

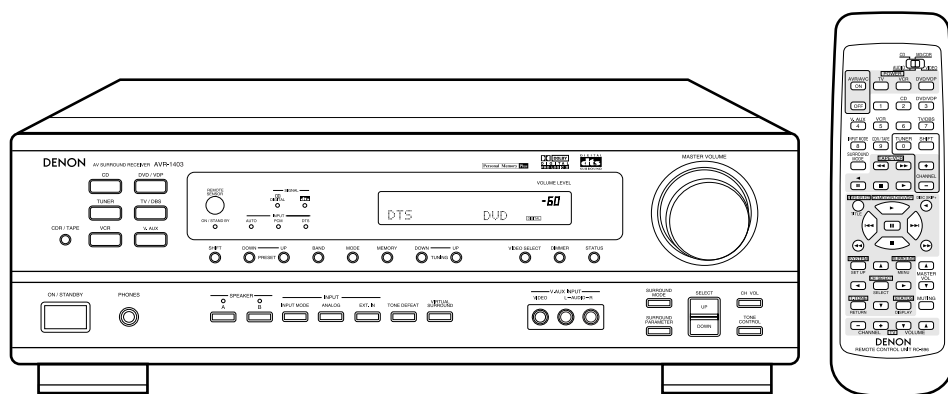
# DENON

For U.S.A., Canada ,  
Europe & China model

## SERVICE MANUAL

# MODEL AVR-1403

### AV SURROUND RECEIVER



**This service manual is composed of only pages whose contents are different from those for the model AVR-1602. For servicing, refer to the previously issued service manual of AVR-1602 (X0116) at the same time.**

Some illustrations using in this service manual are slightly different from the actual set.

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## SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

## SPECIFICATIONS

### ■Audio Section

#### Power Amplifier

Rated output:

Front: 60W+60W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (Europe & China Models)  
70W+70W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (U.S.A. & Canada Models)  
90W+90W(6Ω/ohms, 1kHz with 0.7% T.H.D) (Europe Model)  
100W+100W(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A. & Canada Models )  
100W+100W(6Ω/ohms, EIAJ) (China Model )

Center: 60W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (Europe & China Models)  
70W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (U.S.A. & Canada Models)  
90W(6Ω/ohms, 1kHz with 0.7% T.H.D) (Europe Model)  
100W(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A. & Canada Models )  
100W(6Ω/ohms, EIAJ) (China Model )

Surround: 60W+60W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (Europe & China Models)  
70W+70W(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D) (U.S.A. & Canada Models)  
90W+90W(6Ω/ohms, 1kHz with 0.7% T.H.D) (Europe Model)  
100W+100W(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A. & Canada Models )  
100W+100W(6Ω/ohms, EIAJ) (China Model )

Output terminals:

Front: A or B 6 to 16Ω/ohms  
A+B 12 to 16Ω/ohms

Center/Surround: 6 to 16Ω/ohms

#### Analog

Input sensitivity/input impedance: 200mV/47kΩ./kohms  
Frequency response: 10Hz~100kHz: +1, -3dB (TONE DEFEAT ON)  
S/N ratio: 98dB (IHF-A weighted) (TONE DEFEAT ON)

#### Standard video jacks

Input/output level and impedance : 1Vp-p,75Ω/ohms  
Frequency response: 5Hz~10MHz . +1, -3dB

### ■Tuner section

Receiving range: [FM] (note: μV at 75Ω/ohms, 0dBf =1x10<sup>-15</sup>W) [AM]  
U.S.A., Canada Models: 87.50MHz~107.90MHz 520kHz~1710kHz  
Europe & China Models: 87.50MHz~108.00MHz 522kHz~1611kHz  
Usable sensitivity: 1.0μV (11.2dBf) 18μV  
50 dB quieting sensitivity: MONO 1.6μV (15.3dBf)  
STEREO 23μV (38.5dBf)

S/N ratio: MONO 80dB (IHF-A weighted)  
STEREO 75dB (IHF-A weighted)

Total harmonic distortion: MONO 0.15% (1kHz)  
STEREO 0.3% (1kHz)

### ■General

#### Power supply:

U.S.A., Canada Models AC120V,60Hz  
Europe Model AC230V,50Hz  
China Model AC220V,50Hz  
Power consumption: 3.7A (USA & Canada model), 200W (Europe & China model)  
Maximum external dimensions: 434 (W) x 147 (H) x 417 (D) mm (17-3/32" x 5-25/32" x 16-7/16")  
Mass: 9.8kg (20 lbs 9.7 oz)

#### ■Remote control unit (RC-896)

Batteries: R6P/AA Type (two batteries)  
External dimensions: 54 (W) x172.5 (H) x 29 (D) mm (2-1/8" x 6-51/64" x 1-9/64")  
Mass: 120g (Approx. 4.2 oz) (including batteries)

\* For purposes of improvement, specifications and design are subject to change without notice.

# PARTS LIST OF P.W.B. UNIT ASS'Y

## MAIN P.W.B. ASS'Y

Note :The symbols in the column "Remarks" indicate the following destinations.

E3 :U.S.A. & Canada model

EU :U.S.A. model (AVR-483)

E2 :Europe model

E1C :China model (AVR1403,AVR483)

Ref. No.	Part No.	Part name	Remarks
<b>RESISTORS GROUP</b>			
R104C	963 9005 451	Metal film 5.6 kohm 1W	
R104FL,104FR	963 9005 451	Metal film 5.6 kohm 1W	
R104SL,104SR	963 9005 451	Metal film 5.6 kohm 1W	
R105C	963 9005 451	Metal film 5.6 kohm 1W	
R105FL,105FR	963 9005 451	Metal film 5.6 kohm 1W	
R105SL,105SR	963 9005 451	Metal film 5.6 kohm 1W	
R106C	963 9005 464	Metal film 4.7 ohm 1W	
R106FL,106FR	963 9005 464	Metal film 4.7 ohm 1W	
R106SL,106SR	963 9005 464	Metal film 4.7 ohm 1W	
R107C	963 9005 464	Metal film 4.7 ohm 1W	
R107FL,107FR	963 9005 464	Metal film 4.7 ohm 1W	
R107SL,107SR	963 9005 464	Metal film 4.7 ohm 1W	
R108C	963 9005 477	Metal film 0.22 ohm 1W	
R108FL,108FR	963 9005 477	Metal film 0.22 ohm 1W	
R108SL,108SR	963 9005 477	Metal film 0.22 ohm 1W	
R109C	963 9005 477	Metal film 0.22 ohm 1W	
R109FL,109FR	963 9005 477	Metal film 0.22 ohm 1W	
R109SL,109SR	963 9005 477	Metal film 0.22 ohm 1W	
R110C	963 9005 477	Metal film 0.22 ohm 1W	
R110FL,110FR	963 9005 477	Metal film 0.22 ohm 1W	
R110SL,110SR	963 9005 477	Metal film 0.22 ohm 1W	
R111C	963 9005 477	Metal film 0.22 ohm 1W	
R111FL,111FR	963 9005 477	Metal film 0.22 ohm 1W	
R111SL,111SR	963 9005 477	Metal film 0.22 ohm 1W	
R118C	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R118FL,118FR	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R118SL,118SR	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R119C	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R119FL,119FR	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R119SL,119SR	963 9005 480	Metal oxide 10 ohm 1W(NB)	
R141,142	963 9005 477	Metal film 0.22 ohm 1W	
R148,149	963 9005 477	Metal film 0.22 ohm 1W	
R151	963 9005 493	Metal film 68 ohm 1/4W	
R154	963 9005 503	Metal film 2.2 Mohm 1/2W	for E3,EU
R181	963 9005 516	Metal film 4.7 ohm 1W	
R184	963 9005 529	Metal oxide 10 ohm 1W(NB)	
R185	963 9005 532	Metal film 1 ohm 1/4W	
<b>OTHER PARTS GROUP</b>			
JK101	960 0216 208	4P Terminal	LOCK TYPE
JK102	963 0093 802	6P Terminal	BINDING TYPE
JK103	960 0216 208	4P Terminal	LOCK TYPE
△ JK104	963 0093 909	AC Outlet	for E3,EU

**CPU P.W.B. ASS'Y**

Ref. No.	Part No.	Part name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC231	963 0093 608	IC M62446AFP	
<b>RESISTORS GROUP</b>			
R231,232	963 9005 600	Metal film 100 ohm 1W	
R271	963 9005 613	Metal film 220 ohm 1W	
R274	963 9005 613	Metal film 220 ohm 1W	
<b>OTHER PARTS GROUP</b>			
JK301	963 0084 206	3P pin jack	Gold

Note :The symbols in the column "Remarks" indicate the following destinations.

E3 :U.S.A. & Canada model

EU :U.S.A. model (AVR-483)

E2 :Europe model

E1C :China model (AVR1403,AVR483)

**CNT P.W.B. ASS'Y**

Ref. No.	Part No.	Part name	Remarks
<b>RESISTORS GROUP</b>			
R405	963 9005 545	Metal film 100 ohm 1/4W	
R413	963 9005 558	Metal film 220 ohm 1/4W	
R416	963 9005 561	Metal film 680 ohm 1/4W	
R430	963 9005 545	Metal film 100 ohm 1/4W	
R434	963 9005 545	Metal film 100 ohm 1/4W	
R901,902	963 9005 574	Metal film 470 ohm 2W	
<b>OTHER PARTS GROUP</b>			
CP651	-	-	-
JK901	960 0176 306	Headphone jack	Gold

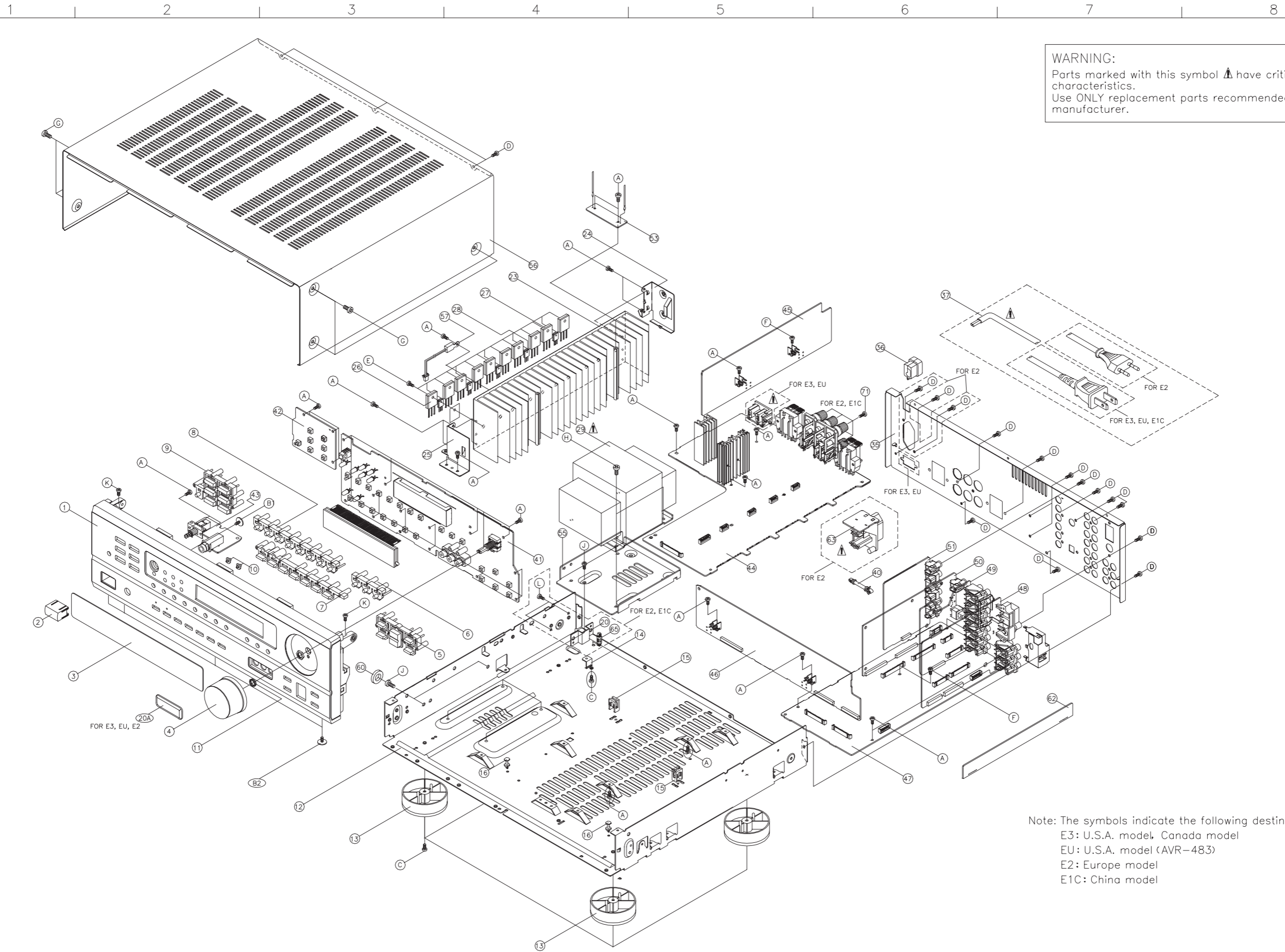
**PRE-AMP P.W.B. ASS'Y**

Ref. No.	Part No.	Part name	Remarks
<b>RESISTORS GROUP</b>			
R509C	963 9005 587	Metal film 1.2 kohm 1/4W	
R509FL,509FR	963 9005 587	Metal film 1.2 kohm 1/4W	
R509SL,509SR	963 9005 587	Metal film 1.2 kohm 1/4W	
R511C	963 9005 590	Metal film 47 ohm 1/4W	
R511FL,511FR	963 9005 590	Metal film 47 ohm 1/4W	
R511SL,511SR	963 9005 590	Metal film 47 ohm 1/4W	

**DSP P.W.B. ASS'Y**

Ref. No.	Part No.	Part name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC817	-	-	
<b>RESISTORS GROUP</b>			
R803	-	-	
<b>CAPACITORS GROUP</b>			
C812	-	-	
C813	-	-	
C814	-	-	
<b>OTHER PARTS GROUP</b>			
L806	-	-	

EXPLODED VIEW



## PARTS LIST OF EXPLODED VIEW

Note :The symbols in the column "Remarks" indicate the following destinations.

Ref. No.	Part No.	Part Name	Remarks	Q'ty
41F	963 0073 152	CPU P.W.B. Ass'y	for E3,EU	1
41F	963 0073 165	CPU P.W.B. Ass'y	for E2	1
41		Front P.W.B.		
47		CPU P.W.B.		
53		Video CNT P.W.B.	for E3,EU,	
63		Outlet P.W.B.	for E2	
44F	963 0073 055	Main P.W.B. Ass'y	for E3,EU	1
44F	963 0073 068	Main P.W.B. Ass'y	for E2	1
44		Main P.W.B.		
49		Input P.W.B.		
62		Front CNT P.W.B.		
50F	963 0073 453	DSP P.W.B. Ass'y	for E3,EU	1
50F				
50		DSP P.W.B.		
1	963 0093 705	Front panel	for E3	1
1	963 0093 718	Front panel	for EU	1
1	963 0093 721	Front panel	for E2	1
1	963 0093 734	Front panel	for 1403E1C	1
1	963 0093 747	Front panel	for 483E1C	1
35	963 0095 509	Back chassis	for E3	1
35	963 0095 512	Back chassis	for EU	1
35	963 0095 525	Back chassis	for E2	1
35	963 0095 538	Back chassis	for 1403E1C	1
35	963 0095 541	Back chassis	for 483E1C	1
71	960 0093 104	Terminal bushing	for E2,E1C	6
SCREWS				
D	960 0108 714	Screw 3x10 CBTS(B) DOT-B	for E3,EU	28
D	960 0108 714	Screw 3x10 CBTS(B) DOT-B	for E2	28
D	960 0108 714	Screw 3x10 CBTS(B) DOT-B	for E1C	26

E3 :U.S.A. & Canada model  
 EU :U.S.A. model (AVR-483)  
 E2 :Europe model  
 E1C :China model (AVR1403,AVR483)

## PARTS LIST OF PACKING AND ACCESSORIES

Ref. No.	Part No.	Part name	Remarks	Q'ty
2	963 0072 849	Instruction manual	for E3,EU	1
2	963 0072 852	Instruction manual	for E2	1
2	963 0072 865	Instruction manual	for E1C	1
8	963 0072 962	Carton case	for E3,E2, 1403E1C	1
8	963 0072 975	Carton case	for EU,483E1C	1
10	-	UPC label	for E3	1
10	-	UPC label	for EU	1
10	-	POS label	for E2	1