


No.	Item	Measuring instruments & Input signals	Mode	Measuring point (◎) Adjustment parts (Ⓡ) Adjustment level (☆)	Adjustment procedure
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2.3 TRANSMIT VOLTAGE ADJUSTMENT

1	+15 V supply adjustment	Digital voltmeter	Adjustment mode 1: VOLT ADJ 15 V	◎ TP9 Ⓡ SHUTTER VR ☆ 15 ± 0.2 VDC	<ol style="list-style-type: none"> 1. Start the Adjustment mode without connecting the camera (i.e. camera cable). (See section 2.2.) 2. Select each adjustment mode and adjust SHUTTER to the specified level.
2	+17 V supply adjustment	Digital voltmeter	Adjustment mode 2: VOLT ADJ 17 V	◎ TP9 Ⓡ SHUTTER VR ☆ 17 ± 0.2 VDC	
3	+19 V supply adjustment	Digital voltmeter	Adjustment mode 3: VOLT ADJ 19 V	◎ TP9 Ⓡ SHUTTER VR ☆ 19 ± 0.2 VDC	

2.4 COMPOSITE SIGNAL OUTPUT ADJUSTMENT

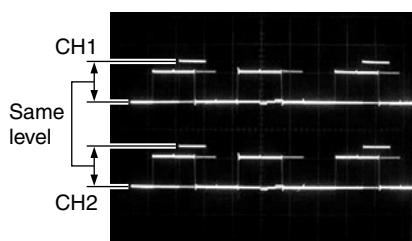
1	Video level adjustment	<ul style="list-style-type: none"> • Color bar • Oscilloscope (H-rate) 	<ul style="list-style-type: none"> • BARS switch: ON • Menu No. 2A LENGTH: 20 M 	◎ COMPOSITE VIDEO OUTPUT (75 Ω terminated) Ⓡ VR102 (IRIS LEVEL) [Main board] ☆ 1 ± 0.03 Vp-p	<ol style="list-style-type: none"> 1. Adjust to the specified level. 
2	Frequency response adjustment	<ul style="list-style-type: none"> • Color bar • Oscilloscope (H-rate) 	<ul style="list-style-type: none"> • BARS switch: ON • Menu No. 2A LENGTH: 20 M 	◎ COMPOSITE VIDEO OUTPUT (75 Ω terminated) Ⓡ VR101 (VBS FREQ) [Main board] ☆ 1 Vp-p	<ol style="list-style-type: none"> 1. Adjust to the specified level. 2. If adjustment to the specified level is not possible, use a vectorscope and adjust so that all of the spots come inside □□. 

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (⊙) Adjustment parts (Ⓜ) Adjustment level (☆)	Adjustment procedure
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2.5 COMPONENT/RGB SIGNAL OUTPUT ADJUSTMENT

Note: The measuring points for this adjustment are variable depending on the connected camera models. (See the “Measuring Point Table for Each Camera Model” below.)

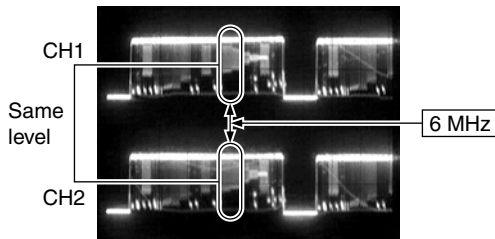
1	Level adjustment	<ul style="list-style-type: none"> Color bar generator Oscilloscope (H-rate) 	<ul style="list-style-type: none"> BARS switch: ON Menu No. 2A LENGTH: 20 M 	<ul style="list-style-type: none"> R Channel ⊙ See Measuring Point Table. Ⓜ VR201 (R LEVEL) [Main board] ☆ Same level 	<ol style="list-style-type: none"> Connect oscilloscope CH1 and CH2 as shown in the Measuring Point Table. Adjust so that the CH1 and CH2 levels are same levels.
				<ul style="list-style-type: none"> G Channel ⊙ See Measuring Point Table. Ⓜ VR301 (G LEVEL) [Main board] ☆ Same level 	<ol style="list-style-type: none"> Adjust in the same way as the R Channel.
				<ul style="list-style-type: none"> B Channel ⊙ See Measuring Point Table. Ⓜ VR401 (B LEVEL) [Main board] ☆ Same level 	



Measuring Point Table for Each Camera Model

Channel	Camera Model	Oscilloscope CH1 Measuring Points on RM-P210	Oscilloscope CH2 Measuring Points on Camera
R	GY-DV550	R OUTPUT terminal (75 Ω terminated)	TP402 (R) [SE board: B-1D]
	KY-D29 KY-D29W	TP202 (R OUT) [Main board]	TP2 (Extension board) [Connect extension board to SE board.]
	KY-27C/19		CN31 pin 7 [SE board: A-6B]
G	GY-DV550	G OUTPUT terminal (75 Ω terminated)	TP202 (G) [SE board: B-1D]
	KY-D29 KY-D29W	TP302 (G OUT) [Main board]	TP4 (Extension board) [Connect extension board to SE board.]
	KY-27C/19		CN31 pin 6 [SE board: A-6B]
B	GY-DV550	B OUTPUT terminal (75 Ω terminated)	TP302 (B) [SE board: B-1D]
	KY-D29 KY-D29W	TP402 (B OUT) [Main board]	TP5 (Extension board) [Connect extension board to SE board.]
	KY-27C/19		CN31 pin 4 [SE board: A-6B]

No.	Item	Measuring instruments & Input signals	Mode	Measuring point (⊙) Adjustment parts (⬆) Adjustment level (☆)	Adjustment procedure
2	Frequency response adjustment	<ul style="list-style-type: none"> • IN MEGA chart (precisely scanned size) • Oscilloscope (H-rate) 	<ul style="list-style-type: none"> • BARS switch: OFF • Menu No. 2A LENGTH: 20 M 	<ul style="list-style-type: none"> • R Channel ⊙ See Measuring Point Table. ⬆ VR202 (R FREQ) [Main board] ☆ Same levels of the 6 MHz section 	<ol style="list-style-type: none"> 1. Shoot the IN MEGA chart so that it becomes precisely scanned size. 2. Connect oscilloscope CH1 and CH2 as shown in the Measuring Point Table. 3. Adjust so that the levels of CH1 and CH2 of the 6 MHz sections are same levels.
				<ul style="list-style-type: none"> • G Channel ⊙ See Measuring Point Table. ⬆ VR302 (G LEVEL) [Main board] ☆ Same levels of the 6 MHz section 	<ol style="list-style-type: none"> 4. Adjust in the same way as the R Channel.
				<ul style="list-style-type: none"> • B Channel ⊙ See Measuring Point Table. ⬆ VR402 (B LEVEL) [Main board] ☆ Same levels of the 6 MHz section 	



2.6 INTERCOM LEVEL ADJUSTMENT

For intercom operation using headsets, the intercom levels can be adjusted with the following controls.

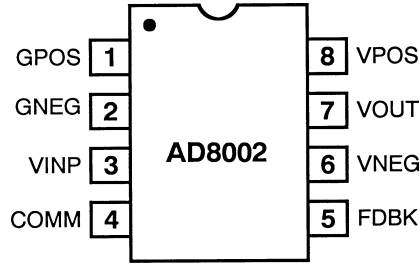
- Camera : INCOM LEVEL control on the adapter at the rear.
- RM-P210 : INTERCOM LEVEL control on the front panel.

Although adjustments on the circuit board are usually unnecessary, perform the following adjustment if the amplification gain seems to be insufficient.

1	Side tone adjustment (Feedback of the microphone to the earphone of the same headset)	Headset	<ul style="list-style-type: none"> • S602: 2W [Main board] 	<ul style="list-style-type: none"> ⊙ INTERCOM jack on the RM-P210 front panel ⬆ VR15 (2W S.TONE) [Main board] 	<ol style="list-style-type: none"> 1. Connect 560 Ω resistance across H and C INTERCOM terminals on the rear panel. 2. Plug the headset into the front panel INTERCOM jack. 3. Talk and adjust to optimize the side tone level. (Adjust it to the clockwise direction.)
2	RTS side tone adjustment (U model only)	RTS headset	<ul style="list-style-type: none"> • S602: RTS [Main board] 	<ul style="list-style-type: none"> ⊙ INTERCOM jack on the RM-P210 front panel ⬆ VR16 (RTS S.TONE) [Main board] 	<ol style="list-style-type: none"> 1. Connect 220 Ω resistance across H and G INTERCOM terminals on the rear panel. 2. Plug the headset into the front panel INTERCOM jack. 3. Talk and adjust to optimize the side tone level. (Adjust it to the clockwise direction.)

3.7 IC BLOCK DIAGRAMS

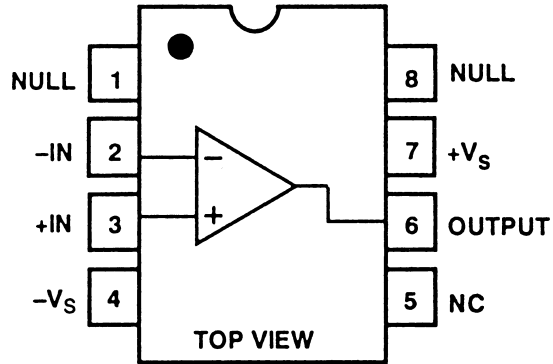
■ AD603AR-X [ANALOG DEVICES] (Variable Gain CTL Amplifier)



■ Pin function

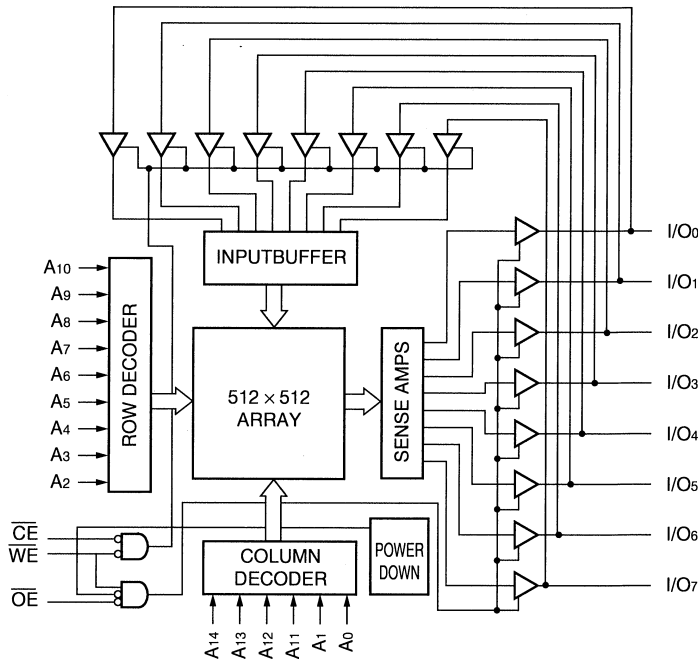
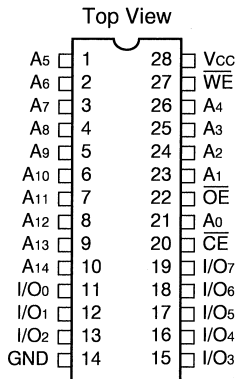
Pin No.	Pin Name
1	GPOS Gain CTL Input " HI "
2	GNEG Gain CTL Input " LOW "
3	VINP Amp. Input
4	COMM GND
5	FDBK Feedback
6	VNEG V _{ss}
7	VOUT Output
8	VPOS V _{DD}

■ AD817AR-X [ANALOG DEVICES] (Hi-Speed Low Power Op.Amp)



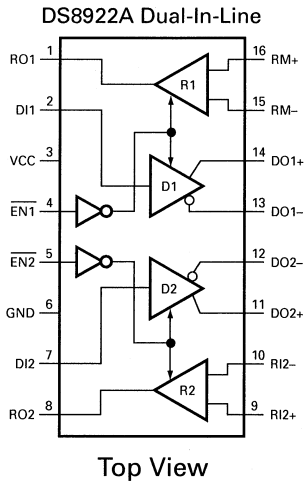
NC = NOT CONNECTED

■ CY62256LL-70SN-X [CYPRESS] (32k x 8 Static RAM)



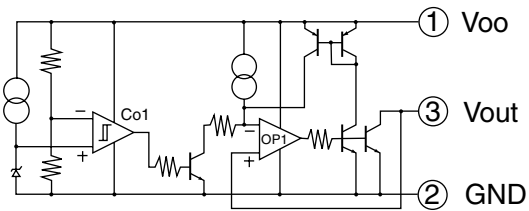
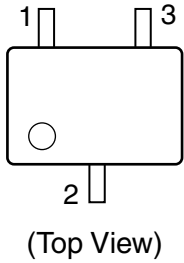
DS8922M-X [NATIONAL SEMICONDUCTOR]
(RS-422 Dual Differential Line Driver and Receiver Pairs)

Connection Diagrams

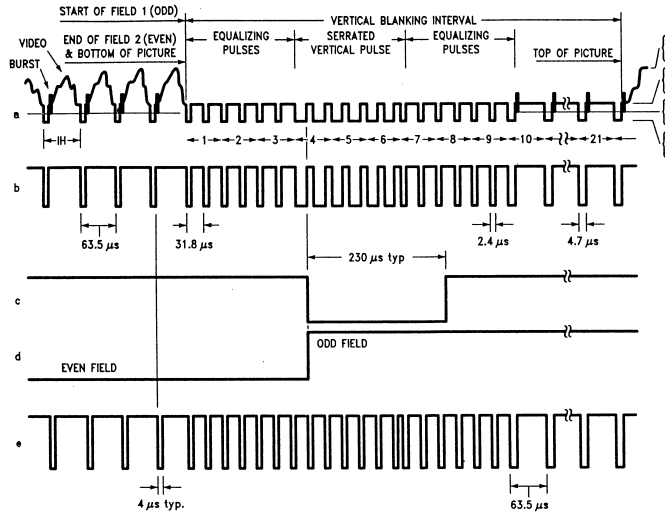
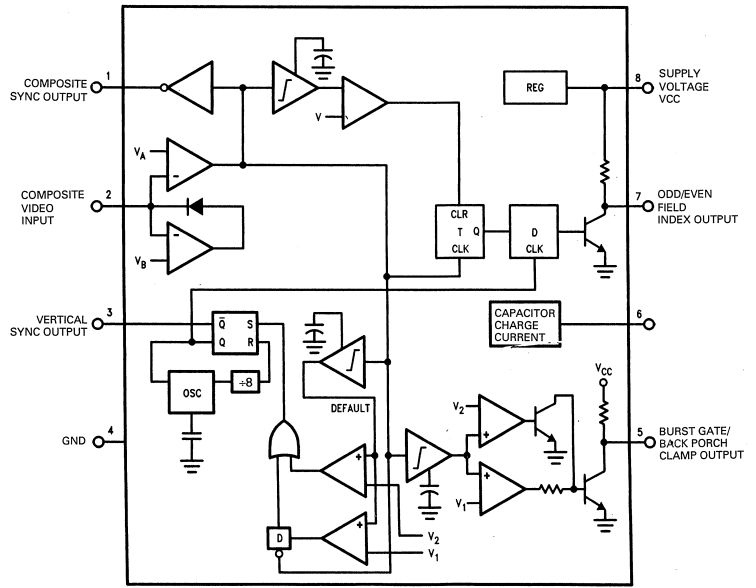


EN1	EN2	RO1	RO2	DO1	DO2
0	0	ACTIVE	ACTIVE	ACTIVE	ACTIVE
1	0	HI-Z	ACTIVE	HI-Z	ACTIVE
0	1	ACTIVE	HI-Z	ACTIVE	HI-Z
1	1	HI-Z	HI-Z	HI-Z	HI-Z

IC-PST600M/E/-W [MITSUMI]
(System Reset IC)

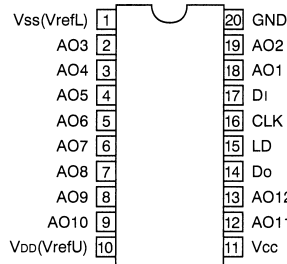


LM1881M-X [National Semiconductor]
(Video Sync Separator)

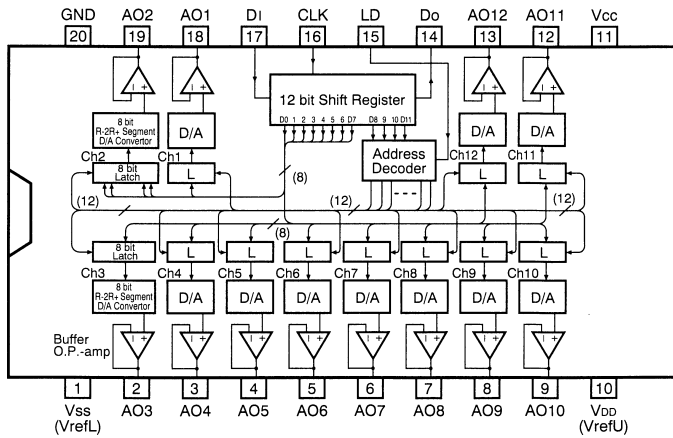


(a) Composite Video; (b) Composite Sync; (c) Vertical Output Pulse; (d) Odd/Even Field Index; (e) Burst Gate/Back Porch Clamp

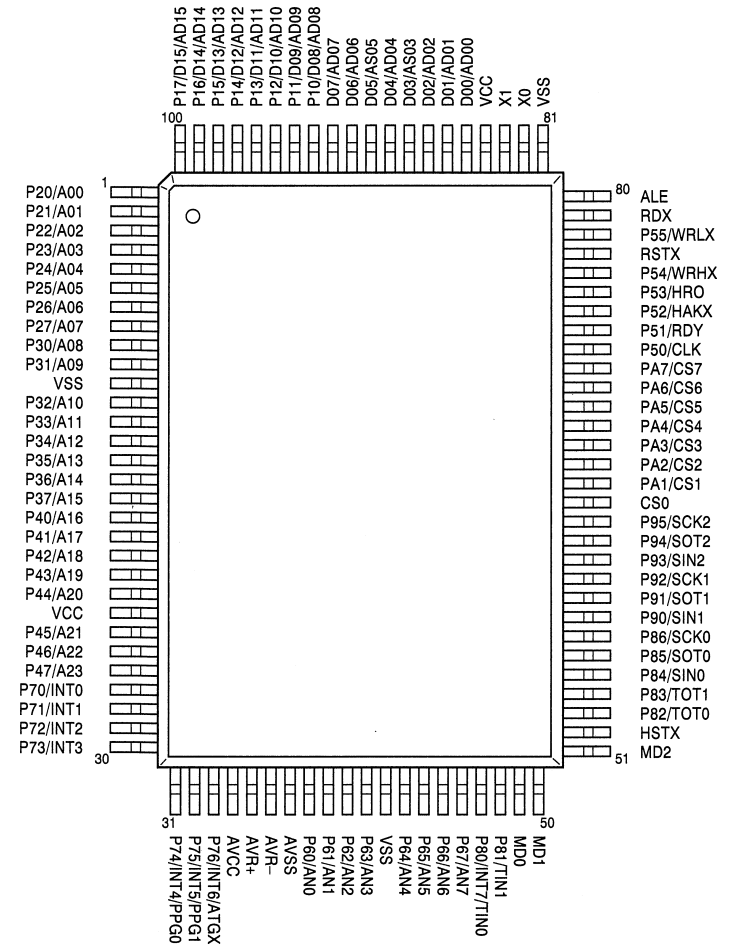
■ **M62352GP-W [MITSUBISHI]**
(8 bit 12Channel D/A Converter with Buffer Op.Amp.)



Top View



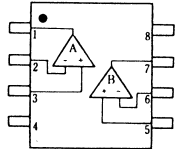
■ **MB90611APF [FUJITSU]**
(CPU)



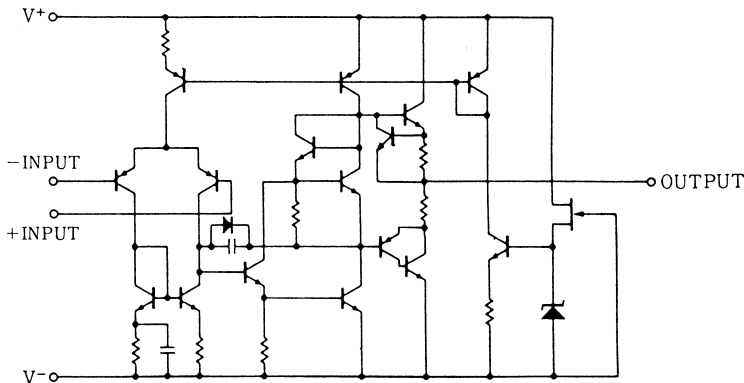
(Top View)

■ **NJM4556AM-X [JRC]**
(Dual High Current Op.Amp)

(Top View)

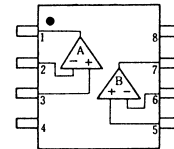


1. A OUTPUT
2. A- INPUT
3. A+ INPUT
4. V-
5. B+ INPUT
6. B- INPUT
7. B OUTPUT
8. V+

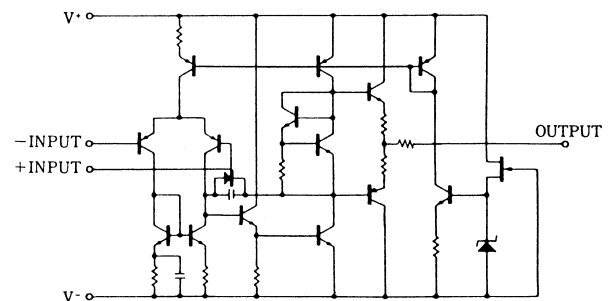


■ **NJM4558M-X [JRC]**
(Dual Op.Amp)

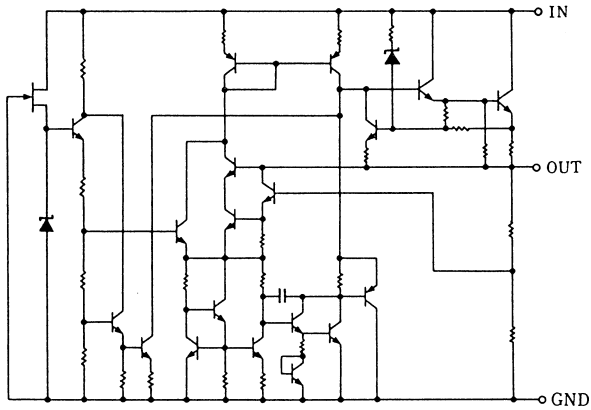
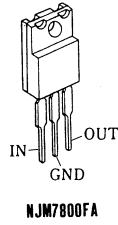
(Top View)



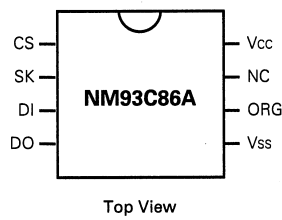
1. A OUTPUT
2. A- INPUT
3. A+ INPUT
4. V-
5. B+ INPUT
6. B- INPUT
7. B OUTPUT
8. V+



■ **NJM7812FA [JRC]**
(3-Terminal Positive Voltage Regulator (+12V))

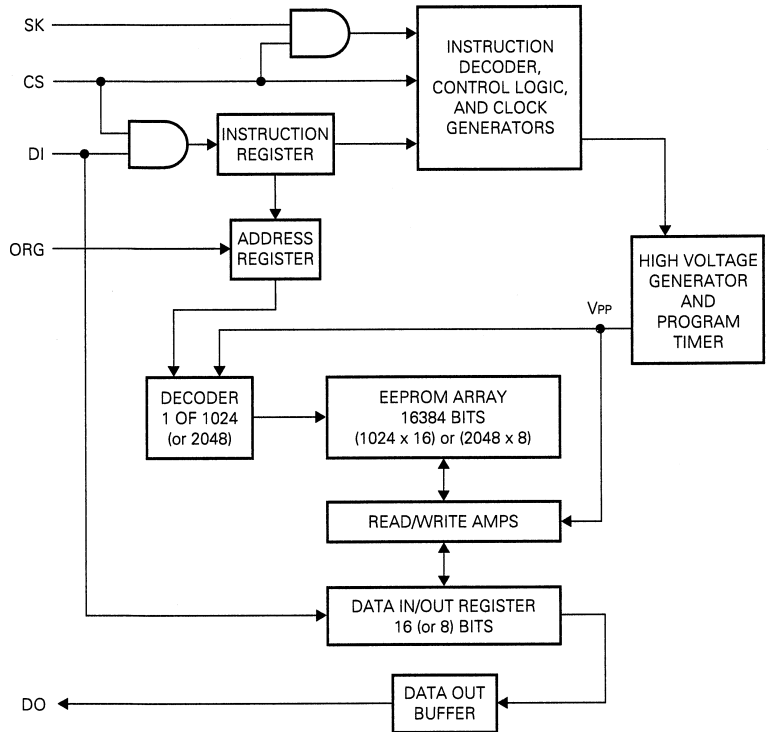


■ **NM93C86AEM8-X [NATIONAL SEMICONDUCTOR]**
(16,384-Bit Serial Interface, Standard Voltage CMOS EEPROM)

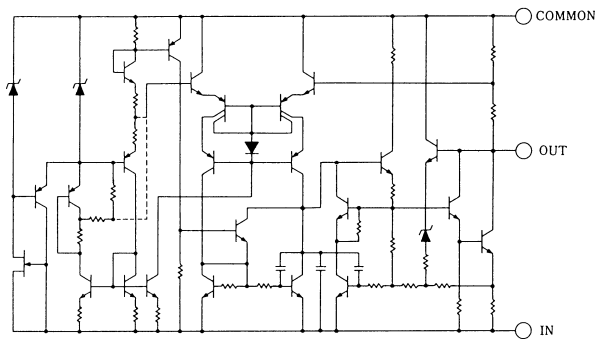
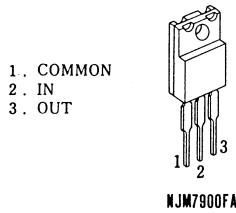


Pin Name	
Pin	Description
CS	Chip Select
SK	Serial Data Clock
DI	Serial Data Input
DO	Serial Data Output
VSS	Ground
ORG	Memory Organization Select (On the NM93C86A)
NC	No Connect
VCC	Positive Power Supply

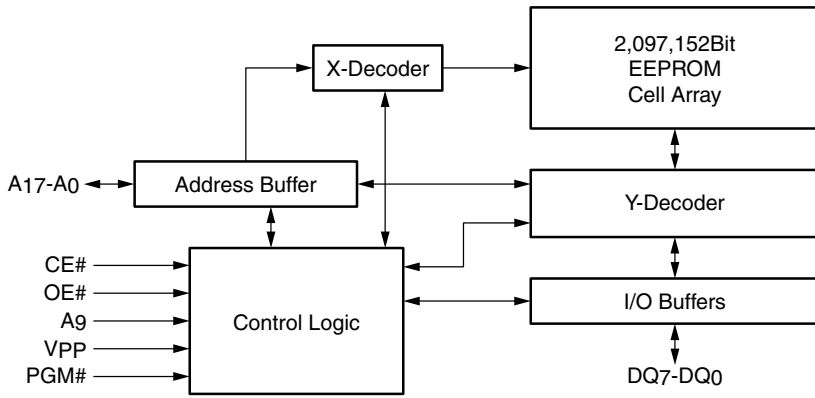
Block Diagram



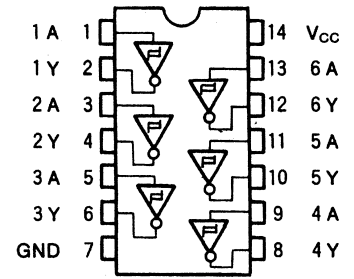
■ **NJM7905FA [JRC]**
(3-Terminal Negative Voltage Regulator (-5V))



■ **PLSC1359 [SST27SF020-70NH/Silicon Strage Technology]**
(2M Bit Flash Memoly)



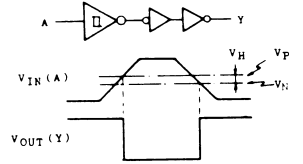
■ **TC74HC14AF-X [TOSHIBA]**
(Hex Schmitt-Trigger Inverters)



(TOP VIEW)

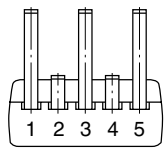
TRUE Table

A	Y
L	H
H	L



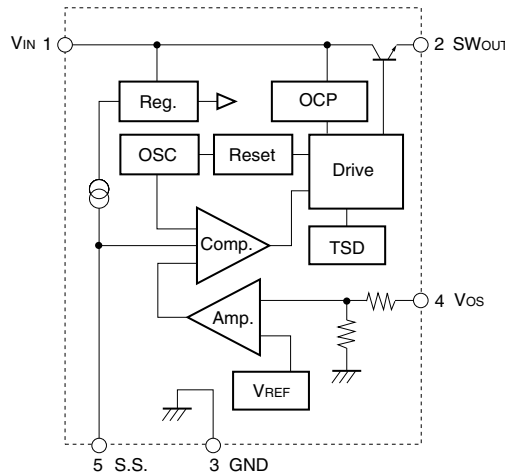
$V_{CC}=4.5\text{ V}$ $V_P=2.7\text{ V typ.}$
 $V_N=1.6\text{ V typ.}$

■ **SI-8120S [SANKEN]**
(Separate Excitation Switching Regulator IC)

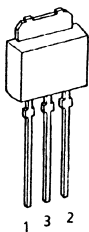


(Bottom View)

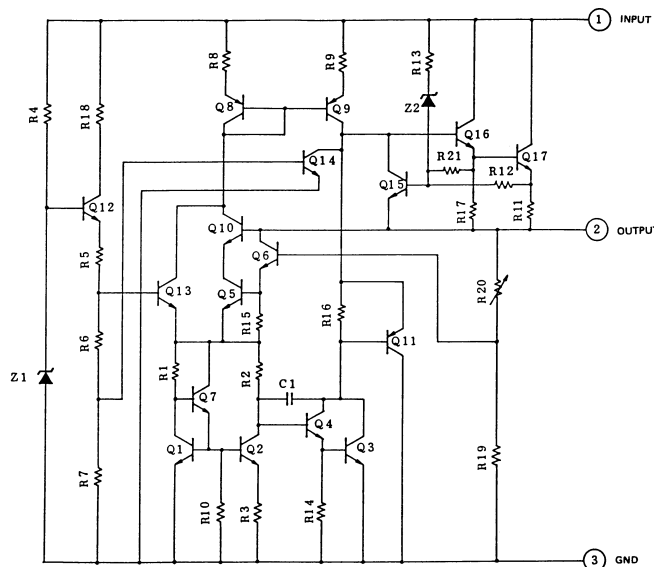
- ① V_{IN}
- ② SW_{OUT}
- ③ GND
- ④ V_{OS}
- ⑤ S.S.



■ **TA7805S [TOSHIBA]**
(3-Terminal Positive Voltage Regulator (+5V))

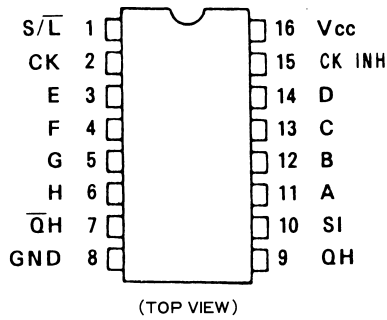


- 1. INPUT
- 2. OUTPUT
- 3. GND

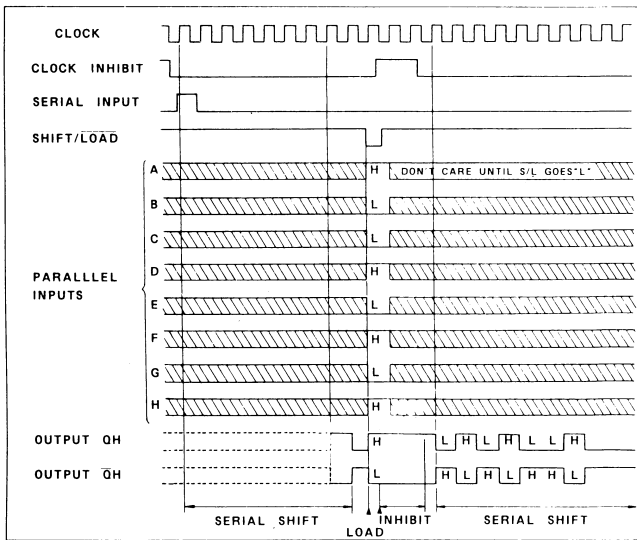


■ **TA7809S [TOSHIBA]**
(Refer to TA7805S.)

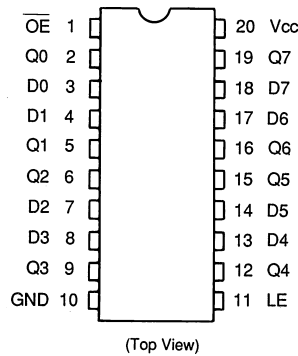
■ **TC74HC165AF-X [TOSHIBA]**
 (8-Bit Serial or Parallel-In/Serial Out Shift Registers With Complementary Out)



Timing chart



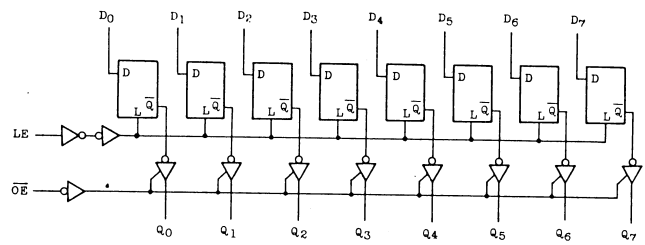
■ **TC74HC373AF-X [TOSHIBA]**
 (Octal D-Type Latch With NON-Inverted 3-State Output)



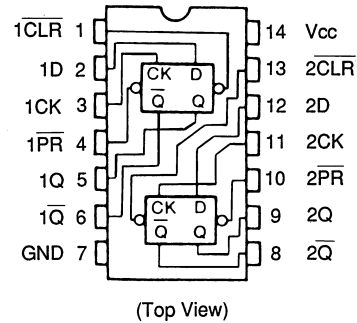
TRUE Table

INPUTS			OUTPUTS
OE	LE	D	
H	X	X	Z
L	L	X	Q _n
L	H	L	L
L	H	H	H

X : Don't Care
 Z : Hi impedance
 Q_n : Q output level before the LE become "L".



■ **TC74HC74AF-X [TOSHIBA]**
 (Dual D-Type Positive-EDGE-Triggered Flip-Flops With Preset AND Clear)



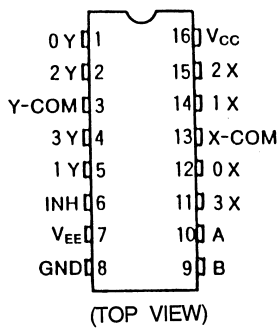
TRUE Table

INPUTS				OUTPUTS		FUNCTION
CLR	PR	D	CK	Q	Q	
L	H	X	X	L	H	CLEAR
H	L	X	X	H	L	PRESET
L	L	X	X	H	H	—
H	H	L	↑	L	H	—
H	H	H	↑	H	L	—
H	H	X	↓	Q _n	Q _n	NO CHANGE

X : Don't care

■ **TC74HC4052AFT-X [TOSHIBA]**
 (Dual 4-Channel Analog Multiplexer)

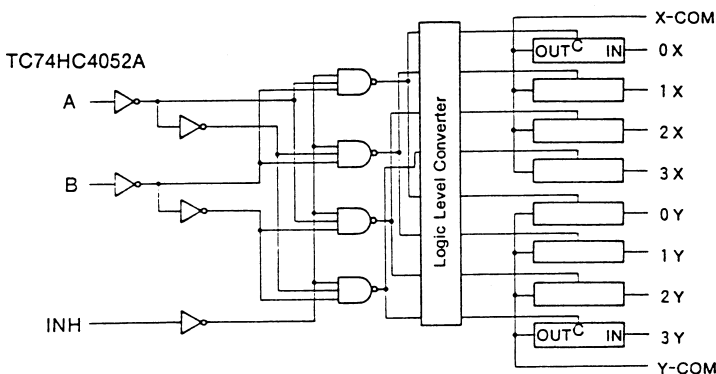
TC74HC4052A



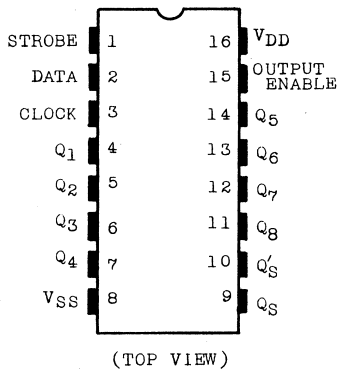
TRUE Table

CONTROL INPUTS			"ON" CHANNEL
INHIBIT	B	A	
L	L	L	0X, 0Y
L	L	H	1X, 1Y
L	H	L	2X, 2Y
L	H	H	3X, 3Y
H	X	X	NONE

X : DONT CARE



TC74HC4094AF-X [TOSHIBA]
(8 Stage Bus Compatible Shift/Store Register)

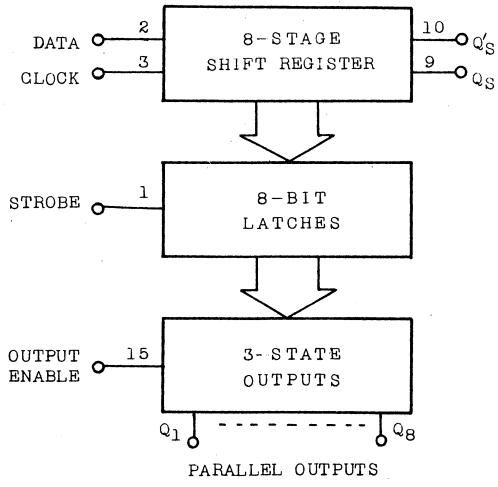


TRUTH TABLE

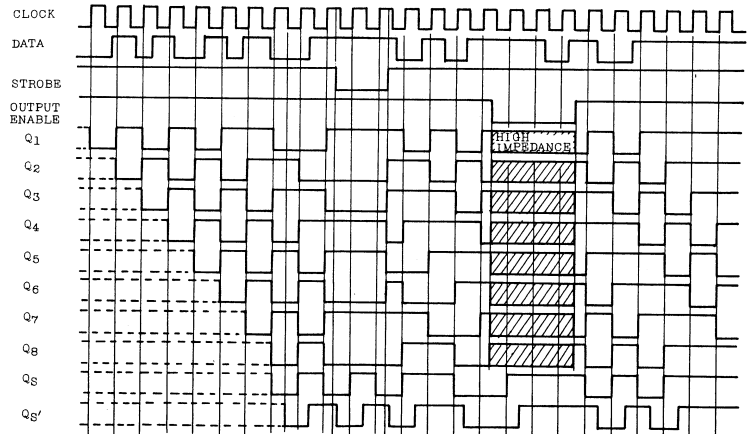
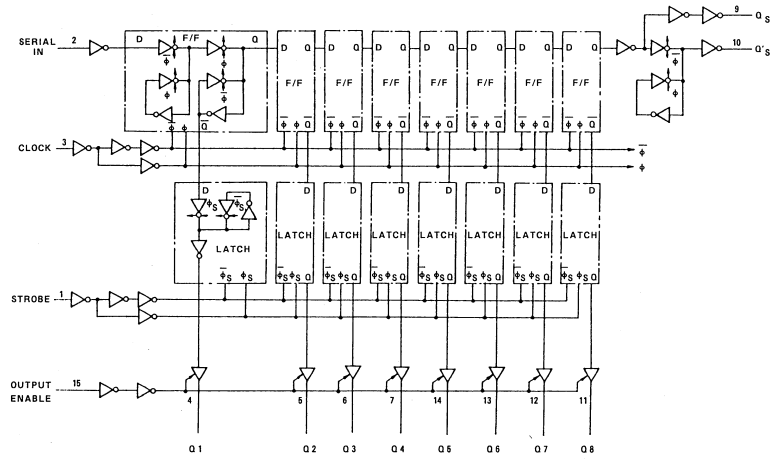
CL	OE	ST	D	PO		SO	
				Q ₁	Q _n	Q _S	Q' _S
	H	H	L	L	Q _{n-1}	Q ₇	NC
	H	H	H	H	Q _{n-1}	Q ₇	NC
	H	L	*	NC	NC	Q ₇	NC
	L	*	*	HZ	HZ	Q ₇	NC
	H	*	*	NC	NC	NC	Q _S
	L	*	*	HZ	HZ	NC	Q _S

CL = Clock * = Don't care
 OE = Output Enable NC = No Change
 ST = Strobe HZ = High Impedance
 D = Data
 PO = Parallel Outputs
 SO = Serial Output

BLOCK DIAGRAM

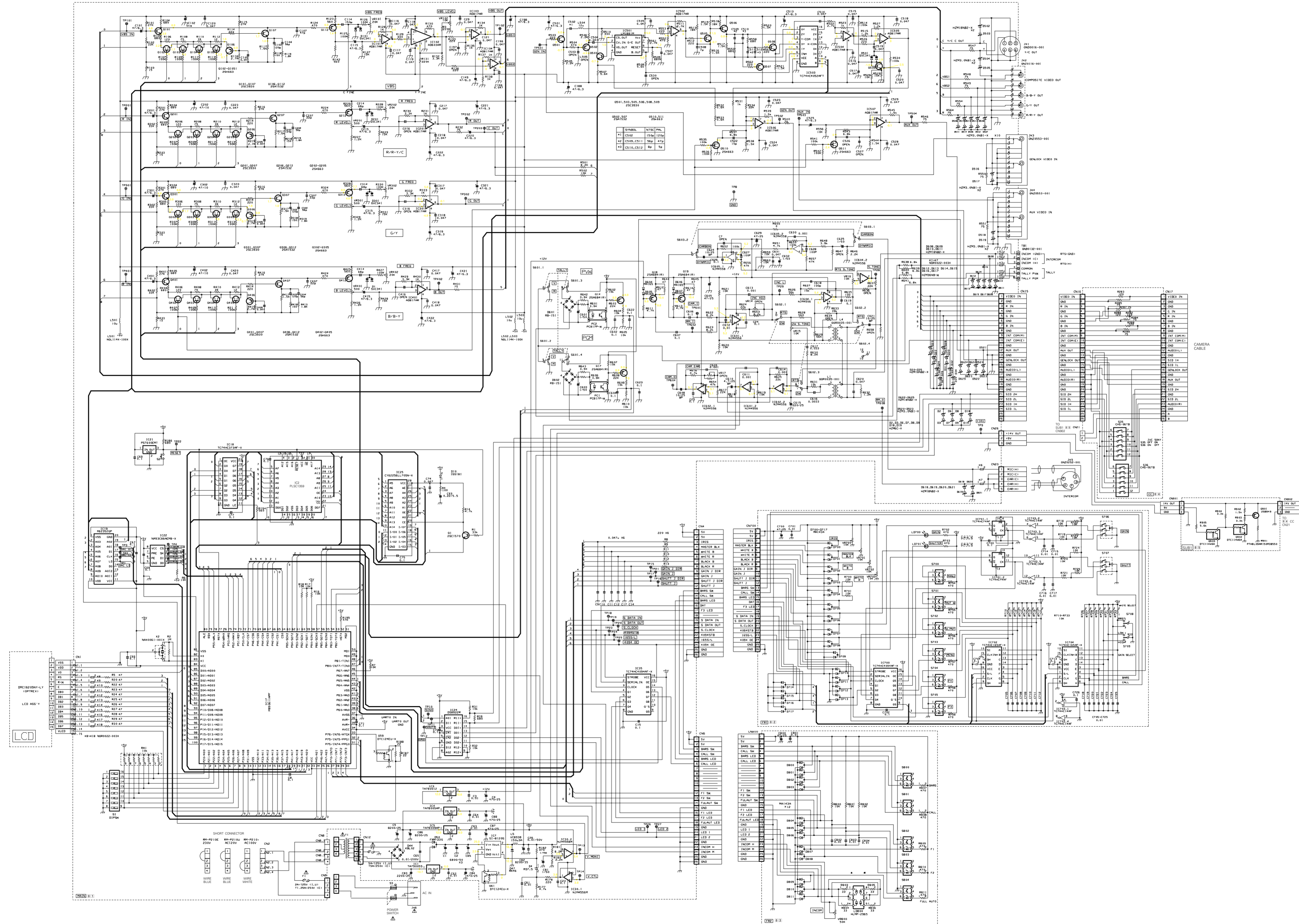


SERIAL OUTPUT



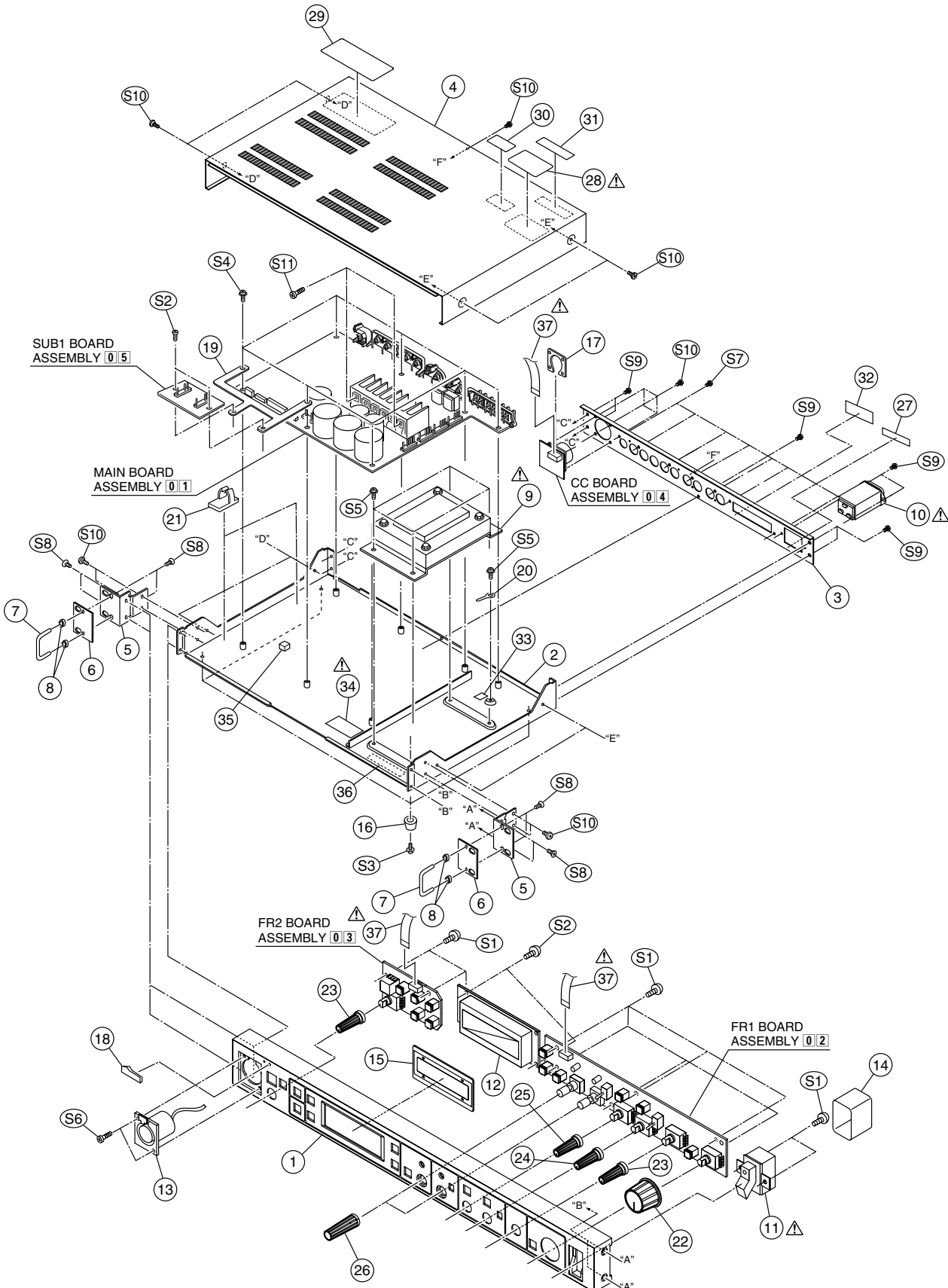
SECTION 3 DIAGRAMS AND CIRCUIT BOARDS

3.1 MAIN/FR1/FR2/CC/SUB1 SCHEMATIC DIAGRAM 01/02/03/04/05



SECTION 4 EXPLODED VIEWS AND PARTS LIST

4.1 RM-P210 ASSEMBLY M 2



● RM-P210 ASSEMBLY PARTS LIST 2

2 M M

Symbol No.	Part No.	Part Name	Description
1	SC10252-001	FRONT PANEL	
2	SC10253-001	BOTTOM COVER	
3	SC20741-001	REAR PANEL	
4	SC20742-001	TOP COVER	
5	SC30558-001	L. BRACKET	
6	SC41550-003	FRONT PLATE	
7	SC43639-001	HANDLE	
8	SC40617-001	WASHER	
△	9	QQT0346-001	TRANSFORMER
△	9	QQT0347-001	TRANSFORMER
			U model
			E model
△	10	QNC0087-001	AC INLET
△	11	QSW0015-004	POWER SWITCH
	12	QLD0191-001	LCD DISPLAY
	13	QNZ0252-001	CONNECTOR
	14	SCV1327-001	SWITCH COVER
			FOR INCOM
	15	SC46802-001	WINDOW
	16	QZF1510-001	FOOT
	17	SC43454-001	NUT PLATE
	18	—	MARK
	19	SCV3045-001	BOARD BRACKET
			JVC
	20	SCV0518-008	WIRE CLAMP
	21	SCV3045-MN-2	MINI CLAMP
	22	SC46207-011	KNOB
	23	SC45572-011	KNOB
	24	SC45572-031	KNOB
			FOR IRIS (VR700)
			FOR MASTER BLK (VR701), INCOM LEV (VR800)
			FOR WHITE B (VR702)
	25	SC45572-021	KNOB
	26	SC44668-001	KNOB
	27	SC46804-001	LABEL
△	28	—	RATING LABEL
	29	SC41058-002	CAUTION LABEL
			FOR WHITE R (VR703)
			FOR GAIN (S706), SHUTTER (S707)
	30	QZL1001-012	UL LABEL
		SS412174-002	CE/TUV LABEL
	31	SC40865-001	WARNING LABEL
	32	SC46804-001	LABEL
	33	SC45464-001	EARTH LABEL
			U model
			E model
			E model only
			U model only
△	34	SC41252-001	FUSE CAUTION
	35	SC46836-001	PAD
	36	—	SERIAL NO. LABEL
△	37	SCV2803-2614B	FFC WIRE
	S1	QYSPSPL3006Z	SCREW
			M3 x 6
	S2	QYSPSPL2606Z	SCREW
	S3	QYSPSPL3010Z	SCREW
	S4	SS49420-B3006N	SCREW
	S5	QYSPSPD4008Z	SCREW
	S6	QYSPSP2606N	SCREW
			M2.6 x 6
	S7	QYSDSF3008M	SCREW
	S8	QYSSSP3008N	SCREW
	S9	QYSDST3006M	SCREW
	S10	QYSDSP3006M	SCREW
	S11	QYSPSPD3008Z	SCREW
			M3 x 8
			M3 x 8
			M3 x 6
			M3 x 6
			M3 x 8

5.1 MAIN BOARD ASSEMBLY PARTS LIST 01

SCV3045-PB502A(1)-N (U MODEL)

SCV3045-PB502A(1)-P (E MODEL)

01

Symbol No.	Part No.	Part Name	Description
IC1	NJM7905FA	I.C.(M)	JRC
IC2	PLSC1359	I.C.(M)	SST275F020-70NH
SK2	SCV2768-001X	IC SOCKET	(FOR IC2)
IC3	NJM7812FA	I.C.(M)	JRC
IC4	TA7805S	I.C.(M)	TOSHIBA
IC5	TA7809S	I.C.(M)	TOSHIBA
IC7	SI-8120S	I.C.(M)	SANKEN
IC17	MB90611APF	I.C.(M)	FUJITSU
IC18	TC74HC373AF-X	I.C.(M)	TOSHIBA
IC19	M62352GP-W	I.C.(M)	MITSUBISHI
IC21	IC-PST600M/E/-W	I.C.(M)	MITSUMI
IC22	NM93C86AEM8-X	I.C.(M)	NATIONAL SEMICO
IC24	DS8922M-X	I.C.(M)	NATIONAL SEMICO
IC25	CY62256LL-70SN-X	I.C.(M)	CYPRESS
IC30	NJM4556AM-X	I.C.(M)	JRC
IC35	TC74HC4094AF-X	I.C.(M)	TOSHIBA
IC101	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC102	AD603AR-X	I.C.(M)	ANALOG DEVICE
IC103	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC104	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC201	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC301	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC401	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC501	LM1881M-X	I.C.(M)	NATIONAL SEMICO
IC502	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC503	TC74HC4052AFT-X	I.C.(M)	TOSHIBA
IC504	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC505	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC506	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC507	AD817AR-X	I.C.(M)	ANALOG DEVICE
IC601	NJM4556AM-X	I.C.(M)	JRC
IC602	NJM4556AM-X	I.C.(M)	JRC
IC604	NJM4556AM-X	I.C.(M)	JRC
IC605	NJM4558M-X	I.C.(M)	JRC
Q1	2SC3311A	TRANSISTOR	MATSUSITA
Q14	2SA0684/R/	TRANSISTOR	MATSUSITA
Q17	2SA0684/R/	TRANSISTOR	MATSUSITA
Q18	2SA0684/R/	TRANSISTOR	MATSUSITA
Q19	2SA0684/R/	TRANSISTOR	MATSUSITA
Q59	DTC123JUA-X	TRANSISTOR	TOSHIBA
Q61	DTC124EUA-X	TRANSISTOR	TOSHIBA
Q101	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q102	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q103	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q104	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q105	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q106	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q107	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q112	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q201	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q202	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q203	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q204	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q205	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q206	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q207	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q212	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q301	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q302	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q303	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q304	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q305	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q306	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q307	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q312	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q401	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q402	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q403	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q404	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q405	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q406	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q407	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q412	2SA1532/BC-X	TRANSISTOR	MATSUSITA

Symbol No.	Part No.	Part Name	Description
Q501	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q502	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q503	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q505	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q506	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q507	2SA1532/BC-X	TRANSISTOR	MATSUSITA
Q508	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q509	2SC3930/BC-X	TRANSISTOR	MATSUSITA
Q510	2SK663/QR/-W	TRANSISTOR	MATSUSITA
Q511	2SK663/QR/-W	TRANSISTOR	MATSUSITA
D1	SVC341/L/-X	DIODE	SANYO
D2	HZM6C-X	ZENER DIODE	HITACHI
D3	HZM6C-X	ZENER DIODE	HITACHI
D4	RD7.5E5/B2/-T2	ZENER DIODE	FUJITSU
D6	HZM6C-X	ZENER DIODE	HITACHI
D7	HZM6C-X	ZENER DIODE	HITACHI
D8	HZM6C-X	ZENER DIODE	HITACHI
D9	HZM6C-X	ZENER DIODE	HITACHI
D10	1SS187-X	DIODE	TOSHIBA
D18	HZM6C-X	ZENER DIODE	HITACHI
D19	HZM6C-X	ZENER DIODE	HITACHI
D20	HZM18NB2-X	ZENER DIODE	HITACHI
D21	HZM18NB2-X	ZENER DIODE	HITACHI
D22	HZM18NB2-X	ZENER DIODE	HITACHI
D23	HZM18NB2-X	ZENER DIODE	HITACHI
D24	HZM18NB2-X	ZENER DIODE	HITACHI
D25	HZM18NB2-X	ZENER DIODE	HITACHI
D26	HZM18NB2-X	ZENER DIODE	HITACHI
D27	HZM18NB2-X	ZENER DIODE	HITACHI
D28	HZM18NB2-X	ZENER DIODE	HITACHI
D29	HZM18NB2-X	ZENER DIODE	HITACHI
D30	HZM18NB2-X	ZENER DIODE	HITACHI
D31	HZM18NB2-X	ZENER DIODE	HITACHI
D32	HZM18NB2-X	ZENER DIODE	HITACHI
D33	HZM18NB2-X	ZENER DIODE	HITACHI
D34	HZM18NB2-X	ZENER DIODE	HITACHI
D35	HZM18NB2-X	ZENER DIODE	HITACHI
D44	GBL02	DIODE	GI
D47	RK46	DIODE	SANKEN
D50	FMM-22S	DIODE	SANKEN
D101	SVC341/L/-X	DIODE	SANYO
D201	SVC341/L/-X	DIODE	SANYO
D301	SVC341/L/-X	DIODE	SANYO
D501	SVC341/L/-X	DIODE	SANYO
D502	HZM18NB2-X	ZENER DIODE	HITACHI
D503	HZM18NB2-X	ZENER DIODE	HITACHI
D504	HZM3.0NB1-X	ZENER DIODE	HITACHI
D505	HZM3.0NB1-X	ZENER DIODE	HITACHI
D506	HZM3.0NB1-X	ZENER DIODE	HITACHI
D507	HZM3.0NB1-X	ZENER DIODE	HITACHI
D508	HZM3.0NB1-X	ZENER DIODE	HITACHI
D509	HZM3.0NB1-X	ZENER DIODE	HITACHI
D510	HZM3.0NB1-X	ZENER DIODE	HITACHI
D511	HZM3.0NB1-X	ZENER DIODE	HITACHI
D512	HZM3.0NB1-X	ZENER DIODE	HITACHI
D513	HZM3.0NB1-X	ZENER DIODE	HITACHI
D514	HZM3.0NB1-X	ZENER DIODE	HITACHI
D515	HZM3.0NB1-X	ZENER DIODE	HITACHI
D516	HZM3.0NB1-X	ZENER DIODE	HITACHI
D517	HZM3.0NB1-X	ZENER DIODE	HITACHI
D518	HZM3.0NB1-X	ZENER DIODE	HITACHI
D519	HZM3.0NB1-X	ZENER DIODE	HITACHI
D520	HZM3.0NB1-X	ZENER DIODE	HITACHI
D521	HZM3.0NB1-X	ZENER DIODE	HITACHI
D522	HZM3.0NB1-X	ZENER DIODE	HITACHI
D523	HZM3.0NB1-X	ZENER DIODE	HITACHI
D601	GBL02	DIODE	GI
D602	GBL02	DIODE	GI
D604	MA16-T2	DIODE	MATSUSHITA
D605	MA16-T2	DIODE	MATSUSHITA
D606	MA16-T2	DIODE	MATSUSHITA
D607	MA16-T2	DIODE	MATSUSHITA

Symbol No.	Part No.	Part Name	Description
D608	HZM18NB2-X	ZENER DIODE	HITACHI
D609	HZM18NB2-X	ZENER DIODE	HITACHI
D610	HZM18NB2-X	ZENER DIODE	HITACHI
D611	HZM18NB2-X	ZENER DIODE	HITACHI
D612	HZM36NB-W	ZENER DIODE	HITACHI
D613	HZM36NB-W	ZENER DIODE	HITACHI
D614	HZM36NB-W	ZENER DIODE	HITACHI
D615	HZM36NB-W	ZENER DIODE	HITACHI
D616	HZM36NB-W	ZENER DIODE	HITACHI
D617	HZM36NB-W	ZENER DIODE	HITACHI
Çc618	HZM18NB2-X	ZENER DIODE	HITACHI
Çc619	HZM18NB2-X	ZENER DIODE	HITACHI
Çc620	HZM18NB2-X	ZENER DIODE	HITACHI
Çc621	HZM18NB2-X	ZENER DIODE	HITACHI
Çc622	HZM18NB2-X	ZENER DIODE	HITACHI
Çc623	HZM18NB2-X	ZENER DIODE	HITACHI
Çc624	HZM18NB2-X	ZENER DIODE	HITACHI
Çc625	HZM18NB2-X	ZENER DIODE	HITACHI
PC1	PC817D	I.C(PH COUPLER)	SHARP
PC2	PC817D	I.C(PH COUPLER)	SHARP
R1	NRSA63J-333X	M.G.RESISTOR	33K 1/16W
R2	NRSA63J-105X	M.G.RESISTOR	1M 1/16W
R3	NRSA63J-224X	M.G.RESISTOR	220K 1/16W
R4	NRSA63J-101X	M.G.RESISTOR	100 1/16W
R5	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R6	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R7	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R8	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R9	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R10	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R11	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R12	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R13	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R14	NRSA63J-472X	M.G.RESISTOR	4.7K 1/16W
R16	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R17	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R18	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R19	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R20	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R21	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R22	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R23	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R24	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R25	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R26	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R27	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R28	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R29	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R30	NRSA63J-470X	M.G.RESISTOR	47 1/16W
R31	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R32	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R101	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R102	NRSA63J-333X	M.G.RESISTOR	33K 1/16W
R103	NRSA63J-150X	M.G.RESISTOR	15 1/16W
R104	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R105	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R106	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R107	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R108	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R109	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R110	NRSA63J-390X	M.G.RESISTOR	39 1/16W
R111	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R112	NRSA63J-120X	M.G.RESISTOR	12 1/16W
R113	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R114	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R115	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R116	NRSA63J-272X	M.G.RESISTOR	2.7K 1/16W
R117	NRSA63J-152X	M.G.RESISTOR	1.5K 1/16W
R118	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R119	NRSA63J-182X	M.G.RESISTOR	1.8K 1/16W
R123	NRSA63J-561X	M.G.RESISTOR	560 1/16W
R124	NRSA63J-471X	M.G.RESISTOR	470 1/16W

Symbol No.	Part No.	Part Name	Description
R125	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R126	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R127	NRSA63J-153X	M.G.RESISTOR	15K 1/16W
R128	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R129	NRSA63J-331X	M.G.RESISTOR	330 1/16W
R130	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R131	NRSA63J-224X	M.G.RESISTOR	220K 1/16W
R132	NRSA63J-332X	M.G.RESISTOR	3.3K 1/16W
R133	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R134	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R135	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R136	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R137	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R138	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R142	NRSA63J-561X	M.G.RESISTOR	560 1/16W
R177	NRSA63J-472X	M.G.RESISTOR	4.7K 1/16W
R178	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R180	NRSA63J-222X	M.G.RESISTOR	2.2K 1/16W
R181	NRSA63J-822X	M.G.RESISTOR	8.2K 1/16W
R182	NRSA02J-471X	M.G.RESISTOR	470 1/8W
R186	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R187	NRSA63J-220X	M.G.RESISTOR	22 1/16W
R188	NRSA63J-220X	M.G.RESISTOR	22 1/16W
R194	NRSA63J-561X	M.G.RESISTOR	560 1/16W
R195	NRSA63J-473X	M.G.RESISTOR	47K 1/16W
R201	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R202	NRSA63J-333X	M.G.RESISTOR	33K 1/16W
R203	NRSA63J-150X	M.G.RESISTOR	15 1/16W
R204	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R205	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R206	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R207	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R208	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R209	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R210	NRSA63J-390X	M.G.RESISTOR	39 1/16W
R211	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R212	NRSA63J-120X	M.G.RESISTOR	12 1/16W
R213	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R214	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R215	NRSA63J-272X	M.G.RESISTOR	2.7K 1/16W
R216	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R217	NRSA63J-152X	M.G.RESISTOR	1.5K 1/16W
R218	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R219	NRSA63J-182X	M.G.RESISTOR	1.8K 1/16W
R224	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R226	NRSA63J-561X	M.G.RESISTOR	560 1/16W
R227	NRSA63J-122X	M.G.RESISTOR	1.2K 1/16W
R228	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R229	NRSA63J-153X	M.G.RESISTOR	15K 1/16W
R230	NRSA63J-332X	M.G.RESISTOR	3.3K 1/16W
R231	NRSA63J-102X	M.G.RESISTOR	1K 1/16W
R232	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R301	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R302	NRSA63J-333X	M.G.RESISTOR	33K 1/16W
R303	NRSA63J-150X	M.G.RESISTOR	15 1/16W
R304	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R305	NRSA63J-681X	M.G.RESISTOR	680 1/16W
R306	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R307	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R308	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R309	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R310	NRSA63J-390X	M.G.RESISTOR	39 1/16W
R311	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R312	NRSA63J-120X	M.G.RESISTOR	12 1/16W
R313	NRSA63J-104X	M.G.RESISTOR	100K 1/16W
R314	NRSA63J-221X	M.G.RESISTOR	220 1/16W
R315	NRSA63J-272X	M.G.RESISTOR	2.7K 1/16W
R316	NRSA63J-273X	M.G.RESISTOR	27K 1/16W
R317	NRSA63J-152X	M.G.RESISTOR	1.5K 1/16W
R318	NRSA63J-151X	M.G.RESISTOR	150 1/16W
R319	NRSA63J-182X	M.G.RESISTOR	1.8K 1/16W
R324	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R328	NRSA63J-561X	M.G.RESISTOR	560 1/16W

[MAIN]

Symbol No.	Part No.	Part Name	Description	
R329	NRSA63J-122X	M.G.RESISTOR	1.2K	1/16W
R330	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R331	NRSA63J-153X	M.G.RESISTOR	15K	1/16W
R332	NRSA63J-332X	M.G.RESISTOR	3.3K	1/16W
R333	NRSA63J-102X	M.G.RESISTOR	1K	1/16W
R401	NRSA63J-273X	M.G.RESISTOR	27K	1/16W
R402	NRSA63J-333X	M.G.RESISTOR	33K	1/16W
R403	NRSA63J-150X	M.G.RESISTOR	15	1/16W
R404	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R405	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R406	NRSA63J-121X	M.G.RESISTOR	120	1/16W
R407	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R408	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R409	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R410	NRSA63J-390X	M.G.RESISTOR	39	1/16W
R411	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R412	NRSA63J-120X	M.G.RESISTOR	12	1/16W
R413	NRSA63J-182X	M.G.RESISTOR	1.8K	1/16W
R414	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R415	NRSA63J-272X	M.G.RESISTOR	2.7K	1/16W
R416	NRSA63J-273X	M.G.RESISTOR	27K	1/16W
R417	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R418	NRSA63J-151X	M.G.RESISTOR	150	1/16W
R424	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R425	NRSA63J-561X	M.G.RESISTOR	560	1/16W
R426	NRSA63J-122X	M.G.RESISTOR	1.2K	1/16W
R427	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R428	NRSA63J-153X	M.G.RESISTOR	15K	1/16W
R429	NRSA63J-332X	M.G.RESISTOR	3.3K	1/16W
R430	NRSA63J-102X	M.G.RESISTOR	1K	1/16W
R431	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R501	NRSA63J-822X	M.G.RESISTOR	8.2K	1/16W
R502	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R503	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R504	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R505	NRSA63J-222X	M.G.RESISTOR	2.2K	1/16W
R506	NRSA63J-222X	M.G.RESISTOR	2.2K	1/16W
R507	NRSA63J-562X	M.G.RESISTOR	5.6K	1/16W
R508	NRSA63J-562X	M.G.RESISTOR	5.6K	1/16W
R509	NRSA63J-684X	M.G.RESISTOR	680K	1/16W
R510	NRSA63J-331X	M.G.RESISTOR	330	1/16W
R511	NRSA63J-272X	M.G.RESISTOR	2.7K	1/16W
R512	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R513	NRSA63J-183X	M.G.RESISTOR	18K	1/16W
R514	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R515	NRSA63J-122X	M.G.RESISTOR	1.2K	1/16W
R516	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R517	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R518	NRSA63J-183X	M.G.RESISTOR	18K	1/16W
R519	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R520	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R521	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R522	NRSA63J-272X	M.G.RESISTOR	2.7K	1/16W
R523	NRSA63J-102X	M.G.RESISTOR	1K	1/16W
R526	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R527	NRSA63J-122X	M.G.RESISTOR	1.2K	1/16W
R528	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R529	NRSA63J-153X	M.G.RESISTOR	15K	1/16W
R530	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R531	NRSA63J-102X	M.G.RESISTOR	1K	1/16W
R532	NRSA63J-562X	M.G.RESISTOR	5.6K	1/16W
R533	NRSA63J-562X	M.G.RESISTOR	5.6K	1/16W
R534	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R535	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R536	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R537	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R538	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R539	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R540	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R541	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R542	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R543	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R544	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W

Symbol No.	Part No.	Part Name	Description	
R545	NRSA63J-152X	M.G.RESISTOR	1.5K	1/16W
R546	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R547	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R548	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R549	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R550	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R551	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R552	NRSA63J-471X	M.G.RESISTOR	470	1/16W
R553	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R554	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R556	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R557	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R558	NRSA63J-681X	M.G.RESISTOR	680	1/16W
R561	NRSA63J-272X	M.G.RESISTOR	2.7K	1/16W
R562	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R563	NRSA63J-221X	M.G.RESISTOR	220	1/16W
R564	NRSA63J-750X	M.G.RESISTOR	75	1/16W
R601	NRSA63J-392X	M.G.RESISTOR	3.9K	1/16W
R602	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R603	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R604	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R605	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R606	NRSA63J-392X	M.G.RESISTOR	3.9K	1/16W
R607	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R608	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R609	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R610	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R611	NRSA63J-472X	M.G.RESISTOR	4.7K	1/16W
R612	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R613	NRSA63J-472X	M.G.RESISTOR	4.7K	1/16W
R614	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R616	NRSA63J-472X	M.G.RESISTOR	4.7K	1/16W
R617	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R618	NRSA63J-560X	M.G.RESISTOR	56	1/16W
R619	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R620	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R621	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R622	NRSA63J-822X	M.G.RESISTOR	8.2K	1/16W
R623	NRSA63J-822X	M.G.RESISTOR	8.2K	1/16W
R624	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R625	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R626	NRSA63J-563X	M.G.RESISTOR	56K	1/16W
R627	NRSA63J-153X	M.G.RESISTOR	15K	1/16W
R628	NRSA63J-561X	M.G.RESISTOR	560	1/16W
R629	NRSA63J-563X	M.G.RESISTOR	56K	1/16W
R630	NRSA63J-822X	M.G.RESISTOR	8.2K	1/16W
R631	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R632	NRSA63J-122X	M.G.RESISTOR	1.2K	1/16W
R633	NRSA63J-393X	M.G.RESISTOR	39K	1/16W
R635	NRSA63J-101X	M.G.RESISTOR	100	1/16W
R637	NRSA63J-223X	M.G.RESISTOR	22K	1/16W
R638	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R639	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R640	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R641	NRSA63J-682X	M.G.RESISTOR	6.8K	1/16W
R642	NRSA63J-392X	M.G.RESISTOR	3.9K	1/16W
R643	NRSA63J-392X	M.G.RESISTOR	3.9K	1/16W
R644	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R645	NRSA63J-470X	M.G.RESISTOR	47	1/16W
R646	NRSA63J-222X	M.G.RESISTOR	2.2K	1/16W
R648	NRSA63J-392X	M.G.RESISTOR	3.9K	1/16W
R650	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R651	NRSA63J-472X	M.G.RESISTOR	4.7K	1/16W
R652	NRSA63J-104X	M.G.RESISTOR	100K	1/16W
R653	NRSA63J-822X	M.G.RESISTOR	8.2K	1/16W
R654	NRSA63J-473X	M.G.RESISTOR	47K	1/16W
R655	NRSA63J-0R0X	M.G.RESISTOR	0	1/16W
R656	NRSA63J-473X	M.G.RESISTOR	47K	1/16W
R657	NRSA63J-473X	M.G.RESISTOR	47K	1/16W
R659	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
R660	NRSA63J-103X	M.G.RESISTOR	10K	1/16W
RA1	ORB085J-104	RESISTOR ARRAY	10K	

Symbol No.	Part No.	Part Name	Description
VR15	NVP1415-103X	TRIM.RESISTOR	10K 2W S.TONE
VR16	NVP1415-103X	TRIM.RESISTOR	10K RTS S.TONE
VR101	NVP1415-203X	TRIM.RESISTOR	20K VBS FREQ
VR102	NVP1415-103X	TRIM.RESISTOR	10K VBS LEVEL
VR201	NVP1415-501X	TRIM.RESISTOR	500 R LEVEL
VR202	NVP1415-203X	TRIM.RESISTOR	20K R FREQ
VR301	NVP1415-501X	TRIM.RESISTOR	500 G LEVEL
VR302	NVP1415-203X	TRIM.RESISTOR	20K G FREQ
VR401	NVP1415-501X	TRIM.RESISTOR	500 B LEVEL
VR402	NVP1415-203X	TRIM.RESISTOR	20K B FREQ
C1	QE02098-688	E.CAPACITOR	6800 50V
C2	QE02098-688	E.CAPACITOR	6800 50V
C3	NCB31EK-103X	CER.CAPACITOR	0.01
C4	QETC1EM-477	E.CAPACITOR	470 25V
C5	QE0548-828	E.CAPACITOR	8200 25V
C8	NCB31CK-104X	CER.CAPACITOR	0.1
C9	NCB31CK-73X	CER.CAPACITOR	0.047
C10	NCB31CK-73X	CER.CAPACITOR	0.047
C11	NCB31CK-73X	CER.CAPACITOR	0.047
C12	NCB31CK-73X	CER.CAPACITOR	0.047
C14	NCB31CK-73X	CER.CAPACITOR	0.047
C15	NCB31CK-104X	CER.CAPACITOR	0.1
C17	NCB31CK-73X	CER.CAPACITOR	0.047
C23	NCB31CK-104X	CER.CAPACITOR	0.1
C24	NCB31CK-104X	CER.CAPACITOR	0.1
C25	NCB31CK-104X	CER.CAPACITOR	0.1
C26	NCB31EK-103X	CER.CAPACITOR	0.01
C29	NCB31CK-73X	CER.CAPACITOR	0.047
C61	NCB31EK-103X	CER.CAPACITOR	0.01
C62	NCB31EK-103X	CER.CAPACITOR	0.01
C63	NCB31EK-103X	CER.CAPACITOR	0.01
C64	NCB31EK-103X	CER.CAPACITOR	0.01
C65	NCZ1024-103X	CER.CAPACITOR	0.01 250V
C66	NCB31CK-104X	CER.CAPACITOR	0.1
C67	NCB31CK-104X	CER.CAPACITOR	0.1
C68	NCB31CK-104X	CER.CAPACITOR	0.1
C69	NCB31CK-104X	CER.CAPACITOR	0.1
C71	NCB31CK-104X	CER.CAPACITOR	0.1
C72	NCB31CK-104X	CER.CAPACITOR	0.1
C74	NCB31CK-73X	CER.CAPACITOR	0.047
C75	NCB31CK-104X	CER.CAPACITOR	0.1
C76	NCB31CK-104X	CER.CAPACITOR	0.1
C77	NCB31CK-104X	CER.CAPACITOR	0.1
C81	QER61HM-105Z	E.CAPACITOR	1 50V
C82	QE02098-828	E.CAPACITOR	8200 35V
C83	QETM1EM-228	E.CAPACITOR	2200 25V
C84	QETC1EM-477	E.CAPACITOR	470 25V
C85	QE02098-688	E.CAPACITOR	6800 50V
C86	QE0548-828	E.CAPACITOR	8200 25V
C86	QE0548-828	E.CAPACITOR	8200 25V
C87	QETC1EM-477	E.CAPACITOR	470 25V
C88	QETC1EM-477	E.CAPACITOR	470 25V
C93	QE0171-22A	CAPACITOR	0.22 5.5V
C101	QETC0JM-476Z	E.CAPACITOR	47 10V
C102	QETC0JM-476Z	E.CAPACITOR	47 10V
C103	NDC31HJ-121X	CER.CAPACITOR	120P
C104	NDC31HJ-560X	CER.CAPACITOR	56P
C105	NCB31CK-73X	CER.CAPACITOR	0.047
C107	NDC31HJ-470X	CER.CAPACITOR	47P
C114	NDC31HJ-151X	CER.CAPACITOR	150P
C115	QETC0JM-476Z	E.CAPACITOR	47 10V
C116	NCB31CK-73X	CER.CAPACITOR	0.047
C117	NCB31CK-73X	CER.CAPACITOR	0.047
C118	NCB31CK-73X	CER.CAPACITOR	0.047
C119	NCB31CK-73X	CER.CAPACITOR	0.047
C120	NCB31CK-73X	CER.CAPACITOR	0.047
C121	NCB31CK-73X	CER.CAPACITOR	0.047
C149	QETC0JM-476Z	E.CAPACITOR	47 10V
C188	QETC0JM-476Z	E.CAPACITOR	47 10V
C196	NCB31CK-73X	CER.CAPACITOR	0.047
C198	QETC0JM-476Z	E.CAPACITOR	47 10V
C199	NCB31CK-73X	CER.CAPACITOR	0.047

Symbol No.	Part No.	Part Name	Description
C201	QETC0JM-476Z	E.CAPACITOR	47 10V
C202	QETC0JM-476Z	E.CAPACITOR	47 10V
C203	NDC31HJ-121X	CER.CAPACITOR	120P
C204	NDC31HJ-560X	CER.CAPACITOR	56P
C205	NCB31CK-73X	CER.CAPACITOR	0.047
C207	NDC31HJ-220X	CER.CAPACITOR	22P
C214	NDC31HJ-680X	CER.CAPACITOR	68P
C215	QETC0JM-476Z	E.CAPACITOR	47 10V
C217	NCB31CK-73X	CER.CAPACITOR	0.047
C218	NCB31CK-73X	CER.CAPACITOR	0.047
C220	QETC0JM-476Z	E.CAPACITOR	47 10V
C221	QETC0JM-476Z	E.CAPACITOR	47 10V
C222	QETC0JM-476Z	E.CAPACITOR	47 10V
C223	NCB31CK-73X	CER.CAPACITOR	0.047
C301	QETC0JM-476Z	E.CAPACITOR	47 10V
C302	QETC0JM-476Z	E.CAPACITOR	47 10V
C303	NDC31HJ-121X	CER.CAPACITOR	120P
C304	NDC31HJ-560X	CER.CAPACITOR	56P
C305	NCB31CK-73X	CER.CAPACITOR	0.047
C307	NDC31HJ-220X	CER.CAPACITOR	22P
C314	NDC31HJ-680X	CER.CAPACITOR	68P
C315	QETC0JM-476Z	E.CAPACITOR	47 10V
C317	NCB31CK-73X	CER.CAPACITOR	0.047
C318	NCB31CK-73X	CER.CAPACITOR	0.047
C319	QETC0JM-476Z	E.CAPACITOR	47 10V
C320	NCB31CK-73X	CER.CAPACITOR	0.047
C321	QETC0JM-476Z	E.CAPACITOR	47 10V
C401	QETC0JM-476Z	E.CAPACITOR	47 10V
C402	QETC0JM-476Z	E.CAPACITOR	47 10V
C403	NDC31HJ-121X	CER.CAPACITOR	120P
C404	NDC31HJ-560X	CER.CAPACITOR	56P
C405	NCB31CK-73X	CER.CAPACITOR	0.047
C407	NDC31HJ-220X	CER.CAPACITOR	22P
C414	NDC31HJ-680X	CER.CAPACITOR	68P
C415	QETC0JM-476Z	E.CAPACITOR	47 10V
C417	NCB31CK-73X	CER.CAPACITOR	0.047
C418	NCB31CK-73X	CER.CAPACITOR	0.047
C420	NCB31CK-73X	CER.CAPACITOR	0.047
C421	QETC0JM-476Z	E.CAPACITOR	47 10V
C501	QETC0JM-476Z	E.CAPACITOR	47 10V
C502	NDC31HJ-151X	CER.CAPACITOR	150P (U)
C502	NDC31HJ-121X	CER.CAPACITOR	120P (E)
C504	NCB31CK-73X	CER.CAPACITOR	0.047
C505	NCB31CK-73X	CER.CAPACITOR	0.047
C507	NCB31CK-73X	CER.CAPACITOR	0.047
C508	NDC31HJ-7R0X	CER.CAPACITOR	7P
C509	NDC31HJ-560X	CER.CAPACITOR	56P (U)
C509	NDC31HJ-470X	CER.CAPACITOR	47P (E)
C510	NDC31HJ-8R0X	CER.CAPACITOR	8P (U)
C510	NDC31HJ-5R0X	CER.CAPACITOR	5P (E)
C511	NDC31HJ-560X	CER.CAPACITOR	56P (U)
C511	NDC31HJ-470X	CER.CAPACITOR	47P (E)
C512	NDC31HJ-8R0X	CER.CAPACITOR	8P (U)
C512	NDC31HJ-5R0X	CER.CAPACITOR	5P (E)
C513	QETC0JM-476Z	E.CAPACITOR	47 10V
C514	NCB31CK-73X	CER.CAPACITOR	0.047
C515	NCB31CK-73X	CER.CAPACITOR	0.047
C516	NCB31CK-73X	CER.CAPACITOR	0.047
C519	NCB31CK-73X	CER.CAPACITOR	0.047
C520	NCB31CK-73X	CER.CAPACITOR	0.047
C522	NDC31HJ-150X	CER.CAPACITOR	15P
C523	NCB31CK-73X	CER.CAPACITOR	0.047
C524	NCB31CK-73X	CER.CAPACITOR	0.047
C525	QETC0JM-476Z	E.CAPACITOR	47 10V
C528	NCB31CK-73X	CER.CAPACITOR	0.047
C529	NCB31CK-73X	CER.CAPACITOR	0.047
C601	QER61HM-105Z	E.CAPACITOR	1 50V
C602	NCB31CK-104X	CER.CAPACITOR	0.1
C603	QER61HM-105Z	E.CAPACITOR	1 50V
C604	NCB31CK-104X	CER.CAPACITOR	0.1
C605	QETC1EM-476Z	E.CAPACITOR	47 25V
C607	NCB31CK-104X	CER.CAPACITOR	0.1
C608	QE061EM-106Z	E.CAPACITOR	10 50V

[MAIN]

Symbol No.	Part No.	Part Name	Description
C609	NDC31HJ-102X	CER.CAPACITOR	0.001
C610	QEQ61EM-475Z	E.CAPACITOR	4.7 50V
C611	NDC31HJ-102X	CER.CAPACITOR	0.001
C612	NCB31EK-103X	CER.CAPACITOR	0.01
C613	NDC31HJ-102X	CER.CAPACITOR	0.001
C614	NDC31HJ-102X	CER.CAPACITOR	0.001
C615	QETC1EM-227Z	E.CAPACITOR	220 25V
C616	NCB31HK-332X	CER.CAPACITOR	0.0033
C617	NCB31EK-333X	CER.CAPACITOR	0.033
C618	NDC31HJ-101X	CER.CAPACITOR	100P
C619	NCB31CK-104X	CER.CAPACITOR	0.1
C620	NCB31CK-73X	CER.CAPACITOR	0.047
C621	QEQ61EM-106Z	E.CAPACITOR	10 50V
C622	NCB31CK-104X	CER.CAPACITOR	0.1
C623	NCB31CK-104X	CER.CAPACITOR	0.1
C624	QEQ61EM-106Z	E.CAPACITOR	10 50V
C625	QER61HM-105Z	E.CAPACITOR	1 50V
C626	NCB31CK-104X	CER.CAPACITOR	0.1
C627	NDC31HJ-101X	CER.CAPACITOR	100P
C628	NDC31HJ-101X	CER.CAPACITOR	100P
C629	QETC1EM-476Z	E.CAPACITOR	47 25V
C630	NDC31HJ-102X	CER.CAPACITOR	0.001
C631	NCB31CK-73X	CER.CAPACITOR	0.047
C632	QER61HM-105Z	E.CAPACITOR	1 50V
L1	QQR0035-001	COIL	
L4	QQR0035-001	COIL	
L5	QQR1227-001	COIL	150µ 3A
L501	NQL114K-100X	COIL	10µ H
L502	NQL114K-100X	COIL	10µ H
L503	NQL114K-100X	COIL	10µ H
L504	QQL114K-120Z	COIL	
X2	SCV3045-X2	CRYSTAL	
S1	NSW0022-004X	PIP SWITCH	
S2	NSW0010-001X	TACT SWITCH	RESET
S601	QSW0608-001	SLIDE SWITCH	TALLY V/M
S602	QSW0608-001	SLIDE SWITCH	RTS/2W
S603	SCV3045-S603	SLIDE SWITCH	DYNAMIC/CARBON
CN1	QGA2001C1-15	CONNECTOR	15P
CN2	SM3490-004	CONNECTOR	4P
CN4	QGF0508F1-26X	CONNECTOR	
CN5	QGF0508F1-26X	CONNECTOR	
CN8	SM3490-004	CONNECTOR	4P
CN9	SM3490-004	CONNECTOR	4P
CN12	SM3490-005	CONNECTOR	5P
CN15	QGF0508F1-26X	CONNECTOR	
CN23	QGA2001C1-05	CONNECTOR	5P
CN26	SM3490-003	CONNECTOR	3P
JK1	QND0016-001	CONNECTOR	
JK2	SCV1027	CONNECTOR	
JK3	QNZ0533-001	BNC CONNECTOR	
JK4	QNZ0533-001	BNC CONNECTOR	
TP1	NNZ0009-001X	TEST POINT	
TP2	NNZ0009-001X	TEST POINT	
TP3	NNZ0009-001X	TEST POINT	
TP4	NNZ0009-001X	TEST POINT	
TP5	NNZ0009-001X	TEST POINT	
TP6	NNZ0009-001X	TEST POINT	
TP7	NNZ0009-001X	TEST POINT	
TP8	NNZ0009-001X	TEST POINT	
TP9	NNZ0009-001X	TEST POINT	
TP10	NNZ0009-001X	TEST POINT	
TP11	NNZ0009-001X	TEST POINT	
TP12	NNZ0009-001X	TEST POINT	
TP13	NNZ0009-001X	TEST POINT	
TP14	NNZ0009-001X	TEST POINT	
TP15	NNZ0009-001X	TEST POINT	
TP16	NNZ0009-001X	TEST POINT	
TP17	NNZ0009-001X	TEST POINT	
TP18	NNZ0009-001X	TEST POINT	
TP19	NNZ0009-001X	TEST POINT	
TP20	NNZ0009-001X	TEST POINT	

Symbol No.	Part No.	Part Name	Description
TP21	NNZ0009-001X	TEST POINT	
TP22	NNZ0009-001X	TEST POINT	
TP23	NNZ0009-001X	TEST POINT	
TP24	NNZ0009-001X	TEST POINT	
TP25	NNZ0009-001X	TEST POINT	
TP26	NNZ0009-001X	TEST POINT	
TP27	NNZ0009-001X	TEST POINT	
TP28	NNZ0009-001X	TEST POINT	
TP29	NNZ0009-001X	TEST POINT	
TP101	NNZ0009-001X	TEST POINT	
TP102	NNZ0009-001X	TEST POINT	
TP201	NNZ0009-001X	TEST POINT	
TP202	NNZ0009-001X	TEST POINT	
TP203	NNZ0009-001X	TEST POINT	
TP301	NNZ0009-001X	TEST POINT	
TP302	NNZ0009-001X	TEST POINT	
TP401	NNZ0009-001X	TEST POINT	
TP402	NNZ0009-001X	TEST POINT	
TP501	NNZ0009-001X	TEST POINT	
TP502	NNZ0009-001X	TEST POINT	
TP503	NNZ0009-001X	TEST POINT	
TP504	NNZ0009-001X	TEST POINT	
TP601	NNZ0009-001X	TEST POINT	
TP602	NNZ0009-001X	TEST POINT	
TP604	NNZ0009-001X	TEST POINT	
TP608	NNZ0009-001X	TEST POINT	
K1	NQR0022-003X	FERRITE BEADS	
K2	NQR0022-003X	FERRITE BEADS	
K3	NQR0022-003X	FERRITE BEADS	
K4	NQR0022-003X	FERRITE BEADS	
K5	NQR0022-003X	FERRITE BEADS	
K6	NQR0022-003X	FERRITE BEADS	
K7	NQR0022-003X	FERRITE BEADS	
K8	NQR0022-003X	FERRITE BEADS	
K9	NQR0022-003X	FERRITE BEADS	
K10	NQR0022-003X	FERRITE BEADS	
K11	NQR0022-003X	FERRITE BEADS	
K12	NQR0022-003X	FERRITE BEADS	
K13	NQR0022-003X	FERRITE BEADS	
K14	NQR0022-003X	FERRITE BEADS	
K15	NQR0022-003X	FERRITE BEADS	
K16	NQR0022-003X	FERRITE BEADS	
K17	NQR0022-003X	FERRITE BEADS	
K18	NQR0022-003X	FERRITE BEADS	
TB1	QNB0132-001	TERMINAL	
HS1	QZW0068-001	HEAT SINC	
△F1	QMF51U1-2R0-S	FUSE	125V/2A (U)
△F1	QMF51A2-1R25-S	FUSE	250V/1.25A (E)
△F2	QMF51U1-5R0-S	FUSE	125V/5A (U)
△F2	QMF51A2-5R0-S	FUSE	250V/5A (E)
FC1	QNG0036-001Z	FUSE HOLDER	
FC1	QNG0027-001	FUSE HOLDER	
FC2	QNG0036-001Z	FUSE HOLDER	
FC2	QNG0027-001	FUSE HOLDER	

5.2 FR1 BOARD ASSEMBLY PARTS LIST 0 2

SCV3045-PB503(1)

0 2

Symbol No.	Part No.	Part Name	Description
IC700	TC74HC4094AF-X	I.C.(M)	TOSHIBA
IC701	TC74HC74AF-X	I.C.(M)	TOSHIBA
IC702	TC74HC165AF-X	I.C.(M)	TOSHIBA
IC703	TC74HC14AF-X	I.C.(M)	TOSHIBA
IC704	TC74HC165AF-X	I.C.(M)	TOSHIBA
D700	MA143-X	DIODE	TOSHIBA
D701	MA143-X	DIODE	TOSHIBA
D702	MA143-X	DIODE	TOSHIBA
D703	MA143-X	DIODE	TOSHIBA
D704	MA143-X	DIODE	TOSHIBA
D705	MA143-X	DIODE	TOSHIBA
D706	MA143-X	DIODE	TOSHIBA
D707	MA143-X	DIODE	TOSHIBA
D708	MA143-X	DIODE	TOSHIBA
D709	MA143-X	DIODE	TOSHIBA
D710	MA143-X	DIODE	TOSHIBA
D711	MA143-X	DIODE	TOSHIBA
D712	MA143-X	DIODE	TOSHIBA
D713	MA143-X	DIODE	TOSHIBA
D714	MA143-X	DIODE	TOSHIBA
D715	MA143-X	DIODE	TOSHIBA
D716	MA143-X	DIODE	TOSHIBA
D717	MA143-X	DIODE	TOSHIBA
R700	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R701	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R702	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R703	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R704	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R705	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R706	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R707	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R708	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R709	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R710	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R711	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R712	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R713	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R714	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R715	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R716	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R717	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R718	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R719	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R720	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R721	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R722	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R723	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R724	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R725	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R726	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R727	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R728	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R729	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R730	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R731	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R732	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
R733	NRSA63J-103X	M.G.RESISTOR	10k 1/16W
VR700	QVQ0305-B14	VAL.RESISTOR	10K IRIS
VR701	QVQ0305-B14	VAL.RESISTOR	10K MASTER BLK
VR702	QVQ0305-B14	VAL.RESISTOR	10K WHITE B
VR703	QVQ0305-B14	VAL.RESISTOR	10K WHITE R
C700	QETC1CM-476	E.CAPACITOR	47 25V
C701	NRSA63J-103X	CER.CAPACITOR	103
C702	NCB31CK-104X	CER.CAPACITOR	104
C703	NCB31CK-104X	CER.CAPACITOR	104
C704	NCB31CK-104X	CER.CAPACITOR	104
C705	NRSA63J-103X	CER.CAPACITOR	103
C706	NRSA63J-103X	CER.CAPACITOR	103
C707	NRSA63J-103X	CER.CAPACITOR	103
C708	NRSA63J-103X	CER.CAPACITOR	103
C709	NRSA63J-103X	CER.CAPACITOR	103

Symbol No.	Part No.	Part Name	Description
C710	NRSA63J-103X	CER.CAPACITOR	103
C711	NRSA63J-103X	CER.CAPACITOR	103
C712	NRSA63J-103X	CER.CAPACITOR	103
C713	NCB31CK-104X	CER.CAPACITOR	104
C714	NRSA63J-103X	CER.CAPACITOR	103
C715	NRSA63J-103X	CER.CAPACITOR	103
C716	NRSA63J-103X	CER.CAPACITOR	103
C717	NRSA63J-103X	CER.CAPACITOR	103
C718	NRSA63J-103X	CER.CAPACITOR	103
C719	NRSA63J-103X	CER.CAPACITOR	103
C720	NRSA63J-103X	CER.CAPACITOR	103
C721	NRSA63J-103X	CER.CAPACITOR	103
C722	NRSA63J-103X	CER.CAPACITOR	103
C723	NRSA63J-103X	CER.CAPACITOR	103
C724	NRSA63J-103X	CER.CAPACITOR	103
C725	NRSA63J-103X	CER.CAPACITOR	103
C726	NCB31CK-104X	CER.CAPACITOR	104
S700	QSW0935-002	TACT SWITCH	MANU
SB700	QSW0940-001	SWITCH BUTTON	
S701	QSW0935-002	TACT SWITCH	AUT W
SB701	QSW0940-001	SWITCH BUTTON	
S702	QSW0935-002	TACT SWITCH	W.PNT
SB702	QSW0940-001	SWITCH BUTTON	
S703	QSW0935-002	TACT SWITCH	MENU
SB703	QSW0940-001	SWITCH BUTTON	
S704	QSW0935-002	TACT SWITCH	F4
SB704	QSW0940-001	SWITCH BUTTON	
S705	QSW0935-002	TACT SWITCH	F3
SB705	QSW0940-001	SWITCH BUTTON	
S706	QSW0934-001	SWITCH	GAIN
S707	QSW0934-001	SWITCH	SHUTTER
S708	QSW0049-001	TOGGLE SWITCH	WHITE SELECT
S709	QSW0049-001	TOGGLE SWITCH	GAIN SELECT
CN700	QGF0508F1-26X	CONNECTOR	26P
HD700	SC43656-065	SPACER	
HD701	SC43656-065	SPACER	
LD700	SLR-332MG3F	LED	ROHM
LD701	SLR-332MG3F	LED	ROHM

5.3 FR2 BOARD ASSEMBLY PARTS LIST 0 3

SCV3045-PB503(2)

0 3

Symbol No.	Part No.	Part Name	Description
D800	MA143A-X	DIODE	
D801	MA143A-X	DIODE	
D802	MA143A-X	DIODE	
D803	MA143A-X	DIODE	
D804	MA143A-X	DIODE	
D805	MA143A-X	DIODE	
D806	MA143A-X	DIODE	
D807	MA143A-X	DIODE	
D808	MA143A-X	DIODE	
D809	MA143A-X	DIODE	
D810	MA143A-X	DIODE	
D811	MA143A-X	DIODE	
HD800	QNV0034-008	LED HOLDER	
LD800	HLMP-2965	LED	
R800	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R801	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R802	NRSA63J-103X	M.G.RESISTOR	10K 1/16W
R803	NRSA63J-330X	M.G.RESISTOR	33 1/16W
R804	NRSA63J-330X	M.G.RESISTOR	33 1/16W
R805	NRSA63J-330X	M.G.RESISTOR	33 1/16W
R806	NRSA63J-330X	M.G.RESISTOR	33 1/16W
R807	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R808	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R809	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R810	NRSA63J-471X	M.G.RESISTOR	470 1/16W
R811	NRSA63J-471X	M.G.RESISTOR	470 1/16W
VR800	QVQ0305-A54	VAR.RESISTOR	50K INCOM
C800	QETC1CM-476	E.CAPACITOR	47 25V
C801	NCB31EK-103X	CER.CAPACITOR	103
C802	NCB31EK-103X	CER.CAPACITOR	103
C803	NCB31EK-103X	CER.CAPACITOR	103
C804	NCB31EK-103X	CER.CAPACITOR	103
S800	QSW0935-002	TACT SWITCH	GREEN BARS
S800	QSW0940-001	SWITCH BUTTON	
S801	QSW0935-001	TACT SWITCH	RED CALL
S801	QSW0940-001	SWITCH BUTTON	
S802	QSW0935-002	TACT SWITCH	GREEN F1
S802	QSW0940-001	SWITCH BUTTON	
S803	QSW0935-002	TACT SWITCH	GREEN F2
S803	QSW0940-001	SWITCH BUTTON	
S804	QSW0935-003	TACT SWITCH	YELLOW FUL AUTO
S804	QSW0940-001	SWITCH BUTTON	
CN800	QGF0508F2-26X	CONNECTOR	26P

5.4 CC BOARD ASSEMBLY PARTS LIST 0 4

SCV3045-PB502A(2)

0 4

Symbol No.	Part No.	Part Name	Description
R282	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R283	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R284	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R285	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R286	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R287	NRSA63J-750X	M.G.RESISTOR	75 1/16W
R288	NRSA63J-121X	M.G.RESISTOR	120 1/16W
R289	NRSA63J-750X	M.G.RESISTOR	75 1/16W
S35	NSW0022-003X	DIP SWITCH	
S36	NSW0022-003X	DIP SWITCH	
CN16	QGF0508F1-26X	CONNECTOR	
CN17	QNZ0246-001	CONNECTOR	26P

5.5 SUB1 BOARD ASSEMBLY PARTS LIST 0 5

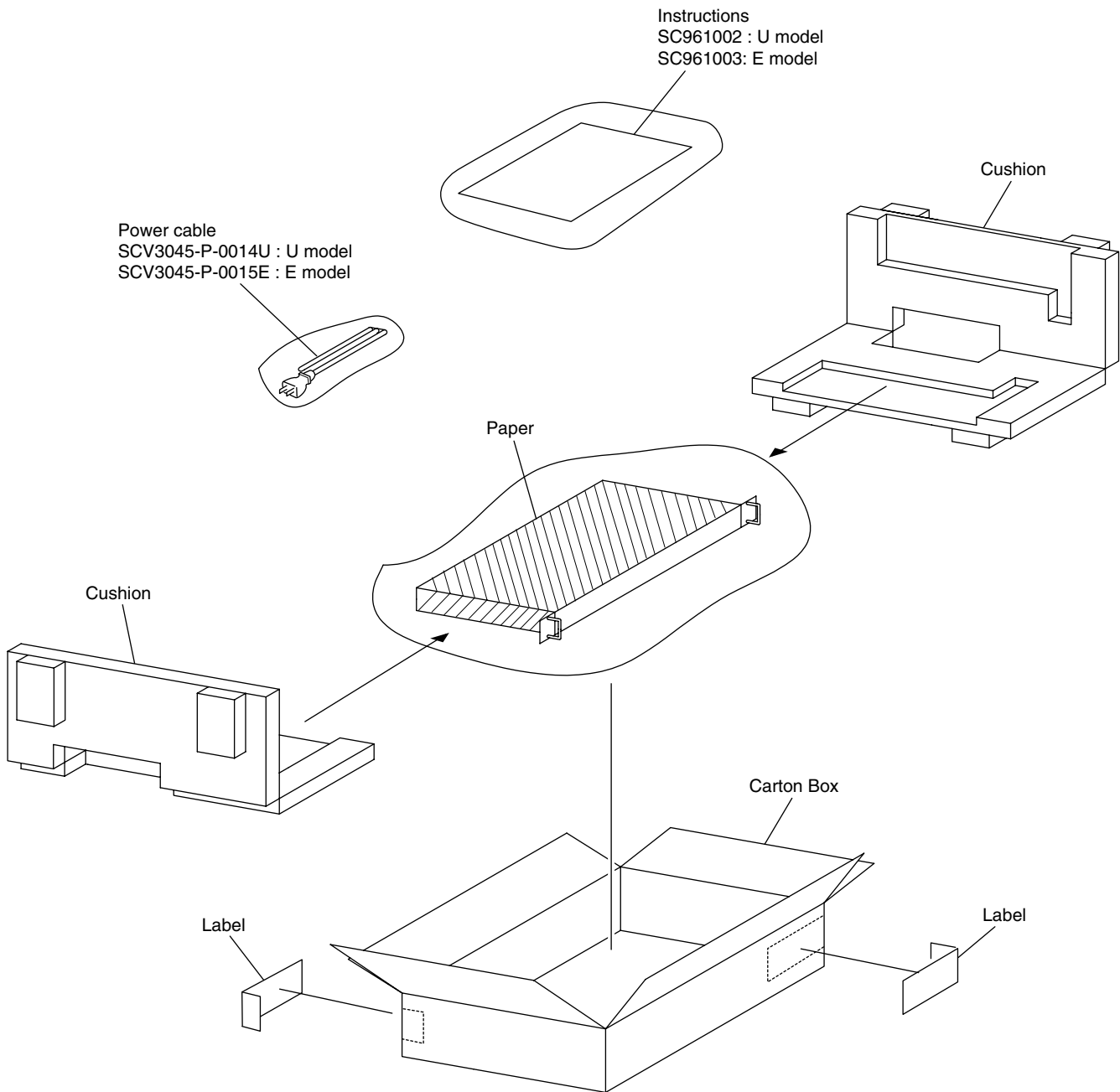
SCV3045-SUB1

0 5

Symbol No.	Part No.	Part Name	Description
Q901	2SB949/QP/	TRANSISTOR	
Q902	DTC114ESA-T	TRANSISTOR	
Q903	DTC114ESA-T	TRANSISTOR	
R901	QAD0135-150	POSISTOR	
R902	NRSA63J-330X	M.G.RESISTOR	
R903	NRSA63J-471X	M.G.RESISTOR	
R904	NRSA63J-471X	M.G.RESISTOR	
R905	NRSA63J-103X	M.G.RESISTOR	
CN901	SM3490-003	CONNECTOR	
CN902	SM3490-003	CONNECTOR	

SECTION 6 PACKING

6.1 PACKING ASSEMBLY M 1



■ The factory setting of volume and switch

Name (Front panel)	Setting
IRIS MASTER BLACK WHITE R, B INTERCOM LEVEL	Center position
GAIN STEP switch	LOW
W. BAL switch	PRESET

Note: Accessories above are subject to change without notice.