

# SA-W641/W741

## SERVICE MANUAL

US Model

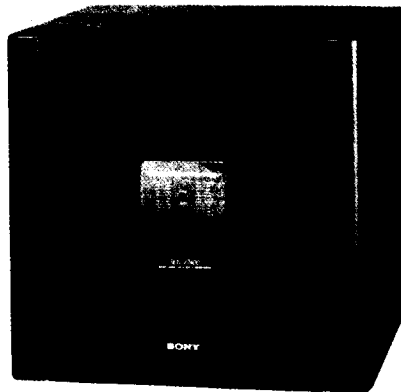


Photo: SA-W741

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

##### POWER OUTPUT AND TOTAL

##### HARMONIC DISTORTION:

With 8-ohm loads (SA-W641), 6-ohm loads (SA-W741), both channels driven, from 20 - 20,000 Hz; rated 120 watts per channel minimum RMS power, with less than 0.9% total harmonic distortion from 250 milliwatts to rated output.

##### Amplifier section

##### Overall output

(SA-W741)

140 W + 140 W (front, at center/rear/  
woofer off at 1 kHz, 6 ohms)  
25 W + 25 W (rear, at front/center/  
woofer off at 1 kHz, 8 ohms)  
50 W (center, at front/rear/woofer off at  
1 kHz, 4 ohms)  
90 W (woofer, at front/center/rear off at  
40 Hz, 8 ohms)

(SA-W641)

140 W + 140 W (front, at center/rear/  
woofer off at 1 kHz, 8 ohms)  
25 W + 25 W (rear, at front/center/  
woofer off at 1 kHz, 8 ohms)  
40 W (center, at front/rear/woofer off at  
1 kHz, 6 ohms)  
50 W (woofer, at front/center/rear off at  
40 Hz 4 ohms)

##### Harmonic distortion

Less than 0.9 % (at 1 kHz, 6 ohms loads,  
front: 140 W + 140 W, at center/rear/  
woofer off)

##### Output

##### FRONT SPEAKERS:

Accept speakers of  
8 - 16 ohms (SA-W641)  
6 - 16 ohms (SA-W741)

##### CENTER SPEAKER: (SA-W641)

Accept speaker of 6 - 16 ohms

##### REAR SPEAKERS:

Accept speakers of 8 - 16 ohms

##### HEADPHONES:

Accepts low and high impedance  
Headphones

##### Speaker section

##### (SA-W741)

##### Type

Active super woofer (magnetically  
shielded design)  
Center speaker (magnetically shielded  
design)

##### Speaker unit

Woofer: 20 cm (8 inches) cone type  
Center: 12 cm (4 3/4 inches) cone type

##### Reproduction frequency range

Woofer: 25 Hz to 150 Hz  
Center: full range

##### (SA-W641)

##### Type

Active super woofer (magnetically  
shielded design)

##### Speaker unit

Woofer: 20 cm (8 inches) cone type

##### Reproduction frequency range

25 Hz to 150 Hz

— Continued on next page —



MICROFILM

Active Super Woofer  
**SONY**®

## General



### (SA-W741)

Power requirements	120 V AC, 60 Hz
Power consumption	330 W
Dimensions	Approx. 500 x 475 x 545 mm (w / h / d) (19 3/4 x 18 3/4 x 21 1/2 inches) (including projecting parts and controls)
Mass	Approx. 34.2 kg (75 lb 7 oz)
Accessories supplied	Feet (4)

### (SA-W641)

Power requirements	120 V AC, 60 Hz
Power consumption	280 W
Dimensions	Approx. 500 x 475 x 480 mm (w / h / d) (19 3/4 x 18 3/4 x 19 inches) (including projecting parts and controls)
Mass	Approx. 31.0 kg (68 lb 6 oz)
Accessories supplied	Feet (4)

## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  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.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Dat Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson 250 and Sanw SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

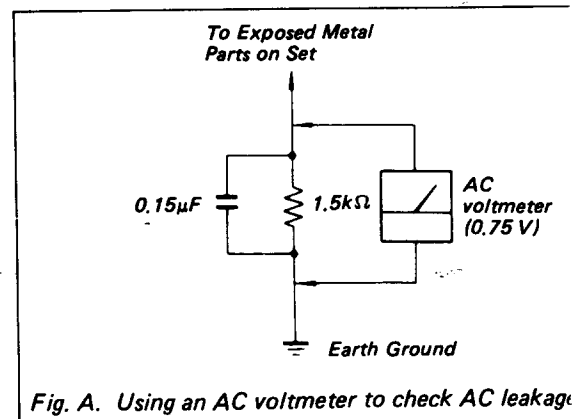
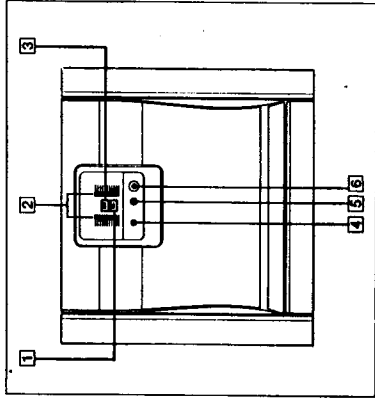


Fig. A. Using an AC voltmeter to check AC leakage

Location and Function of  
Controls

SA-W641

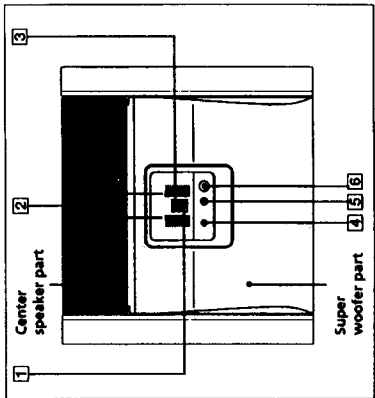


- 1 POWER Indicator**  
Lights up when SYSTEM POWER of an amplifier connected to this unit with SYSTEM CONTROL cord is connected.
- 2 Power level meters**  
The level meters show the power output level of the left channel and right channel independently. You can turn them on and on the level meters by pressing the LEVEL METER button.
- 3 PHASE Indicator**  
The phase polarity is normal when the PHASE indicator is not lit. However, depending on the speakers combined with this unit and its installation position, the reverse setting may sometimes provide a better bass reproduction. Please select the setting which provides the bass reproduction that suits your preference by pressing PHASE on the remote commander (supplied with the amplifier) while listening to the sound in your listening position.
- 4 HEADPHONES**  
For personal listening, connect headphone to the HEADPHONES jack. No sound is heard from the speakers.
- 5 LEVEL METER button**
- 6 CUT OFF FREQ (high-frequency cut-off) control**  
This control adjusts the frequency range of high-frequency cut-off function. This control allows to cut higher frequencies than the cut-off frequency which can be set from 30 Hz to 150 Hz. Adjust the control to your preference.

**Notes**

- The super woofer is automatically turned off when an amplifier connected to this unit is in the PHONO mode and it can not be controlled.
- Place the super woofer directly on the floor. If your floor is made of wood, to obtain high-quality bass sound, we recommend that you attach the supplied feet to the bottom corners of the super woofer for greater stability.

SA-W741



Connecting the Amplifier Having a Super Woofer Output Terminal with the Audio Cord

