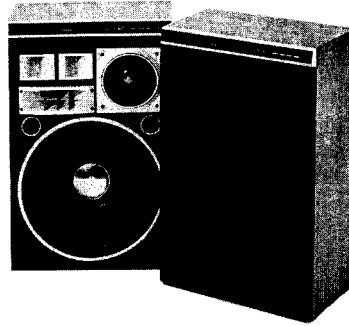


# Service Manual

**PIONEER®**



**ORDER NO.  
ART-691-0**

The model shown in this photo is CS-903.

## SPEAKER SYSTEM

# CS-903

# CS-803

# CS-703

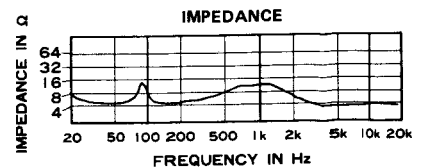
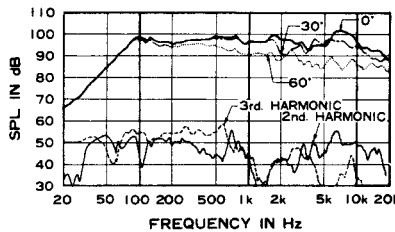
# CS-603

## SPECIFICATIONS

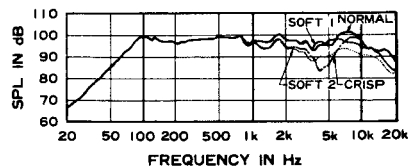
### CS-903

- Enclosure . . . . . Bass-reflex type, Book-shelf style
- System . . . . . 5 speakers, 4 way system
- Speakers
  - Woofer . . . . . 16 inch cone type
  - Mid Range . . . . . 6 1/3 inch cone type
  - Tweeter . . . . . 8-9/32 x 3 inch horn type
  - Super Tweeter . . . . . horn-loaded Ribon type x 2
- Accessory . . . . . Power Indicator
  - LED - green x 9, red x 1 (over load)
- Tone Selector
  - NORMAL - SOFT 1 - SOFT 2 - CRISP
- Impedance . . . . . 8 ohms
- Frequency range . . . . . 20 ~ 40kHz
- Sensitivity . . . . . 99dB/W (at 1-meter distance)
- Maximum Input Power . . . . . 300W
- Nominal Input power . . . . . 150W
- Crossover frequency . . . . . 1.5kHz, 4kHz, 9kHz
- Weight . . . . . 21kg
- Dimensions . . . . . 450(W) x 710(H) x 259(D) mm
  - 17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

**FREQUENCY RESPONSE & HARMONIC DISTORTION**



**FREQUENCY RESPONSE & TONE SELECTOR**



**NOTE:**  
Specifications and design subject to possible modification without notice due to improvements.

**PIONEER ELECTRONIC CORPORATION** 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan  
**U.S. PIONEER ELECTRONICS CORPORATION** 85 Oxford Drive, Moonachie, New Jersey 07074, U.S.A.  
**PIONEER ELECTRONIC (EUROPE) N.V.** Luithagen-Haven 9, 2030 Antwerp, Belgium  
**PIONEER ELECTRONICS AUSTRALIA PTY. LTD.** 178-184 Boundary Road, Braeside, Victoria 3195, Australia

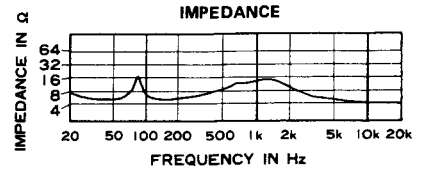
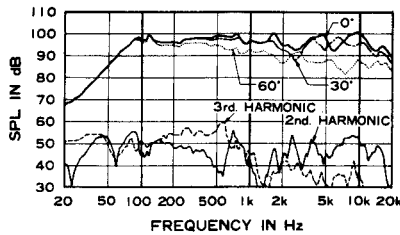
MQ © MAY 1981

Printed in Japan

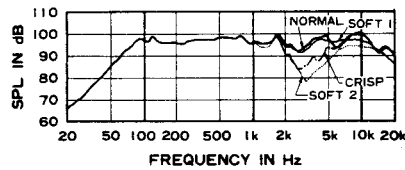
**CS-803**

Enclosure . . . . . Bass-reflex type, Book-shelf style  
 System . . . . . 5 speakers, 4 way system  
 Speakers  
   Woofer . . . . . 16 inch cone type  
   Mid Range . . . . . 5 inch cone type  
   Tweeter . . . . . 8-9/32 x 3 inch horn type  
   Super Tweeter . . . . . horn-loaded Ribon type x 2  
 Accessory . . . . . Power Indicator  
   LED — green x 6, red x 1 (over load)  
   Tone Selector  
   NORMAL - SOFT 1 - SOFT 2 - CRISP  
 Impedance . . . . . 8 ohms  
 Frequency range . . . . . 20 ~ 40kHz  
 Sensitivity . . . . . 99dB/W (at 1-meter distance)  
 Maximum Input Power . . . . . 250W  
 Nominal Input power . . . . . 125W  
 Crossover frequency . . . . . 2kHz, 4kHz, 9kHz  
 Weight . . . . . 20kg  
 Dimensions . . . . . 450(W) x 710(H) x 259(D) mm  
   17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

**FREQUENCY RESPONSE & HARMONIC DISTORTION**



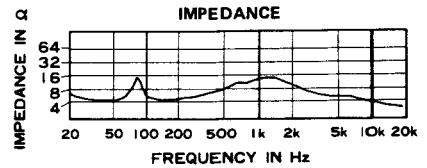
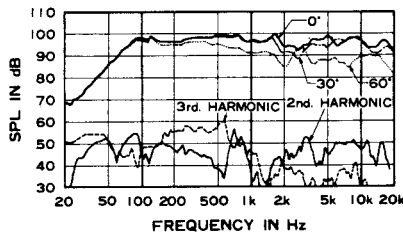
**FREQUENCY RESPONSE & TONE SELECTOR**



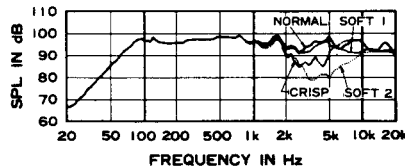
**CS-703**

Enclosure . . . . . Bass-reflex type, Book-shelf style  
 System . . . . . 4 speakers, 4 way system  
 Speakers  
   Woofer . . . . . 16 inch cone type  
   Mid Range . . . . . 4 inch cone type  
   Tweeter . . . . . 8-9/32 x 3 inch horn type  
   Super Tweeter . . . . . horn-loaded Ribon type  
 Accessory . . . . . Power Indicator  
   LED — green x 4, red x 1 (over load)  
   Tone Selector  
   NORMAL - SOFT 1 - SOFT 2 - CRISP  
 Impedance . . . . . 8 ohms  
 Frequency range . . . . . 20 ~ 40kHz  
 Sensitivity . . . . . 98dB/W (at 1-meter distance)  
 Maximum Input Power . . . . . 200W  
 Nominal Input power . . . . . 100W  
 Crossover frequency . . . . . 2kHz, 4kHz, 9kHz  
 Weight . . . . . 20kg  
 Dimensions . . . . . 450(W) x 710(H) x 259(D) mm  
   17-23/32(W) x 27-15/16(H) x 10-3/16(D) inch

**FREQUENCY RESPONSE & HARMONIC DISTORTION**



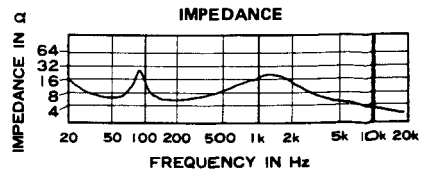
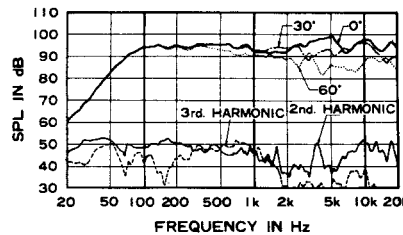
**FREQUENCY RESPONSE & TONE SELECTOR**



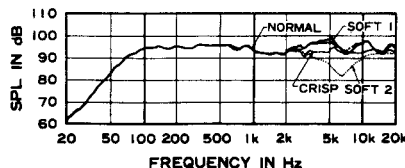
**CS-603**

Enclosure . . . . . Bass-reflex type, Book-shelf style  
 System . . . . . 4 speakers, 4 way system  
 Speakers  
   Woofer . . . . . 12 inch cone type  
   Mid Range . . . . . 4 inch cone type  
   Tweeter . . . . . 8-9/32 x 3 inch horn type  
   Super Tweeter . . . . . horn-loaded Ribon type  
 Accessory . . . . . Power Indicator  
   LED — green x 3, red x 1 (over load)  
   Tone Selector  
   NORMAL - SOFT 1 - SOFT 2 - CRISP  
 Impedance . . . . . 8 ohms  
 Frequency range . . . . . 25 ~ 40kHz  
 Sensitivity . . . . . 97dB/W (at 1-meter distance)  
 Maximum Input Power . . . . . 150W  
 Nominal Input power . . . . . 75W  
 Crossover frequency . . . . . 2.5kHz, 4kHz, 9kHz  
 Weight . . . . . 16kg  
 Dimensions . . . . . 410(W) x 646(H) x 278(D) mm  
   16-1/8(W) x 25-7/16(H) x 10-15/16(D) inch

**FREQUENCY RESPONSE & HARMONIC DISTORTION**

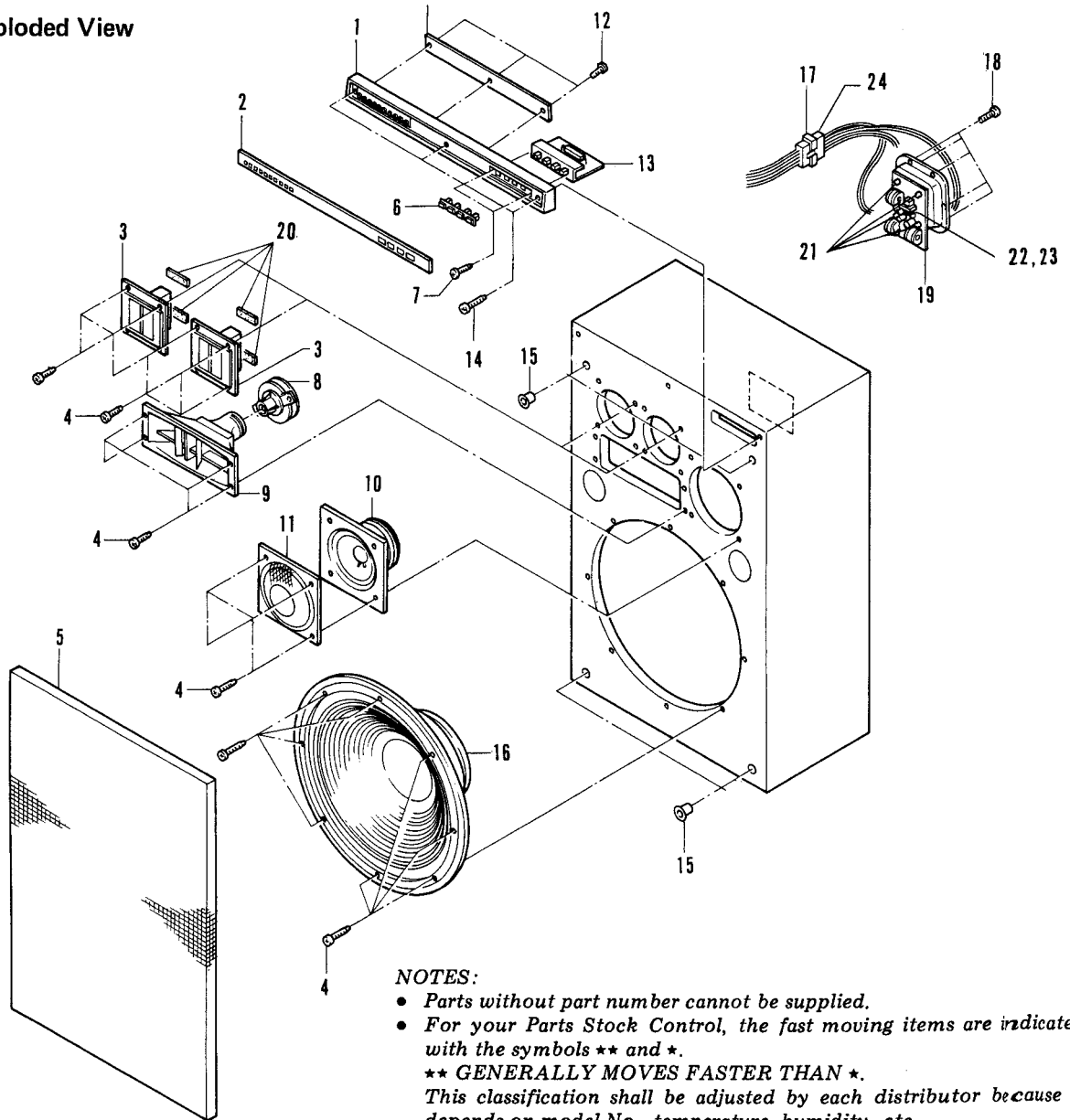


**FREQUENCY RESPONSE & TONE SELECTOR**



# EXPLODED VIEW AND PARTS LIST

CS-903 Exploded View



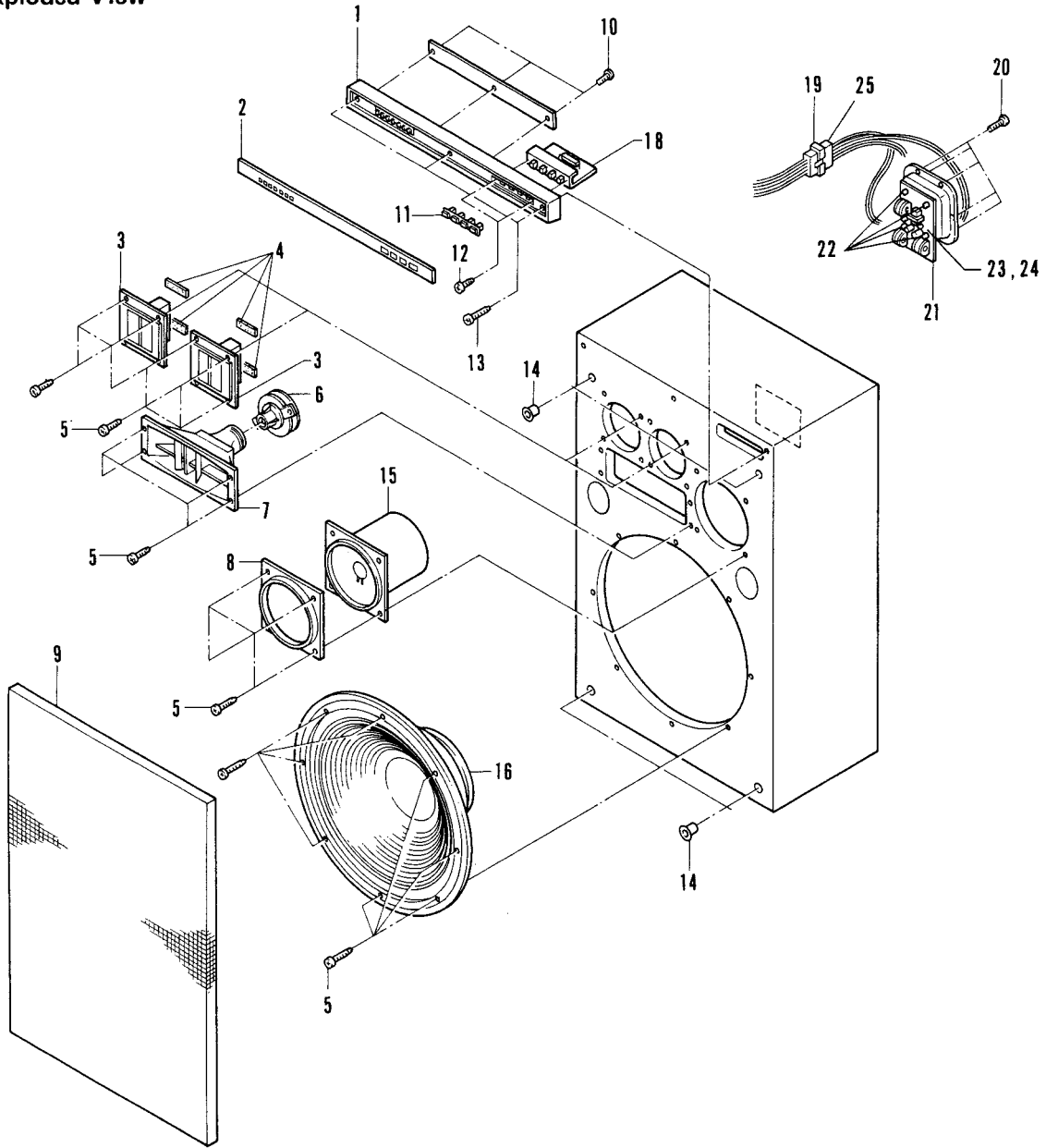
**NOTES:**

- *Parts without part number cannot be supplied.*
- *For your Parts Stock Control, the fast moving items are indicated with the symbols \*\* and \*.*
- \*\* GENERALLY MOVES FASTER THAN \***
- This classification shall be adjusted by each distributor because it depends on model No., temperature, humidity, etc.*

**Parts List**

Mark	No.	Part No.	Description
	1.	SWX-081	Power indicator assembly
	2.	SAX-213	Panel
**	3.	PT-R01A	Super tweeter
	4.	BYC40P250FZK	Screw
	5.	SMG-251	Grill assembly
	6.	SAA-056	Knob
	7.	PMZ30P050FMC	Screw
	8.	PD-009A-3	Driver
	9.	PH-015A	Horn
**	10.	16-740A	Mid-range
	11.	SXB-346	Mid-flange
	12.	TTZ26P100FMC	Screw
	13.	SWL-015	Attenuator assembly
	14.	RWC38P380FMC	Screw
	15.	.....	.....
**	16.	40-806A	Woofer
	17.	SDF-005	Connector
	18.	OWC31P160FZK	Screw
*	19.	SWN-295	Network assembly
	20.	SEC-401	Packing
	21.	TTZ30P080FMC	Screw
	22.	BMZ30P160FMC	Screw
	23.	WH30FMC	Washer
	24.	SDF-006	Connector

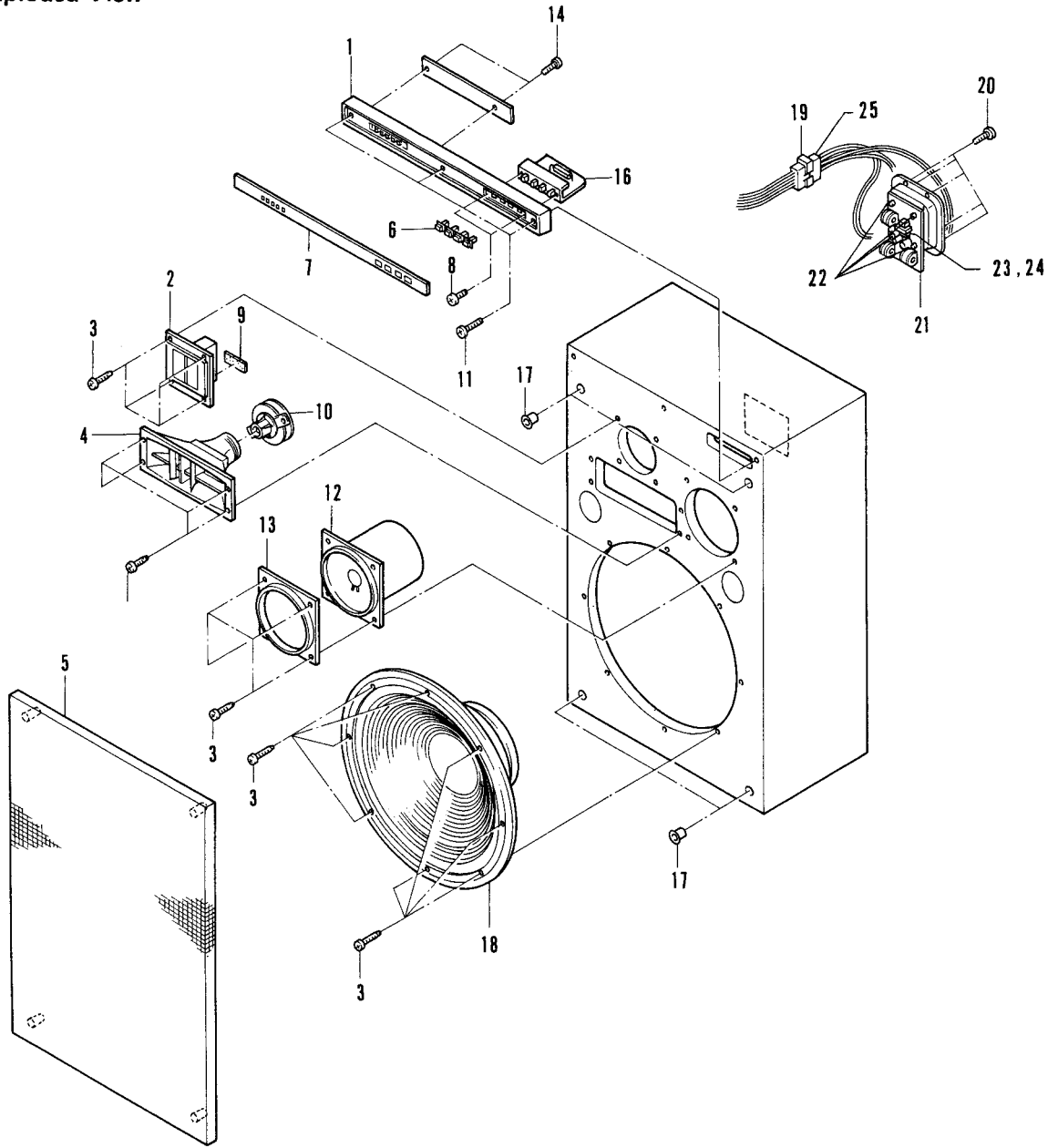
**CS-803 Exploded View**



**Parts List**

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
		1. SWX-084	Power indicator assembly			11. SAA-056	Knob
★★		2. SAX-214	Panel			12. PMZ30P050FMC	Screw
		3. PT-R01A	Super tweeter			13. RWC38P38OFMC	Screw
		4. SEC-401	Packing			14. ....	.....
		5. BYC40P250FZK	Screw	★★		15. 12-736A	Mid-range
		6. PD-009A-3	Driver	★★		16. 40-806A	Woofer
		7. PH-015A	Horn			17. ....	.....
		8. SNK-612	Mid-flange			18. SWL-015	Attenuator assembly
		9. SMG-251	Grill assembly			19. SDF-005	Connector
		10. TTZ26P100FMC	Screw			20. OWC31P160FZK	Screw
				★		21. SWN-302	Network assembly
						22. TTZ30P080FMC	Screw
						23. BMZ30P160FMC	Screw
						24. WH30FMC	Washer
						25. SDF-006	Connector

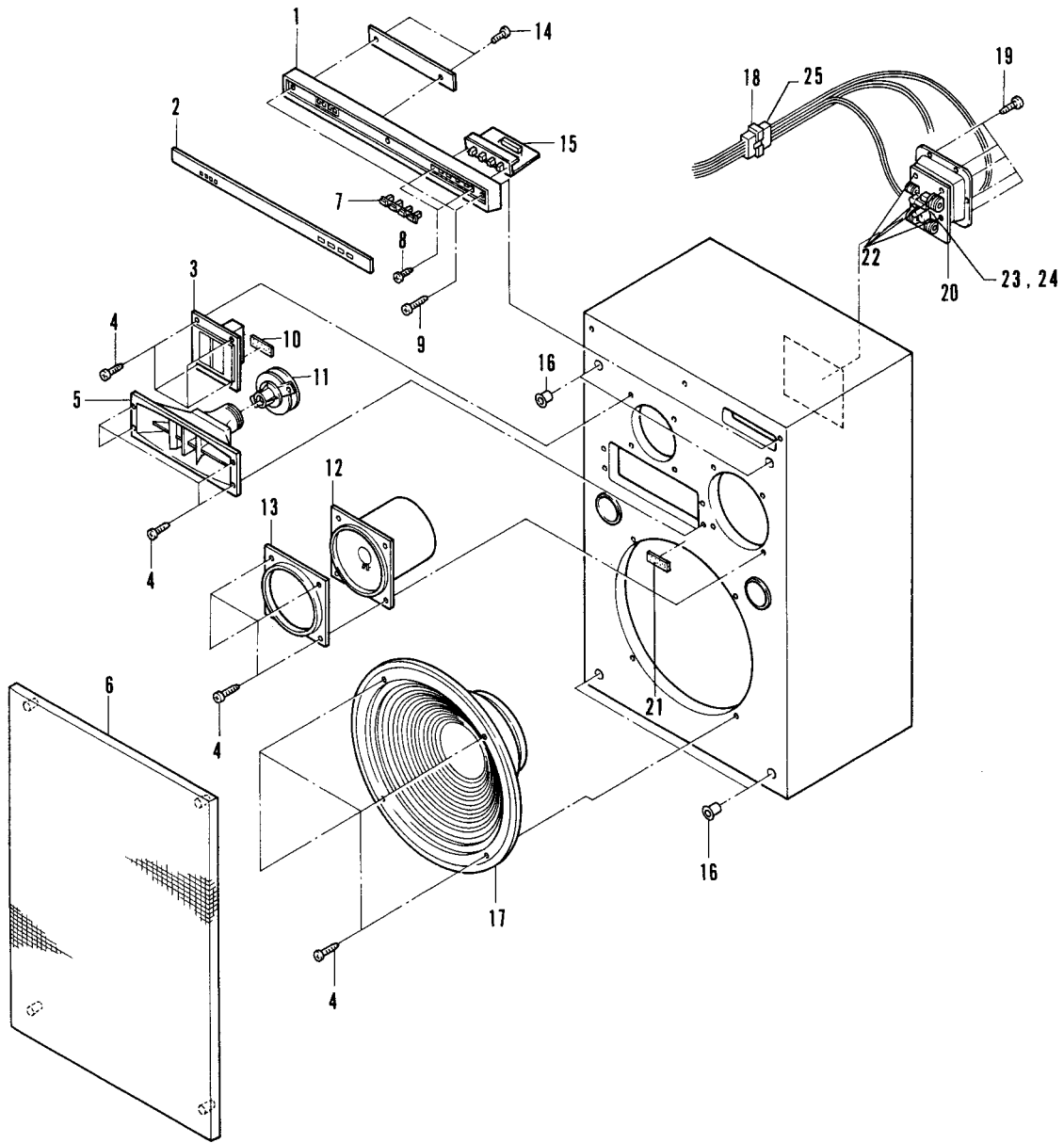
**CS-703 Exploded View**



**Parts List**

Mark	No.	Part No.	Description
★★	1.	SWX-083	Power indicator assembly
★★	2.	PT-R01A	Super tweeter
	3.	BYC40P250FZK	Screw
	4.	PH-015A	Horn
	5.	SMG-251	Grill assembly
	6.	SAA-056	Knob
	7.	SAX-215	Panel
	8.	PMZ30P50FMC	Screw
	9.	SEC-401	Packing
	10.	PD-009A-3	Driver
	11.	RWC38P380FMC	Screw
	12.	12-736A	Mid-range
	13.	SNK-612	Mid-flange
	14.	TTZ26P100FMC	Screw
	15.	.....	.....
	16.	SWL-015	Attenuator assembly
	17.	.....	.....
★★	18.	40-806A	Woofer
	19.	SDF-007	Connector
	20.	OWC31P160FZK	Screw
★	21.	SWN-301	Network assembly
	22.	TTZ30P080FMC	Screw
	23.	BMZ30P160FMC	Screw
	24.	WH30FMC	Washer
	25.	SDF-006	Connector

**CS-603 Exploded View**



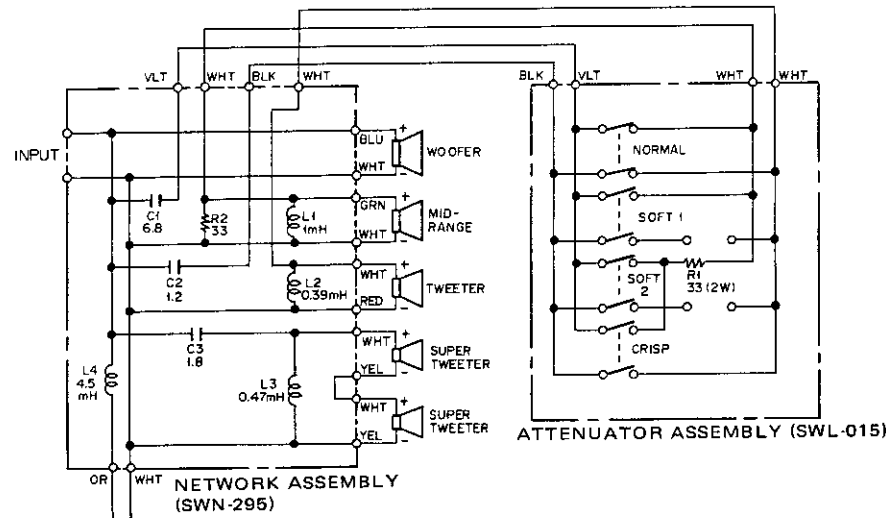
**Parts List**

Mark	No.	Part No.	Description
	1.	SWX-082	Power indicator assembly
	2.	SAX-216	Panel
★★	3.	PT-R01A	Super tweeter
	4.	BYC40P250FZK	Screw
	5.	PH-015A	Horn
	6.	SMG-252	Grill assembly
	7.	SAA-056	Knob
	8.	PMZ30P050FMC	Screw
	9.	RWC38P380FMC	Screw
	10.	SEC-401	Packing
★★	11.	PD-009A-3	Driver
	12.	12-736A	Mid-range
	13.	SNK-612	Mid-flange
	14.	TTZ26P100FMC	Screw
	15.	SWL-015	Attenuator assembly
★★	16.	.....	.....
	17.	30-762A	Woofer
	18.	SDF-007	Connector
	19.	OWC31P160FZK	Screw
★	20.	SWN-300	Network assembly
	21.	SEC-443	Packing
	22.	TTZ30P080FMC	Screw
	23.	BMZ30P160FMC	Screw
	24.	WH30FMC	Washer
	25.	SDF-006	Connector

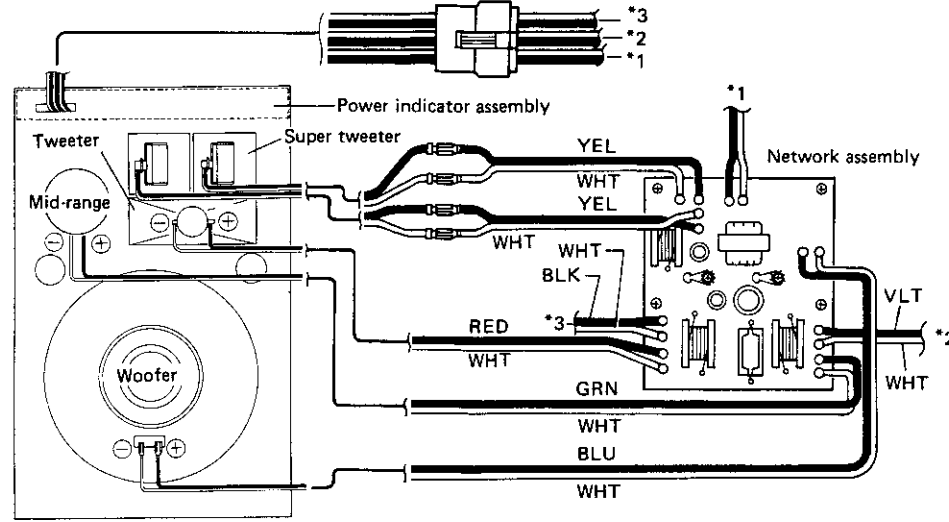
# ELECTRICAL PARTS

CS-903

## ■ Circuit Diagram



## ■ Wiring



### NOTES:

• 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%).

560Ω	56 × 10 <sup>1</sup>	561	RD¼PS 561J
47kΩ	47 × 10 <sup>3</sup>	473	RD¼PS 473J
0.5Ω	0R5		RN2H 0R5K
1Ω	010		RSIP 010K

## ■ Parts List

### NETWORK ASSEMBLY (SWN-295)

Mark	Part No.	Symbol & Description
	CES04 6R8K 100	C1 Capacitor
	CES04 1R2K 63	C2 Capacitor
	CES04 1R8K 63	C3 Capacitor
	RT5B 330K	R2 Resistor
	SKE-008	Terminal
	SKE-007	Terminal

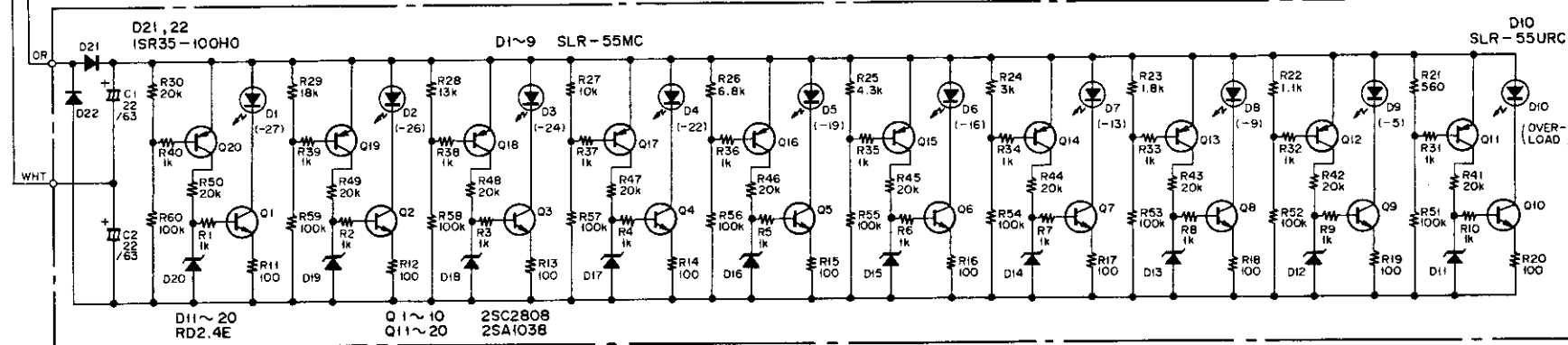
L1	Choke coil (1 mH)
L2	Choke coil (0.39 mH)
L3	Choke coil (0.47 mH)
L4	Choke coil (4.5 mH)

### POWER INDICATOR (SWX-081)

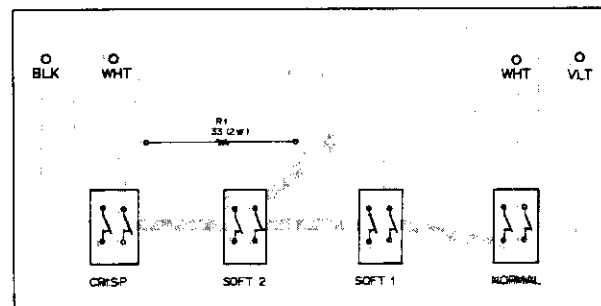
Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	CEA 220M 63	C1, C2
	RD1/4PM000J	R1-R40, Resistor
	RD1/2PS 203J	R41-R50 Resistor
★★	2SC2808	Q1-Q10 Transistor
★★	2SA1038	Q11-Q20
★	SLR-55MC	D1-D9 Diode
★	SLR-55URC	D10 Diode
★	RD2.4E	D11-D20 Diode
★	1SR35-100H0	D21, D22 Diode
	SDF-005	Connector

### POWER INDICATOR ASSEMBLY (SWX-081)



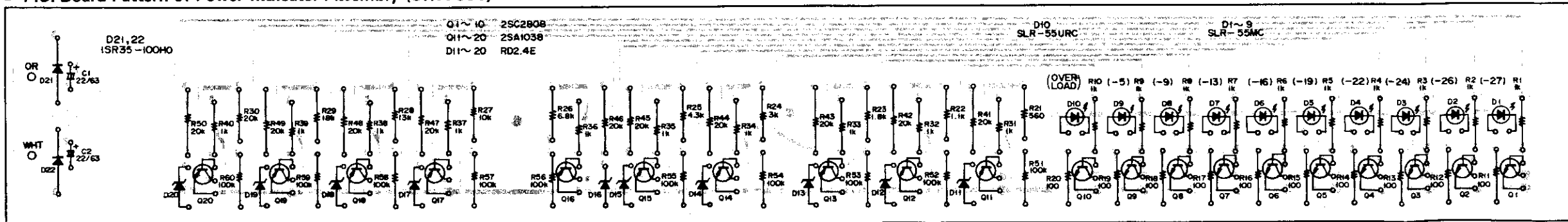
### ■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



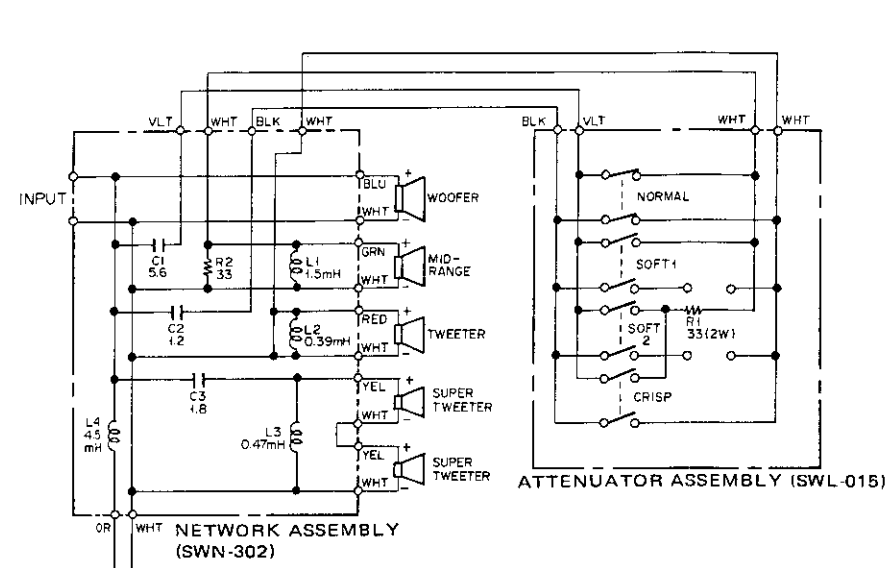
### ATTENUATOR ASSEMBLY (SWL-015)

Mark	Part No.	Symbol & Description
	RTF2Q 330J 28	R1 Resistor
★★	SSG-002	Switch

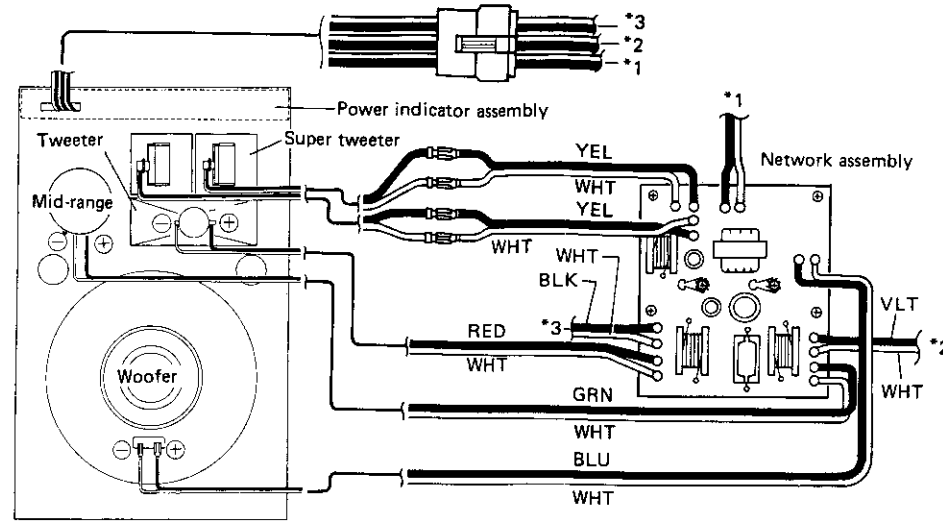
### ■ P.C. Board Pattern of Power Indicator Assembly (SWX-081)



■ Circuit Diagram



■ Wiring



■ Parts List

NETWORK ASSEMBLY (SWN-302)

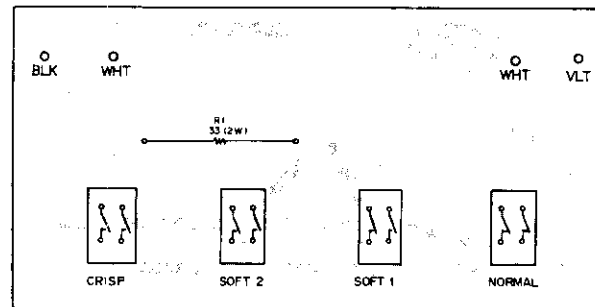
Mark	Part No.	Symbol & Description
	CES04 5R6K 100	C1 Capacitor
	CES04 1R2K 63	C2 Capacitor
	CES04 1R8K 63	C3 Capacitor
	RT5B 330K	R2 Resistor
	SKE-008	Terminal
	SKE-007	Terminal
	L1	Choke coil (1.5 mH)
	L2	Choke coil (0.39 mH)
	L3	Choke coil (0.47 mH)
	L4	Choke coil (4.5 mH)

POWER INDICATOR ASSEMBLY (SWX-083)

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	CEA 220M 63	C1, C2 Capacitor
	RD1/4PM□□J	R1-R28, Resistor
	RD1/2PS203	R29-R35 Resistor
★★	2SC2808	Q1-Q7 Transistor
★★	2SA1038	Q8-Q14 Transistor
★	SLR-55MC	D1-D6 Diode
★	SLR-55URC	D7 Diode
★	RD2.4E	D8-D14 Diode
★	1SR35-100H0	D15-D16 Diode

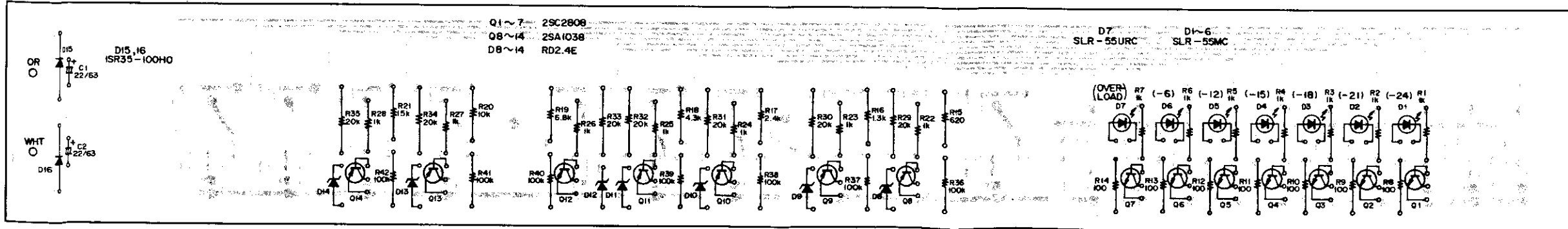
■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



ATTENUATOR ASSEMBLY (SWL-015)

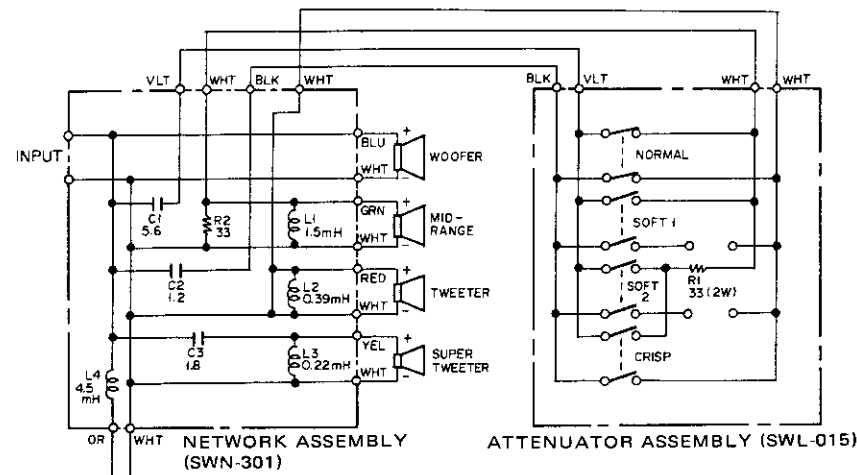
Mark	Part No.	Symbol & Description
	RTF2Q 330J 28	R1 Resistor
★★	SSG-002	Switch

■ P.C. Board Pattern of Power Indicator Assembly (SWX-083)

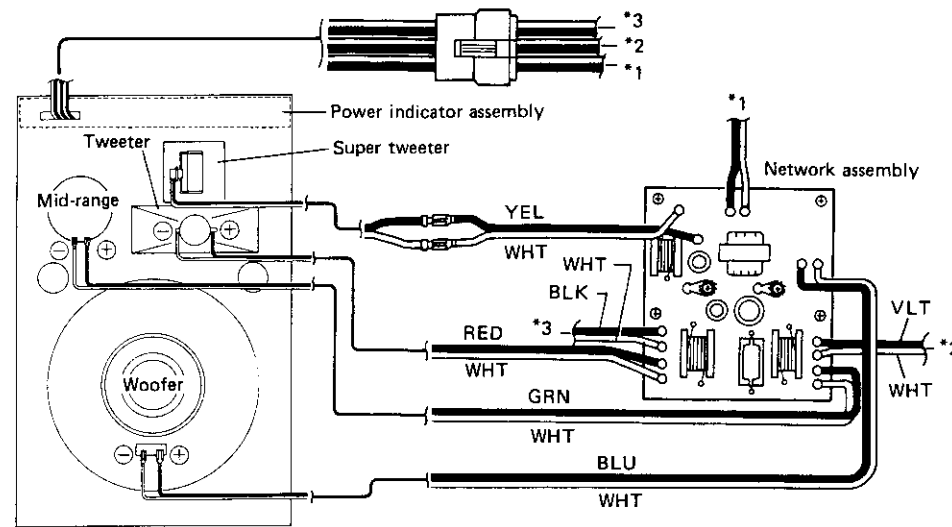




■ Circuit Diagram



■ Wiring



■ Parts List

NETWORK ASSEMBLY (SWN-301)

Mark	Part No.	Symbol & Description
	CES04 5R6K 100	C1 Capacitor
	CES04 1R2K 63	C2 Capacitor
	CES04 1R8K 63	C3 Capacitor
	RT5B 330K	R2 Resistor
	SKE-008	Terminal
	SKE-007	Terminal
	L1	Choke coil (1.5 mH)
	L2	Choke coil (0.39 mH)
	L3	Choke coil (0.22 mH)
	L4	Choke coil (4.5 mH)

ATTENUATOR ASSEMBLY (SWL-015)

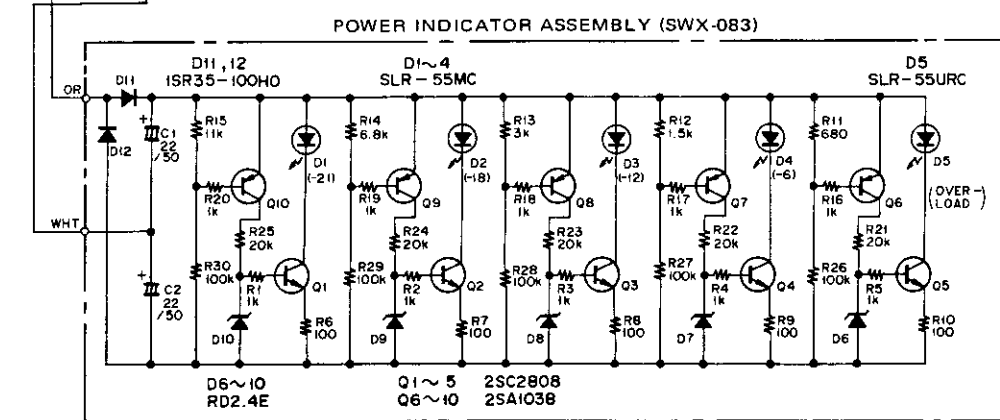
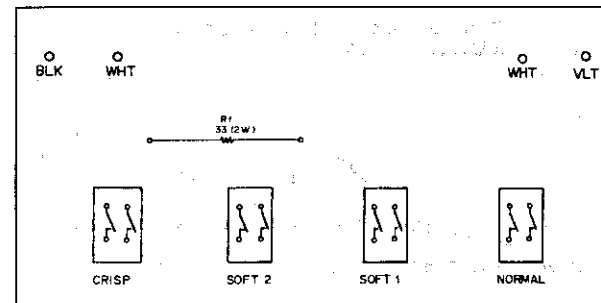
Mark	Part No.	Symbol & Description
	RTF2Q 330J 28	R1 Resistor
★★	SSG-002	Switch

POWER INDICATOR ASSEMBLY (SWX-083)

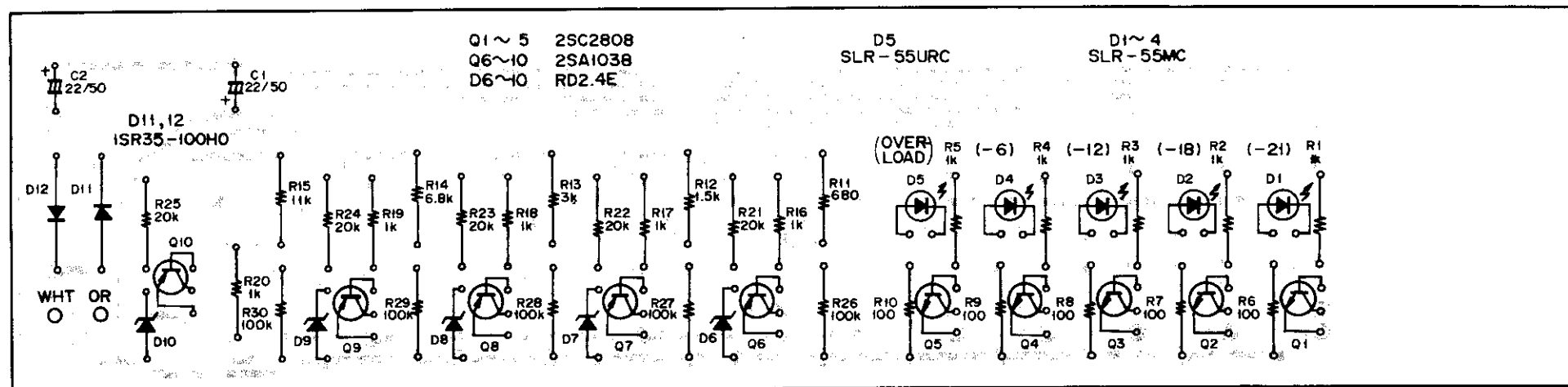
Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	CEA 220M 63	C1, C2 Capacitor
	RD1/4PM000J	R1-R30 Resistor
★★	2SC2808	Q1-Q5 Transistor
★★	2SA1038	Q6-Q10 Transistor
★	SLR-55MC	D1-D4 Diode
★	SLR-55URC	D5 Diode
★	RD2.4E	D6-D10 Diode
★	1SR35-100H0	D11, D12 Diode

■ P.C. Board Pattern of Attenuator Assembly (SWL-015)



■ P.C. Board Pattern of Power Indicator Assembly (SWX-083)



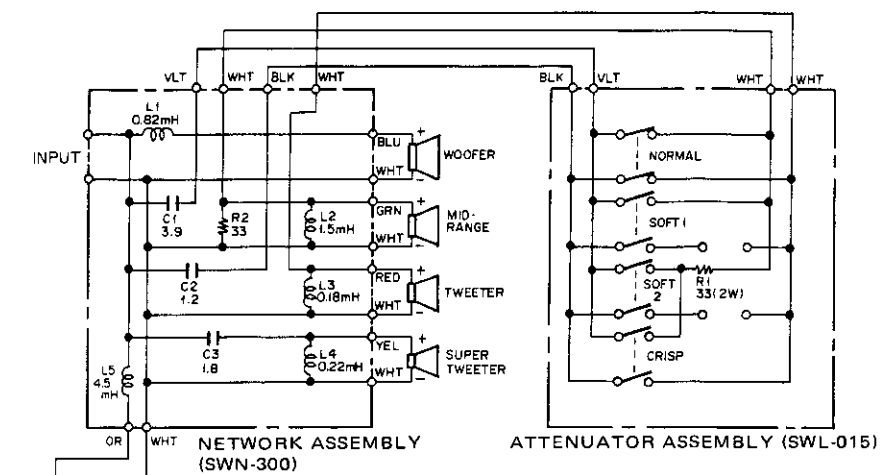
A

B

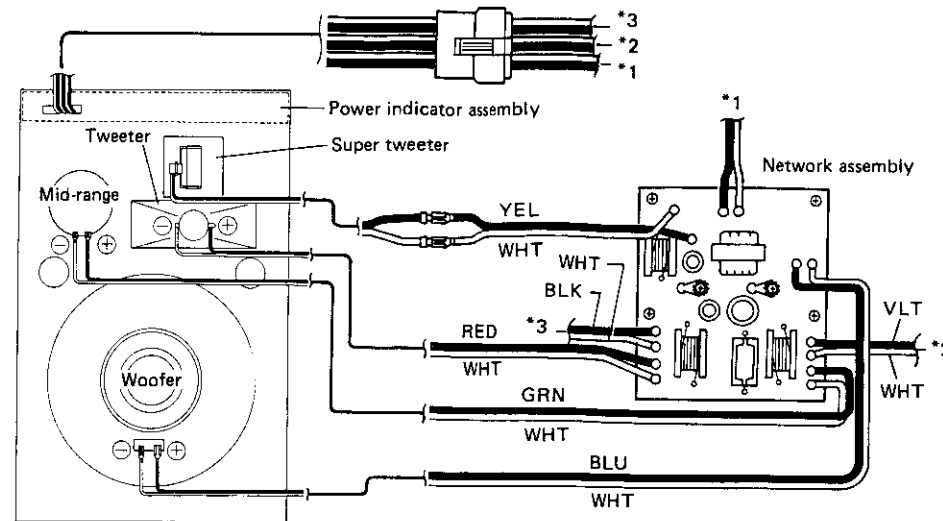
C

D

■ Circuit Diagram



■ Wiring



■ Parts List

NETWORK ASSEMBLY (SWN-300)

Mark	Part No.	Symbol & Description
	CES04 3R9K 100	C1 Capacitor
	CES04 1R2K 63	C2 Capacitor
	CES04 1R8K 63	C3 Capacitor
	RT5B 330K	R2 Resistor
	SKE-008	Terminal
	SKE-007	Terminal
	L1	Choke coil (0.82 mH)
	L2	Choke coil (1.5 mH)
	L3	Choke coil (0.18 mH)
	L4	Choke coil (0.22 mH)
	L5	Choke coil (4.5 mH)

ATTENUATOR ASSEMBLY (SWL-015)

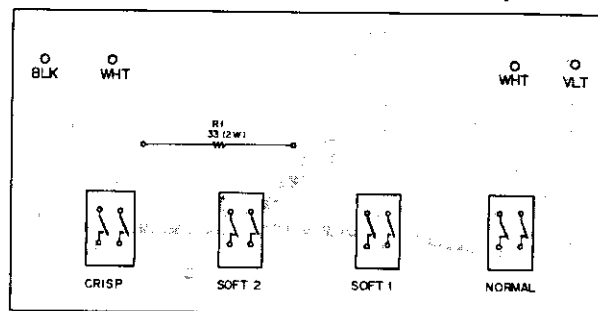
Mark	Part No.	Symbol & Description
	RTF2Q 330J 28	R1 Resistor
★	SSG-002	Switch

POWER INDICATOR ASSEMBLY (SWX-082)

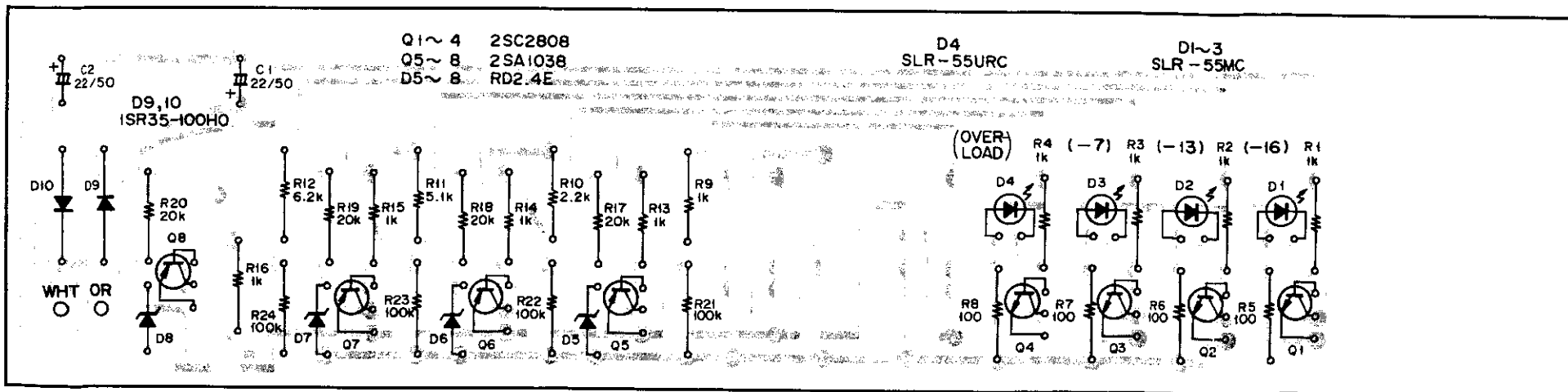
Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Part No.	Symbol & Description
	CEA 220M 63	C1, C2 Capacitor
	RD1/4PM□□J	R1-R24 Resistor
★	2SC2808	Q1-Q4 Transistor
★	2SA1038	Q5-Q8 Transistor
★	SLR-55MC	D1-D3 Diode
★	SLR-55URC	D4 Diode
★	RD2.4E	D5-D8 Diode
★	1SR35-100H0	D9, D10 Diode

■ P.C. Board Pattern of Attenuator Assembly (SWL-015)

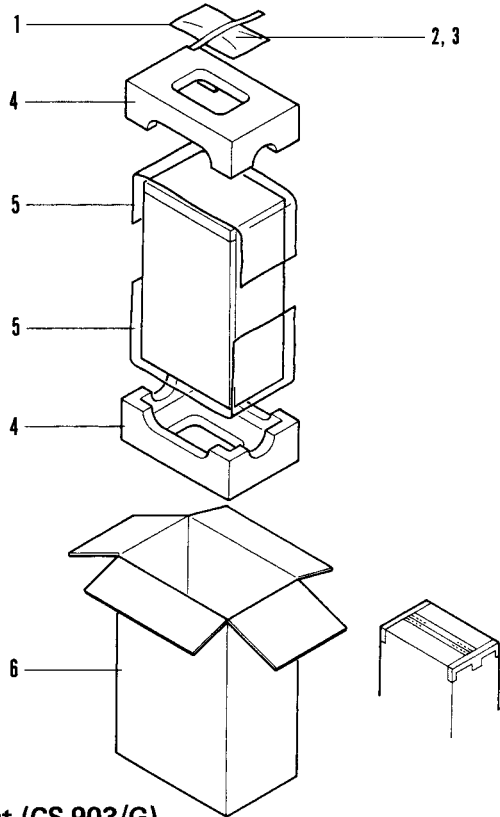


■ P.C. Board Pattern of Power Indicator Assembly (SWX-082)



# PACKING VIEW AND PARTS LIST

**Packing View of CS-903/G, CS-803/G and CS-703/G**



**Parts List (CS-903/G)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-254	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-490	Packing case

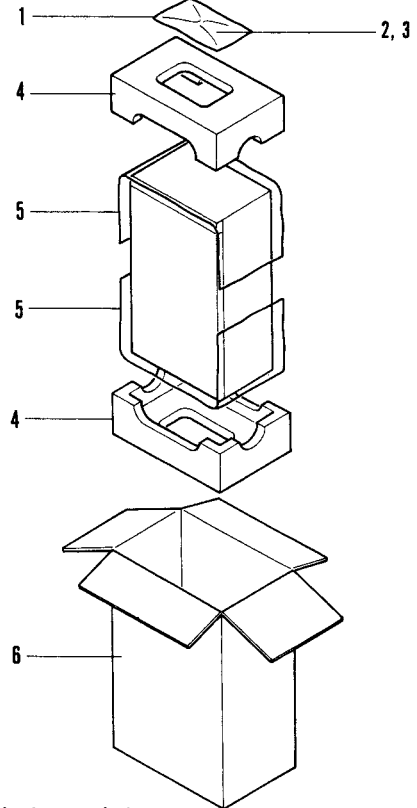
**Parts List (CS-803/G)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-259	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-494	Packing case

**Parts List (CS-703/G)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRB-256	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-493	Packing case

**Packing View of CS-903/E, CS-803/E and CS-703/E**



**Parts List (CS-903/E)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-019	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-495	Packing case

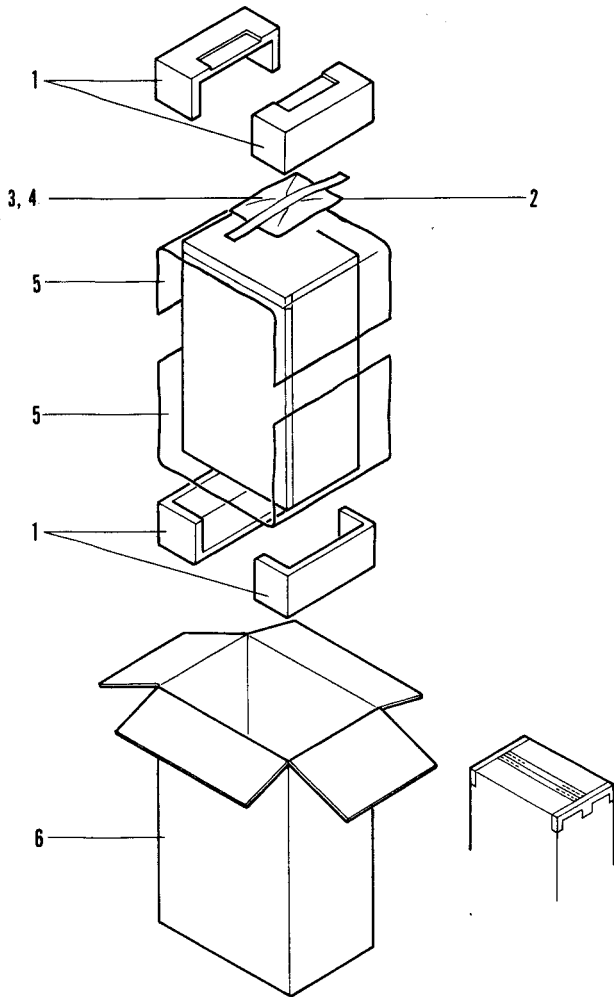
**Parts List (CS-803/E)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-022	Operating guide
	4.	SHA-556	Protector
	5.	SHC-430	Cover
	6.	SHG-526	Packing case

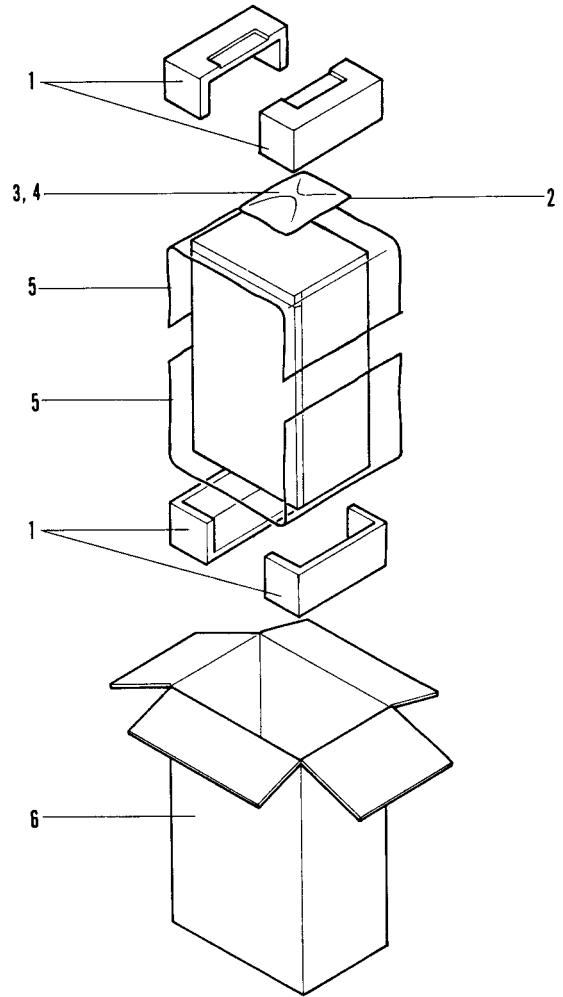
**Parts List (CS-703/E)**

Mark	No.	Part No.	Description
	1.	SHL-185	Vinyl bag
	2.	KDD-012	Service cord
	3.	SRD-020	Operating guide
	4.	SHA-534	Protector
	5.	SHC-430	Cover
	6.	SHG-496	Packing case

**Packing View of CS-603/G**



**Packing View of CS-603/E**



**Parts List (CS-603/G)**

Mark	No.	Part No.	Description
	1.	SHA-505	Protector
	2.	SHL-185	Vinyl bag
	3.	KDD-012	Service cord
	4.	SRB-255	Operating guide
	5.	SHC-426	Cover
	6.	SHG-491	Packing case

**Parts List (CS-603/E)**

Mark	No.	Part No.	Description
	1.	SHA-505	Protector
	2.	SHL-185	Vinyl bag
	3.	KDD-012	Service cord
	4.	SRD-021	Operating guide
	5.	SHC-426	Cover
	6.	SHG-492	Packing case