

# Service Manual

ORDER NO.  
TRT1124

## AMPLIFIED BANDPASS SUBWOOFER

# TS-WX205A

EW

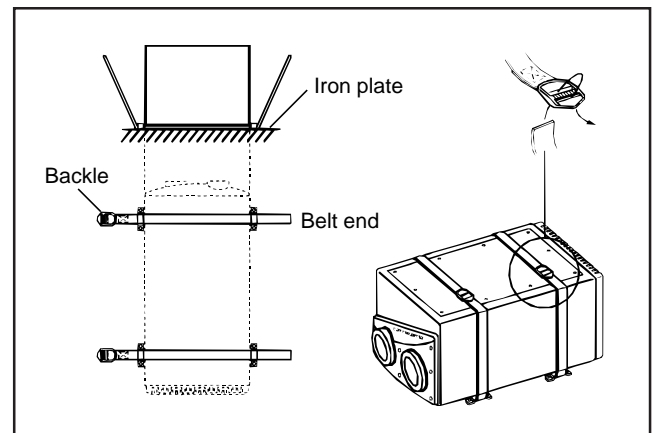
## 1. SPECIFICATIONS

- Speaker specifications
  - Size .....  $\phi$  200mm (8" Dia.)
    - High compliance, rolled edge
    - Heat-resistant voice coil
    - Strontium magnet : 500g (18oz)
- Amplifier
  - Max. Power output ..... 100W (65Hz, 22% THD)
  - DIN output power (DIN45324, 65Hz, 1.8 $\Omega$ +B=14.4V) .... 70W
  - INPUT LEVEL (at Gain Max)
    - (RCA) ..... 100mV+100mV/20k $\Omega$
    - (Speaker line) ..... 2V+2V/5k $\Omega$
  - Power source ..... DC14.4V (10.8~15.6V allowable)
  - Max. current consumption ..... 9A
  - Grounding ..... Negative ground
- Speaker system ..... Bandpass type
- Cabinet material ..... Particle board
- Sensitivity ..... 107dB/W (In car, SUV type)
- Size .....
  - ..... 474mm(18-5/8" )(W) $\times$ 280mm(11" )(D) $\times$ 248mm(9-3/4" )(H)
- Weight (including accessory parts) ..... 10.1kg (22lb 4oz)
- Gross weight (including packaging) ..... 11.5kg (25lb 6oz)

### Note:

Specifications and the design are subject to possible modification without notice due to improvements.

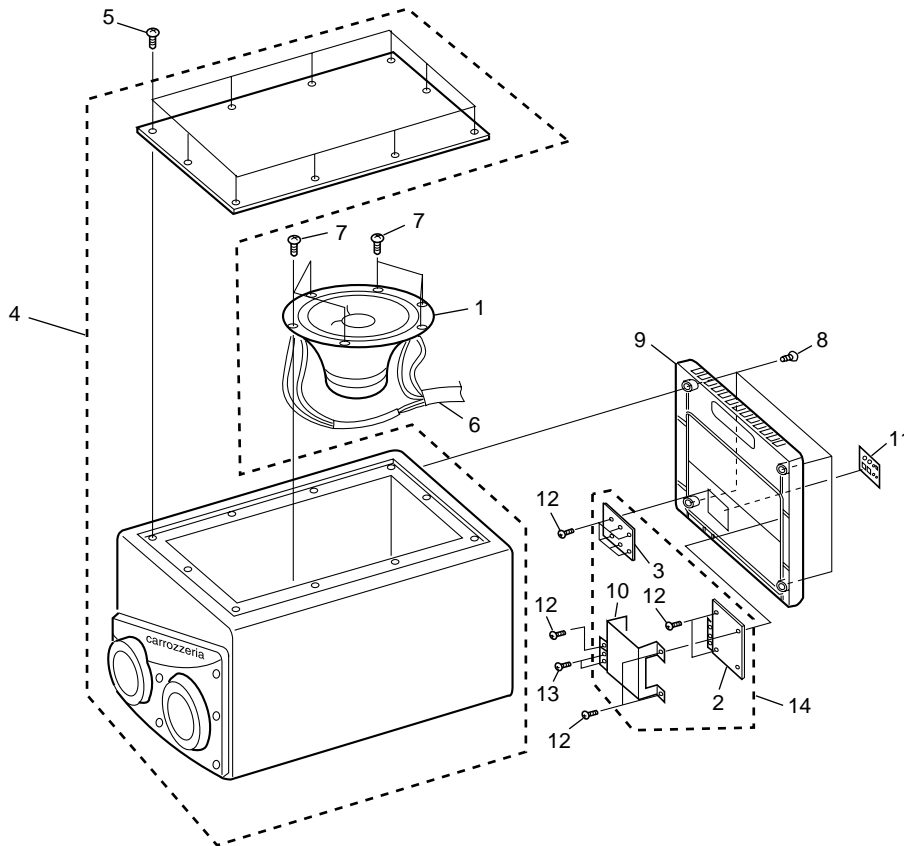
## 2. HOW TO INSTALL



### 3. EXPLODED VIEWS AND PARTS LIST

- NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.  
 ● The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
 ● Screws adjacent to  $\blacktriangledown$  mark on the product are used for disassembly.

#### 3.1 MAIN UNIT



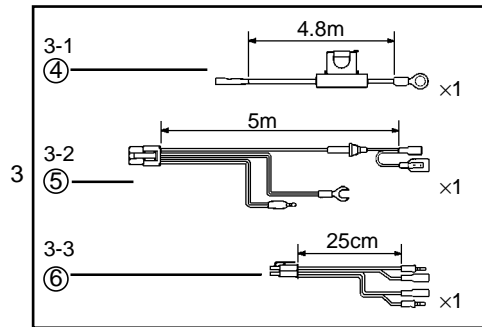
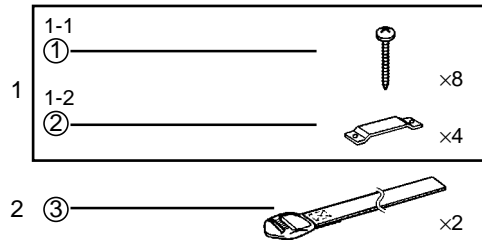
#### ● MAIN UNIT PARTS LIST

Mark	No.	Description	Part No.	Remark	Mark	No.	Description	Part No.	Remark
	1	Woofer	20-211AZ	×1	8	Screw	BNC40P300FNI	×4	
NSP	2	AMP UNIT	TWK1010	×1	9	Heat Sink	TNA1515	×1	
NSP	3	SWITCH UNIT	TWS1028	×1	10	Shield Plate	TNA1517	×1	
	4	Cabinet Assy	TXC1145	×1	11	Terminal Panel	TNS1018	×1	
	5	Screw	TBA1121	×10	12	Screw	BBZ30P080FMC	×11	
	6	Cord	TDC2260	×1	13	Screw	PBB30P140FMC	×2	
	7	Screw	BNC40P200FMC	×6	14	PCB Unit	TWX1025-AZ	×1	

### 3.2 PACKING PARTS LIST

Mark	No.	Description	Part No.	Remark
NSP	1	Parts Bag	TEA1272	x1
	1-1	Screw	BNC40P250FZK	x8
	1-2	Fitting Metal	TNA1220	x4
	2	Belt Assy	TXH1420	x2
3	3	Cord Poly. Assy	TXH1558	x1
	3-1	Cord	TDC2259	x1
	3-2	Cord	TDC2244	x1
	3-3	Cord	TDC2245	x1
		Operating Instructions	TRD1139	x1
		Styrofoam Protector	TEC1906	One pair
		Mount	THC1614	x1
		Packing Case	THF3280	x1

#### ● PARTS INCLUDED



# 4. PCB UNIT(TWX1025-AZ)

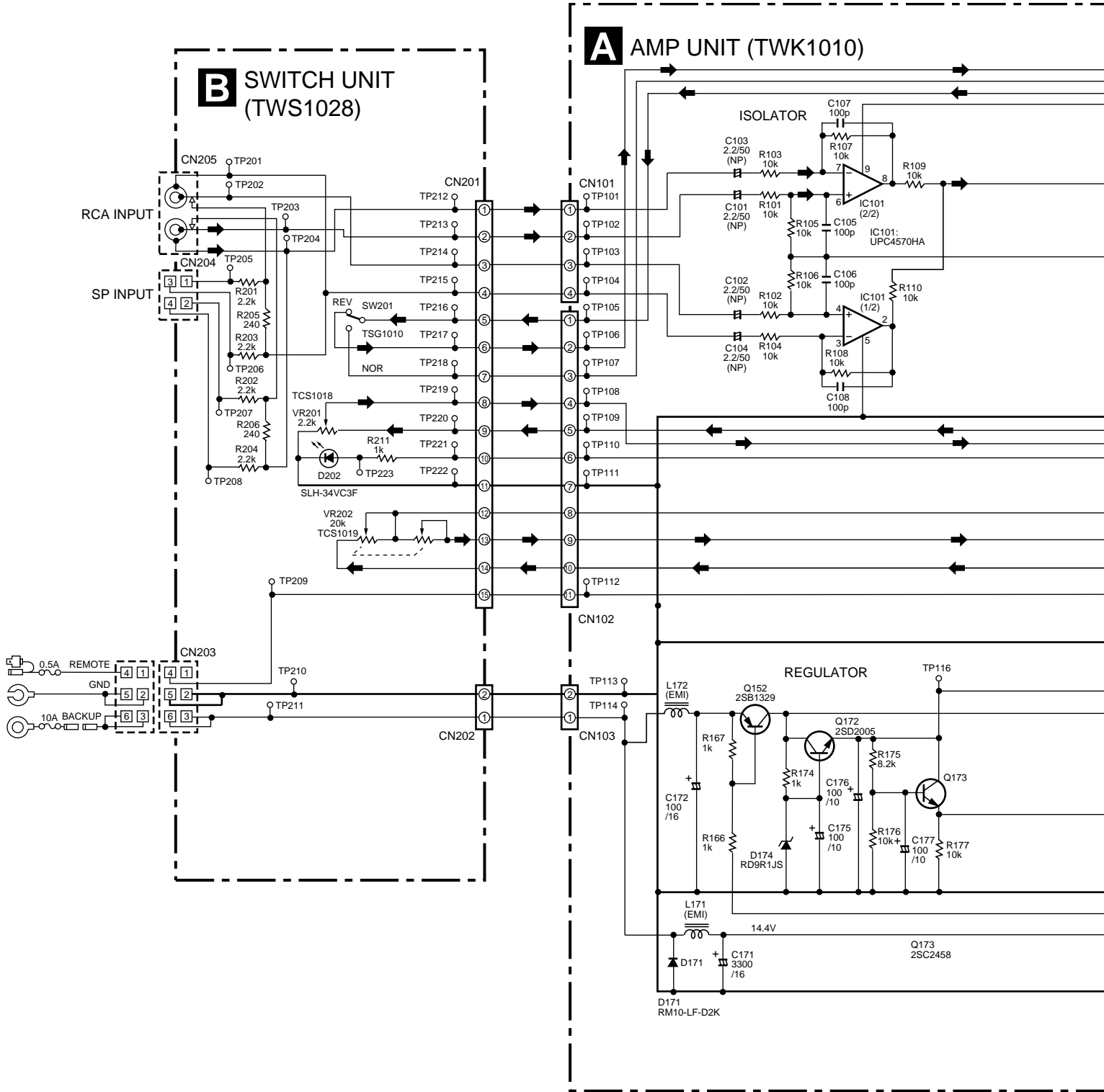
## 4.1 SCHEMATIC DIAGRAM

A

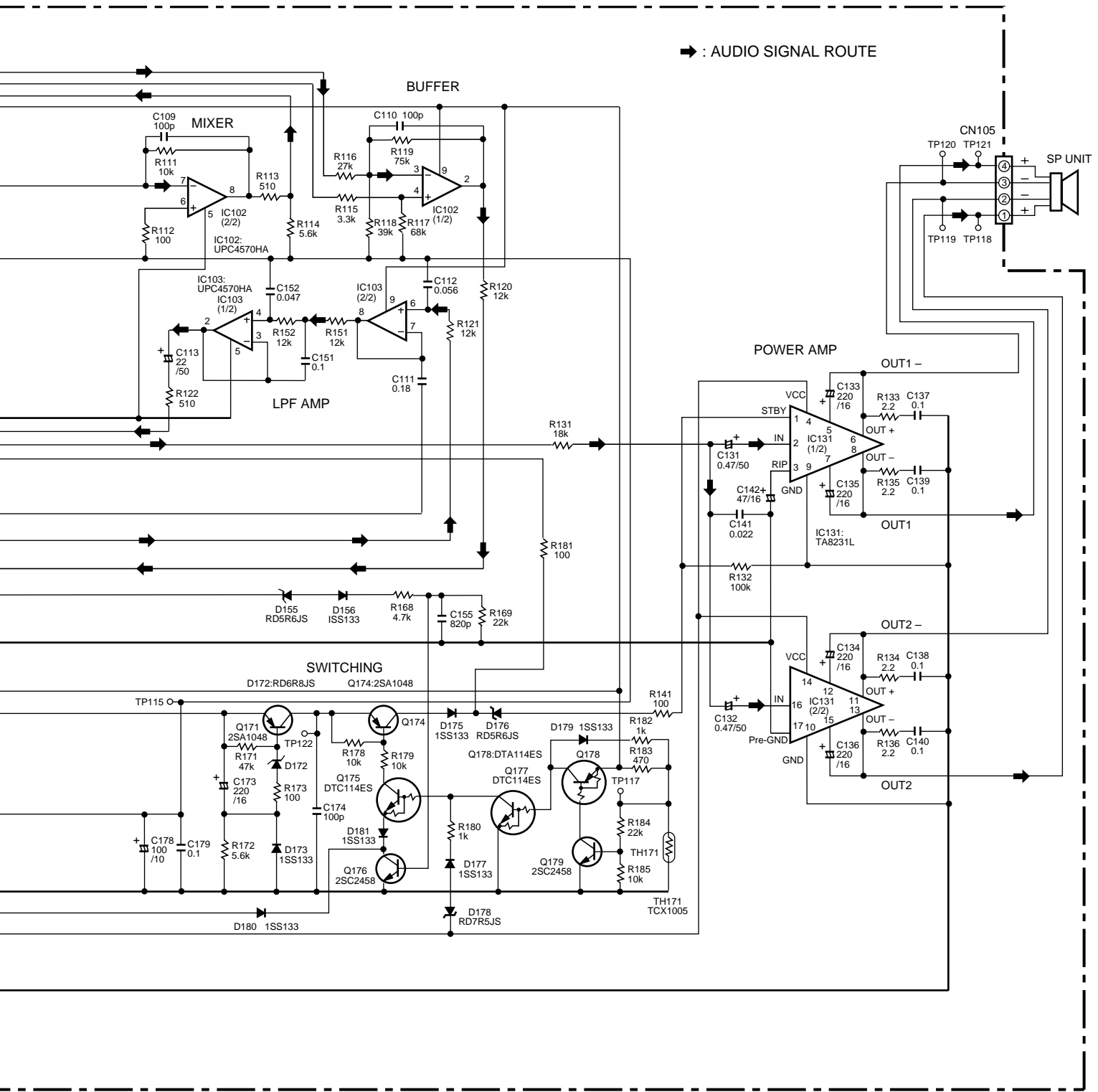
B

C

D



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".

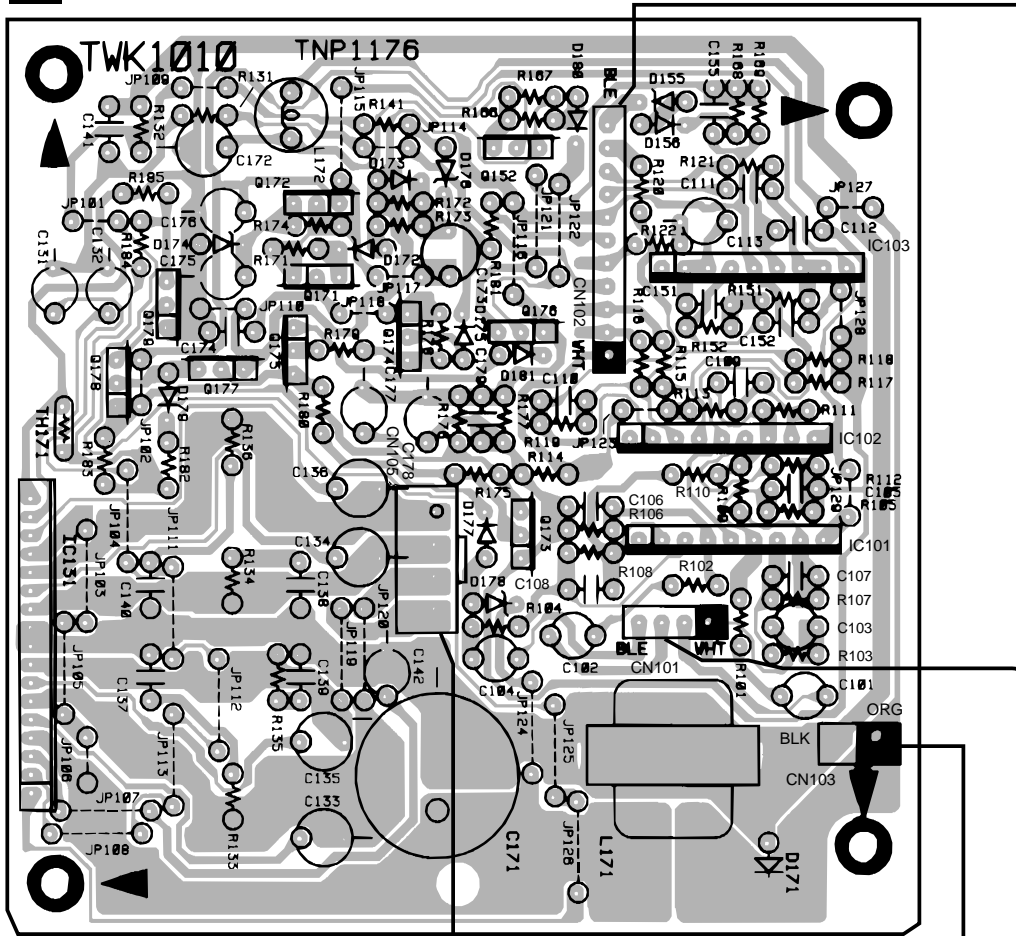


## 4.2 PCB CONNECTION DIAGRAM

### A AMP UNIT

A

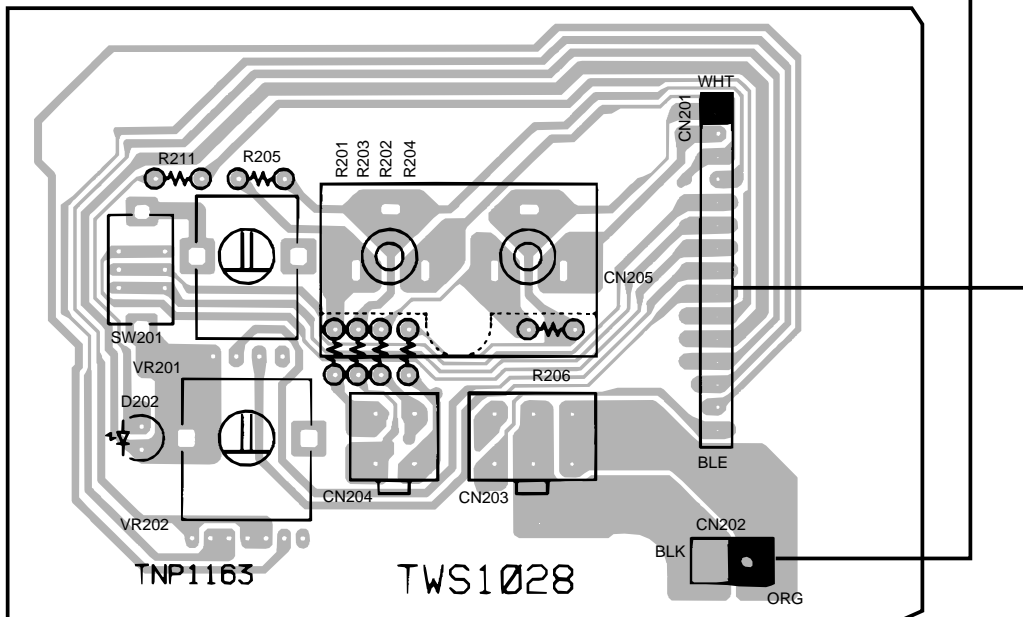
Q152  
Q172  
IC103  
Q171  
Q179 Q174  
Q175 Q176  
Q177  
Q178  
IC102  
Q173 IC101  
IC131



SP UNIT

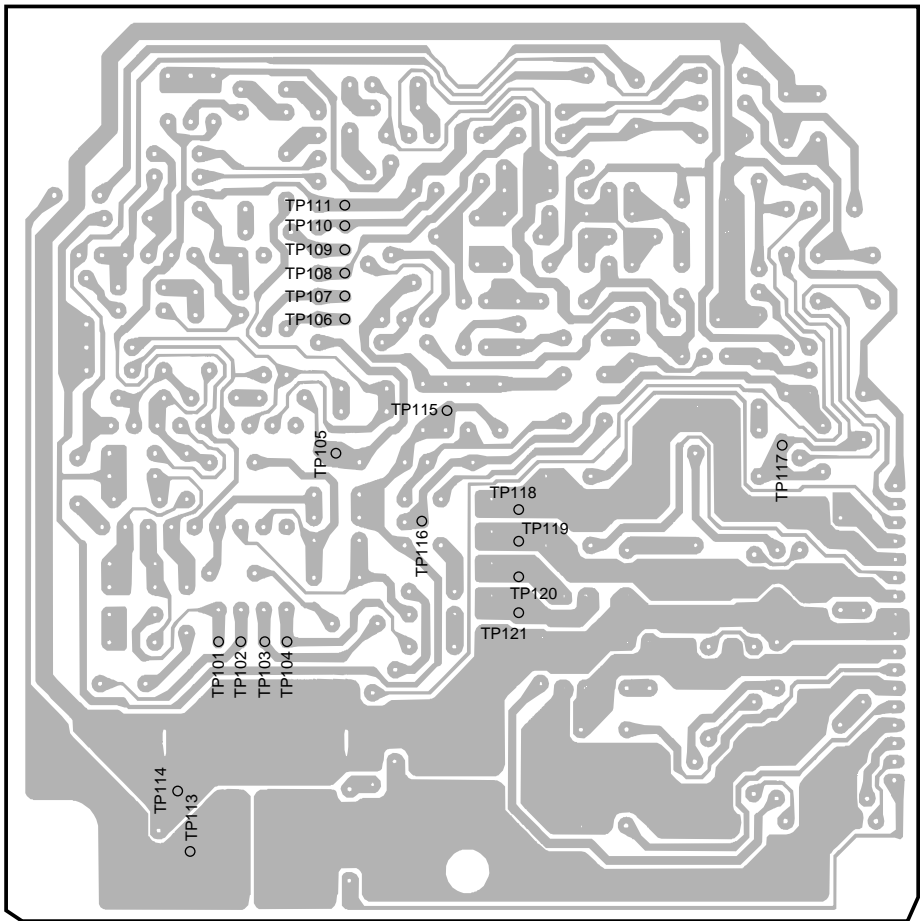
### B SWITCH UNIT

C

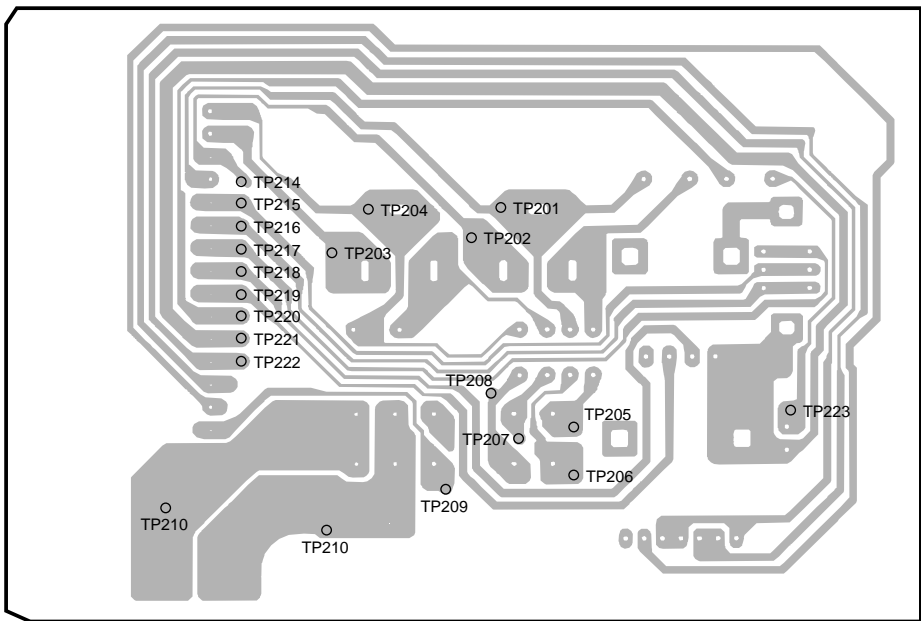


• This diagram is viewed from the mounted parts side.

# A AMP UNIT



# B SWITCH UNIT



• This diagram is viewed from the foil side.

## 5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10<sup>1</sup> → 561 ..... RD1/4PU 5 6 1 J

47k Ω → 47 × 10<sup>3</sup> → 473 ..... RD1/4PU 4 7 3 J

0.5 Ω → R50 ..... RN2H R 5 0 K

1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10<sup>1</sup> → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.
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### LIST OF ASSEMBLIES

		PCB UNIT	TWX1025-AZ
└		AMP UNIT	TWK1010
└		SWITCH UNIT	TWS1028

### **A** AMP UNIT

#### SEMICONDUCTORS

IC101-IC103	UPC4570HA
IC131	TA8231L
Q171,Q174	2SA1048
Q152	2SB1239
Q172	2SD2005
Q173,Q176,Q179	2SC2458
Q178	DTA114ES
Q175,Q177	DTC114ES
D156,D173,D175	1SS133
D177,D179-D181	1SS133
D155,D176	RD5R6JS
D172	RD6R8JS
D178	RD7R5JS
D174	RD9R1JS
D171	RM10-LF-D2K

#### COILS

L171	TTH1075
L172	TTH1079

#### CAPACITORS

C171 (3300μ/16V)	TCH1218
C133-C136,C173 (220μ/16V)	TCH1219
C175-C178	CEAS101M10
C172	CEAS101M16
C113	CEAS220M50
C142	CEAS470M16
C131,C132	CEASR47M50
C101-C104	CEJANP2R2M50
C137-C140,C151,C179	CFTNA104J50
C111	CFTNA184J50
C152	CFTNA473J50
C112	CFTNA563J50
C141	CFTNA223J50
C105-C110,C174	CKCYB101K50
C155	CKCYB821K50

Mark	No.	Description	Part No.
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### RESISTORS

All Resistors	RD1/4PU□□□J
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### OTHERS

TH171 THERMISTER	TCX1005
CN101 CORD	TDC2253
CN103 CORD	TDC2254
CN105 CONNECTOR	TKS1079

### **B** SWITCH UNIT

#### SEMICONDUCTOR

D202	SLH-34VC3F
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#### SWITCH

SW201	TSG1010
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#### RESISTORS

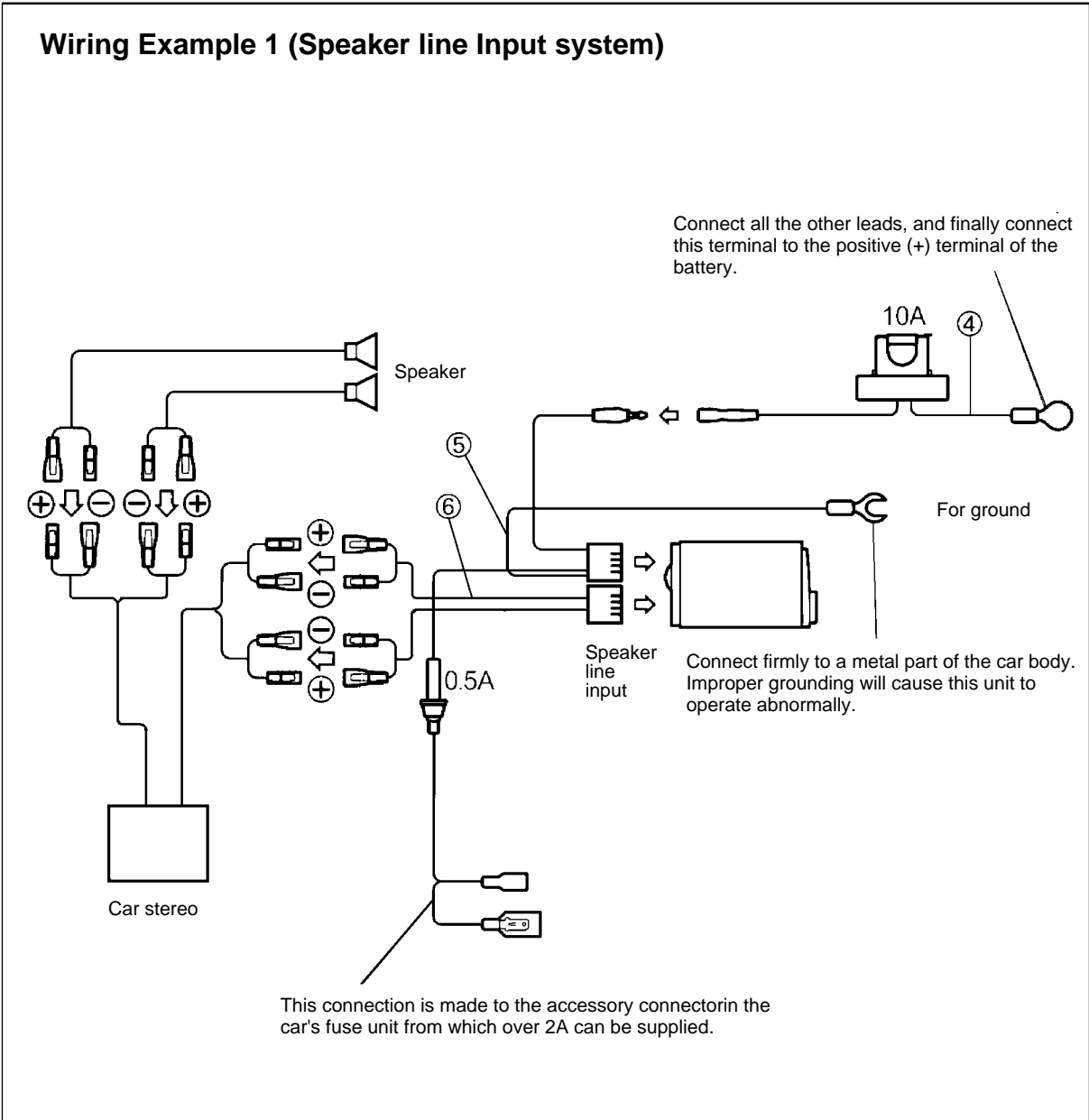
VR201 (2.2kΩ)	TCS1018
VR202 (20kΩ)	TCS1019
Other Resistors	RD1/4PU□□□J

### OTHERS

CN203 CONNECTOR	TKS1062
CN204 CONNECTOR	TKS1063
CN205 RCA JACK	TKS1061
LED SPACER	MNK1123
SCREW	BPZ26P060FZK



# 5. CONNECTIONS



**Wiring Example 2 (RCA Input system)**

