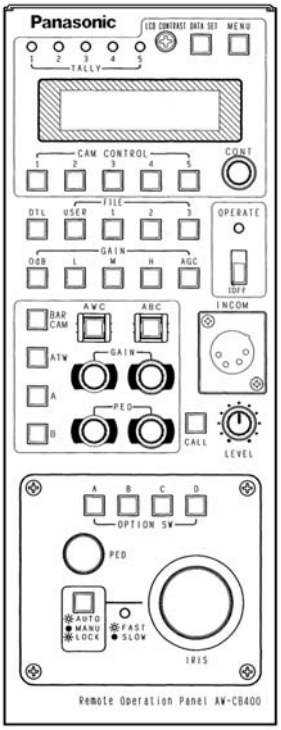
ORDER NO. CBMD0601005

Service Manual

Remote Operation Panel

AW-CB400N/L



Panasonic

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

For AW-CB400N

Specifications

Supply voltage:	DC 12.0 V
Power consumption:	3.8 W

▭ indicates safety information.

Input connectors

DC 12V IN:	XLR, 4 pins
GND:	GND terminal

Output connectors

CONTROL OUT	
TO CONTROL PANEL:	D-SUB 29-pin
CONTROL OUT	
TO CAMERA 1 to 5:	RJ45, camera control RS-422 level 10Base-T straight cable (UTP category 5), max. 1000 meters

Input/output connectors

INCOM (top panel):	XLR, 4 pins
TALLY/INCOM:	D-SUB 15-pin TALLY: Contact input (do not apply a voltage in excess of 5V) INCOM: 4-wire system

Switch functions:	DATA SET, menu, camera control selection, DTL, scene file selection, gain selection, BAR/CAM switching, white balance selection, AWC, ABC, call, lens iris AUTO/MANU/LOCK switching, option switches (1 to 4)
Adjustment functions:	LCD contrast, INCOM level, lens iris, menu settings, R-GAIN, B-GAIN, pedestal, R-PED, B-PED
Ambient operating temperature:	14˚F to 113˚F (- 10˚C to +45˚C)
Storage temperature:	- 4˚F to 140˚F (- 20˚C to +60˚C)
Ambient operating humidity:	30% to 90% (no condensation)
Dimensions (W x H x D):	3-15/16" x 3-3/8 " x 10-1/2" (100 x 85 x 266 mm)
Weight:	3.1 lbs (1.4 kg)
Finish:	Color resembling Munsell 3.5 paint

Weight and Dimensions indicated above are approximate.
Specifications are subject to change without notice.

Accessories

Pan/tilt control panel (AW-RP400) connecting cable 1
Tally/INCOM connector (D-SUB 15-pin) 1
Rack-mounting adaptors 2
Join-up fixture 1
Mounting screws (M4 x 8 mm) 8
Join-up screws (stepped screws) 2
Joining sticker 2

For AW-CB400L
Specifications

Supply voltage:	DC 12.0 V
Power consumption:	3.8 W

indicates safety information.

Input connectors

DC 12V IN:	XLR, 4 pins
GND:	GND terminal

Output connectors

CONTROL OUT	
TO CONTROL PANEL:	D-SUB 29-pin
CONTROL OUT	
TO CAMERA 1 to 5:	RJ45, camera control RS-422 level 10Base-T straight cable (UTP category 5), max. 1000 meters

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Adjustment functions:	LCD contrast, INCOM level, lens iris, menu settings, R-GAIN, B-GAIN, pedestal, R-PED, B-PED
Ambient operating temperature:	- 10˚C to +45˚C
Storage temperature:	- 20˚C to +60˚C
Ambient operating humidity:	30% to 90% (no condensation)
Dimensions (W x H x D):	100 x 85 x 266 mm
Weight:	1.4 kg
Finish:	Colour resembling Munsell 3.5 paint

Weight and Dimensions indicated above are approximate.
Specifications are subject to change without notice.

Accessories

Pan/tilt control panel (AW-RP400) connecting cable 1
Tally/INCOM connector (D-SUB 15-pin) 1
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Mounting screws (M4 x 8 mm) 8
Join-up screws (stepped screws) 2
Joining sticker 2

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been over-heated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than 5MΩ.

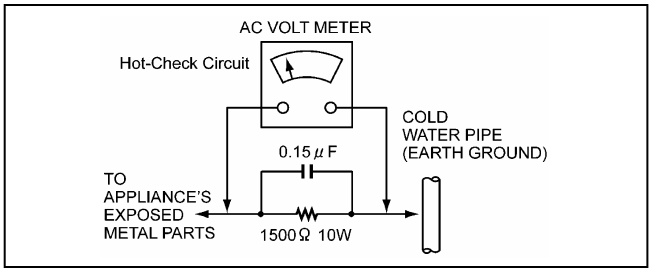


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.
   Do not use an isolation transformer for this check.
2. Connect a 1.5KΩ, 10W resistor, in parallel with a 0.15μ F capacitor, between each exposed metallic part on the set an a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of Pbf PCB:
PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.
Caution:
1. Pb free solder has a higher melting point than standard solder; Typically the melting point is 50–70˚F (30-40˚C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700±20˚F (370±10˚C).
2. Pb free solder will tend to splash when heated too high (about 1100˚F/600˚C).

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ED) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
   Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as “anti-static” can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
   (most replacement ES devices are package with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

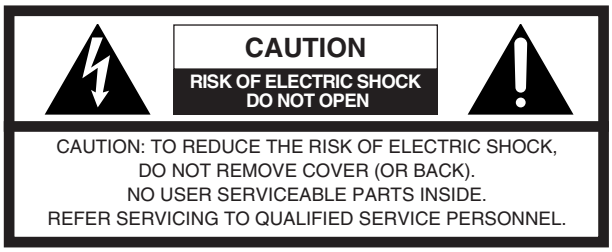
WARNING
1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

Note : It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV,±0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

For AW-CB400N

Safety precautions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

For CANADA

This class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE EQUIPMENT.

WARNING:

TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES.

FCC Note:
This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

CAUTION:

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR ANY OTHER CONFINED SPACE IN ORDER TO MAINTAIN ADEQUATE VENTILATION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

Note:

The rating plate (serial number plate) is on the bottom of the unit.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

A warning that an apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

indicates safety information.

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord form being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

indicates safety information.

For AW-CB400L

Safety precautions

■ **DO NOT REMOVE PANEL COVER BY UNSCREWING.**

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside.
Refer servicing to qualified service personnel.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS-USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.

WARNING:

TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR ANY OTHER CONFINED SPACE IN ORDER TO MAINTAIN ADEQUATE VENTILATION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

Note:

The rating plate (serial number plate) is on the bottom of the unit.

A warning that an apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

indicates safety information.

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SECTION 1

SERVICE INFORMATION

CONTENTS

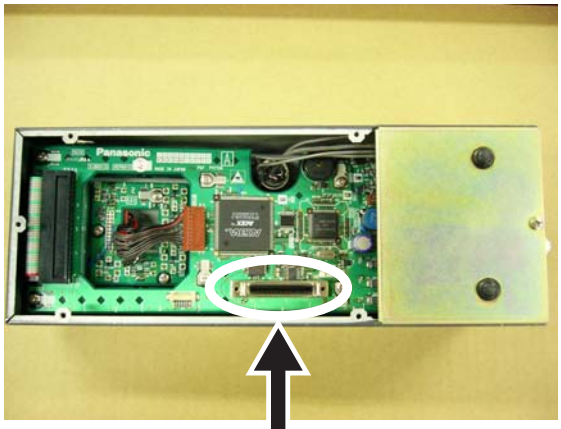
1. SOFTWARE VERSION UPGRADE METHOD

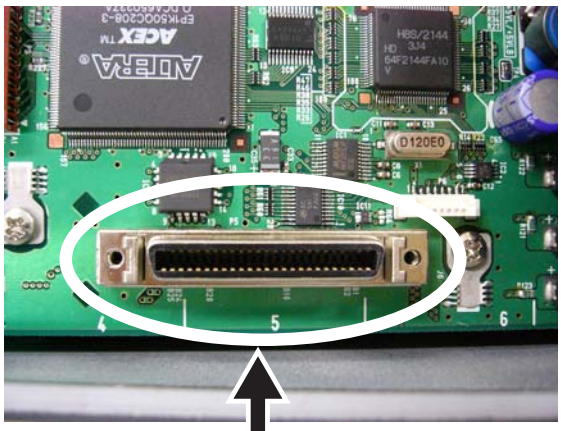
1. Install the new version software (ROM) on the ROM changer board (VFK1667).
2. Make sure that the power of the unit is turned OFF.
3. Connect the board to the P5 (50 pin) connecter of Main PCB as shown in the figure.
4. Set the Baud Rate switch on the ROM changer board to the center position.
   Since write protection is not activated, write operation can be started regardless of WRITE/PROTECT selection.
5. Turn on power of unit. Then the green LED on the board blinks.
6. Press the START button. Then the green LED on the board turns off and the red LED will blink at random. If erase the program and then write new program. (*1)
7. Confirmation of completion:
   (a) Green LED lights : completed successful
   (b) Red LED, green LED blinks : error
   After completed successfully, the unit goes into sleep mode. It will start after power is turned off and then on again. Turn off power and remove the board. If it was error,
   Press the START button to re-write. (*2)
8. Check the software version by turning on power of unit while pressing "Menu" and "Call" buttons simultaneously. Then the software version will appear on its LCD display.

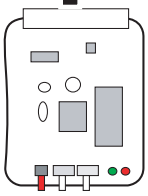
(*1) If the operation ends with an error after writing, it is impossible to re-write once power of unit is turned off. Try writing again by pressing START button.

(*2) In case of an error (red LED won't blink) after START, turn power off, set the Baud Rate switch to either position and retry writing. Normally, used at "0" position but another position may be effective.

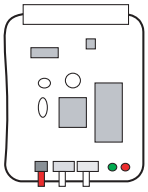
Connection diagram



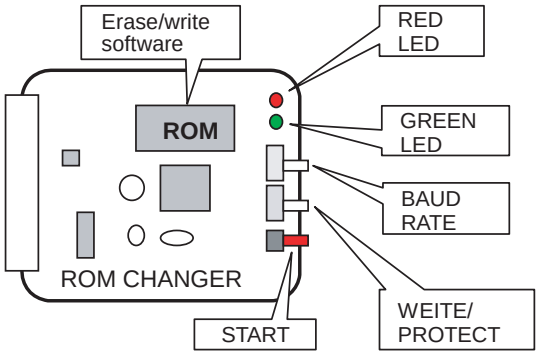




ROM changer board
(VFK1667)



ROM changer board
(VFK1667)



State of LED

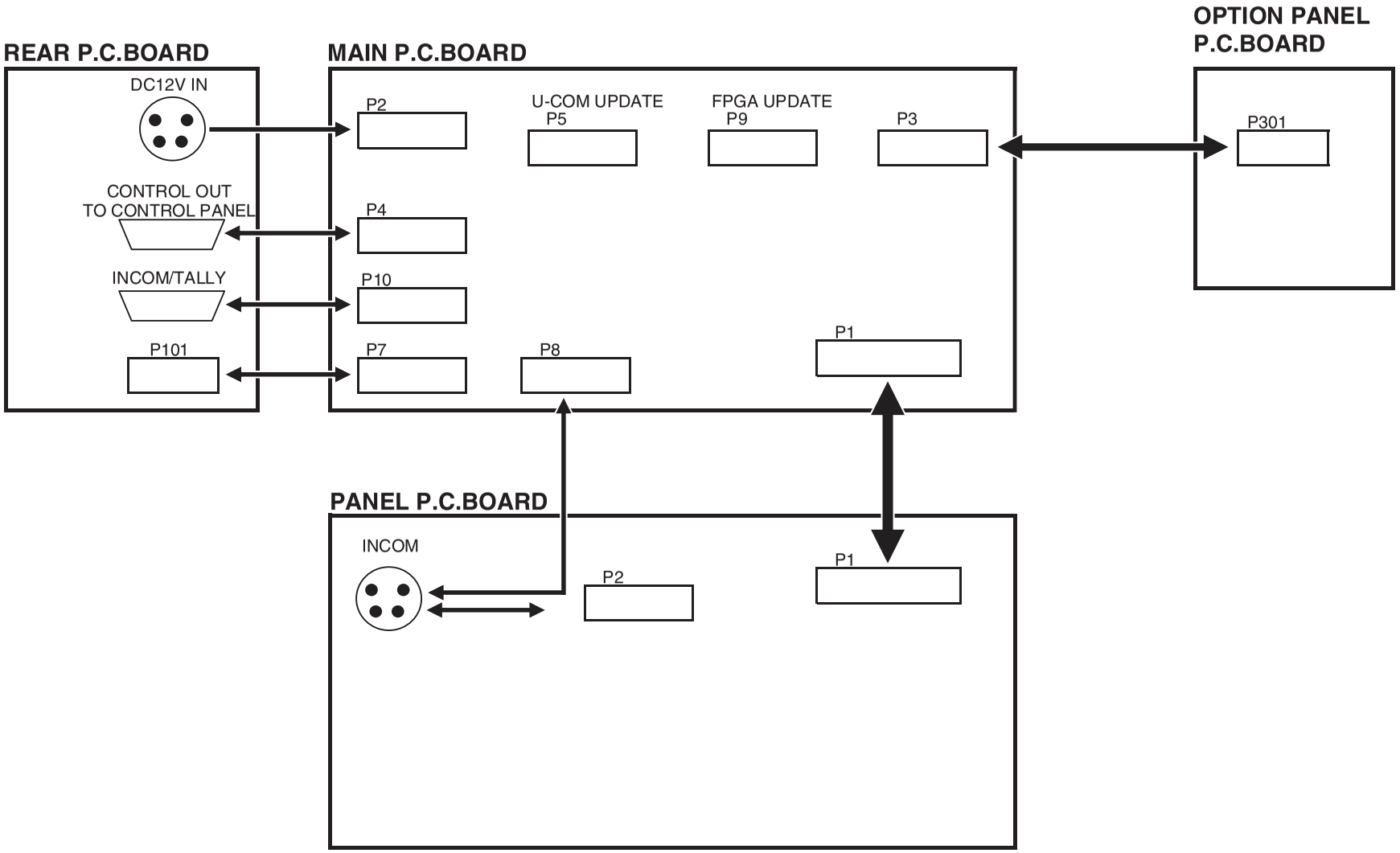
	Green LED	Red LED
Initial status	Blinks	Unlit
Erase after start	Unlit	Blinks
Write after start	Unlit	Blinks at random
Normal completion	Lights	Unlit
Abnormal completion	Blinks	Lights

SECTION 2

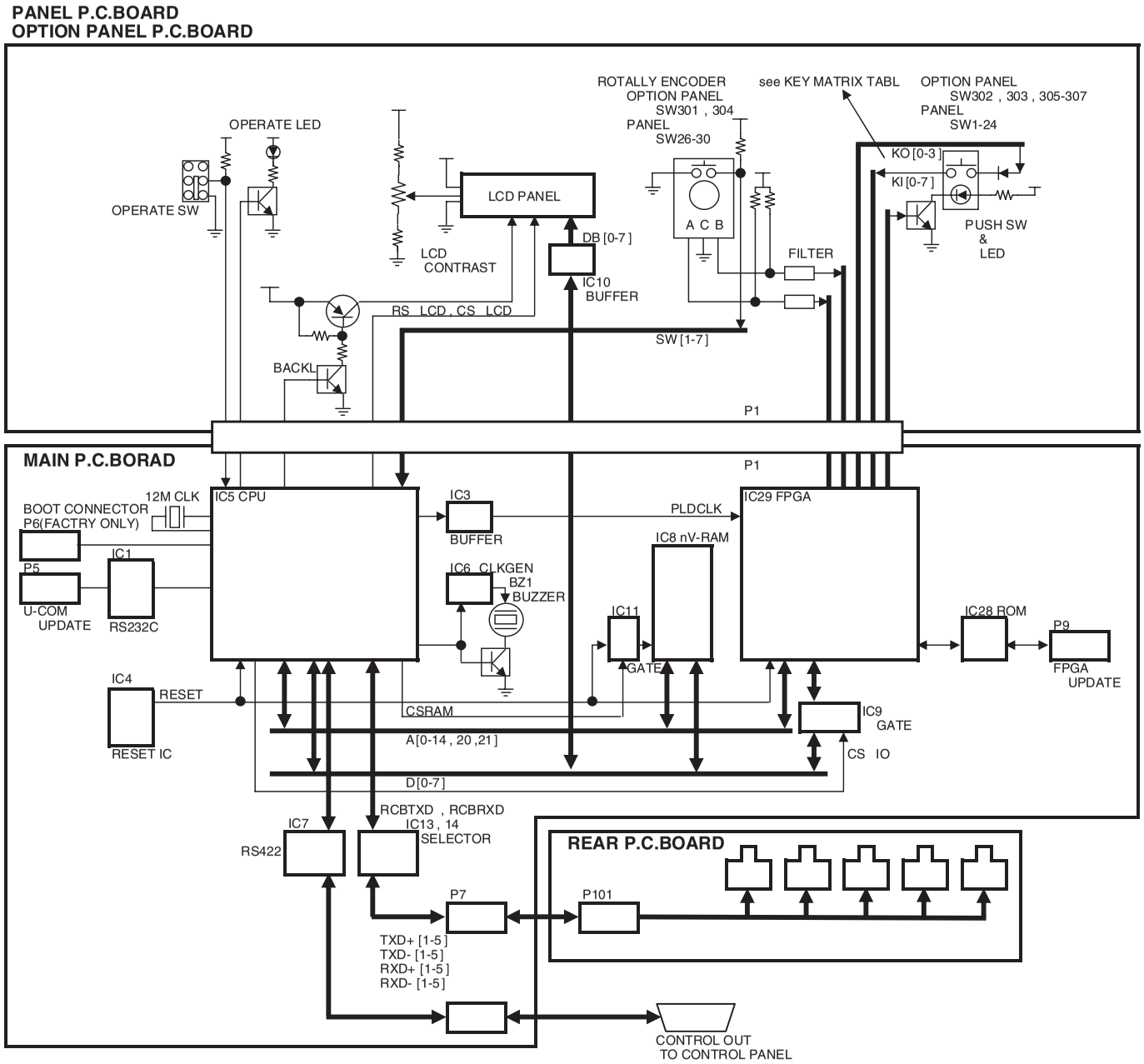
BLOCK DIAGRAMS

CONTENTS

OVERALL BLOCK DIAGRAM



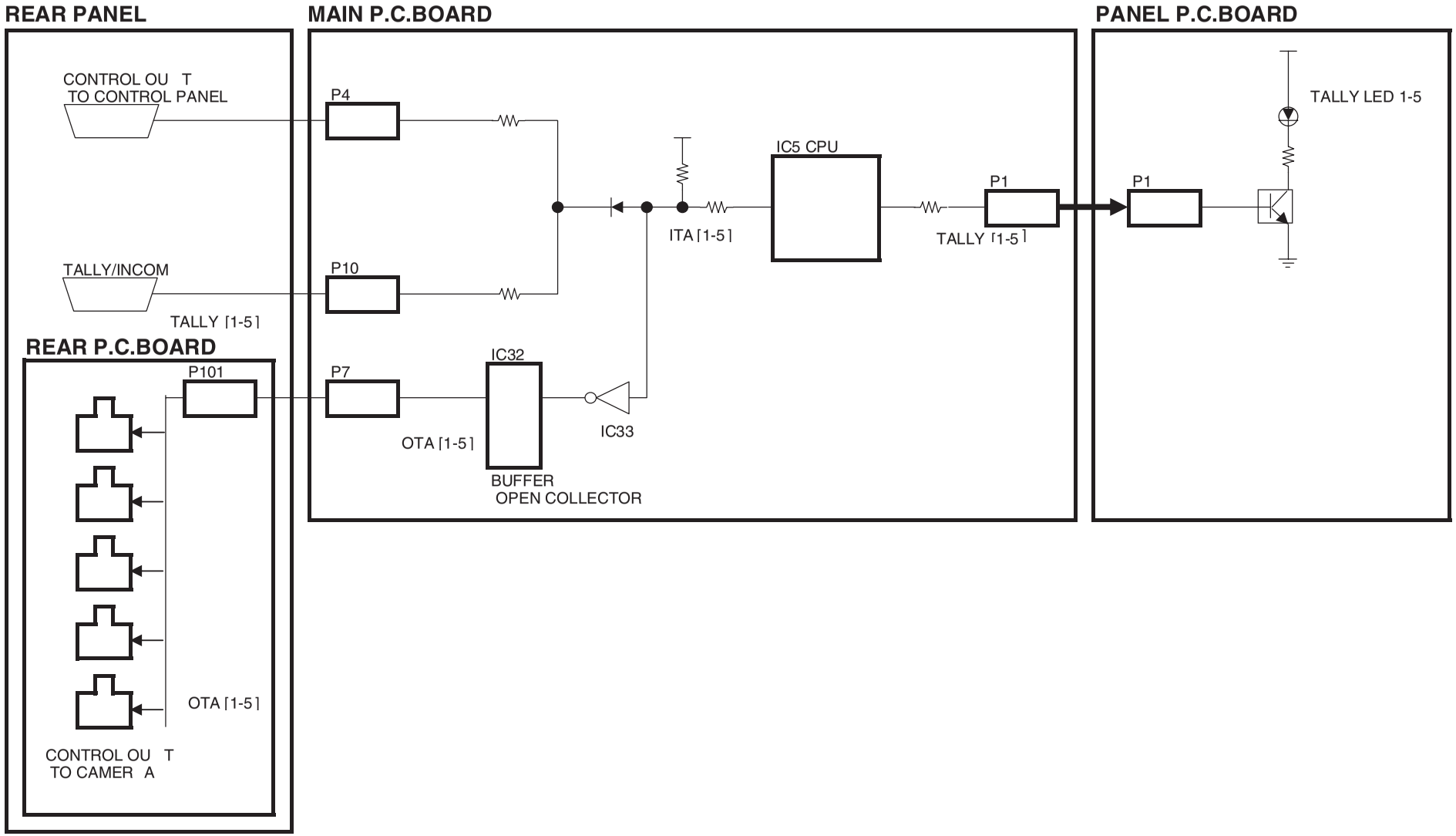
CPU, FPGA, I/F, SW BLOCK DIAGRAM



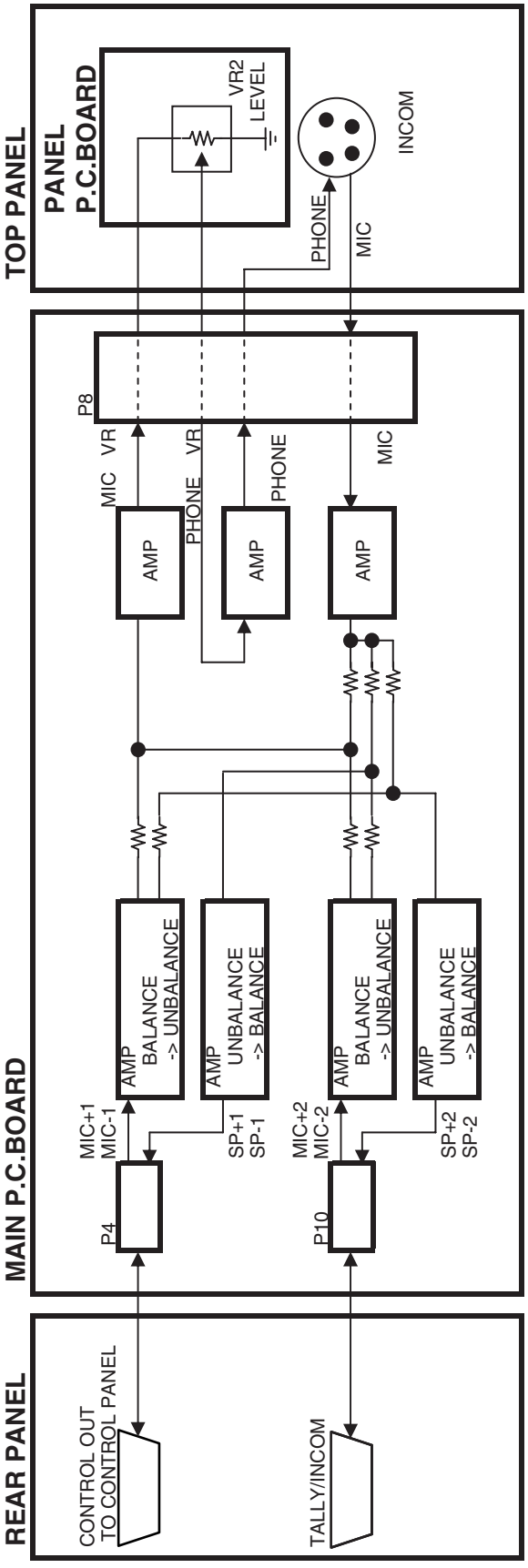
KEY MATRIX TABLE

		FPGA INPUT							
		KI0	KI1	KI2	KI3	KI4	KI5	KI6	KI7
FPGA OUTPUT	KO0	CAM1	CAM2	CAM3	CAM4	CAM5	DATA SET	MENU	DTL
	KO1	USER	FILE_1	FILE_2	FILE_3	GAIN_0	GAIN_L	GAIN_M	GAIN_H
	KO2	AGC	ATW	AWC A	A WC B	CALL	BAR/CAM	AWC	ABC
	KO3	A/M	OPTION_A	OPTION_B	OPTION_C	OPTION_D	NOT USE	NOT USE	NOT USE

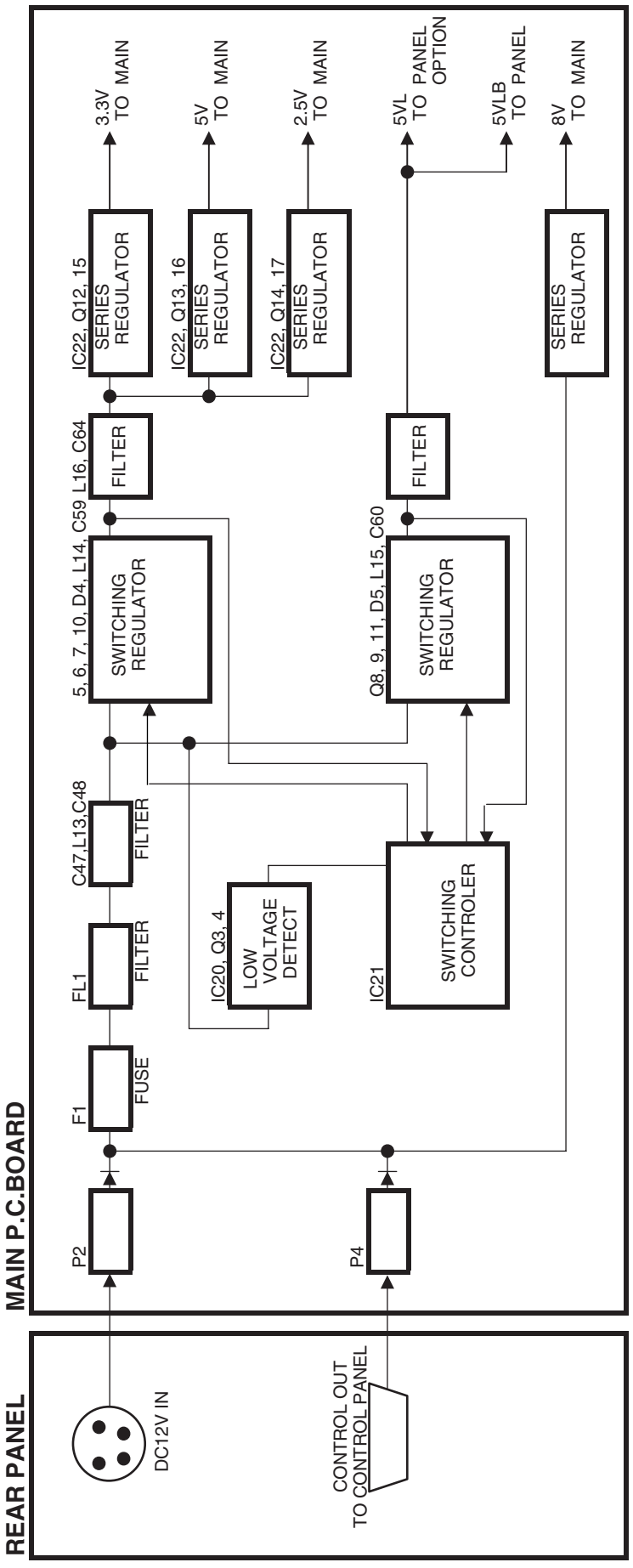
TALLY BLOCK DIAGRAM



INCOM BLOCK DIAGRAM

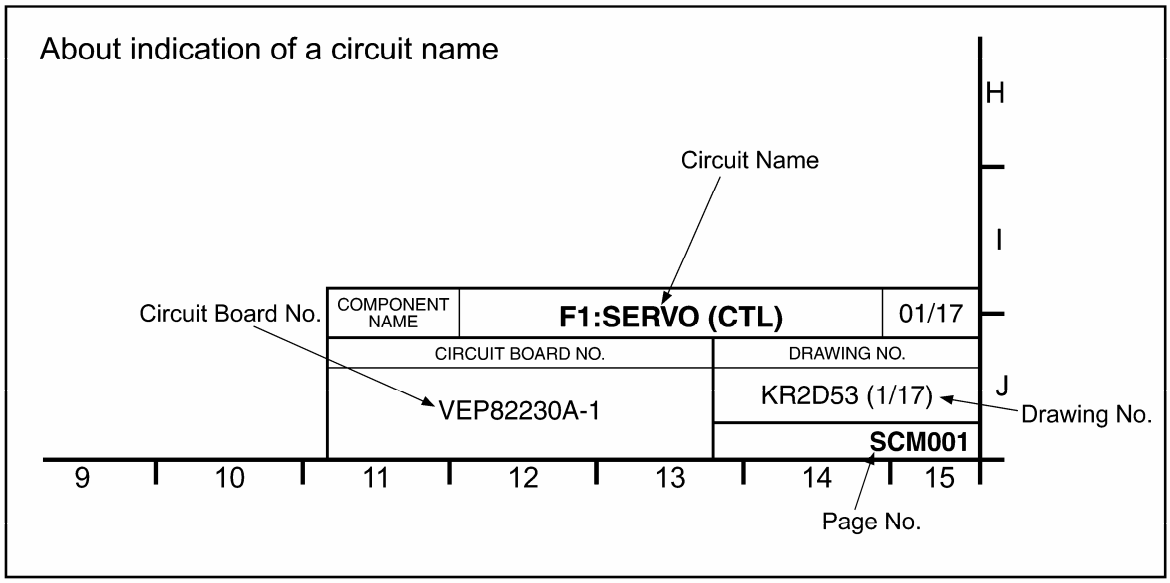


POWER BLOCK DIAGRAM



SECTION 3

SCHEMATIC DIAGRAMS



NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION 7

CAUTION

THE ▭ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

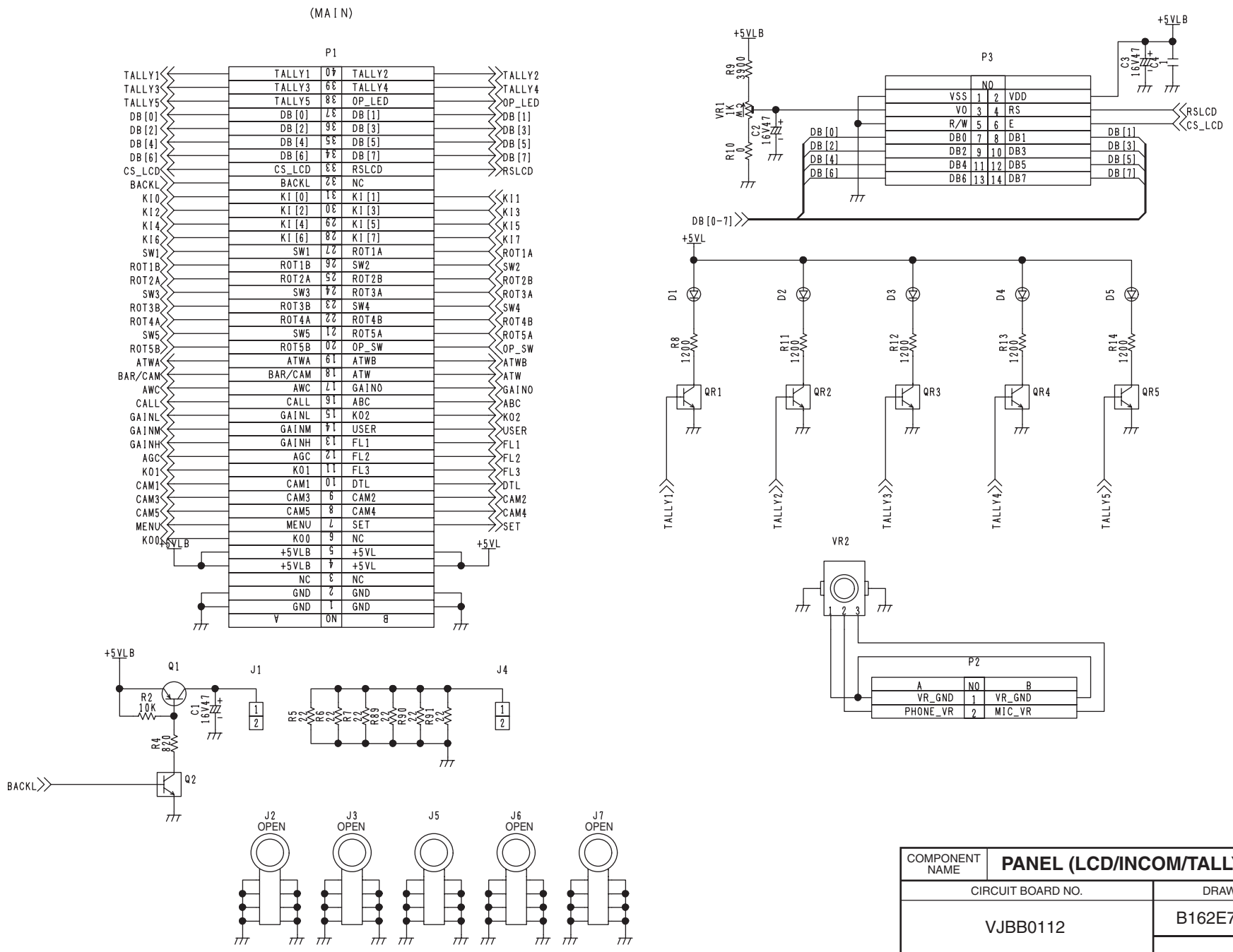
CONTENTS

PANEL

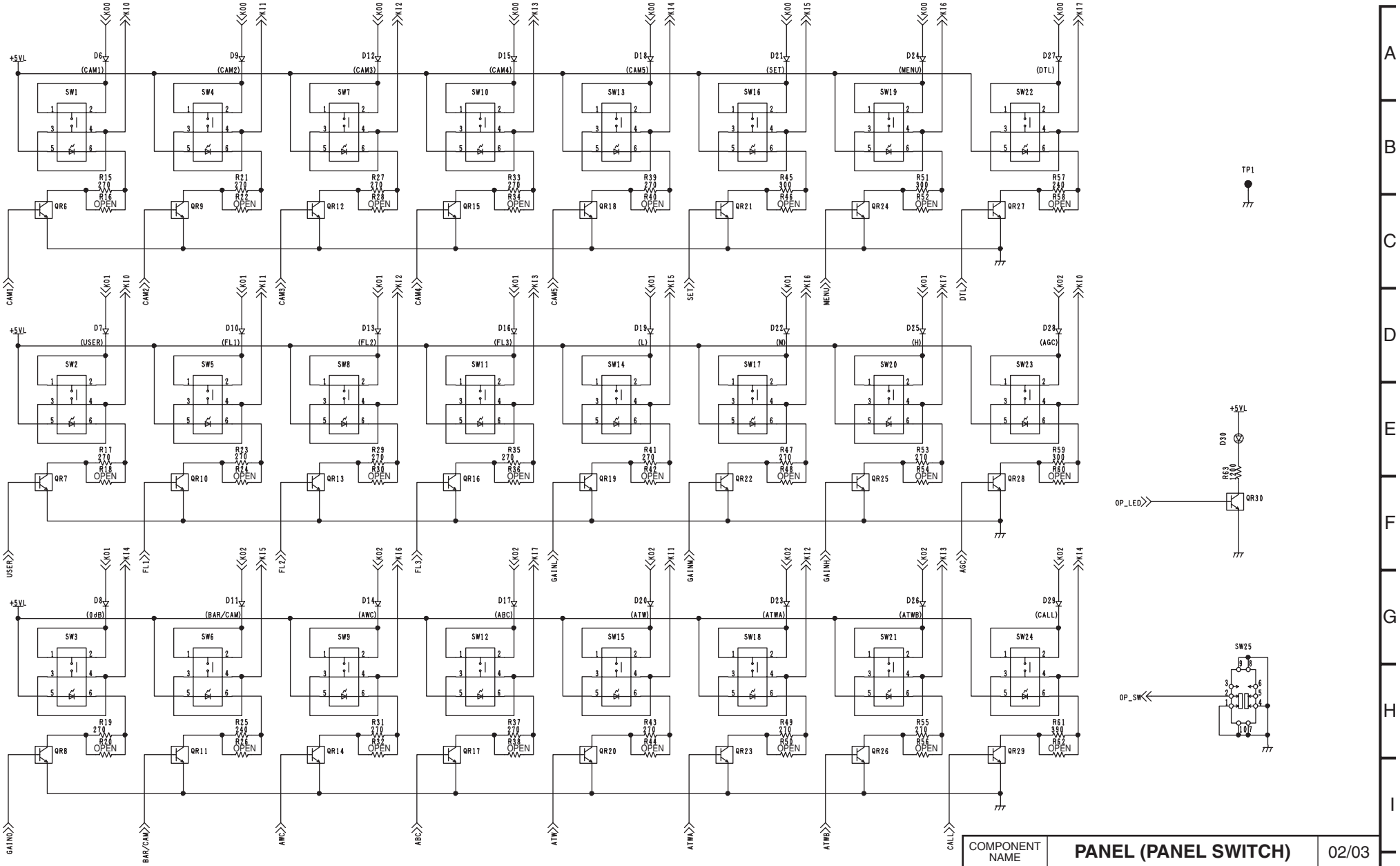
MAIN

REAR

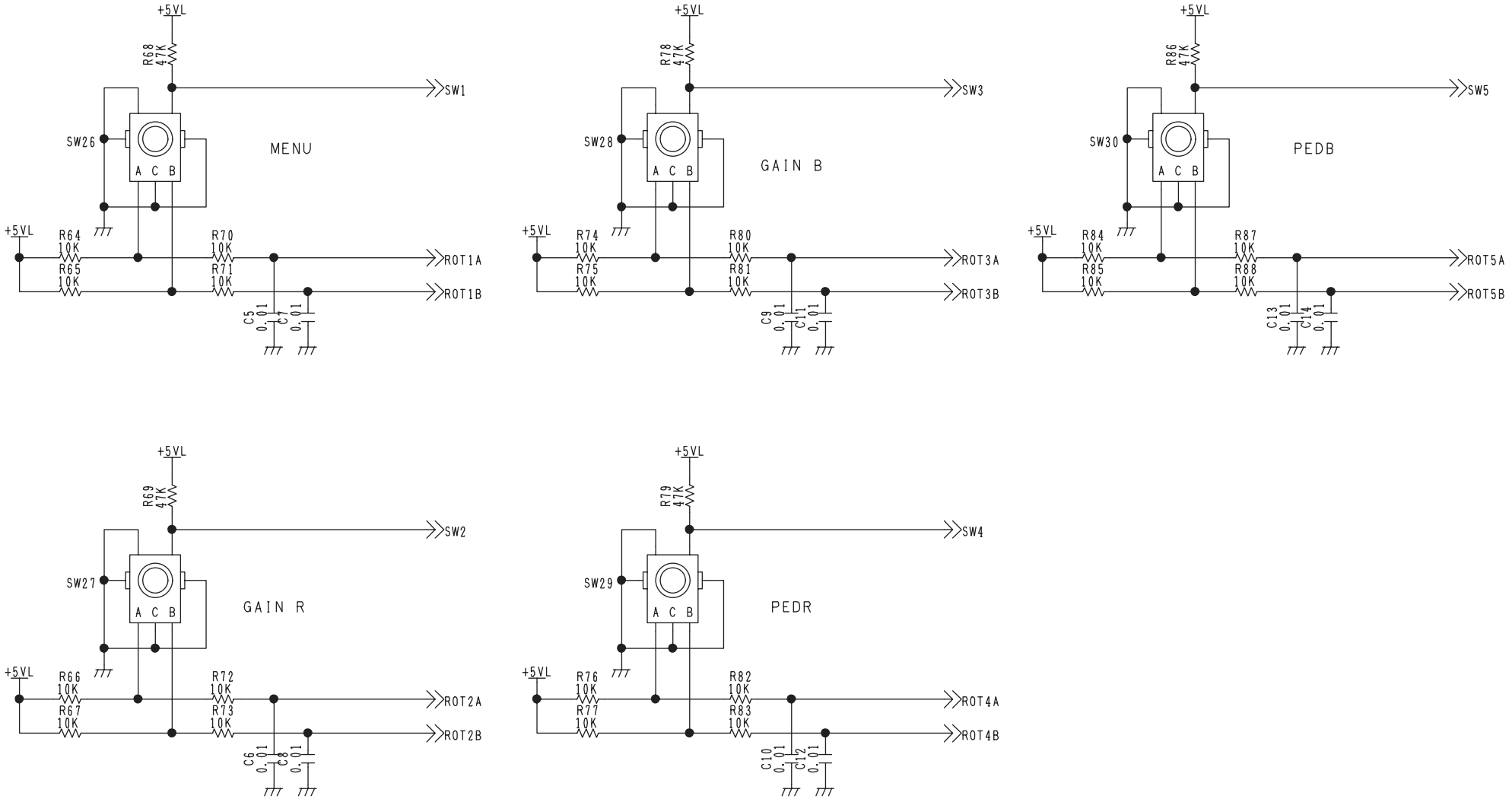
OPTION PANEL



COMPONENT NAME	**PANEL (LCD/INCOM/TALLY)**	01/03
CIRCUIT BOARD NO.	DRAWING NO.	
VJBB0112	B162E781A (1/3)	
	SCM001	



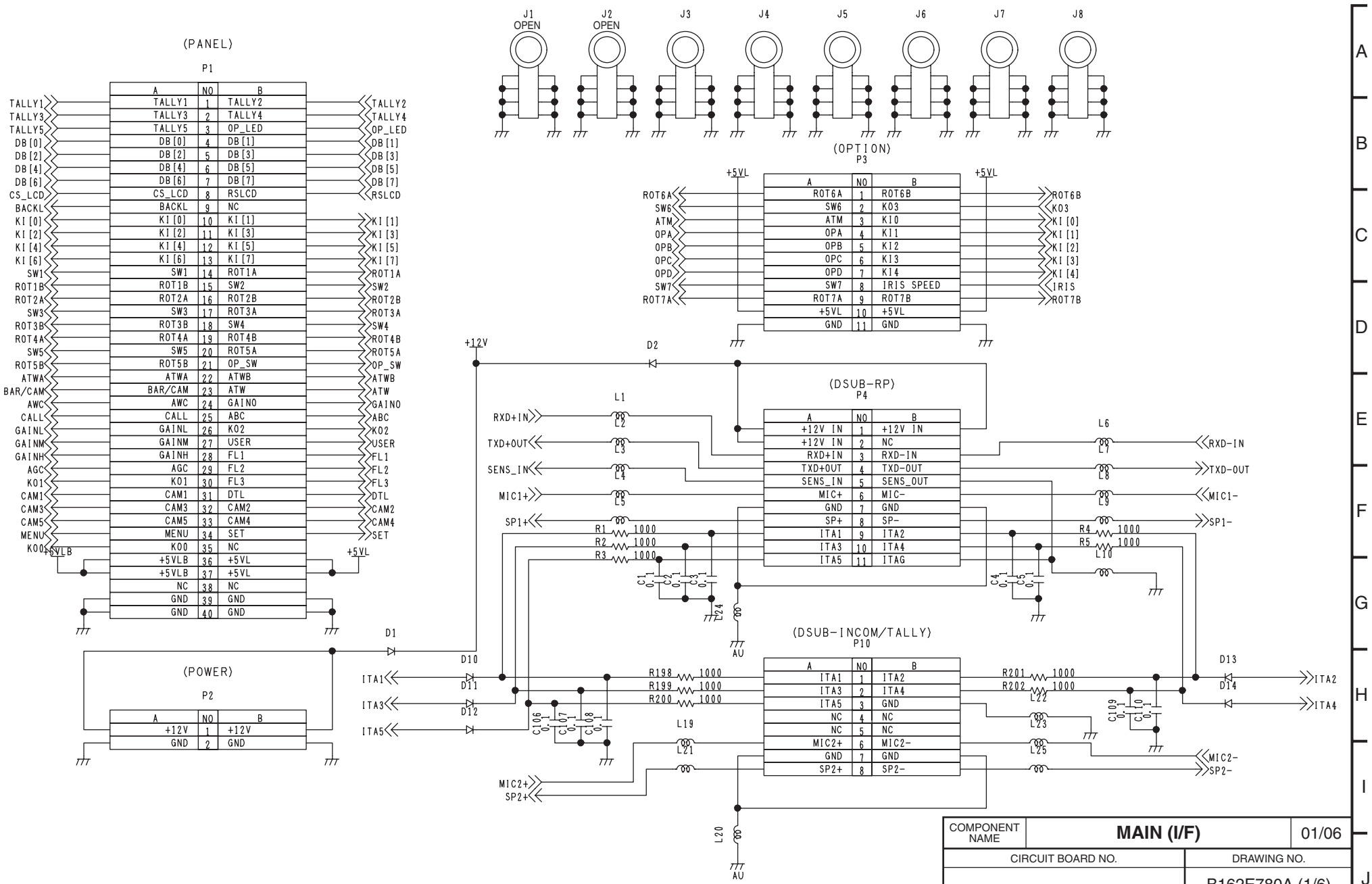
COMPONENT NAME	**PANEL (PANEL SWITCH)**	02/03
CIRCUIT BOARD NO.	DRAWING NO.	
VJBB0112	B162E781A (2/3)	
	SCM002	



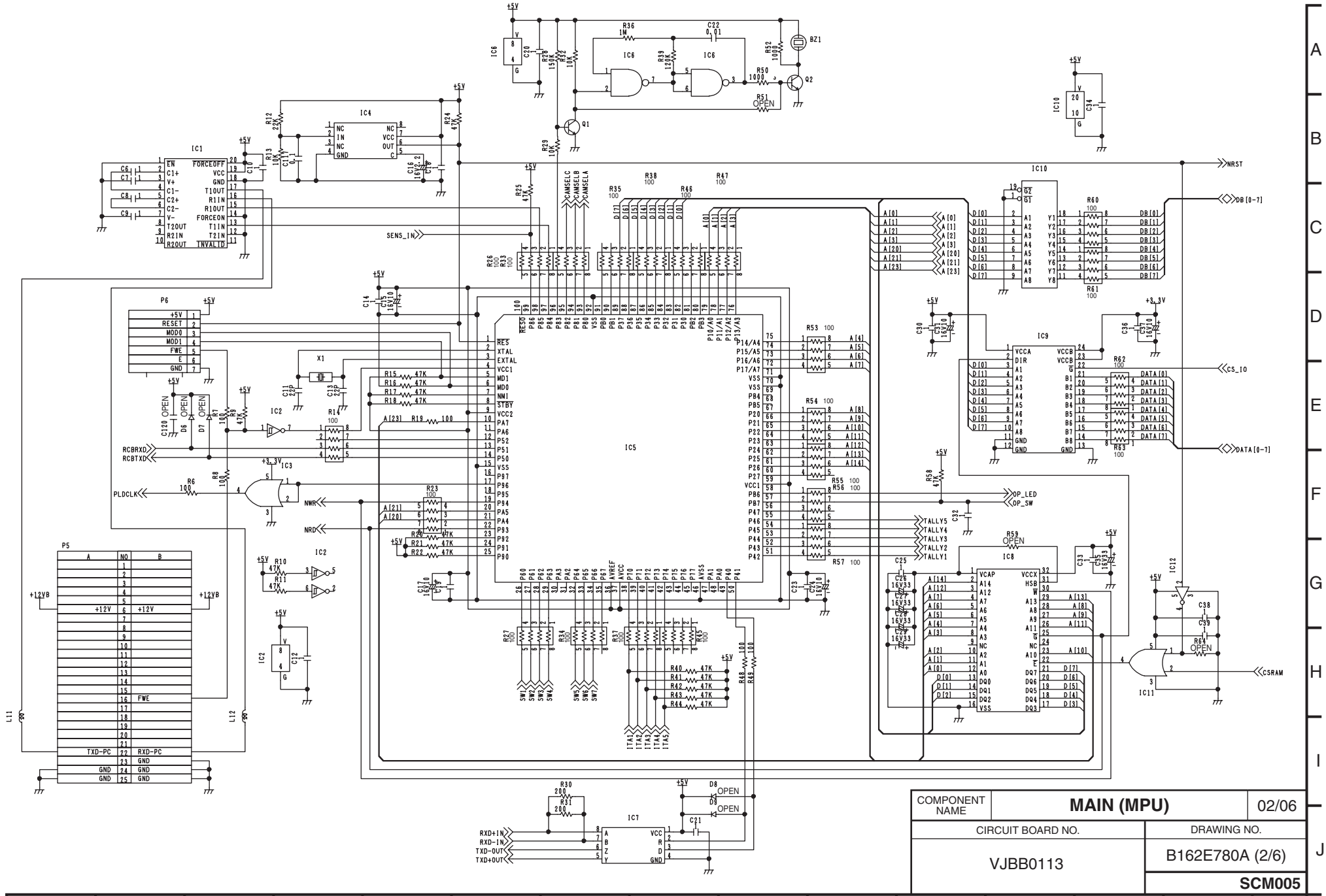
COMPONENT NAME	**PANEL (R. E. COUNT)**	03/03
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0112		B162E781A (3/3)
		SCM003

A B C D E F G H I J

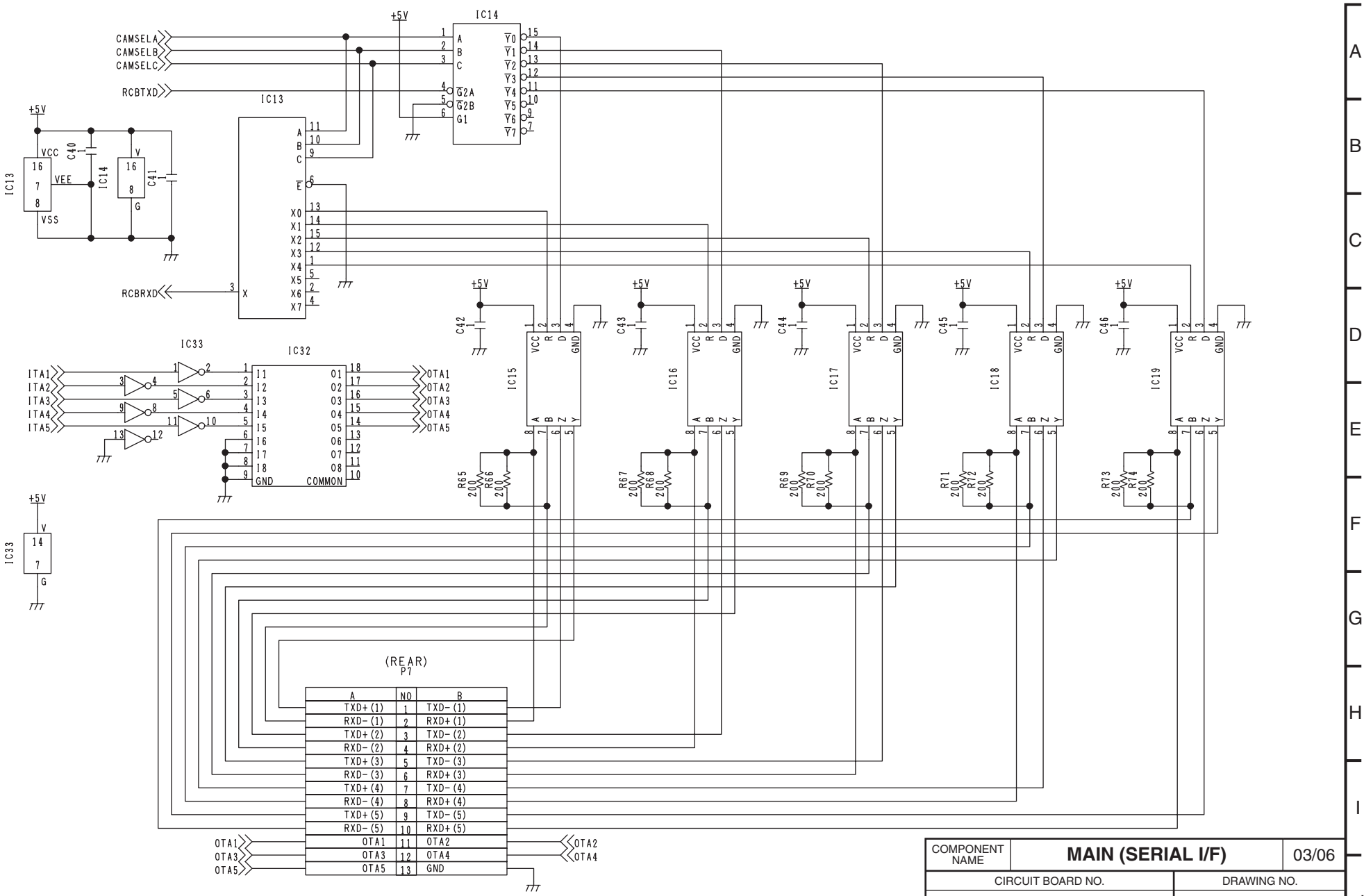
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



COMPONENT NAME	MAIN (I/F)	01/06
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0113		B162E780A (1/6)
		SCM004

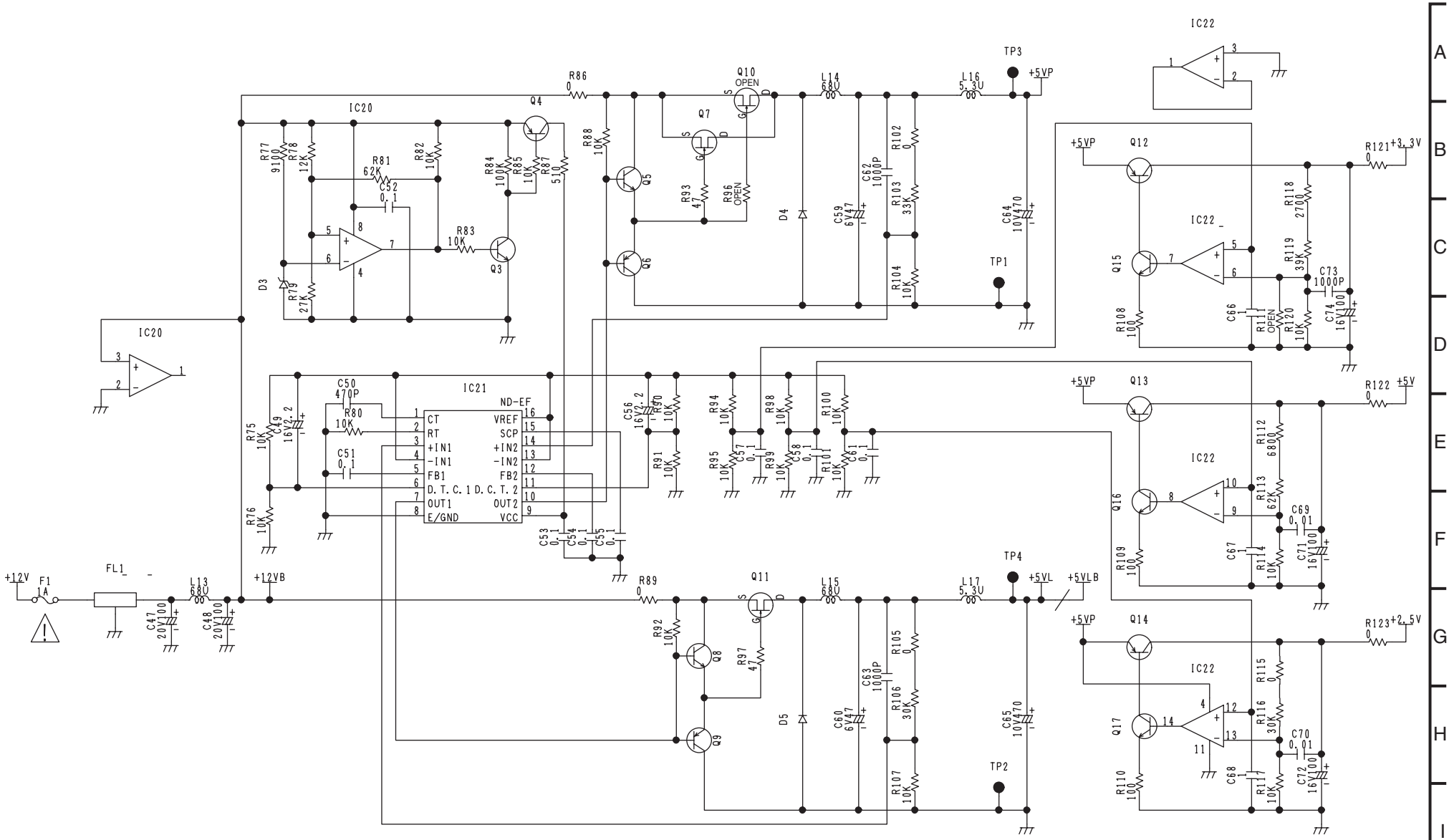


COMPONENT NAME	MAIN (MPU)	02/06
CIRCUIT BOARD NO.	DRAWING NO.	
VJBB0113	B162E780A (2/6)	
	SCM005	

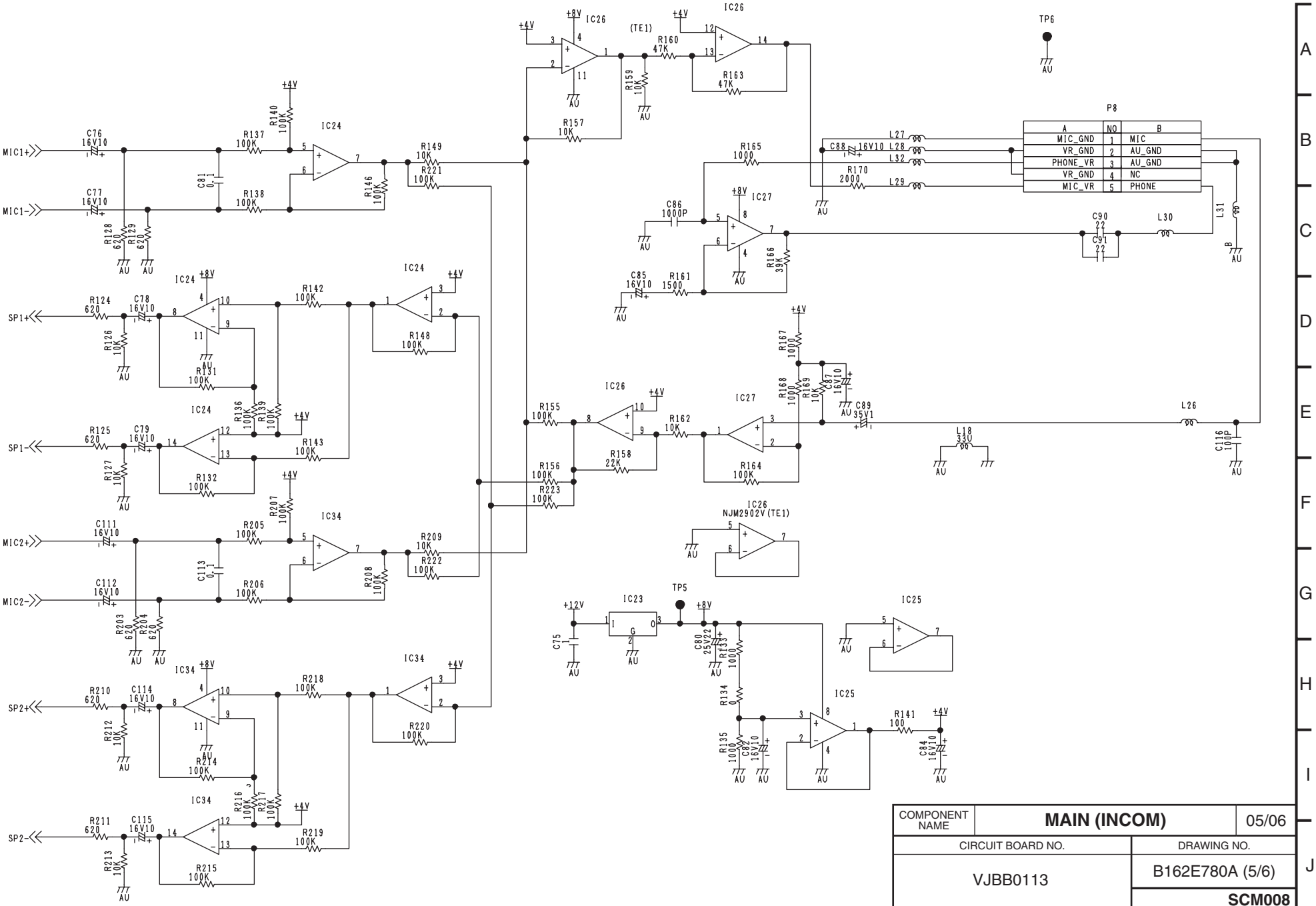


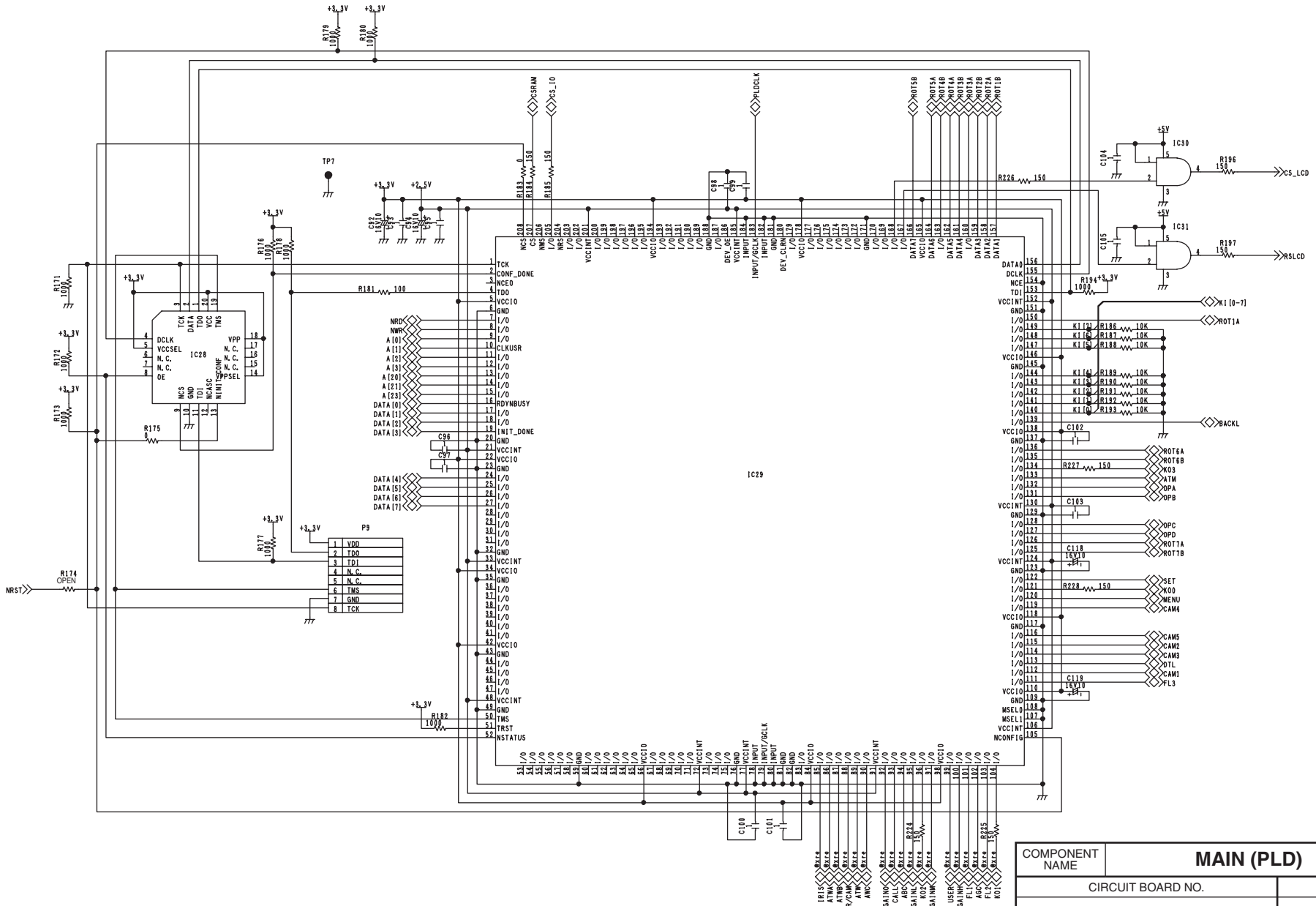
A	NO	B
TXD+ (1)	1	TXD− (1)
RXD− (1)	2	RXD+ (1)
TXD+ (2)	3	TXD− (2)
RXD− (2)	4	RXD+ (2)
TXD+ (3)	5	TXD− (3)
RXD− (3)	6	RXD+ (3)
TXD+ (4)	7	TXD− (4)
RXD− (4)	8	RXD+ (4)
TXD+ (5)	9	TXD− (5)
RXD− (5)	10	RXD+ (5)
OTA1	11	OTA2
OTA3	12	OTA4
OTA5	13	GND

COMPONENT NAME	MAIN (SERIAL I/F)	03/06
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0113		B162E780A (3/6)
		SCM006

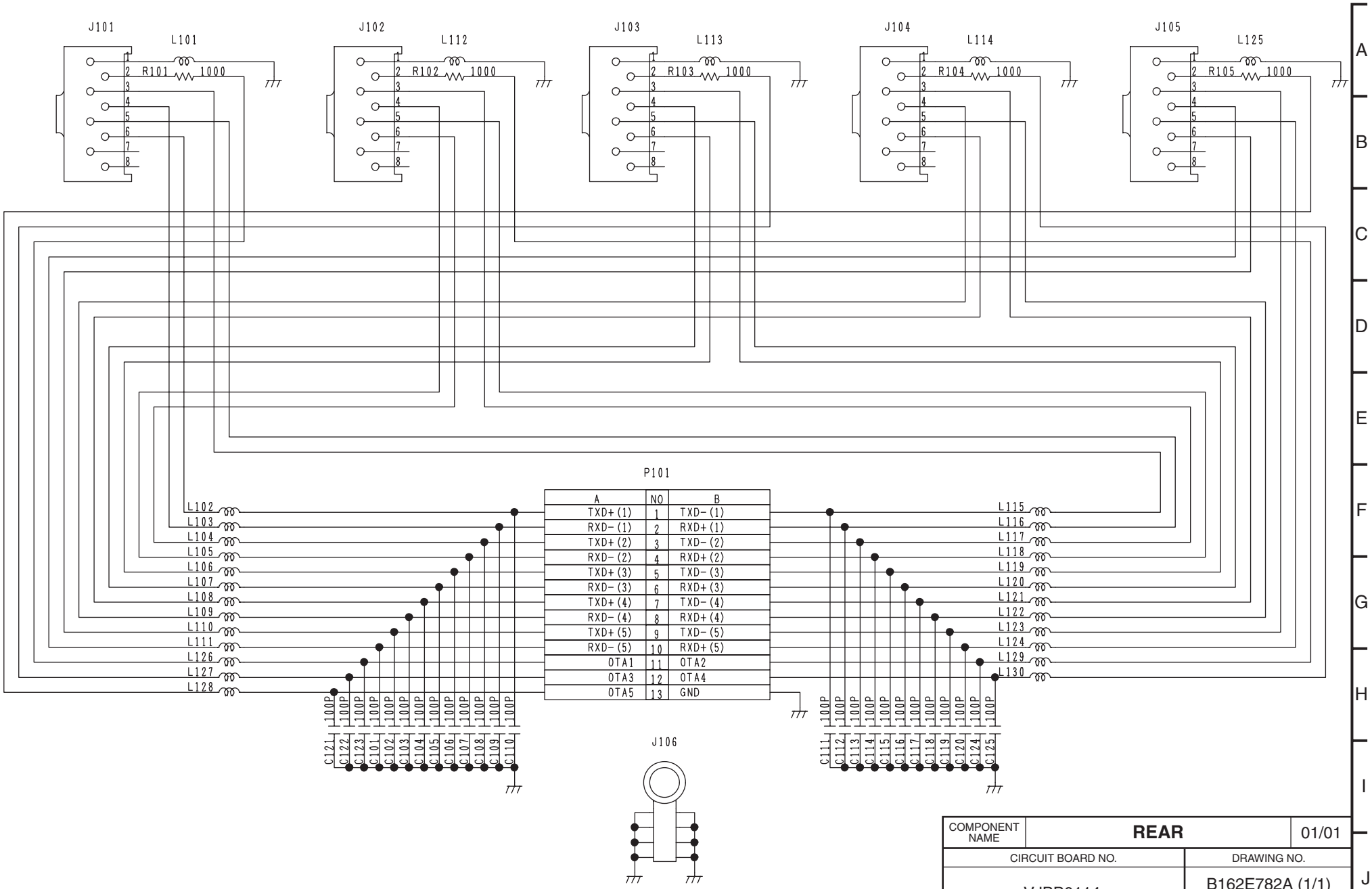


COMPONENT NAME	MAIN (POWER)	04/06
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0113		B162E780A (4/6)
		SCM007

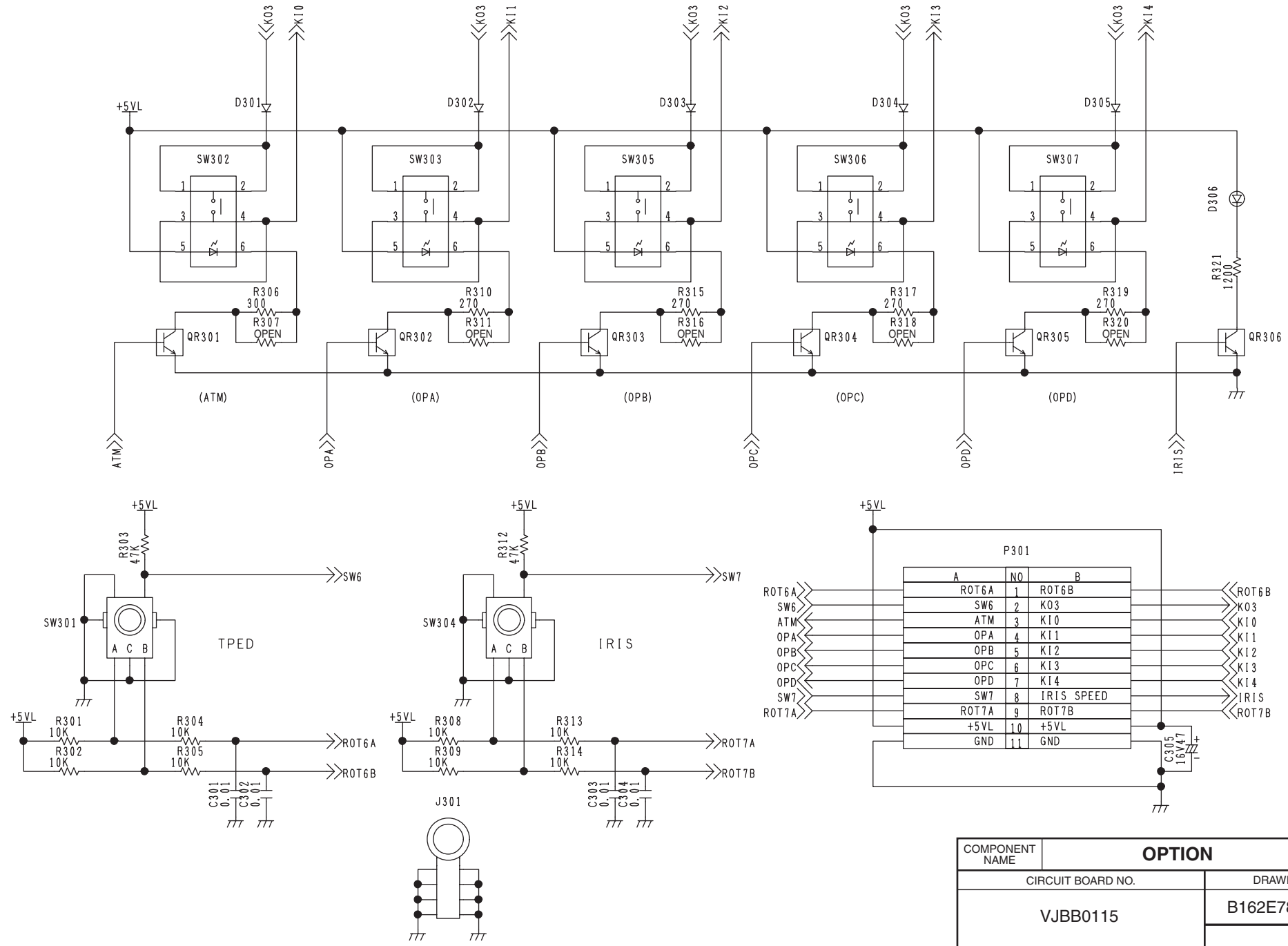

MIC1+
MIC1-
MIC2+
MIC2-
SP1+
SP1-
SP2+
SP2-
IC24
IC26
IC27
IC34
IC23
IC25
TP5
TP6
P8
A NO B
MIC_GND 1 MIC
VR_GND 2 AU_GND
PHONE_VR 3 AU_GND
VR_GND 4 NC
MIC_VR 5 PHONE
IC26 NJM2902V(TE1)
COMPONENT NAME
MAIN (INCOM)
05/06
CIRCUIT BOARD NO.
VJBB0113
DRAWING NO.
B162E780A (5/6)
SCM008



COMPONENT NAME	**MAIN (PLD)**	06/06
CIRCUIT BOARD NO.	DRAWING NO.	
VJBB0113	B162E780A (6/6)	
	SCM009	



COMPONENT NAME	REAR	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0114		B162E782A (1/1)
		SCM010



COMPONENT NAME	OPTION	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VJBB0115		B162E783A (1/1)
		SCM011

SECTION 4

CIRCUIT BOARD DIAGRAMS

NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION 7

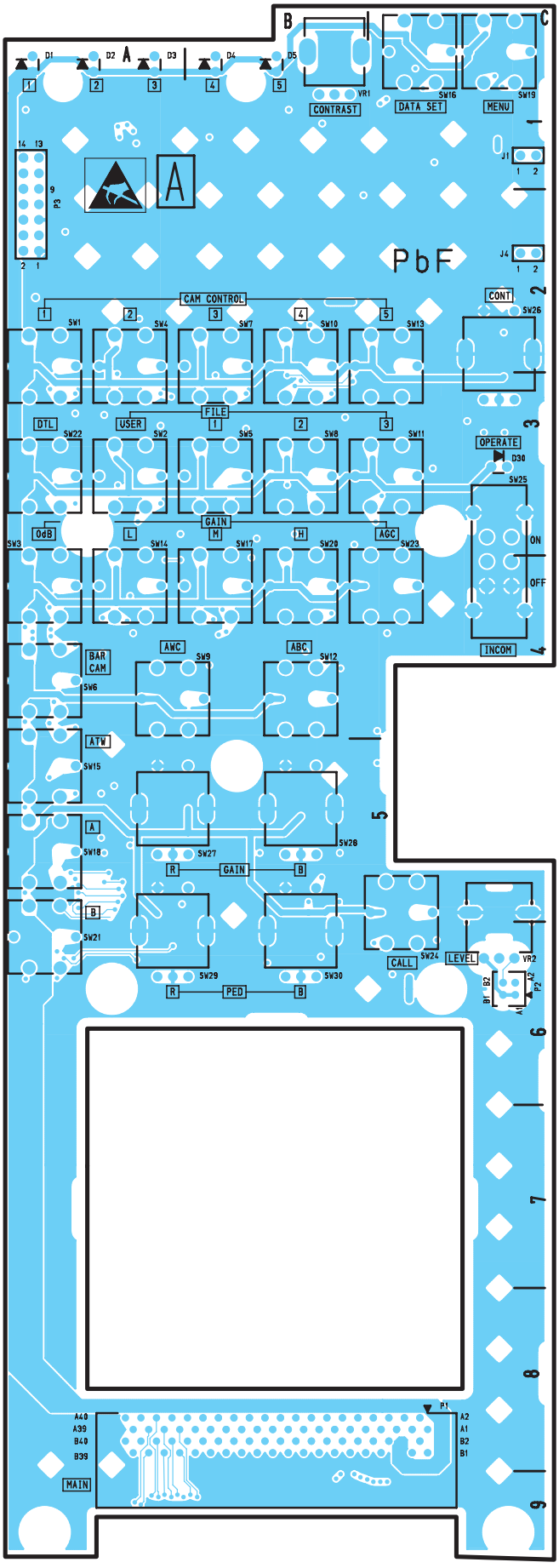
CAUTION

THE ▭ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

PANEL P.C.BOARD (VJBB0112)

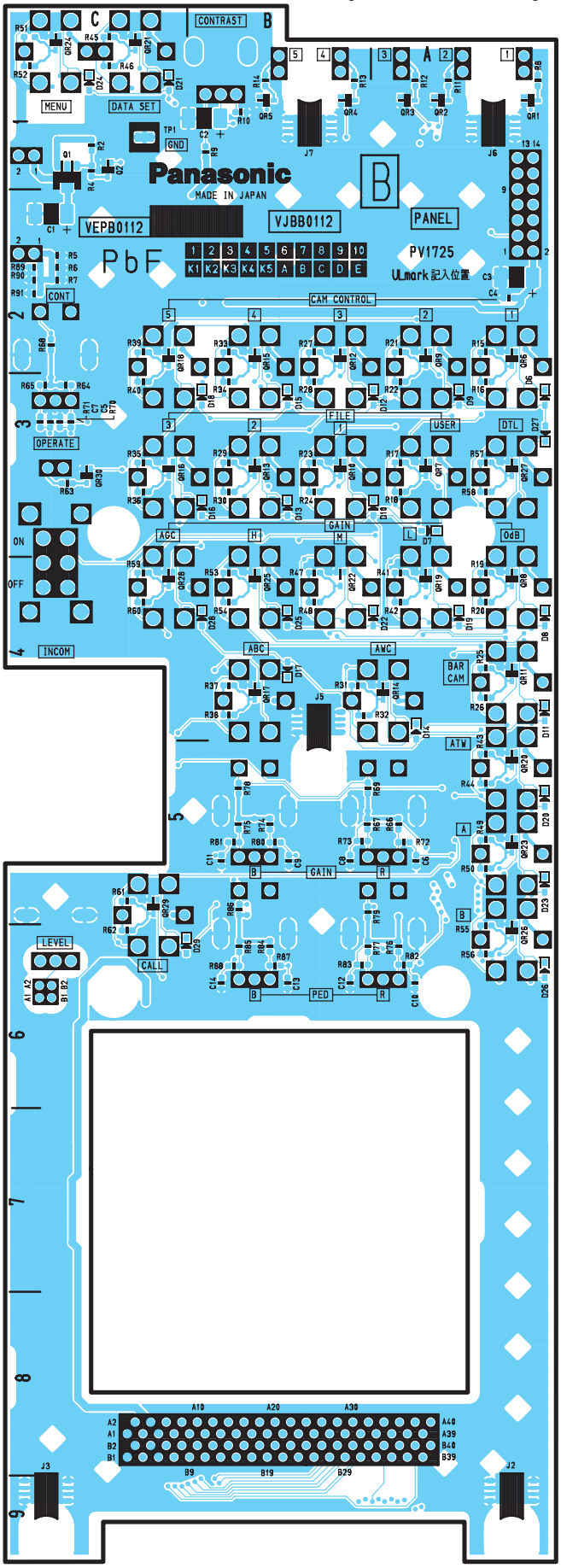


COMPONENT SIDE

REF	LOC
D1	A1
D2	A1
D3	A1
D4	B1
D5	B1
D30	C3
P1	C8
P2	C6
P3	A2

(COMPONENT SIDE)

PANEL P.C.BOARD (VJBB0112)



(FOIL SIDE)

FOIL SIDE

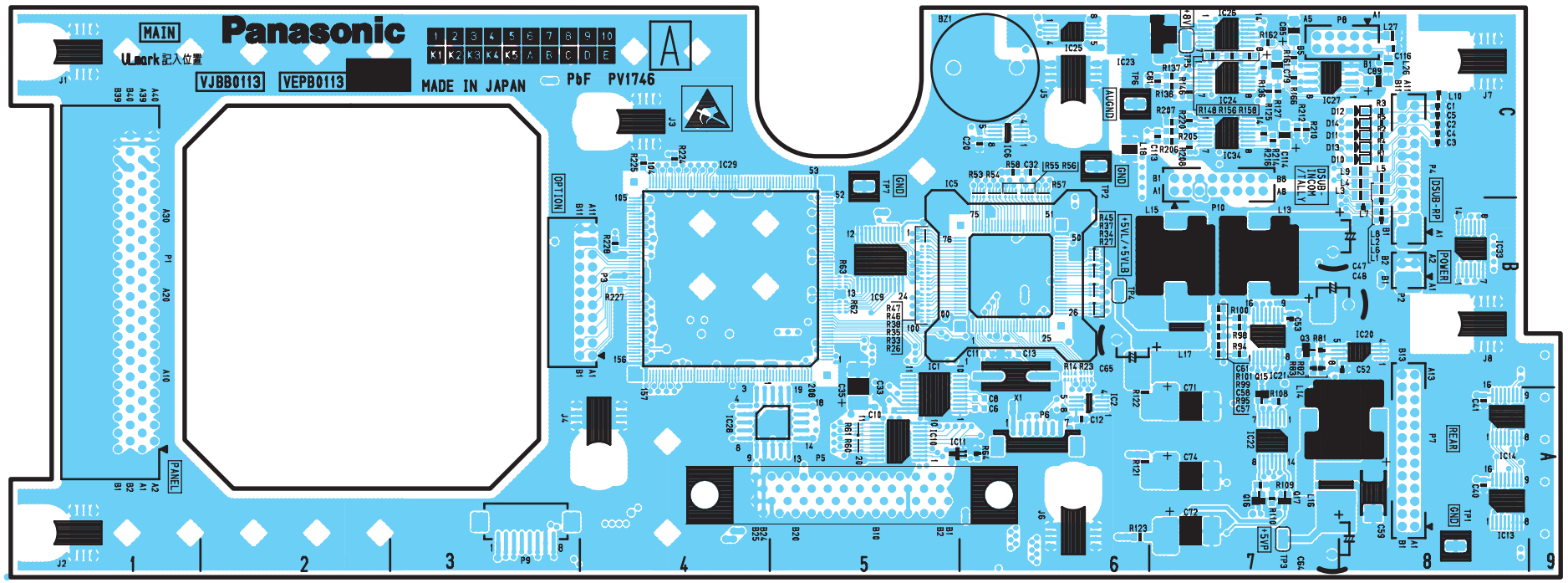
REF	LOC	REF	LOC	REF	LOC
		D25	B5	QR12	B2
D6	A3	D26	A6	QR13	B3
D7	A3	D27	A3	QR14	A4
D8	A4	D28	B4	QR15	B2
D9	A3	D29	C6	QR16	C3
D10	A3			QR17	B4
D11	A4	Q1	C1	QR18	B2
D12	A3	Q2	C1	QR19	A4
D13	B3			QR20	A5
D14	A4	QR1	A1	QR21	C1
D15	B3	QR2	A1	QR22	B4
D16	B3	QR3	A1	QR23	A5
D17	B4	QR4	B1	QR24	C1
D18	B3	QR5	B1	QR25	B4
D19	A4	QR6	A2	QR26	A6
D20	A5	QR7	A3	QR27	A3
D21	C1	QR8	A4	QR28	C4
D22	A4	QR9	A2	QR29	C6
D23	A5	QR10	B3	QR30	C3
D24	C1	QR11	A4		

MAIN P.C.BOARD (VJBB0113)

CBA-3

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
				IC13	A8	IC27	C7	P3	B4		
D10	C8	IC1	B5	IC20	B8	IC28	A4	P4	C8	Q3	B7
D11	C8	IC2	A6	IC21	B7	IC29	C4	P5	A5	Q15	A7
D12	C8	IC5	B6	IC22	A7	IC33	B8	P6	A6	Q16	A7
D13	C8	IC6	C6	IC23	C6	IC34	C7	P7	A8	Q17	A7
D14	C8	IC9	B5	IC24	C7			P8	C8		
		IC10	A5	IC25	C6	P1	B1	P9	A3		
		IC11	A5	IC26	C7	P2	B8	P10	C7		



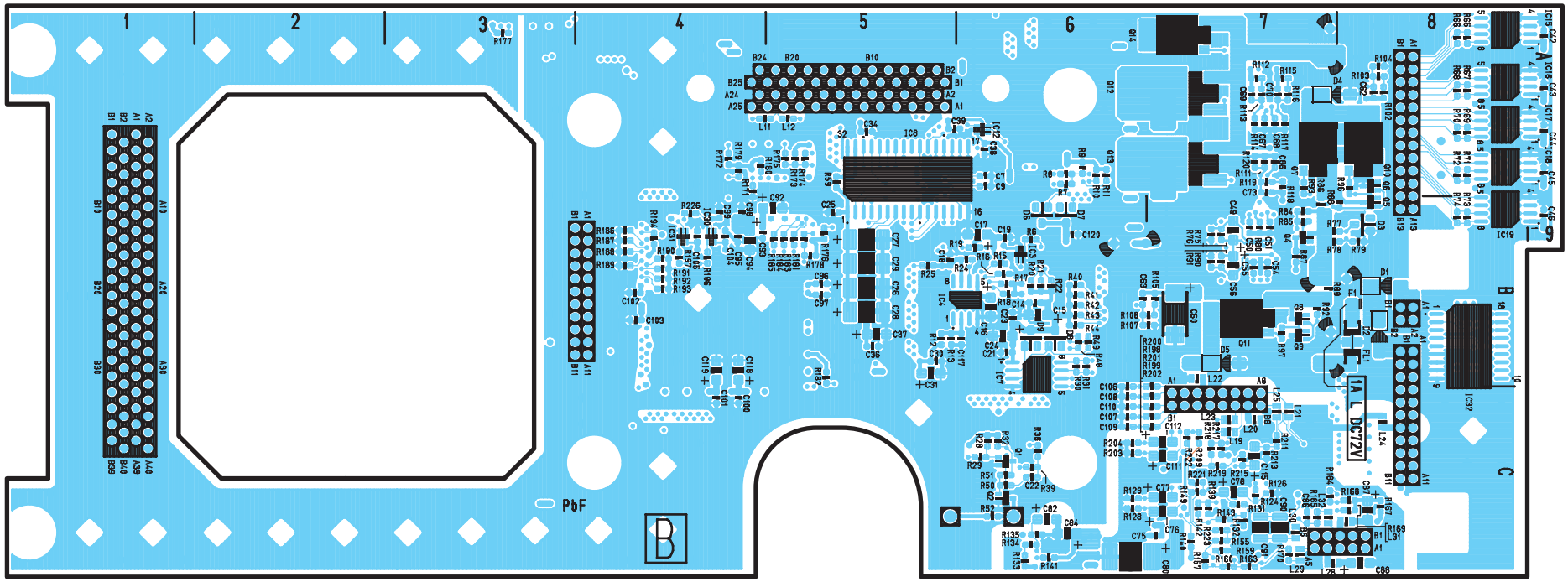
(COMPONENT SIDE)

MAIN P.C.BOARD (VJBB0113)

CBA-4

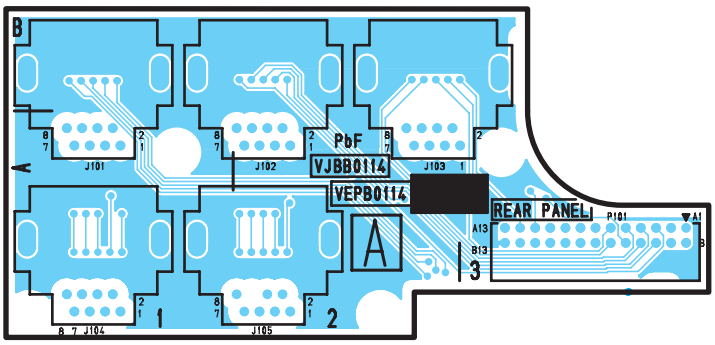
FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
				IC4	B5	Q2	C6	Q9	B7
D1	B8	IC4	B5	IC7	B6	Q4	B7	Q11	B7
D2	B8	IC7	B6	IC8	A5	Q5	B8	Q12	A6
D3	B8	IC8	A5	IC12	A6	Q6	A8	Q13	A6
D4	A8	IC12	A6			Q7	A7	Q14	A6
D5	B7	IC15	A8	Q1	C6	Q8	B7		

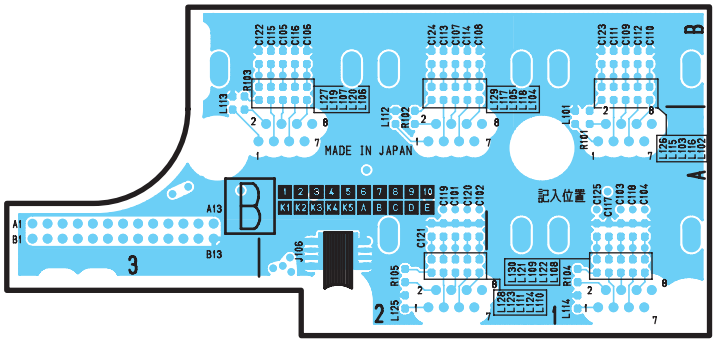


(FOIL SIDE)

REAR PANEL P.C.BOARD (VJBB0114)

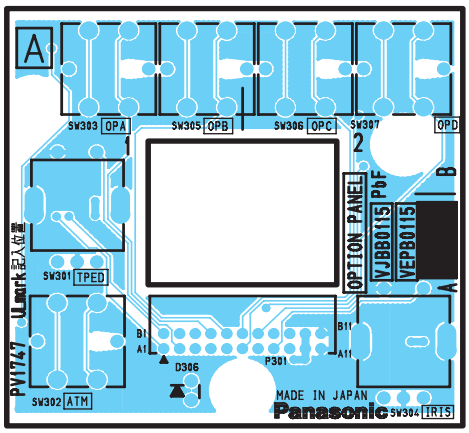


(COMPONENT SIDE)

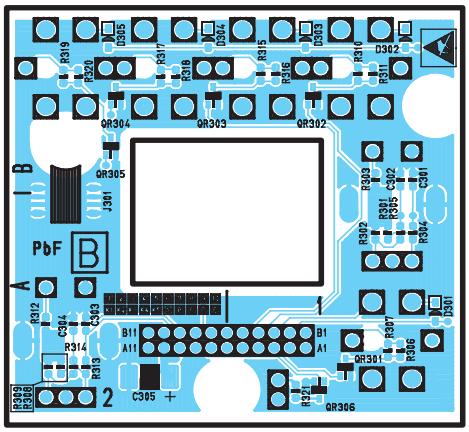


(FOIL SIDE)

OPTION PANEL P.C.BOARD (VJBB0115)



(COMPONENT SIDE)



(FOIL SIDE)

SECTION 5

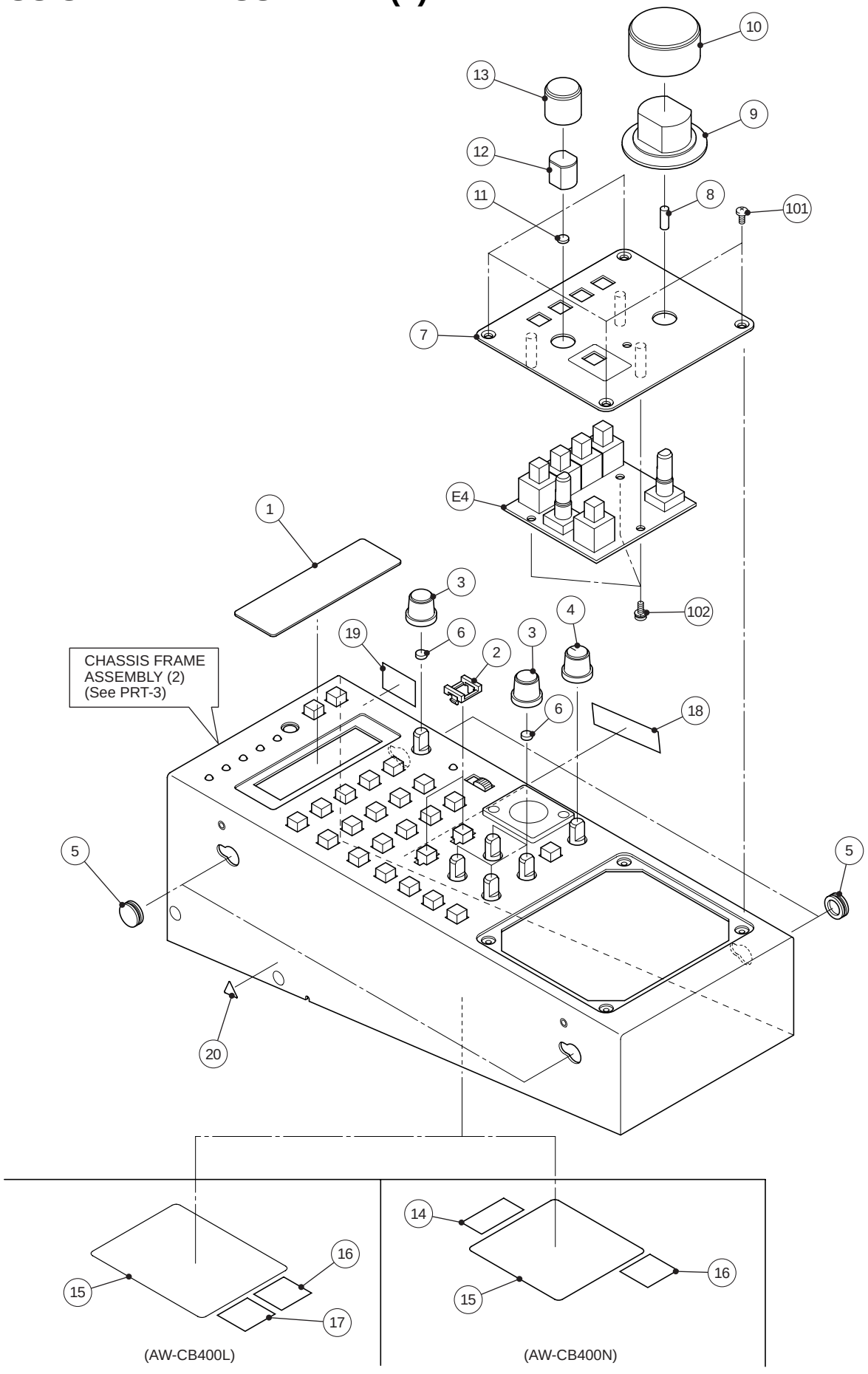
EXPLODED VIEWS
&
REPLACEMENT PARTS LIST

Note:

1. *Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS (μF), P=μμF.
3. The P.C. Board unit marked with "■" shown below the main assembled parts.
4. The parts marked with Ⓔ on the exploded view show the electric parts.
5. IMPORTANT SAFETY NOTICE
   Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.
   After the discontinuation of this assembly in production, it will no longer be available.
7. "M" in Remark column indicates needed in the periodical maintenance.

CONTENTS

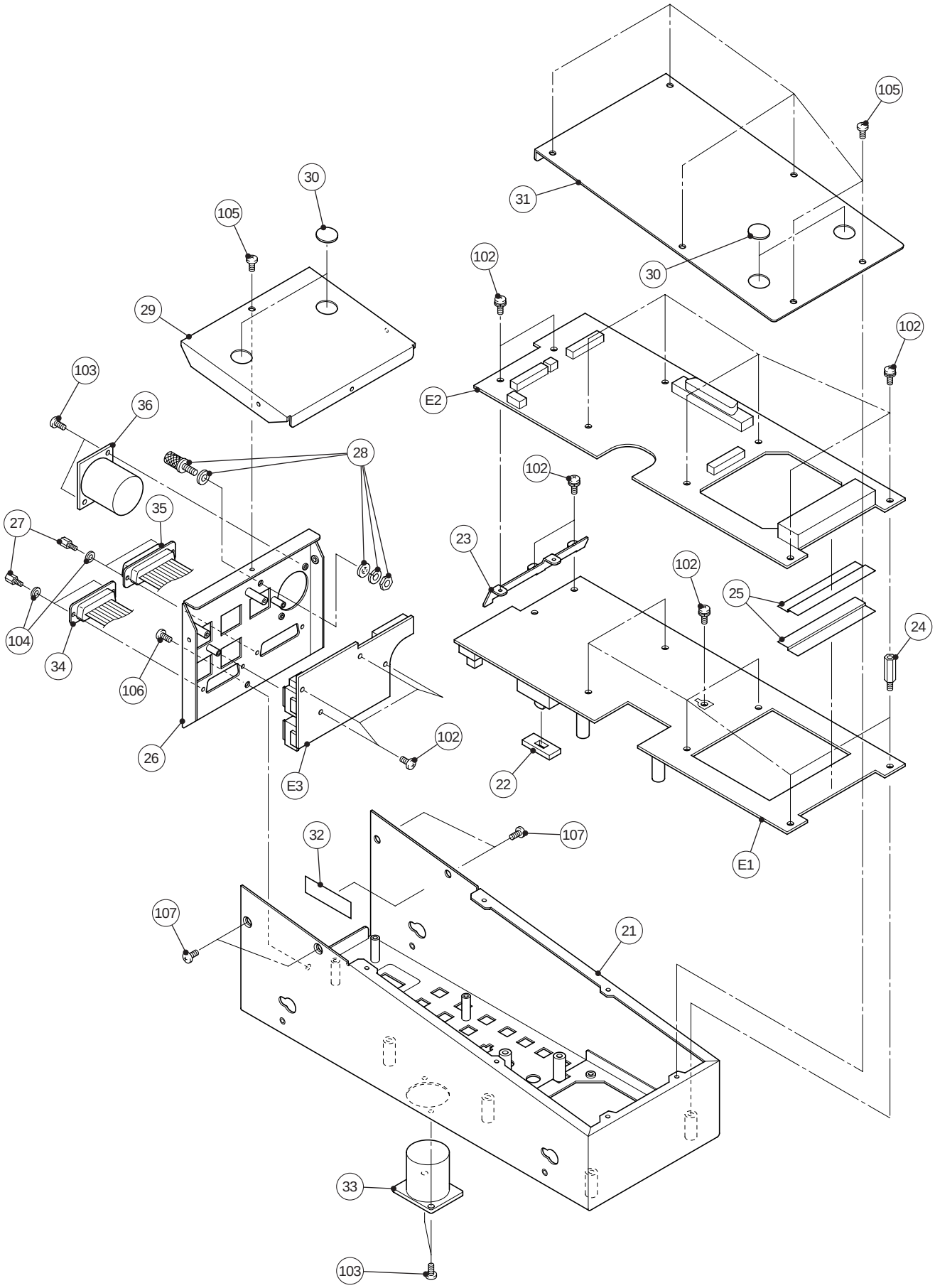
CHASSIS FRAME ASSEMBLY (1)



CHASSIS FRAME ASSEMBLY (1)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VGPB0023	LCD DECORATIVE PLATE	1	
2	TD446MR07A	BUTTON GUARD	2	
3	VGUB0013	ENCODER KNOB	5	
4	V5RA0279D3	VOLUME KNOB	1	
5	VMGB0014	RUBBER CAP	4	
6	VMLB0047	ENCODER KNOB SPACER	5	
7	VGPB0024	OPTION PANEL	1	
8	VMLB0029	IRIS KNOB SPACER	1	
9	VGUB0014	IRIS KNOB BASE	1	
10	VMGB0011	IRIS RUBBER CAP	1	
11	VMLB0041	PED KNOB SPACER	1	
12	5R1A010A	PED KNOB BASE	1	
13	VMGB0010	PED RUBBER CAP	1	
14	V7MA0106A4	CAUTION LABEL	1	(N)
15	VGNB0048	MAIN LABEL	1	(N)
15	VGNB0049	MAIN LABEL	1	(L)
16	VQLB0077	WARNING LABEL	1	
17	VQLB0078	WARNING LABEL	1	(L)
18	V7MA0099B4	CAUTION LABEL	1	(N)
18	VQLB0008	CAUTION LABEL	1	(L)
19	V7MA0338A4	SEE MANUAL LABEL	1	
20	V7MA0103A4	SHOCK MARK LABEL	1	(N)
101	XSS26+6FJK	SCREW	4	
102	XYN3+J6FN	SCREW	3	
E4	VJBB0115	OPTION P.C.BOARD	1	

CHASSIS FRAME ASSEMBLY (2)

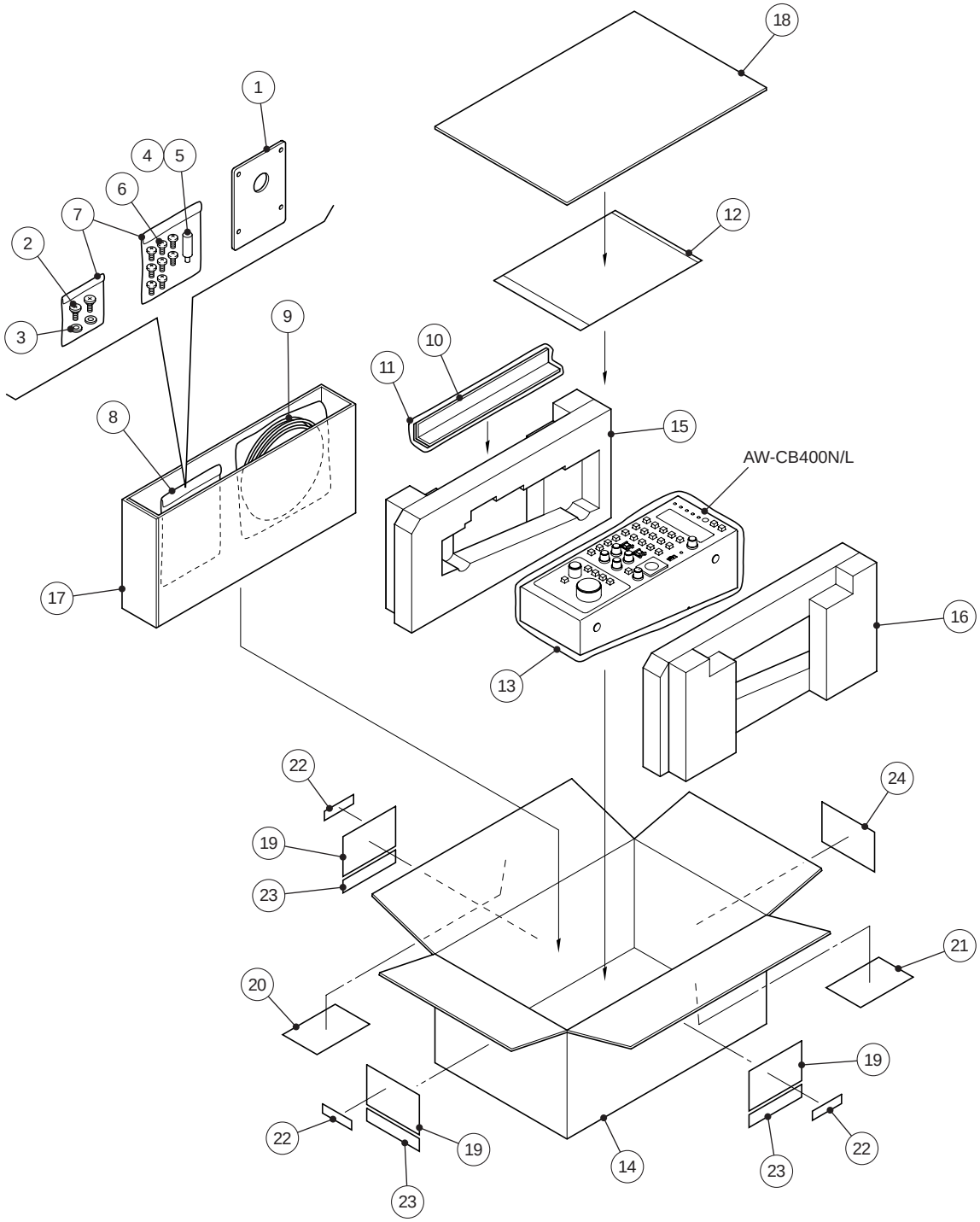


CHASSIS FRAME ASSEMBLY (2)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
21	VGPB0021	UPPER PANEL	1	
22	5E1A017A	SWITCH CUSHION	1	
23	VMAB0039	PCB JOINING ANGLE	1	
24	VMXB0016	PCB SPACER	6	
25	VMZB0006	INSULATOR SHEET	2	
26	VGPB0022	CONNECTOR PANEL	1	
27	DSB5055A	D-SUB SCREW	4	
28	2G1A001A	GROUND TERMINAL	1	
29	VMAB0038	BLANK PANEL	1	
30	SJ-5003	RUBBER FOOT	4	
31	VMAB0037	BOTTOM PLATE	1	
32	V7MA0270A4	FUSE REPLACEMENT LABEL	1	(N)
32	VQLB0075	FUSE REPLACEMENT LABEL	1	(L)
33	VEEB0062	INCOM-MAIN CABLE	1	
34	VEEB0064	DSUB-MAIN CABLE	1	
35	VEEB0065	TALLY-MAIN CABLE	1	
36	VEEB0075	POWER CN CABLE	1	
37	VEEB0059	REAR-MAIN CABLE	1	
38	VEEB0061	PANEL-MAIN CABLE	1	
39	VEEB0063	OPTION-MAIN CABLE	1	
102	XYN3+J6FN	SCREW	15	
103	XSN26+6FN	SCREW	4	
104	XWA26FN	WASHER	4	
105	XSB3+6FN	SCREW	7	
106	XSB3+6FJK	SCREW	1	
107	XSS3+6FJK	SCREW	4	
E1	VJBB0112	PANEL P.C.BOARD	1	
E2	VJBB0113	MAIN P.C.BOARD	1	
E3	VJBB0114	REAR P.C.BOARD	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

PACKAGING PARTS ASSEMBLY



PACKAGING PARTS ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VMAB0033	JOIN-UP FIXTURE	1	
2	YWE5100EM01	JOIN-UP SCREW	2	
3	VMXB0032	JOINING STICKER	2	
4	K1GA1500009	TALLY/INCOM PLUG	1	
5	K1ZZ00000269	TALLY/INCOM CASE	1	
6	XSB4+8FJK	MOUNTING SCREW	8	
7	YWT10X10C03	POLYETHYLENE BAG	2	
8	YWT12X15C03	POLYETHYLENE BAG	1	
9	VEEB0072	CONNECTING CABLE	1	
10	VMAB0032	RACK MOUNTING ADAPTER	2	
11	PE20X35C05B	POLYETHYLENE BAG	1	
12	VQFB0019	PRINTED MATTERS SET	1	(N)
⚠(12-1)	VQTB0045	OPERATING INSTRUCTIONS	1	
(12-3)	VPF0681	POLYETHYLENE BAG	1	
(12-4)	VQA0689	SERVICE CENTER LIST	1	(NORTH AMERICA)
(12-5)	VQC4626	SAFETY CARD	1	(NORTH AMERICA)
(12-6)	VQA0855	WARRANTY CARD	1	(JAPAN)
(12-7)	XZG89X190KG2	WARRANTY CARD BAG	1	(JAPAN)
(12-8)	VQA0690	WARRANTY CARD	1	(NORTH AMERICA)
12	VQFB0020	PRINTED MATTERS SET	1	(L)
⚠(12-1)	VQTB0046	OPERATING INSTRUCTIONS	1	(EUROPE)
⚠(12-2)	VQTB0047	OPERATING INSTRUCTIONS	1	(CHINA)
(12-3)	VPF0681	POLYETHYLENE BAG	1	
(12-4)	VQC3614	AREA SHEET	1	
13	PE35X50C05B	POLYETHYLENE BAG	1	
14	VPGB0014	PACKAGING CASE	1	
15	VPNB0020	CUSHIONING (L)	1	
16	VPNB0021	CUSHIONING (R)	1	
17	VPNB0022	ACCESSORY PAD	1	
18	VPNB0024	UPPER PAD	1	
19	V8FA1095B4	PACKAGING LABEL	3	(N)
19	V8FA1091B4	PACKAGING LABEL	3	(L)
20	VQL8185	OPERATION LABEL	1	(N)
20	VQLB0050	OPERATION LABEL	1	(L)
21	VQLB0049	CAUTION LABEL	1	(L)
22	VQLB0059	NAME LABEL	3	(L)
23	VQLB0009	ORIGIN LABEL	3	(L)
24	VQL0X01	QUALITY LABEL	1	(L)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VJBB0112	PANEL P.C.BOARD	1	(RTL)
■ E2	VJBB0113	MAIN P.C.BOARD	1	(RTL)
■ E3	VJBB0114	REAR P.C.BOARD	1	(RTL)
■ E4	VJBB0115	OPTION P.C.BOARD	1	(RTL)
■ E1	VJBB0112	PANEL P.C.BOARD	1	(RTL)
C1	F3H1C476A049	T.CAPACITOR CH 16V 47U	1	
C2	F3H1C476A049	T.CAPACITOR CH 16V 47U	1	
C3	F3H1C476A049	T.CAPACITOR CH 16V 47U	1	
C4	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C5	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C6	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C7	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C8	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C9	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C10	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C11	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C12	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C13	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C14	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
D1	LN28RPX	DIODE	1	
D2	LN28RPX	DIODE	1	
D3	LN28RPX	DIODE	1	
D4	LN28RPX	DIODE	1	
D5	LN28RPX	DIODE	1	
D6	MA2J11100L	DIODE	1	
D7	MA2J11100L	DIODE	1	
D8	MA2J11100L	DIODE	1	
D9	MA2J11100L	DIODE	1	
D10	MA2J11100L	DIODE	1	
D11	MA2J11100L	DIODE	1	
D12	MA2J11100L	DIODE	1	
D13	MA2J11100L	DIODE	1	
D14	MA2J11100L	DIODE	1	
D15	MA2J11100L	DIODE	1	
D16	MA2J11100L	DIODE	1	
D17	MA2J11100L	DIODE	1	
D18	MA2J11100L	DIODE	1	
D19	MA2J11100L	DIODE	1	
D20	MA2J11100L	DIODE	1	
D21	MA2J11100L	DIODE	1	
D22	MA2J11100L	DIODE	1	
D23	MA2J11100L	DIODE	1	
D24	MA2J11100L	DIODE	1	
D25	MA2J11100L	DIODE	1	
D26	MA2J11100L	DIODE	1	
D27	MA2J11100L	DIODE	1	
D28	MA2J11100L	DIODE	1	
D29	MA2J11100L	DIODE	1	
D30	LN38GPX	DIODE	1	
J1	K1KA02A00070	JACK	1	
J4	K1KA02A00070	JACK	1	
J5	K4CD01000007	JACK	1	
P1	K1KA80B00004	CONNECTOR	1	
P2	K1KA04A00131	CONNECTOR	1	
P3	K1KA14A00072	CONNECTOR	1	
Q1	2SB0766ALL	TRANSISTOR	1	
Q2	UNR521400L	TRANSISTOR	1	
QR1	UNR521400L	TRANSISTOR	1	
QR2	UNR521400L	TRANSISTOR	1	
QR3	UNR521400L	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR4	UNR521400L	TRANSISTOR	1	
QR5	UNR521400L	TRANSISTOR	1	
QR6	UNR521400L	TRANSISTOR	1	
QR7	UNR521400L	TRANSISTOR	1	
QR8	UNR521400L	TRANSISTOR	1	
QR9	UNR521400L	TRANSISTOR	1	
QR10	UNR521400L	TRANSISTOR	1	
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QR12	UNR521400L	TRANSISTOR	1	
QR13	UNR521400L	TRANSISTOR	1	
QR14	UNR521400L	TRANSISTOR	1	
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QR21	UNR521400L	TRANSISTOR	1	
QR22	UNR521400L	TRANSISTOR	1	
QR23	UNR521400L	TRANSISTOR	1	
QR24	UNR521400L	TRANSISTOR	1	
QR25	UNR521400L	TRANSISTOR	1	
QR26	UNR521400L	TRANSISTOR	1	
QR27	UNR521400L	TRANSISTOR	1	
QR28	UNR521400L	TRANSISTOR	1	
QR29	UNR521400L	TRANSISTOR	1	
QR30	UNR521400L	TRANSISTOR	1	
R2	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R4	ERJ3GEYJ821V	M.RESISTOR CH 1/16W 820	1	
R5	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
R6	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
R7	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
R8	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R9	ERJ3GEYJ392V	M.RESISTOR CH 1/16W 3.9K	1	
R10	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R11	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R12	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R13	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R14	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R15	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R17	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R19	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R21	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R23	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R25	ERJ3GEYJ241V	M.RESISTOR CH 1/16W 240	1	
R27	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R29	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R31	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R33	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R35	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R37	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R39	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R41	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R43	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R45	ERJ3GEYJ301V	M.RESISTOR CH 1/16W 300	1	
R47	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R49	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R51	ERJ3GEYJ301V	M.RESISTOR CH 1/16W 300	1	
R53	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R55	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R57	ERJ3GEYJ241V	M.RESISTOR CH 1/16W 240	1	
R59	ERJ3GEYJ301V	M.RESISTOR CH 1/16W 300	1	
R61	ERJ3GEYJ391V	M.RESISTOR CH 1/16W 390	1	
R63	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
R64	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R65	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R66	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R67	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R68	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R69	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R70	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R71	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R72	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R73	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R74	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R75	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R76	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R77	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R78	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R79	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R80	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R80	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
R81	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R82	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R83	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R84	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R85	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R86	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R87	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R88	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R90	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
R91	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	1	
SW1	K0F111A00115	SWITCH	1	
SW2	K0F111A00115	SWITCH	1	
SW3	K0F111A00115	SWITCH	1	
SW4	K0F111A00115	SWITCH	1	
SW5	K0F111A00115	SWITCH	1	
SW6	K0F111A00409	SWITCH	1	
SW7	K0F111A00115	SWITCH	1	
SW8	K0F111A00115	SWITCH	1	
SW9	K0F111A00115	SWITCH	1	
SW10	K0F111A00115	SWITCH	1	
SW11	K0F111A00115	SWITCH	1	
SW12	K0F111A00115	SWITCH	1	
SW13	K0F111A00115	SWITCH	1	
SW14	K0F111A00117	SWITCH	1	
SW15	K0F111A00117	SWITCH	1	
SW16	K0F111A00116	SWITCH	1	
SW17	K0F111A00117	SWITCH	1	
SW18	K0F111A00115	SWITCH	1	
SW19	K0F111A00116	SWITCH	1	
SW20	K0F111A00117	SWITCH	1	
SW21	K0F111A00115	SWITCH	1	
SW22	K0F111A00409	SWITCH	1	
SW23	K0F111A00116	SWITCH	1	
SW24	K0F111A00408	SWITCH	1	
SW25	K0D122A00067	SWITCH	1	
SW26	K9AA01800001	SWITCH	1	
SW27	K9AA01800001	SWITCH	1	
SW28	K9AA01800001	SWITCH	1	
SW29	K9AA01800001	SWITCH	1	
SW30	K9AA01800001	SWITCH	1	
TP1	D0YDR0000011	TEST POINT	1	
VR1	D2BEA13B0005	V.RESISTOR 1K	1	
VR2	D2AAA13B0001	V.RESISTOR 1K	1	
		MISCELLANEOUS		
	L5ADBGB00001	LCD	1	
■ E2	VJBB0113	MAIN P.C.BOARD	1	(RTL)
BZ1	L0DCDA000016	BUZZER	1	
C1	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C2	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C3	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C4	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C5	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C6	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C7	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C8	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C9	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C10	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C11	F1H1H220A231	C.CAPACITOR CH 50V 22P	1	
C12	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C13	F1H1H220A231	C.CAPACITOR CH 50V 22P	1	
C14	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C15	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C16	F3F1C225A034	T.CAPACITOR CH 16V 2.2U	1	
C17	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C18	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C19	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C20	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C21	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C22	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C23	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C24	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C25	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C26	F3H1C336A044	T.CAPACITOR CH 16V 33U	1	
C27	F3H1C336A044	T.CAPACITOR CH 16V 33U	1	
C28	F3H1C336A044	T.CAPACITOR CH 16V 33U	1	
C29	F3H1C336A044	T.CAPACITOR CH 16V 33U	1	
C30	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C31	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C32	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C33	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C34	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C35	F3H1C336A044	T.CAPACITOR CH 16V 33U	1	
C36	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C37	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C38	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C39	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C40	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C41	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C42	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C43	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C44	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C45	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C46	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C47	F2D1D1010003	E.CAPACITOR CH 20V 100U	1	
C48	F2D1D1010003	E.CAPACITOR CH 20V 100U	1	
C49	F3F1C225A034	T.CAPACITOR CH 16V 2.2U	1	
C50	F1H1H4710003	C.CAPACITOR CH 50V 470P	1	
C51	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C52	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C53	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C54	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C55	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C56	F3F1C225A034	T.CAPACITOR CH 16V 2.2U	1	
C57	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C58	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C59	EEFCD0J470R	E.CAPACITOR CH 6.3V 47U	1	
C60	EEFCD0J470R	E.CAPACITOR CH 6.3V 47U	1	
C61	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C62	F1H1E1020002	C.CAPACITOR CH 25V 1000P	1	
C63	F1H1E1020002	C.CAPACITOR CH 25V 1000P	1	
C64	F2D1D4700002	E.CAPACITOR CH 20V 47U	1	
C65	F2D1D4700002	E.CAPACITOR CH 20V 47U	1	
C66	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C67	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C68	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C69	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C70	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C71	F3H1C107A048	T.CAPACITOR CH 16V 100U	1	
C72	F3H1C107A048	T.CAPACITOR CH 16V 100U	1	
C73	F1H1E1020002	C.CAPACITOR CH 25V 1000P	1	
C74	F3H1C107A048	T.CAPACITOR CH 16V 100U	1	
C75	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C76	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C77	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C78	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C79	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C80	F3H1E226A027	T.CAPACITOR CH 25V 22U	1	
C81	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C82	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C84	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C85	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C86	F1H1E1020002	C.CAPACITOR CH 25V 1000P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C87	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C88	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C89	F3F1V105A028	T.CAPACITOR CH 35V 1U	1	
C90	ECJ4YF1C226Z	C.CAPACITOR CH 16V 22U	1	
C91	ECJ4YF1C226Z	C.CAPACITOR CH 16V 22U	1	
C92	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C93	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C94	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C95	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C96	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C97	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C98	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C99	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C100	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C101	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C102	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C103	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C104	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C105	F1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C106	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C107	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C108	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C109	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C110	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C111	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C112	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C113	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C114	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C115	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C116	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C117	F1H1E104A016	C.CAPACITOR CH 25V 0.1U	1	
C118	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
C119	F3F1C106A039	T.CAPACITOR CH 16V 10U	1	
D1	B0JCPE000017	DIODE	1	
D2	B0JCPE000017	DIODE	1	
D3	MAZ30620ML	DIODE	1	
D4	B0JCME000014	DIODE	1	
D5	B0JCME000014	DIODE	1	
D10	MA2J11100L	DIODE	1	
D11	MA2J11100L	DIODE	1	
D12	MA2J11100L	DIODE	1	
D13	MA2J11100L	DIODE	1	
D14	MA2J11100L	DIODE	1	
F1	K5H102300010	FUSE	1	
FL1	J0JHA0000001	FILTER	1	
IC1	C0ZBZ0000220	IC	1	
IC2	C0JBAZ000525	IC	1	
IC3	C0JBAE000093	IC	1	
IC4	C0EBH0000062	IC	1	
IC5	C3FBEZ000002	IC	1	
IC6	C0JBAC000113	IC	1	
IC7	C1DB00000146	IC	1	
IC8	C3ZAD0000015	IC	1	
IC9	C0JBAZ000531	IC	1	
IC10	C0JBAZ000109	IC	1	
IC11	C0JBAE000005	IC	1	
IC12	C0JBAB000202	IC	1	
IC13	C0JBAS000134	IC	1	
IC14	C0JBAN000139	IC	1	
IC15	C1DB00000146	IC	1	
IC16	C1DB00000146	IC	1	
IC17	C1DB00000146	IC	1	
IC18	C1DB00000146	IC	1	
IC19	C1DB00000146	IC	1	
IC20	C0BBBA000024	IC	1	
IC21	C0DBAKZ00001	IC	1	
IC22	C0ABCA000017	IC	1	
IC23	C0CBAGE00005	IC	1	
IC24	C0ABCA000017	IC	1	
IC25	C0ABBA000025	IC	1	
IC26	C0ABCA000017	IC	1	
IC27	C0ABBB000057	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC28	UM2A004A	IC	1	
IC29	C1ZBZ0001794	IC	1	
IC30	C0JBAA000002	IC	1	
IC31	C0JBAA000002	IC	1	
IC32	B1HBGFG00011	IC	1	
IC33	C0JBAB000436	IC	1	
IC34	C0ABCA000017	IC	1	
J3	K4CD01000007	JACK	1	
J4	K4CD01000007	JACK	1	
J5	K4CD01000007	JACK	1	
J6	K4CD01000007	JACK	1	
J7	K4CD01000007	JACK	1	
J8	K4CD01000007	JACK	1	
L1	J0JBC0000005	COIL	1	
L2	J0JBC0000005	COIL	1	
L3	J0JCC0000004	COIL	1	
L4	J0JCC0000004	COIL	1	
L5	J0JCC0000004	COIL	1	
L6	J0JBC0000005	COIL	1	
L7	J0JBC0000005	COIL	1	
L8	J0JCC0000004	COIL	1	
L9	J0JCC0000004	COIL	1	
L10	J0JCC0000004	COIL	1	
L11	J0JBC0000005	COIL	1	
L12	J0JBC0000005	COIL	1	
L13	G1C680M00014	COIL	1	
L14	G1C680M00014	COIL	1	
L15	G1C680M00014	COIL	1	
L16	G1C5R3ZA0012	COIL	1	
L17	G1C5R3ZA0012	COIL	1	
L18	G1C330KA0064	COIL	1	
L19	J0JCC0000004	COIL	1	
L20	J0JCC0000004	COIL	1	
L21	J0JCC0000004	COIL	1	
L22	J0JCC0000004	COIL	1	
L23	J0JCC0000004	COIL	1	
L24	J0JCC0000004	COIL	1	
L25	J0JCC0000004	COIL	1	
L26	J0JBC0000005	COIL	1	
L26	J0JCC0000004	COIL	1	
L27	J0JCC0000004	COIL	1	
L28	J0JCC0000004	COIL	1	
L29	J0JCC0000004	COIL	1	
L30	J0JCC0000004	COIL	1	
L31	J0JCC0000004	COIL	1	
L32	J0JCC0000004	COIL	1	
P1	K1KA80B00004	CONNECTOR	1	
P2	K1KA04A00131	CONNECTOR	1	
P3	K1KA22B00010	CONNECTOR	1	
P4	K1KA22A00014	CONNECTOR	1	
P5	K1FA150A0011	CONNECTOR	1	
P6	K1KA07A00079	CONNECTOR	1	
P7	K1KA26A00071	CONNECTOR	1	
P8	K1KA10A00140	CONNECTOR	1	
P9	K1KA08B00147	CONNECTOR	1	
P10	K1KA16A00082	CONNECTOR	1	
Q1	2SD1819ALL	TRANSISTOR	1	
Q2	2SD1819ALL	TRANSISTOR	1	
Q3	2SD1819ALL	TRANSISTOR	1	
Q4	2SB1219A0L	TRANSISTOR	1	
Q5	2SD1819ALL	TRANSISTOR	1	
Q6	2SB1219A0L	TRANSISTOR	1	
Q7	B1DHCD000005	TRANSISTOR	1	
Q8	2SD1819ALL	TRANSISTOR	1	
Q9	2SB1218ALL	TRANSISTOR	1	
Q11	B1DHCD000005	TRANSISTOR	1	
Q12	2SB0936APL	TRANSISTOR	1	
Q13	2SB0936APL	TRANSISTOR	1	
Q14	B1BCGC000001	TRANSISTOR	1	
Q15	2SD1819ALL	TRANSISTOR	1	
Q16	2SD1819ALL	TRANSISTOR	1	
Q17	2SD1819ALL	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R2	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R3	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R4	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R5	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R6	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R7	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R8	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R9	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R10	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R11	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R12	ERJ3GEYJ223V	M.RESISTOR CH 1/16W 22K	1	
R13	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R14	D1H810140003	BLOCK RESISTOR 100	1	
R15	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R16	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R17	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R18	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R19	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R20	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R21	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R22	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R23	D1H810140003	BLOCK RESISTOR 100	1	
R24	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R25	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R26	D1H810140003	BLOCK RESISTOR 100	1	
R27	D1H810140003	BLOCK RESISTOR 100	1	
R28	ERJ3GEYJ154V	M.RESISTOR CH 1/16W 150K	1	
R29	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R30	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R31	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R32	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R33	D1H810140003	BLOCK RESISTOR 100	1	
R34	D1H810140003	BLOCK RESISTOR 100	1	
R35	D1H810140003	BLOCK RESISTOR 100	1	
R36	ERJ3GEYJ105V	M.RESISTOR CH 1/16W 1M	1	
R37	D1H810140003	BLOCK RESISTOR 100	1	
R38	D1H810140003	BLOCK RESISTOR 100	1	
R39	ERJ3GEYJ124V	M.RESISTOR CH 1/16W 120K	1	
R40	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R41	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R42	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R43	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R44	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R45	D1H810140003	BLOCK RESISTOR 100	1	
R46	D1H810140003	BLOCK RESISTOR 100	1	
R47	D1H810140003	BLOCK RESISTOR 100	1	
R48	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R49	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R50	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R52	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R53	D1H810140003	BLOCK RESISTOR 100	1	
R54	D1H810140003	BLOCK RESISTOR 100	1	
R55	D1H810140003	BLOCK RESISTOR 100	1	
R56	D1H810140003	BLOCK RESISTOR 100	1	
R57	D1H810140003	BLOCK RESISTOR 100	1	
R58	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R60	D1H810140003	BLOCK RESISTOR 100	1	
R61	D1H810140003	BLOCK RESISTOR 100	1	
R62	D1H810140003	BLOCK RESISTOR 100	1	
R63	D1H810140003	BLOCK RESISTOR 100	1	
R65	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R66	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R67	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R68	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R69	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R70	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R71	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R72	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R73	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R74	ERJ3GEYJ201V	M.RESISTOR CH 1/16W 200	1	
R75	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R76	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R77	ERJ3GEYJ912V	M.RESISTOR CH 1/16W 9.1K	1	
R78	ERJ3RBD123V	M.RESISTOR CH 1/16W 12K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R79	ERJ3RBD273V	M.RESISTOR CH 1/16W 27K	1	
R80	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R81	ERJ3GEYJ623V	M.RESISTOR CH 1/16W 62K	1	
R82	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R83	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R84	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R85	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R86	ERJ6GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R87	ERJ3GEYJ511V	M.RESISTOR CH 1/16W 510	1	
R88	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R89	ERJ6GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R90	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R91	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R92	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R93	ERJ3GEYJ470V	M.RESISTOR CH 1/16W 47	1	
R94	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R95	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R97	ERJ3GEYJ470V	M.RESISTOR CH 1/16W 47	1	
R98	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R99	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R100	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R101	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R102	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R103	ERJ3RBD333V	M.RESISTOR CH 1/16W 33K	1	
R104	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R105	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R106	ERJ3RBD303V	M.RESISTOR CH 1/16W 30K	1	
R107	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R108	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R109	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R110	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R112	ERJ3RBD682V	M.RESISTOR CH 1/16W 6.8K	1	
R113	ERJ3RBD623V	M.RESISTOR CH 1/16W 62K	1	
R114	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R115	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R116	ERJ3RBD303V	M.RESISTOR CH 1/16W 30K	1	
R117	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R118	ERJ3RBD272V	M.RESISTOR CH 1/16W 2.7K	1	
R119	ERJ3RBD393V	M.RESISTOR CH 1/16W 39K	1	
R120	ERJ3RBD103V	M.RESISTOR CH 1/16W 10K	1	
R121	ERJ6GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R122	ERJ6GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R123	ERJ6GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R124	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R125	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R126	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R127	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R128	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R129	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R131	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R132	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R133	ERJ3RBD102V	M.RESISTOR CH 1/16W 1K	1	
R134	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R135	ERJ3RBD102V	M.RESISTOR CH 1/16W 1K	1	
R136	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R137	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R138	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R139	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R140	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R141	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R142	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R143	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R146	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R148	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R149	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R155	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R156	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R157	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R158	ERJ3GEYJ223V	M.RESISTOR CH 1/16W 22K	1	
R159	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R160	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R161	ERJ3GEYJ152V	M.RESISTOR CH 1/16W 1.5K	1	
R162	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R163	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R164	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R165	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R166	ERJ3GEYJ393V	M.RESISTOR CH 1/16W 39K	1	
R167	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R168	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R169	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R170	ERJ3GEYJ202V	M.RESISTOR CH 1/16W 2K	1	
R171	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R173	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R175	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R176	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R177	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R178	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R179	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R180	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R181	ERJ3GEYJ101V	M.RESISTOR CH 1/16W 100	1	
R182	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R183	ERJ3GEY0R00V	M.RESISTOR CH 1/16W 0	1	
R184	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R185	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R186	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R187	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R188	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R189	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R190	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R191	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R192	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R193	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R194	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R196	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R197	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R198	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R199	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R200	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R201	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R202	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R203	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R204	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R205	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R206	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R207	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R208	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R209	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R210	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R211	ERJ3GEYJ621V	M.RESISTOR CH 1/16W 620	1	
R212	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R213	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R214	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R215	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R216	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R217	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R218	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R219	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R220	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R221	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R222	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R223	ERJ3GEYJ104V	M.RESISTOR CH 1/16W 100K	1	
R224	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R225	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R226	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R227	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
R228	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	1	
TP1	D0YDR0000011	TEST POINT	1	
TP2	D0YDR0000011	TEST POINT	1	
TP3	D0YDR0000011	TEST POINT	1	
TP4	D0YDR0000011	TEST POINT	1	
TP5	D0YDR0000011	TEST POINT	1	
TP6	D0YDR0000011	TEST POINT	1	
TP7	D0YDR0000011	TEST POINT	1	
X1	H0J120500005	CRYSTAL OSCILLATOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■ E3	VEAB0114A	REAR P.C.BOARD	1	(RTL)
C101	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C102	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C103	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C104	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C105	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C106	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C107	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C108	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C109	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C110	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C111	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C112	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C113	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C114	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C115	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C116	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C117	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C118	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C119	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C120	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C121	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C122	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C123	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C124	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
C125	F1H1H101A231	C.CAPACITOR CH 50V 100P	1	
J101	K2YZ08000001	JACK	1	
J102	K2YZ08000001	JACK	1	
J103	K2YZ08000001	JACK	1	
J104	K2YZ08000001	JACK	1	
J105	K2YZ08000001	JACK	1	
J106	K4CD01000007	JACK	1	
L101	J0JBC0000005	COIL	1	
L102	J0JBC0000005	COIL	1	
L103	J0JBC0000005	COIL	1	
L104	J0JBC0000005	COIL	1	
L105	J0JBC0000005	COIL	1	
L106	J0JBC0000005	COIL	1	
L107	J0JBC0000005	COIL	1	
L108	J0JBC0000005	COIL	1	
L109	J0JBC0000005	COIL	1	
L110	J0JBC0000005	COIL	1	
L111	J0JBC0000005	COIL	1	
L112	J0JBC0000005	COIL	1	
L113	J0JBC0000005	COIL	1	
L114	J0JBC0000005	COIL	1	
L115	J0JBC0000005	COIL	1	
L116	J0JBC0000005	COIL	1	
L117	J0JBC0000005	COIL	1	
L118	J0JBC0000005	COIL	1	
L119	J0JBC0000005	COIL	1	
L120	J0JBC0000005	COIL	1	
L121	J0JBC0000005	COIL	1	
L122	J0JBC0000005	COIL	1	
L123	J0JBC0000005	COIL	1	
L124	J0JBC0000005	COIL	1	
L125	J0JBC0000005	COIL	1	
L126	J0JBC0000005	COIL	1	
L127	J0JBC0000005	COIL	1	
L128	J0JBC0000005	COIL	1	
L129	J0JBC0000005	COIL	1	
L130	J0JBC0000005	COIL	1	
P101	K1KA26B00036	CONNECTOR	1	
R101	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R102	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R103	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R104	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	
R105	ERJ3GEYJ102V	M.RESISTOR CH 1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■ E4	VJBB0115	OPTION P.C.BOARD	1	(RTL)
C301	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C302	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C303	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C304	F1H1H103A219	C.CAPACITOR CH 50V 0.01U	1	
C305	F3H1C476A049	T.CAPACITOR CH 16V 47U	1	
D301	MA2J11100L	DIODE	1	
D302	MA2J11100L	DIODE	1	
D303	MA2J11100L	DIODE	1	
D304	MA2J11100L	DIODE	1	
D305	MA2J11100L	DIODE	1	
D306	LN38GPX	DIODE	1	
J301	K4CD01000007	JACK	1	
P301	K1KA22B00010	CONNECTOR	1	
Q306	UNR521400L	TRANSISTOR	1	
QR301	UNR521400L	TRANSISTOR	1	
QR302	UNR521400L	TRANSISTOR	1	
QR303	UNR521400L	TRANSISTOR	1	
QR304	UNR521400L	TRANSISTOR	1	
QR305	UNR521400L	TRANSISTOR	1	
R301	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R302	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R303	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R304	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R305	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R306	ERJ3GEYJ301V	M.RESISTOR CH 1/16W 300	1	
R308	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R309	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R310	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R312	ERJ3GEYJ473V	M.RESISTOR CH 1/16W 47K	1	
R313	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R314	ERJ3GEYJ103V	M.RESISTOR CH 1/16W 10K	1	
R315	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R317	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R319	ERJ3GEYJ271V	M.RESISTOR CH 1/16W 270	1	
R321	ERJ3GEYJ122V	M.RESISTOR CH 1/16W 1.2K	1	
SW301	K9AA01800001	SWITCH	1	
SW302	K0F111A00116	SWITCH	1	
SW303	K0F111A00115	SWITCH	1	
SW304	K9AA01800001	SWITCH	1	
SW305	K0F111A00115	SWITCH	1	
SW306	K0F111A00115	SWITCH	1	
SW307	K0F111A00115	SWITCH	1	