

ONKYO® SERVICE MANUAL

CD Receiver System

DW-S500,HS-N1(S).(T)



DD,DT	120V,60Hz
PP,PA	230-240V,50Hz
GR,GQ,GT	220-230V,50Hz

COMBINATION

	Center unit	Speaker unit
DW-S500MDD	CR-N1(S)MDD	D-N1MD
HS-N1(T)MPP	CR-N1(T)MPP	D-N1MP
HS-N1(S)MPA	CR-N1(S)MPA	D-N1MD
HS-N1(S)MDT	CR-N1(S)MDT	D-N1MD
HS-N1(S)MGR	CR-N1(S)MGR	D-N1MR
HS-N1(S)MGQ	CR-N1(S)MGQ	D-N1MD
HS-N1(S)MDD	CR-N1(S)MDD	D-N1MD
HS-N1(S)MGT	CR-N1(S)MGT	D-N1MD

DD : U.S.A.,Canada model
 DT : Taiwan model
 PP : Europe model
 PA : Australia model
 GR : China model
 GQ : Hong Kong model
 GT : Asia model

SPECIFICATIONS

CR-N1(S).(T)

Amplifier

Power output (U.S. & Canadian models)	2 x 6.5 watts min., RMS at 8 ohms, 50 Hz-20 kHz, with no more than 0.6% total harmonic distortion (FTC)
	2 x 9.5 watts min., RMS at 4 ohms, 50 Hz-20 kHz, with no more than 0.8% total harmonic distortion (FTC)
	2 x 15 watts at 4 ohms (EIAJ)
Power output (Other models)	2 x 10 watts at 4 ohms, 1 kHz (DIN)
	2 x 8.5 watts at 6 ohms, 1 kHz (DIN)
	2 x 7 watts at 8 ohms, 1 kHz (DIN)
	2 x 6.5 watts min., RMS at 8 ohms, 1 kHz, no more than 0.6% THD (FTC rating)
Dynamic power	2 x 15 watts at 4 ohms
	2 x 9 watts at 8 ohms
Total harmonic distortion	0.4% at 5 watts output into 4 ohms, 1 kHz
IM distortion	0.4% at 5 watts output into 4 ohms, 1 kHz
Damping factor	25 at 4 ohms
	50 at 8 ohms
LINE IN sensitivity and impedance	500 mV, 47k Ω
Frequency response	10 Hz-20 kHz, +3/-3 dB
Acoustic presence	1: +6.0 dB at 80 Hz 2: +10.0 dB at 80 Hz
Signal to noise ratio	95 dB (IHF-A)
Muting	-50 dB

CD Player

Signal readout system	Optical non-contact
Reading rotation	Approx. 500-200 rpm (constant linear velocity)
Linear velocity	1.2-1.4 m/s
Error correction system	Cross interleave Reed Solomon code
D/A converter	1 bit
Digital filter	352.8 kHz, 8-times oversampling
Number of channels	2 (stereo)
Frequency response	5 Hz-20 kHz
Wow & flutter	Below threshold of measurability

USB

Connection method	USB (Universal Serial Bus) Ver 1.1
Sampling rate (input)	32/44.1/48 kHz compatible
Frequency response	5 Hz-20 kHz

SPECIFICATIONS

CR-N1(S).(T)

Tuner

Tuning range	FM		87.9-107.9 MHz (200 kHz steps) (U.S. & Canadian model)
			87.5-108.00 MHz (50 kHz steps) (Other area models)
	AM		530-1710 kHz (10 kHz steps) (U.S. & Canadian model)
			522-1611 kHz (9 kHz steps) (European & Australian models)
			531-1602 kHz (9 kHz steps) (Asian models)
Usable sensitivity	FM	Mono	11.2 dBf, 1.0 μ V (75 ohms IHF)
			11.2 dBf, 0.9 μ V (75 ohms DIN)
		Stereo	17.2 dBf, 2.0 μ V (75 ohms IHF)
			17.2 dBf, 23.0 μ V (75 ohms DIN)
	AM	30 μ V	
50 dB quieting sensitivity	FM	Mono	17.2 dBf, 2.0 μ V (75 ohms)
		Stereo	37.2 dBf, 20.0 μ V (75 ohms)
Capture ratio	FM		2.0 dB
Image rejection ratio	FM		40 dB (U.S. & Canadian model)
			85 dB (Other area models)
	AM		40 dB
IF rejection ratio	FM		90 dB
	AM		40 dB
Signal to noise ratio	FM	Mono	73 dB, IHF
		Stereo	67 dB, IHF
	AM		40 dB
Selectivity	FM		50 dB DIN ($\pm$ 300 kHz at 40 kHz deviation)
AM suppression ratio			50 dB
Harmonic distortion	FM	Mono	0.2%
		Stereo	0.3%
	AM		0.7%
Frequency response	FM		30 Hz-15.0 kHz ($\pm$ 1.5 dB)
Stereo separation	FM		35 dB at 1 kHz
			25 dB at 100 Hz-10.0 kHz
Stereo threshold	FM		17.2 dBf, 2.0 μ V (75 ohms)

General

Power supply	AC 120 V, 60 Hz, 39 W (U.S. & Canadian model, some Asian models)		
	AC 230 V, 50 Hz, 32 W (European model)		
	AC 220 V, 50/60 Hz, 32 W (Other area models)		
Dimensions (W x H x D)	203 x 270 x 234 mm		
	8" x 10-5/8" x 9-3/16"		
Weight	4.2 kg (9.3 lbs)		

Specifications and features are subject to change without notice.
Power supply and voltage specifications depend on where the unit is purchased.

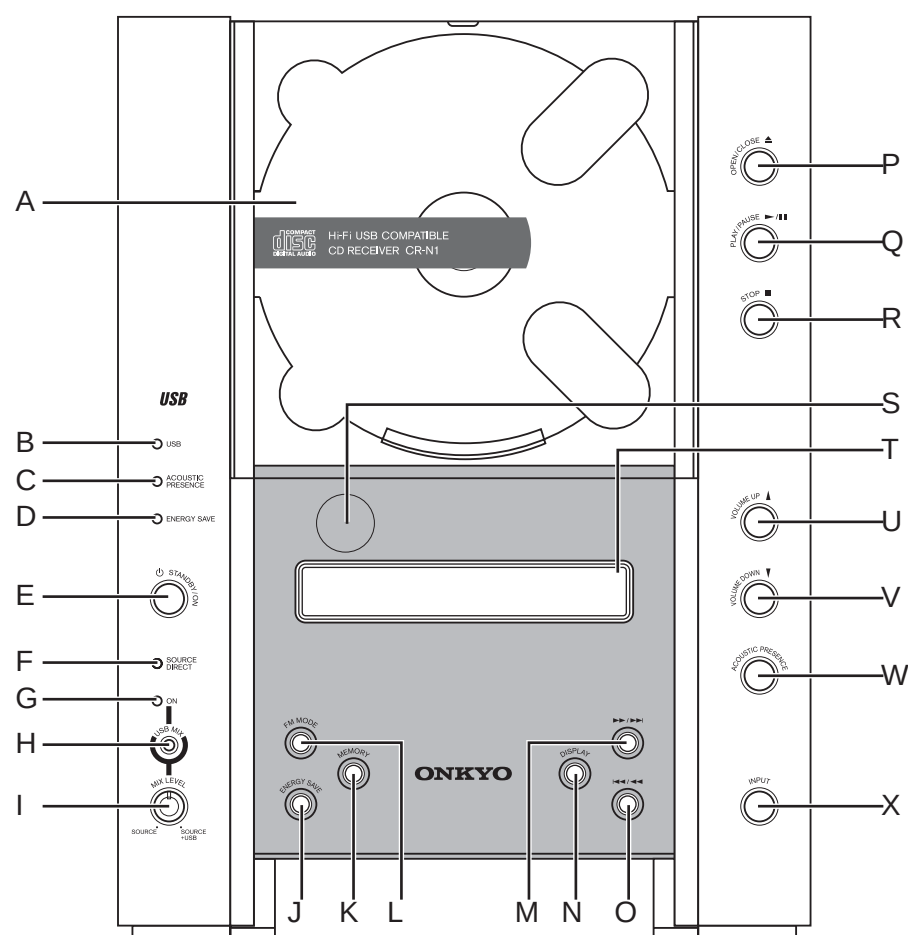
SPECIFICATIONS

D-N1

Type	2way , Bass Reflex
Impedance	4 ohm
Maximum Input Power	30W
Output sound pressure level	83dB/W/m
Frequency Response	63Hz - 35kHz
Crossover Frequency	3000Hz
Cabinet Capacity	2.6 Litter
Woofer	9cm OMF Cone Type
Tweeter	2.5cm Soft Dome Type
Dimensions (W x H x D)	165x271x160 mm
Weight	1.7kg

FRONT PANEL VIEW

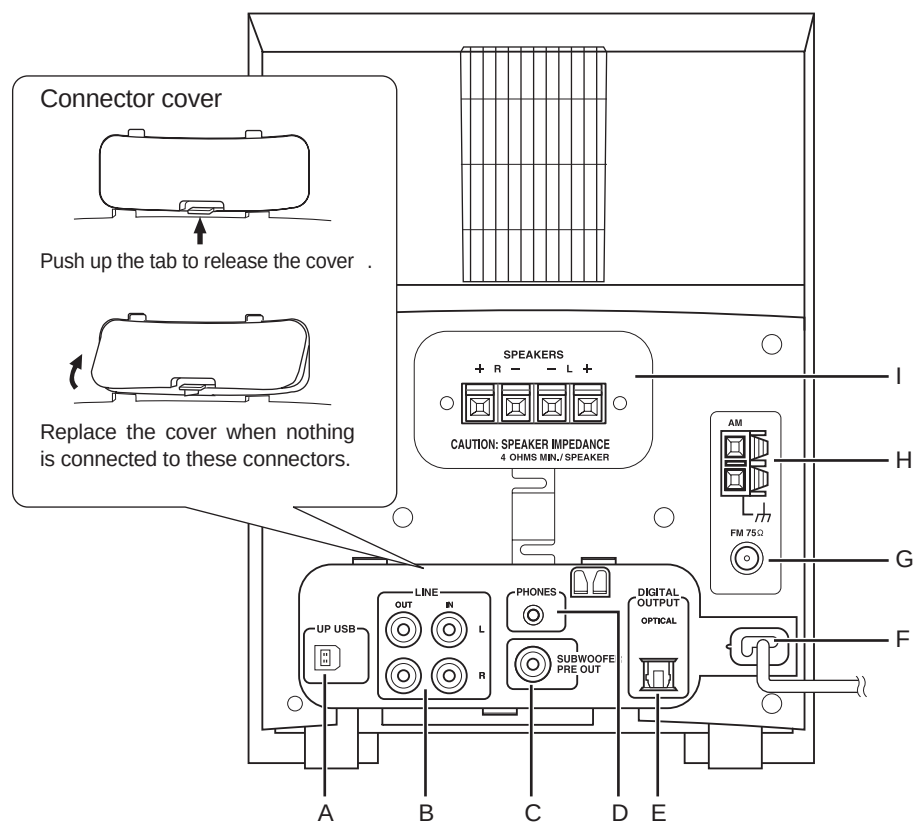
CR-N1(S).(T)



- | | | | |
|---|-----------------------------|---|-------------------------------|
| A | CD compartment | N | DISPLAY button |
| B | USB indicator | O | Previous/Review/Tuning button |
| C | ACOUSTIC PRESENCE indicator | P | OPEN/CLOSE button |
| D | ENERGY SAVE indicator | Q | PLAY/PAUSE button |
| E | STANDBY/ON button | R | STOP button |
| F | SOURCE DIRECT indicator | S | Remote control sensor |
| G | USB MIX ON indicator | T | Display |
| H | USB MIX button | U | VOLUME UP button |
| I | USB MIX LEVEL control | V | VOLUME DOWN button |
| J | ENERGY SAVE button | W | ACOUSTIC PRESENCE button |
| K | MEMORY button | X | INPUT selector button |
| L | FM MODE button | | |
| M | Next/Preview/Tuning button | | |

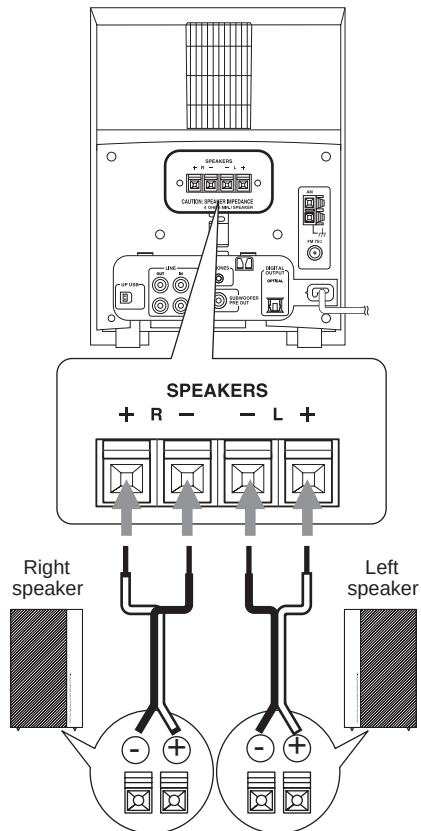
REAR PANEL VIEW

CR-N1(S).(T)



- A UP USB port
- B LINE IN/OUT connectors
- C SUBWOOFER PRE OUT connector
- D PHONES jack
- E OPTICAL DIGITAL OUTPUTconnector
- F Power cord
- G FM 75ohm antenna connector
- H AM antenna terminals
- I SPEAKERS terminals

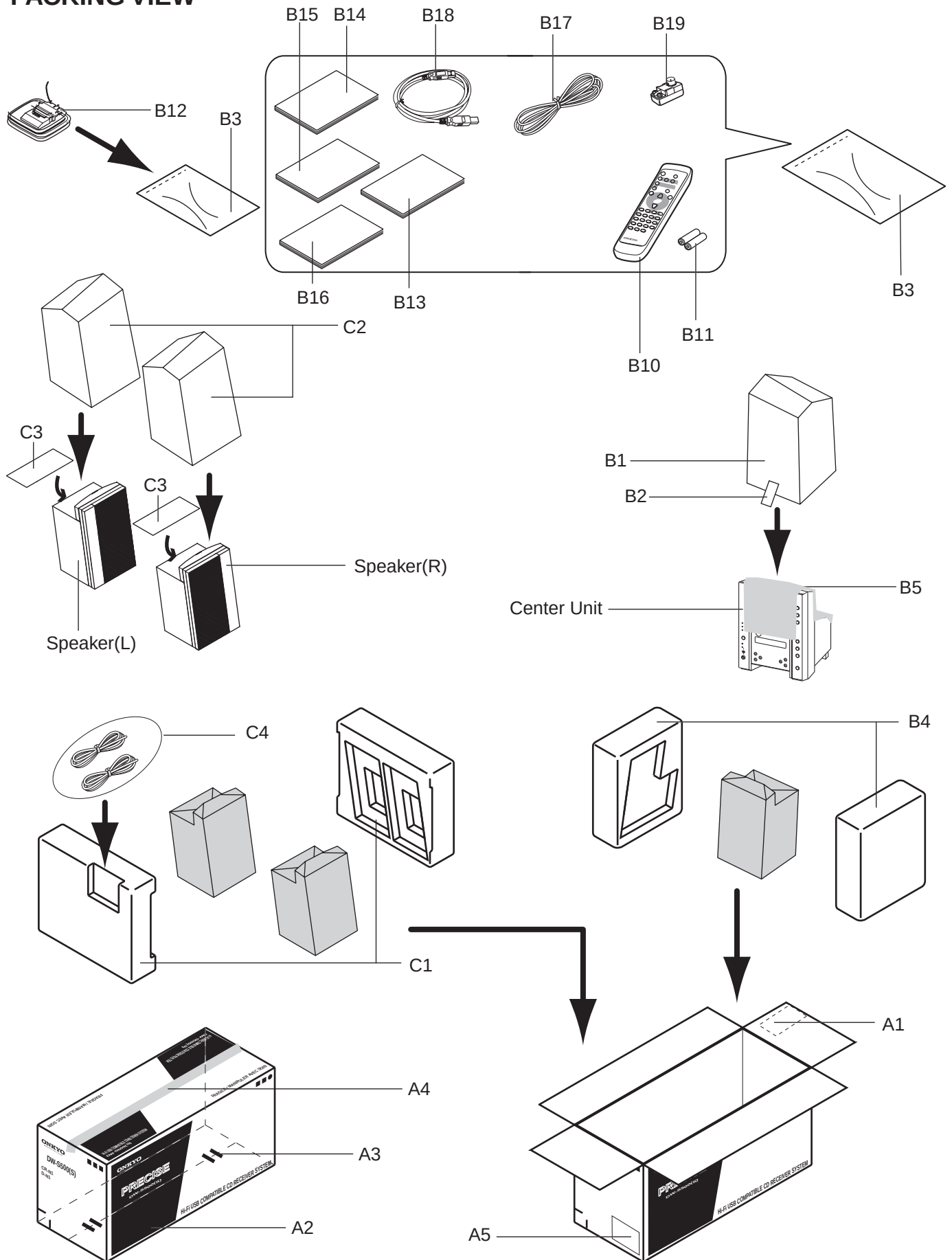
GETTING CONNECTED



Connect the speakers only as shown here.
Incorrect connections may damage the
CR-N1 or the speakers.

These terminals are located on
the underside of the D-N1 speakers.

PACKING VIEW



PARTS LIST

REF NO.	PART NO.	DESCRIPTION	DESTINATION							
			DW-S500	HS-N1(T)	HS-N1(S)					
					PA	DT	GR	GQ	GT	DD
A1	29365090	Warranty card	O	X	X	X	X	X	X	O
A2	29053810	Carton	X	X	O	O	O	O	O	X
	29053809	Carton	X	O	X	X	X	X	X	X
	29053808	Carton	O	X	X	X	X	X	X	O
A3	282301	Staple	O	O	O	O	O	O	O	O
A4	29110098	Tape	O	O	O	O	O	O	O	O
A5	29362925A	UPC Label	O	X	X	X	X	X	X	O
	29362960A	EAN Label	X	O	X	X	X	X	X	X
B1	29100037-1A	Poly bag (650 x 500)	O	O	O	O	O	O	O	O
B2	29110149	Tape	O	O	O	O	O	O	O	O
B3	29100097-1A	Poly bag (350 x 250)	O	O	O	O	O	O	O	O
B4	29092005	Pad ass'y	O	O	O	O	O	O	O	O
B5	29095906	Protection sheet	O	O	O	O	O	O	O	O
B10	24140454A	Remote controller,RC-454S	O	O	O	O	O	O	O	O
B11	3010054	Battery,UM-3	O	O	O	O	O	O	O	O
B12	232140	Antena coil,NMA-3057	O	O	O	O	O	O	O	O
B13	29343196	Instruction manual,E	O	O	O	O	O	O	O	O
B14	29343199	Instruction manual,CT	X	X	X	O	X	X	O	X
	29343258	Instruction manual,CS	X	X	X	X	O	O	X	O
B15	29343197	Instruction manual,U3FSI	X	O	X	X	X	X	X	X
B16	29343198	Instruction manual,U3GSWD	X	O	X	X	X	X	X	X
B17	292142	FM Antenna ass'y	O	X	X	O	X	X	X	X
	292115	FM Antenna ass'y	X	O	O	X	O	O	O	O
B18	2010402	Cord ass'y,USB Cable(A-B)	O	X	X	X	X	X	X	X
B19	25065462	FM Adaptor,YAE21-0237	X	X	O	O	O	O	O	O
C1	404-D-N1	Pad	O	O	O	O	O	O	O	O
C2	434-NS-300	Protection bag,0.5tx440x320	O	O	O	O	O	O	O	O
C3	434-ANS-300	Protection sheet,1tx200x60	O	O	O	O	O	O	O	O
C4	610-PD-N1	Speaker cable	O	O	O	O	O	O	O	O

※1 The parts registration of B1-B19 is done with CR-N1.

※2 The parts registration of C1-C4 is done with D-N1.

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