

TA-FE300R/FE500R

SERVICE MANUAL

AEP Model

E Model

TA-FE300R/FE500R

UK Model

Australian Model

TA-FE300R



Photo: TA-FE500R

SPECIFICATIONS

Amplifier section

DIN power output

TA-FE500R: 75 W+75 W (4 ohms at 1 kHz)
55 W+55 W (8 ohms at 1 kHz)
TA-FE300R: 50 W+50 W (4 ohms at 1 kHz)
40 W+40 W (8 ohms at 1 kHz)

Frequency response

PHONO (20 Hz-20 kHz): RIAA equalization curve
 ± 0.5 dB
TUNER, CD, AUX, TAPE1/DAT,
TAPE2/MD: 7 Hz-70 kHz ± 0.5 dB

S/N (network A)

PHONO: 80dB
TUNER, CD, AUX, TAPE1/DAT,
TAPE2/MD: 105 dB

Output voltage/ impedance

REC OUT: 200 mV, 1 kilohm
PHONES: 5 mW (at 8 ohms)

Speakers impedance:

4-16 ohms, 8-16 ohms (SPEAKERS A+B)

Damping factor

TA-FE500R: 60 (8 ohms, 1 kHz)

General

System

Power amplifier: Pure-complementary SEPP OCL
power amplifier with all stages directly coupled
Preamplifier: Low-noise, equalizer amplifier

Power requirements

Models not supplied with a voltage selector:
220-230 V AC, 50/60 Hz
Models supplied with a voltage selector:
120, 220, or 240 V AC, 50/60 Hz

Power consumption

TA-FE500R: 160 W
TA-FE300R: 120 W

Dimensions (approx.) (w/h/d):

430×105×290 mm
incl. projecting parts and controls

Mass (approx.)

TA-FE500R: 4.7 kg
TA-FE300R: 4.3 kg

Supplied accessories

Remote commander (remote) (1)
RM-S315
Sony batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.



INTEGRATED STEREO AMPLIFIER
SONY®

SECTION 1
GENERAL

This section is extracted from
instruction manual.

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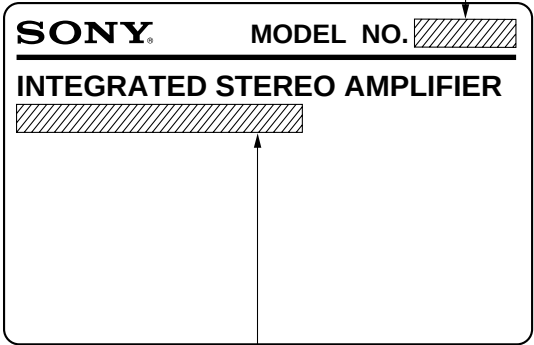
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MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –

TA-FE300R/FE500R



AEP, German, Malaysia, Singapore model:

AC: 220 V-230 V ~50/60 Hz

UK model:

AC: 220 V-230 V ~50 Hz

E, Saudi Arabia, Australian model:

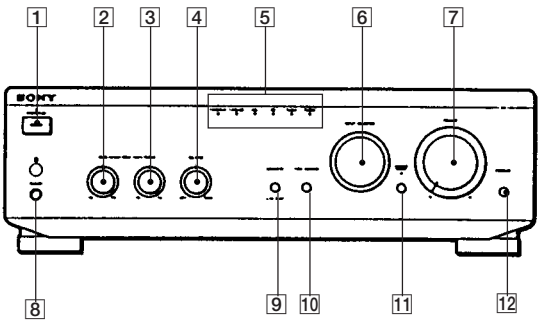
AC: 120/220/240 V ~50/60 Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

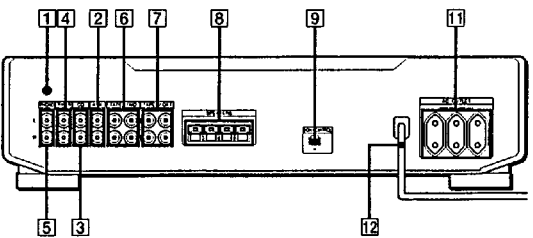
1-1. INDEX TO PARTS AND CONTROLS

Front Panel



- 1 SYSTEM POWER switch
- 2 BASS control
- 3 TREBLE control
- 4 BALANCE control
- 5 INPUT SELECTOR indicators
- 6 INPUT SELECTOR
- 7 VOLUME control
- 8 PHONES jack
- 9 LOUDNESS switch
- 10 TAPE 1 MONITOR switch (TA-FE500R only)
- 11 SOURCE DIRECT switch
- 12 EON LINK switch (TA-FE500R only)

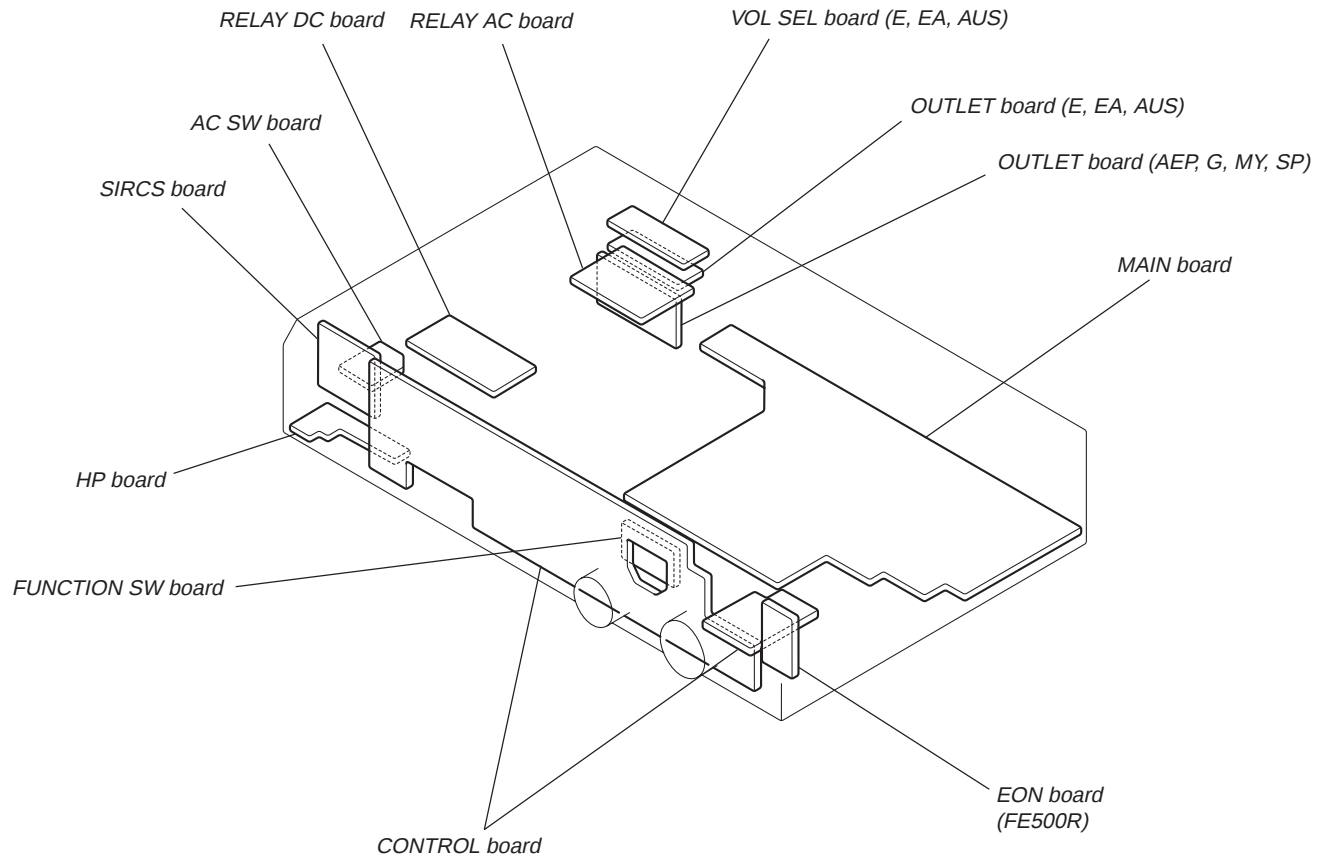
Rear Panel



- 1 $\triangle$ (earth)
- 2 AUX
- 3 CD
- 4 TUNER
- 5 PHONO
- 6 TAPE2/MD
- 7 TAPE1/DAT
- 8 SPEAKERS
- 9 EON CONTROL IN FE500R only)
- 10 AC OUTLET (unavailable on the U.K. model)
- 11 Mains lead

SECTION 2 DIAGRAMS

2-1. CIRCUIT BOARDS LOCATION



• **Abbreviation**

G : Germany
MY : Malaysia
SP : Singapore
EA : Saudi Arabia
AUS : Australian

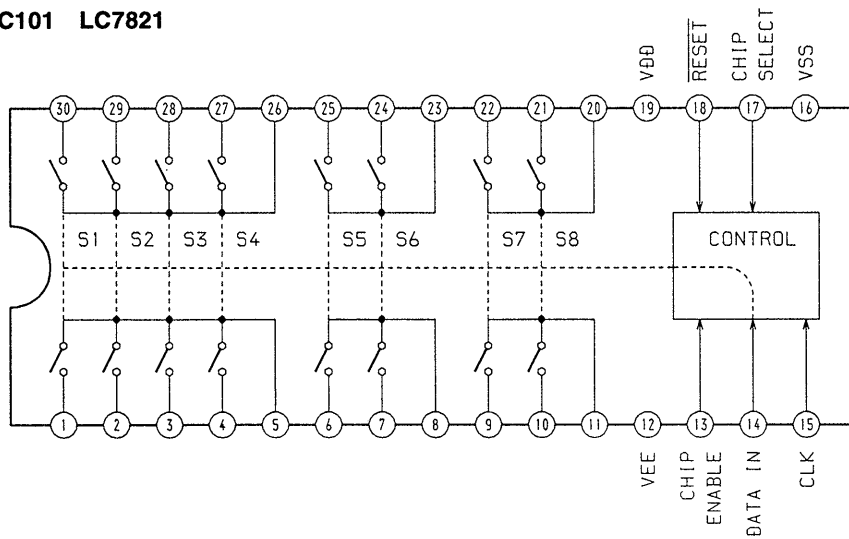
2-2. IC PIN FUNCTION DESCRIPTION

CONTROL BOARD IC801 TMP47C103N (INPUT CONTROL, LED DRIVE)

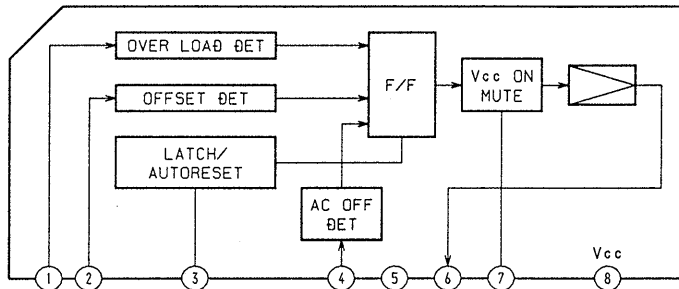
Pin No.	Pin Name	I/O	Function
1	X OUT	O	System clock. (4 MHz)
2	X IN	I	System clock. (4 MHz)
3	RESET	I	RESET input.
4	PMD	I	MODE select input.
5	VOL+	O	Motor drive output (+).
6	VOL –	O	Motor drive output (–).
7	SW0	I	Rotary switch input (CD).
8	SW1	I	Rotary switch input (TUNER).
9	SW2	I	Rotary switch input (PHONO).
10	EON	I	EON signal input.
11	PHONO	O	PHONO LED drive output.
12	TUNER	O	TUNER LED drive output.
13	CD	O	CD LED drive output.
14	GND	–	Ground.
15	AUX	O	AUX LED drive output.
16	DAT	O	TAPE “Z” LED drive output.
17	TAPE	O	TAPE “1” LED drive output.
18	MON	O	MONITOR output.
19	PRY	O	Power relay output.
20	PKY	I	Power key input.
21	MON	I	MONITOR input.
22	SIRCS	I	SIRCS input.
23	MUTE	O	Muting output.
24	SCE	O	Chip enable output.
25	SDT	O	Serial data output.
26	SCK	O	Serial clock output.
27	STOP	I	Stop input.
28	+3 V	–	+3 V power supply.

• IC Block Diagrams

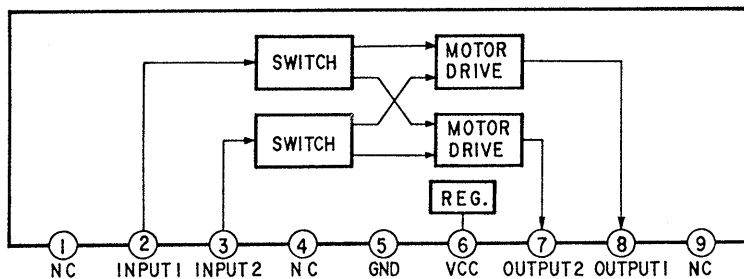
IC101 LC7821

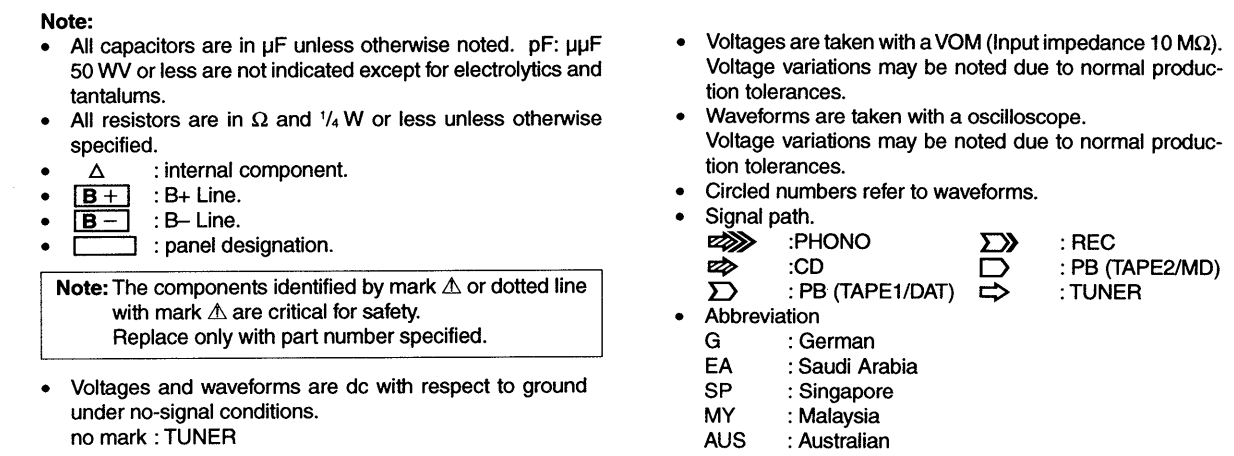


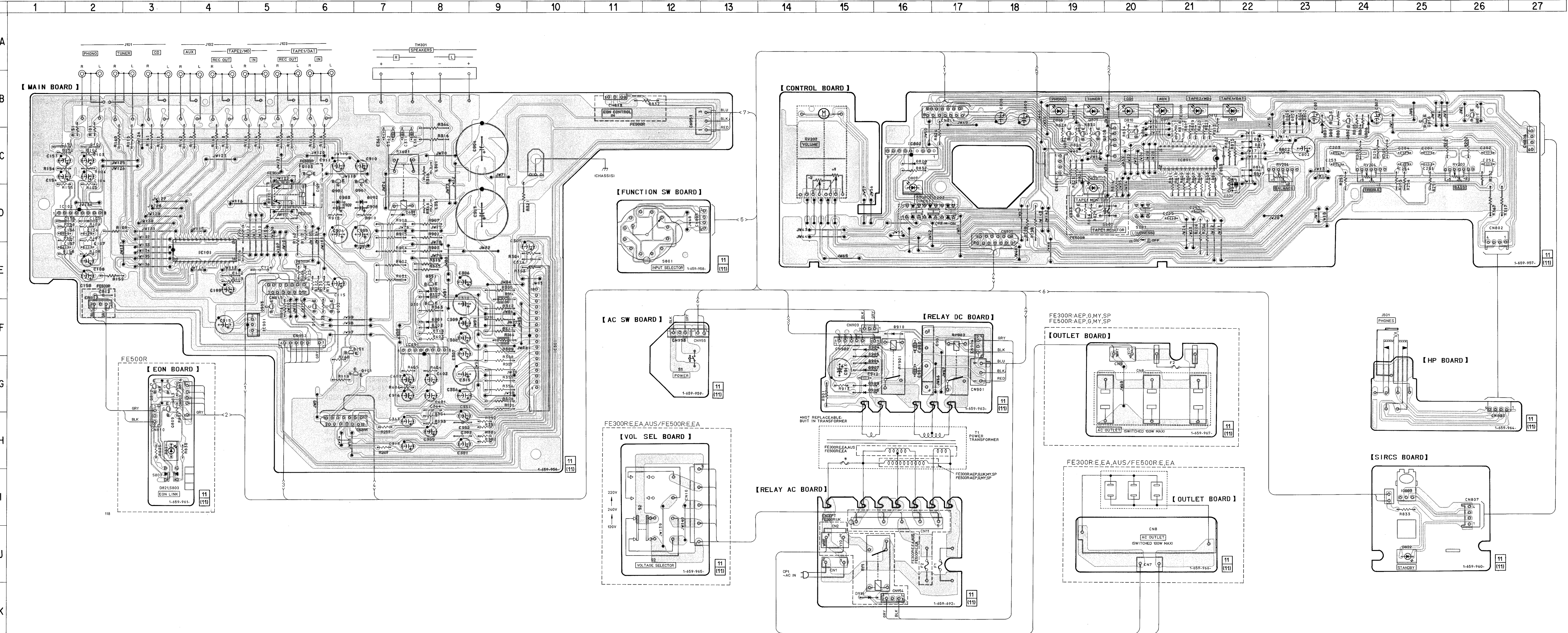
IC601 μ PC1237HA



IC802 BA6208







• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	D-6	D909	G-15
D301	F-8	D910	F-16
D302	F-8	D911	K-15
D351	E-8		
D352	E-8	IC101	E-4
D601	D-7	IC102	D-2
D801	B-23	IC301	F-10
D802	B-23	IC601	F-8
D803	B-23	IC801	C-21
D804	B-23	IC802	C-16
D805	B-23	IC803	I-25
D806	B-24	IC901	F-5
D807	D-16		
D808	B-19	Q101	G-7
D809	B-19	Q102	F-6
D810	B-20	Q103	C-6
D811	B-21	Q104	F-6
D812	B-21	Q151	G-7
D813	B-22	Q301	F-8
D814	C-22	Q351	E-8
D816	C-22	Q801	B-23
D817	C-22	Q802	B-24
D819	C-22	Q803	D-19
D820	C-16	Q804	C-20
D821	H-3	Q806	C-19
D822	J-25	Q807	C-19
D823	D-19	Q808	C-19
D901	G-16	Q809	G-3
D902	D-7	Q810	B-25
D903	D-6	Q811	B-26
D904	F-15	Q812	G-3
D905	G-15	Q813	G-3
D906	G-15	Q901	D-7
D907	G-15	Q902	C-6
D908	G-15	Q903	F-5

Note:

- Δ : internal component.
- : Pattern from the side which enables seeing.
- Abbreviation
 - G : German
 - EA : Saudi Arabia
 - SP : Singapore
 - MY : Malaysia
 - AUS : Australian

SECTION 3

EXPLODED VIEWS

NOTE:

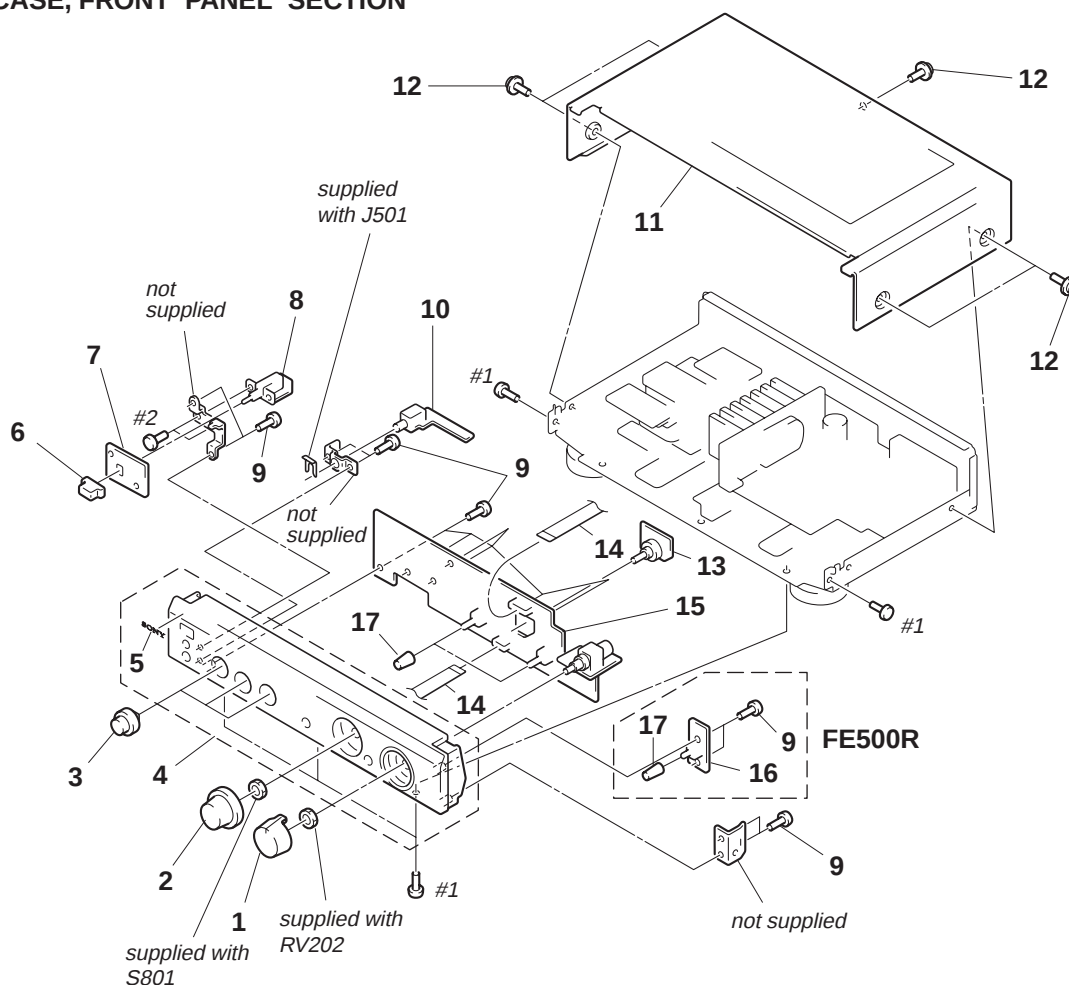
- XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

$\begin{array}{ccccc} & \uparrow & & & \uparrow \\ & \text{Parts Color} & & & \text{Cabinet's Color} \end{array}$
- Abbreviation
G: German MY: Malaysia SP: Singapore
EA: Saudi Arabia AUS: Australian

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

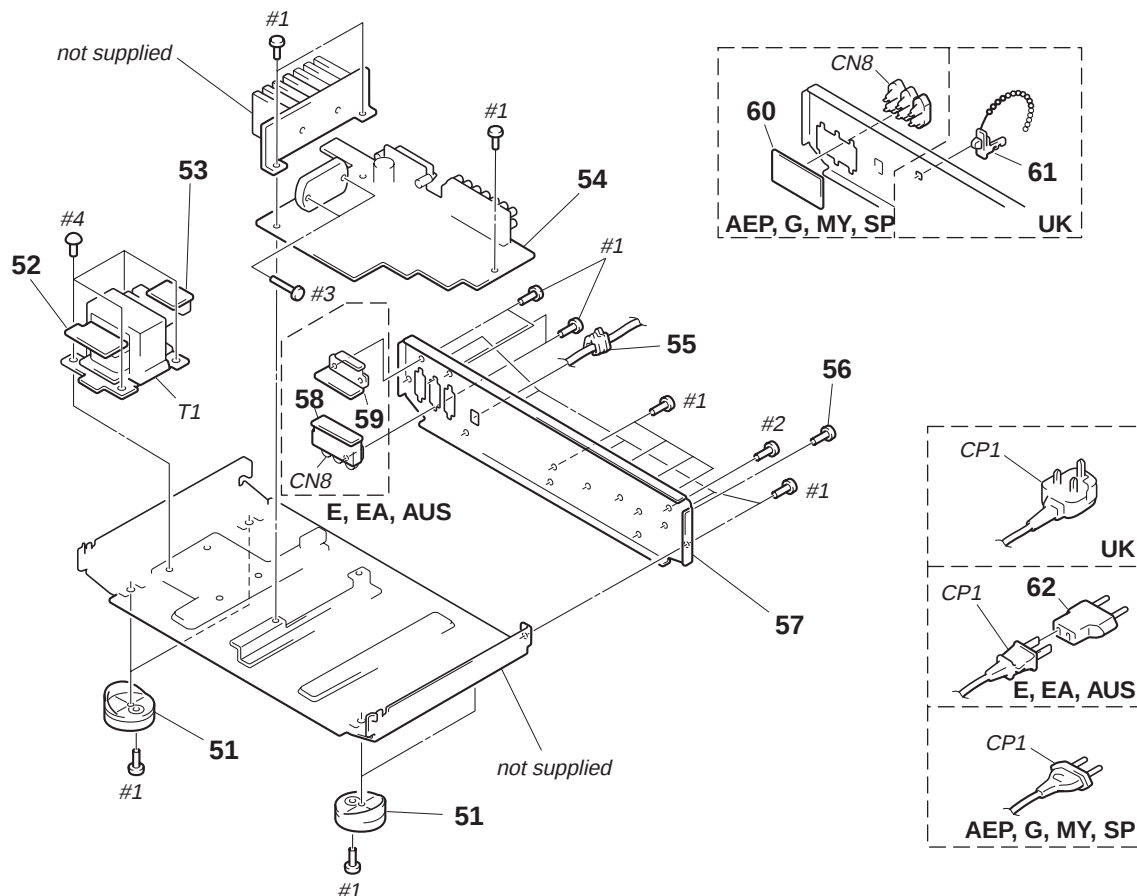
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

(1) CASE, FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4946-800-1	KNOB (VOL) ASSY		* 10	1-659-964-11	HP BOARD	
2	X-4947-336-1	KNOB (DIA. 47) ASSY		* 11	4-980-777-41	CASE (409526)	
3	4-980-204-01	KNOB (DIA. 24)		12	3-704-366-01	SCREW (CASE) (M3X8)	
4	X-4946-797-3	PANEL ASSY, FRONT (FE500R)		* 13	1-659-958-11	FUNCTION SW BOARD	
4	X-4946-798-3	PANEL ASSY, FRONT (FE300R)		14	1-769-983-11	WIRE (FLAT TYPE) (13 CORE)	
5	4-963-404-21	EMBLEM (5-A), SONY		* 15	A-4389-381-A	CONTROL BOARD, COMPLETE (FE300R)	
6	4-980-199-01	BUTTON (POWER)		* 15	A-4389-385-A	CONTROL BOARD, COMPLETE (FE500R)	
* 7	1-659-960-11	SIRCS BOARD		* 16	1-659-961-11	EON BOARD (FE500R)	
* 8	1-659-959-11	AC SW BOARD		17	4-980-189-01	KNOB (DIA. 6)	
9	4-951-620-01	SCREW (2.6X8), +BVTP					

(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4947-207-1	FOOT ASSY (F50150S)		* 60	1-659-967-11	OUTLET BOARD (AEP, G, MY, SP)	
* 52	1-659-963-11	RELAY DC BOARD		61	4-956-370-02	BAND, PLUG FIXED (UK)	
* 53	1-659-962-11	RELAY AC BOARD		Δ 62	1-569-007-11	ADAPTER, CONVERSION 2P (E, EA, AUS)	
* 54	A-4389-380-A	MAIN BOARD, COMPLETE (FE300R)		Δ CN8	1-526-794-11	OUTLET, AC (AEP, G, MY, SP)	
* 54	A-4389-384-A	MAIN BOARD, COMPLETE (FE500R)		Δ CN8	1-540-043-11	OUTLET, AC (NONPLAR) (3P)(E, EA, AUS)	
* 55	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, MY, SP)		Δ CP1	1-558-943-41	CORD, POWER (E, EA, AUS)	
* 55	3-703-571-11	BUSHING (S) (4516), CORD (E, EA, AUS)		Δ CP1	1-575-651-21	CORD, POWER (AEP, G, MY, SP)	
56	3-704-515-11	SCREW (BV/RING)		Δ CP1	1-696-586-11	CORD, POWER (UK)	
* 57	4-980-192-01	PANEL, BACK (FE500R: AEP, G, MY, SP)		Δ T1	1-429-448-11	TRANSFORMER, POWER	
* 57	4-980-192-11	PANEL, BACK (FE500R: E, EA)				(FE500R: AEP, G, MY, SP)	
* 57	4-980-201-01	PANEL, BACK (FE300R: AEP, G, MY, SP)		Δ T1	1-429-449-11	TRANSFORMER, POWER (FE500R: E, EA)	
* 57	4-980-201-11	PANEL, BACK (FE300R: UK)		Δ T1	1-429-452-11	TRANSFORMER, POWER	
* 57	4-980-201-21	PANEL, BACK (FE300R: E, EA, AUS)				(FE300R: AEP, UK, G, MY, SP)	
* 58	1-659-966-11	OUTLET BOARD (E, EA, AUS)		Δ T1	1-429-453-11	TRANSFORMER, POWER (FE300R: E, EA, AUS)	
* 59	1-659-965-11	VOL SEL BOARD (E, EA, AUS)					

SECTION 4 ELECTRICAL PARTS LIST

AC SW

CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
G : German
EA : Saudi Arabia
SP : Singapore
MY : Malaysia
AUS : Australian

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-659-959-11	AC SW BOARD *****				< DIODE >	
		< CONNECTOR >		D801	8-719-985-59	DIODE HZS4CLL	
				D802	8-719-987-63	DIODE 1N4148M	
				D803	8-719-987-63	DIODE 1N4148M	
* CN953	1-564-506-11	PLUG, CONNECTOR 3P		D804	8-719-987-63	DIODE 1N4148M	
CN955	1-564-505-11	PLUG, CONNECTOR 2P		D805	8-719-987-63	DIODE 1N4148M	
		< SWITCH >		D806	8-719-987-63	DIODE 1N4148M	
S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY) (POWER) *****		D807	8-719-313-72	DIODE SEL3810A-CD (SOURCE DIRECT)	
				D808	8-719-313-72	DIODE SEL3810A-CD (PHONO)	
				D809	8-719-313-72	DIODE SEL3810A-CD (TUNER)	
				D810	8-719-313-72	DIODE SEL3810A-CD (CD)	
*	A-4389-381-A	CONTROL BOARD, COMPLETE (FE300R)		D811	8-719-313-72	DIODE SEL3810A-CD (AUX)	
*	A-4389-385-A	CONTROL BOARD, COMPLETE (FE500R) *****		D812	8-719-313-72	DIODE SEL3810A-CD (TAPE2/MD)	
		< CAPACITOR >		D813	8-719-313-72	DIODE SEL3810A-CD (TAPE1/DAT)	
C201	1-136-153-00	FILM 0.01uF 5% 50V		D814	8-719-987-63	DIODE 1N4148M	
C202	1-136-165-00	FILM 0.1uF 5% 50V		D816	8-719-987-63	DIODE 1N4148M	
C203	1-130-477-00	MYLAR 0.0033uF 5% 50V		D817	8-719-987-63	DIODE 1N4148M	
C204	1-136-159-00	FILM 0.033uF 5% 50V		D819	8-719-987-63	DIODE 1N4148M	
C205	1-130-473-00	MYLAR 0.0015uF 5% 50V		D820	8-719-200-82	DIODE 11ES2	
				D823	8-719-313-72	DIODE SEL3810A-CD (TAPE1 MONITOR) (FE500R)	
C251	1-136-153-00	FILM 0.01uF 5% 50V				< IC >	
C252	1-136-165-00	FILM 0.1uF 5% 50V		IC801	8-759-392-41	IC TMP47C103N-JP47	
C253	1-130-477-00	MYLAR 0.0033uF 5% 50V		IC802	8-759-962-08	IC BA6208	
C254	1-136-159-00	FILM 0.033uF 5% 50V				< TRANSISTOR >	
C255	1-130-473-00	MYLAR 0.0015uF 5% 50V					
C801	1-126-096-11	ELECT 10uF 20% 35V		Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C802	1-126-916-11	ELECT 1000uF 20% 6.3V		Q802	8-729-620-05	TRANSISTOR 2SC2603-EF	
C803	1-164-159-11	CERAMIC 0.1uF 50V		Q803	8-729-900-61	TRANSISTOR DTA114ES (FE500R)	
C806	1-162-294-31	CERAMIC 0.001uF 10% 50V		Q804	8-729-900-61	TRANSISTOR DTA114ES	
C807	1-126-096-11	ELECT 10uF 20% 35V		Q806	8-729-620-05	TRANSISTOR 2SC2603-EF	
C808	1-124-463-00	ELECT 0.1uF 20% 50V		Q807	8-729-620-05	TRANSISTOR 2SC2603-EF	
C809	1-126-301-11	ELECT 1uF 20% 50V		Q808	8-729-620-05	TRANSISTOR 2SC2603-EF	
		< CONNECTOR >		Q810	8-729-900-80	TRANSISTOR DTC114ES	
* CN801	1-568-832-11	SOCKET, CONNECTOR 13P		Q811	8-729-900-80	TRANSISTOR DTC114ES	
CN802	1-562-087-00	SOCKET, CONNECTOR 4P				< RESISTOR >	
CN804	1-562-087-00	SOCKET, CONNECTOR 4P					
CN806	1-774-913-11	PIN, CONNECTOR 4P					
* CN814	1-568-832-11	SOCKET, CONNECTOR 13P		R201	1-249-433-11	CARBON 22K 5% 1/4W	

CONTROL

EON

FUNCTION SW

Ref. No.	Part No.	Description			Remark
R202	1-249-421-11	CARBON	2.2K	5%	1/4W
R203	1-249-427-11	CARBON	6.8K	5%	1/4W
R204	1-249-415-11	CARBON	680	5%	1/4W
R205	1-249-421-11	CARBON	2.2K	5%	1/4W
R206	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-249-439-11	CARBON	68K	5%	1/4W
R251	1-249-433-11	CARBON	22K	5%	1/4W
R252	1-249-421-11	CARBON	2.2K	5%	1/4W
R253	1-249-427-11	CARBON	6.8K	5%	1/4W
R254	1-249-415-11	CARBON	680	5%	1/4W
R255	1-249-421-11	CARBON	2.2K	5%	1/4W
R256	1-249-441-11	CARBON	100K	5%	1/4W
R258	1-249-439-11	CARBON	68K	5%	1/4W
R317	1-247-750-11	CARBON	680	5%	1/2W
R367	1-247-750-11	CARBON	680	5%	1/2W
R801	1-249-411-11	CARBON	330	5%	1/4W
R802	1-247-807-31	CARBON	100	5%	1/4W
R803	1-249-429-11	CARBON	10K	5%	1/4W
R804	1-249-429-11	CARBON	10K	5%	1/4W
R805	1-249-425-11	CARBON	4.7K	5%	1/4W
R806	1-249-423-11	CARBON	3.3K	5%	1/4W
R807	1-249-423-11	CARBON	3.3K	5%	1/4W
R808	1-249-429-11	CARBON	10K	5%	1/4W
R809	1-249-429-11	CARBON	10K	5%	1/4W
R810	1-249-429-11	CARBON	10K	5%	1/4W
R811	1-249-429-11	CARBON	10K	5%	1/4W
R812	1-249-399-11	CARBON	33	5%	1/4W
R814	1-249-413-11	CARBON	470	5%	1/4W (FE500R)
R815	1-249-429-11	CARBON	10K	5%	1/4W
R816	1-249-429-11	CARBON	10K	5%	1/4W
R817	1-249-429-11	CARBON	10K	5%	1/4W
R818	1-249-423-11	CARBON	3.3K	5%	1/4W
R819	1-249-429-11	CARBON	10K	5%	1/4W
R820	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-429-11	CARBON	10K	5%	1/4W
R822	1-249-429-11	CARBON	10K	5%	1/4W
R823	1-249-437-11	CARBON	47K	5%	1/4W
R824	1-249-441-11	CARBON	100K	5%	1/4W
R826	1-249-399-11	CARBON	33	5%	1/4W
R827	1-249-393-11	CARBON	10	5%	1/4W (FE500R)
R828	1-249-429-11	CARBON	10K	5%	1/4W
R829	1-249-429-11	CARBON	10K	5%	1/4W
R830	1-249-429-11	CARBON	10K	5%	1/4W
R834	1-249-413-11	CARBON	470	5%	1/4W
R837	1-249-407-11	CARBON	150	5%	1/4W

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV201	1-223-396-11	RES, VAR, CARBON 100K/100K (BALANCE)	
RV202	1-241-426-21	RES, VAR, CARBON 100KX2 (VOLUME)	
RV203	1-223-397-11	RES, VAR, CARBON 100K/100K (BASS)	
RV204	1-223-397-11	RES, VAR, CARBON 100K/100K (TREBLE)	
		< SWITCH >	
S201	1-571-112-21	SWITCH, PUSH (1 KEY) (LOUDNESS)	
S202	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
S802	1-554-303-21	SWITCH, TACTILE (TAPE1 MONITOR)(FE500R)	
		< VIBRATOR >	
X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

*	1-659-961-11	EON BOARD (FE500R)	

		< CONNECTOR >	
* CN810	1-564-506-11	PLUG, CONNECTOR 3P (FE500R)	
		< DIODE >	
D821	8-719-313-72	DIODE SEL3810A-CD (EON LINK) (FE500R)	
		< TRANSISTOR >	
Q809	8-729-900-80	TRANSISTOR DTC114ES (FE500R)	
Q812	8-729-620-05	TRANSISTOR 2SC2603-EF (FE500R)	
Q813	8-729-620-05	TRANSISTOR 2SC2603-EF (FE500R)	
		< RESISTOR >	
R831	1-249-399-11	CARBON 33 5%	1/4W (FE500R)
R835	1-249-429-11	CARBON 10K 5%	1/4W (FE500R)
R836	1-249-425-11	CARBON 4.7K 5%	1/4W (FE500R)
R838	1-249-407-11	CARBON 150 5%	1/4W (FE500R)
		< SWITCH >	
S803	1-571-112-21	SWITCH, PUSH (1 KEY)(EON LINK) (FE500R)	

*	1-659-958-11	FUNCTION SW BOARD	

		< CONNECTOR >	
CN805	1-774-913-11	PIN, CONNECTOR 4P	
		< SWITCH >	
S801	1-692-974-11	SWITCH, ROTARY (INPUT SELECTOR)	

(FE300R)

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D601	8-719-987-63	DIODE 1N4148M		R117	1-249-417-11	CARBON 1K 5% 1/4W	
D902	8-719-001-64	DIODE UZL-12L2		R118	1-249-427-11	CARBON 6.8K 5% 1/4W	
D903	8-719-001-64	DIODE UZL-12L2		R119	1-249-425-11	CARBON 4.7K 5% 1/4W	
		< IC >		R120	1-249-409-11	CARBON 220 5% 1/4W	
				R121	1-249-437-11	CARBON 47K 5% 1/4W	
IC101	8-759-805-13	IC LC7821		R122	1-249-419-11	CARBON 1.5K 5% 1/4W	
IC102	8-759-184-02	IC NJM2068L-D		R123	1-249-427-11	CARBON 6.8K 5% 1/4W	
IC301	8-749-900-24	IC STK-4162MK2 (FE300R)		R124	1-249-425-11	CARBON 4.7K 5% 1/4W(FE500R)	
IC301	8-749-941-91	IC STK-4191V (FE500R)		R125	1-249-441-11	CARBON 100K 5% 1/4W	
IC601	8-759-111-68	IC uPC1237HA		R126	1-249-441-11	CARBON 100K 5% 1/4W	
IC901	8-759-231-53	IC TA7805S		R151	1-247-807-31	CARBON 100 5% 1/4W	
		< JACK >		R152	1-249-411-11	CARBON 330 5% 1/4W	
J101	1-774-411-11	JACK, PIN 6P (PHONO, TUNER, CD)		R154	1-249-437-11	CARBON 47K 5% 1/4W	
J102	1-573-028-31	JACK, PIN 4P (AUX, TAPE2/MD (REC OUT))		R155	1-249-416-11	CARBON 820 5% 1/4W	
J103	1-770-015-11	JACK, PIN 6P (TAPE1/DAT, TAPE2/MD(IN))		R156	1-247-897-11	CARBON 560K 5% 1/4W	
		< COIL >		R157	1-249-437-11	CARBON 47K 5% 1/4W	
L301	1-420-872-00	COIL, AIR-CORE		R158	1-249-441-11	CARBON 100K 5% 1/4W	
L351	1-420-872-00	COIL, AIR-CORE		R159	1-249-409-11	CARBON 220 5% 1/4W	
		< TRANSISTOR >		R160	1-249-417-11	CARBON 1K 5% 1/4W	
Q101	8-729-141-26	TRANSISTOR 2SC3622A-LK		R161	1-249-417-11	CARBON 1K 5% 1/4W	
Q102	8-729-119-77	TRANSISTOR 2SA1175-FEK		R162	1-249-417-11	CARBON 1K 5% 1/4W	
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF (FE500R)		R163	1-249-417-11	CARBON 1K 5% 1/4W	
Q104	8-729-620-05	TRANSISTOR 2SC2603-EF		R164	1-249-417-11	CARBON 1K 5% 1/4W	
Q151	8-729-141-26	TRANSISTOR 2SC3622A-LK		R165	1-249-417-11	CARBON 1K 5% 1/4W	
Q301	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R166	1-249-417-11	CARBON 1K 5% 1/4W	
Q351	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R167	1-249-417-11	CARBON 1K 5% 1/4W	
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE		R168	1-249-427-11	CARBON 6.8K 5% 1/4W	
Q902	8-729-201-53	TRANSISTOR 2SA1015-GR		R176	1-249-441-11	CARBON 100K 5% 1/4W	
Q903	8-729-620-05	TRANSISTOR 2SC2603-EF		R207	1-249-425-11	CARBON 4.7K 5% 1/4W	
		< RESISTOR >		R257	1-249-425-11	CARBON 4.7K 5% 1/4W	
R101	1-247-807-31	CARBON 100 5% 1/4W		R301	1-249-439-11	CARBON 68K 5% 1/4W	
R102	1-249-411-11	CARBON 330 5% 1/4W		R302	1-249-417-11	CARBON 1K 5% 1/4W	
R104	1-249-437-11	CARBON 47K 5% 1/4W		R303	1-249-415-11	CARBON 680 5% 1/4W	
R105	1-249-416-11	CARBON 820 5% 1/4W		R304	1-249-439-11	CARBON 68K 5% 1/4W	
R106	1-247-897-11	CARBON 560K 5% 1/4W		R305	1-249-421-11	CARBON 2.2K 5% 1/4W(FE300R)	
R107	1-249-437-11	CARBON 47K 5% 1/4W		R305	1-249-423-11	CARBON 3.3K 5% 1/4W(FE500R)	
R108	1-249-441-11	CARBON 100K 5% 1/4W		R306	1-260-103-11	CARBON 2.2K 5% 1/2W(FE300R)	
R109	1-249-409-11	CARBON 220 5% 1/4W		R306	1-260-105-11	CARBON 3.3K 5% 1/2W(FE500R)	
R110	1-249-417-11	CARBON 1K 5% 1/4W		R307	1-249-405-11	CARBON 100 5% 1/4W	
R111	1-249-417-11	CARBON 1K 5% 1/4W		R308	1-260-099-11	CARBON 1K 5% 1/2W	
R112	1-249-417-11	CARBON 1K 5% 1/4W		R309	1-260-099-11	CARBON 1K 5% 1/2W	
R113	1-249-417-11	CARBON 1K 5% 1/4W		R310	1-249-405-11	CARBON 100 5% 1/4W	
R114	1-249-417-11	CARBON 1K 5% 1/4W		R312	1-249-419-11	CARBON 1.5K 5% 1/4W	
R115	1-249-417-11	CARBON 1K 5% 1/4W		R313	1-249-431-11	CARBON 15K 5% 1/4W	
R116	1-249-417-11	CARBON 1K 5% 1/4W		△ R314	1-217-151-00	RES, METAL PLATE 0.22	F
				R315	1-249-437-11	CARBON 47K 5% 1/4W	
				R316	1-247-727-11	CARBON 10 5% 1/2W	
				R318	1-249-393-11	CARBON 10 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
R320	1-249-393-11	CARBON	10	5%	1/4W		1-533-293-11	FUSE HOLDER (AEP, G, MY, SP)	
R321	1-249-393-11	CARBON	10	5%	1/4W			< CONNECTOR >	
R351	1-249-439-11	CARBON	68K	5%	1/4W				
R352	1-249-417-11	CARBON	1K	5%	1/4W	△CN8	1-526-794-11	OUTLET, AC (AEP, G, MY, SP)	
R353	1-249-415-11	CARBON	680	5%	1/4W	△CN8	1-540-043-11	OUTLET, AC (NONPLAR) (3P) (AC OUTLET)	(E, EA, AUS)
R354	1-249-439-11	CARBON	68K	5%	1/4W			< FUSE >	
R355	1-249-421-11	CARBON	2.2K	5%	1/4W (FE300R)				
R355	1-249-423-11	CARBON	3.3K	5%	1/4W(FE500R)				
R356	1-260-103-11	CARBON	2.2K	5%	1/2W(FE300R)	△F2	1-532-464-51	FUSE, TIME LAG (2.5A, 250V) (AEP, G, MY, SP)	
R356	1-260-105-11	CARBON	3.3K	5%	1/2W(FE500R)			*****	
R362	1-249-419-11	CARBON	1.5K	5%	1/4W				
R363	1-249-431-11	CARBON	15K	5%	1/4W	*	1-659-962-11	RELAY AC BOARD	*****
△R364	1-217-151-00	RES, METAL PLATE			0.22				
R365	1-249-439-11	CARBON	68K	5%	1/4W		1-533-293-11	FUSE HOLDER	
R366	1-247-727-11	CARBON	10	5%	1/2W			< CONNECTOR >	
R368	1-249-393-11	CARBON	10	5%	1/4W				
R601	1-247-745-11	CARBON	330	5%	1/2W(FE300R)				
R601	1-247-747-11	CARBON	470	5%	1/2W(FE500R)	* CN1	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P	
R602	1-247-745-11	CARBON	330	5%	1/2W(FE300R)	CN2	1-564-321-00	PIN, CONNECTOR 2P	(FE300R: AEP, G, E, EA, MY, SP, AUS/FE500R)
R602	1-247-747-11	CARBON	470	5%	1/2W(FE500R)	* CN954	1-564-506-11	PLUG, CONNECTOR 3P	(FE300R: AEP, G, E, EA, MY, SP, AUS/FE500R)
R603	1-249-417-11	CARBON	1K	5%	1/4W			< DIODE >	
R604	1-249-441-11	CARBON	100K	5%	1/4W				
R605	1-249-439-11	CARBON	68K	5%	1/4W				
R606	1-249-431-11	CARBON	15K	5%	1/4W	D911	8-719-987-63	DIODE 1N4148M	(FE300R: AEP, G, E, EA, MY, SP, AUS/FE500R)
R832	1-249-393-11	CARBON	10	5%	1/4W(FE500R)			< FUSE >	
R902	1-247-750-11	CARBON	680	5%	1/2W				
R903	1-247-750-11	CARBON	680	5%	1/2W				
R904	1-247-750-11	CARBON	680	5%	1/2W	△F1	1-532-503-51	FUSE, TIME LAG (1.6A, 250V)	
R905	1-247-750-11	CARBON	680	5%	1/2W	△F2	1-532-503-51	FUSE, TIME LAG (1.6A, 250V) (E, EA, AUS)	
R907	1-247-752-11	CARBON	1K	5%	1/2W			< RELAY >	
R908	1-247-752-11	CARBON	1K	5%	1/2W				
R910	1-249-429-11	CARBON	10K	5%	1/4W				
R912	1-249-429-11	CARBON	10K	5%	1/4W	△RY1	1-755-018-11	RELAY	(FE300R: AEP, G, E, EA, MY, SP, AUS/FE500R)
R916	1-249-419-11	CARBON	1.5K	5%	1/4W			< TRANSFORMER >	
		< RELAY >							
RY101	1-515-614-11	RELAY (FE500R)				△T1	1-429-448-11	TRANSFORMER, POWER	(FE500R: AEP, G, MY, SP)
RY601	1-515-920-11	RELAY (24V)				△T1	1-429-449-11	TRANSFORMER, POWER (FE500R: E, EA)	
		< TERMINAL >				△T1	1-429-452-11	TRANSFORMER, POWER	(FE300R: AEP, G, UK, MY, SP)
TM301	1-537-238-11	TERMINAL BOARD (SPEAKERS)				△T1	1-429-453-11	TRANSFORMER, POWER (FE300R: E, EA, AUS)	
		*****						*****	
*	1-659-966-11	OUTLET BOARD (E, EA, AUS)							
*	1-659-967-11	OUTLET BOARD (AEP, G, MY, SP)							

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Replace only with part number specified.

RELAY DC

SIRCS

VOL SEL

Ref. No.	Part No.	Description	Remark			
*	1-659-963-11	RELAY DC BOARD *****				
< CAPACITOR >						
C901	1-106-379-12	MYLAR	0.033uF	5%	200V	
C902	1-106-379-12	MYLAR	0.033uF	5%	200V	
C912	1-136-153-00	FILM	0.01uF	5%	50V	
C913	1-126-941-11	ELECT	470uF	20%	25V	
< CONNECTOR >						
* CN901	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P				
CN902	1-691-768-11	PLUG (MICRO CONNECTOR) 6P				
* CN904	1-564-506-11	PLUG, CONNECTOR 3P				
< DIODE >						
D901	8-719-028-23	DIODE	D3SBA20-4101 (FE300R)			
D901	8-719-302-37	DIODE	RBV-602 (FE500R)			
D904	8-719-200-82	DIODE	11ES2			
D905	8-719-200-82	DIODE	11ES2			
D906	8-719-200-82	DIODE	11ES2			
D907	8-719-200-82	DIODE	11ES2			
D908	8-719-200-82	DIODE	11ES2			
D909	8-719-200-82	DIODE	11ES2			
D910	8-719-987-63	DIODE	1N4148M			
< RESISTOR >						
R901	1-249-451-11	CARBON	2.2	5%	1/4W	
R913	1-249-431-11	CARBON	15K	5%	1/4W(FE300R)	
R913	1-249-433-11	CARBON	22K	5%	1/4W(FE500R)	
< RELAY >						
RY901	1-755-018-11	RELAY				
RY902	1-755-018-11	RELAY				

*	1-659-960-11	SIRCS BOARD *****				
< CONNECTOR >						
CN807	1-562-087-00	SOCKET, CONNECTOR 4P				
< DIODE >						
D822	8-719-313-48	DIODE SEL6210S-TH12 (STANDBY)				
< IC >						
IC803	8-759-373-49	IC NJL54H400				
< RESISTOR >						
R833	1-249-421-11	CARBON	2.2K	5%	1/4W	

Ref. No.	Part No.	Description	Remark

*	1-659-965-11	VOL SEL BOARD (E,EA,AUS) *****	
		< CONNECTOR >	
* CN10	1-580-633-11	PIN, CONNECTOR 5P	
		< SWITCH >	
△ S2	1-572-009-11	SELECTOR, VOLTAGE (VOLTAGE SELECTOR)	

		MISCELLANEOUS *****	
14	1-769-983-11	WIRE (FLAT TYPE) (13 CORE)	
△ 62	1-569-007-11	ADAPTER, CONVERSION 2P (E, EA, AUS)	
△ CN8	1-526-794-11	OUTLET, AC (AEP, G, MY, SP)	
△ CN8	1-540-043-11	OUTLET, AC (NONPLAR) (3P) (E, EA, AUS)	
△ CP1	1-558-943-41	CORD, POWER (E, EA, AUS)	
△ CP1	1-575-651-21	CORD, POWER (AEP, G, MY, SP)	
△ CP1	1-696-586-11	CORD, POWER (UK)	
△ T1	1-429-448-11	TRANSFORMER, POWER (FE500R: AEP, G, MY, SP)	
△ T1	1-429-449-11	TRANSFORMER, POWER (FE500R: E, EA)	
△ T1	1-429-452-11	TRANSFORMER, POWER (FE300R: AEP, UK, G, MY, SP)	
△ T1	1-429-453-11	TRANSFORMER, POWER (FE300R: E, EA, AUS)	

HARDWARE LIST			

#1	7-685-646-01	SCREW +BVTP 3X8 TYPE1	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#4	7-682-560-04	SCREW +BVTT 4X6 (S)	

		ACCESSORIES & PACKING MATERIALS *****	
	1-473-655-11	REMOTE COMMANDER (RM-S315)	
	3-856-216-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE)(EXCEPT G)	
	3-856-216-21	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN)(AEP, MY, SP)	
	3-856-216-31	MANUAL, INSTRUCTION (GERMAN)(G)	
*	4-981-575-01	CUSHION	
*	4-981-579-01	INDIVIDUAL CARTON (FE500R: E, EA)	
*	4-981-580-01	INDIVIDUAL CARTON (FE300R: E, EA, AUS)	

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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
*	4-981-600-01	INDIVIDUAL CARTON (FE500R: AEP, G, MY, SP)	
*	4-981-601-01	INDIVIDUAL CARTON (FE300R: AEP, UK, G, MY, SP)	
	4-981-643-01	LID, BATTERY (for RM-S315)	

