harman/kardon Service Bulletin

Service bulletin # 9706 November 1997

Warranty labor rate: MINOR repair

To: All harman/kardon Service Centers

Models: AVR 10/20/25/3250; AVI 100/150/200

Subject: Remote Control has stopped working

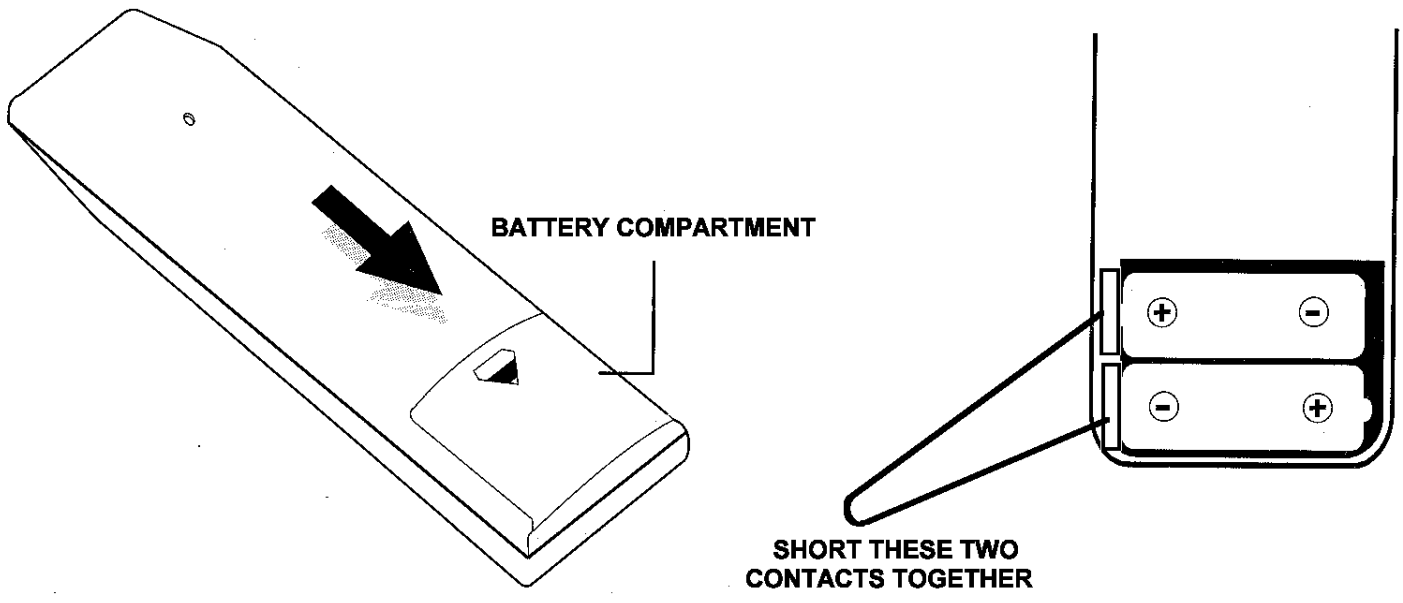
In the event you receive a complaint about a remote control that has stopped working, perform the following tests:

1) Remove the batteries and confirm they are not weak or defective (battery voltage should be 1.4 volts or more). Replace batteries if necessary; both batteries in remote control should be replaced.

2) Point the remote towards the corresponding receiver/amplifier and confirm the remote control functions operate as intended.

3) If Remote Control still doesn't work:
Remove batteries, and with an alligator clip lead or other jumper wire, short the positive and negative tabs inside the control together. (See drawing) This short will drain any remaining charge from the capacitors in the remote control and re-set the microprocessor.

4) Re-insert batteries and test the functions as per item (2) above.



NOTE: This procedure may also work for other h/k model remote controls not listed above.

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Service bulletin # 9502 - February 1995 Warranty labor rate: MAJOR repair

To: All harman/kardon Service Centers

Models:AVR-20/AVI-150 Surround receiver/amplifier

Subject: Low impedance protect circuit, intermittend shut down.

The power rating for the AVR-20 and AVI-150 is 60 Watts into 8 Ohms. The AVR-20 and AVI-150 protection circuits will not activate until the loudspeaker impedance drops below 4 Ohms. During transients in certain CD program material, the instantaneous impedance of some loudspeakers with impedance ratings of "8 Ohms" can drop well below 4 Ohms. As result, the low impedance protection circuit will be activated.

In the event you receive from a consumer one of these products with the complaint "unit shuts down intermittendly" change the components indicated in the table below. After the change, confirm the idling current by measuring the voltage between the emitters of the output transistors. The test points are TP1/TP2 and TP3/TP4. The voltage reading should stabilize at 26 mV after the unit has been switched on for at least 15 minutes.
If needed, adjust idling current potentiometers VR251L/VR251R until you read 26 mV.

Change		From	To	Part #
Driver Transistor	Q214L/214R	2SC2690(A)	2SC4883(A)	2028307101
Driver Transistor	Q215L/Q215R	2SA1220(A)	2SA1859(A)	2028007101
Power Transistor	Q216L/Q216R	2SC3181 (O)	2SC3182(O)	2028307101
Power Transistor	Q217L/Q217R	2SA1264(O)	2SA1265(O)	2028007101
Resistor	R244L/244R	1.8kOhm	1.8kOhm 1/8 W	GD05182160
Resistor	R243L/R243R	2.2 kOhm	2.0 kOhm 1/8 W	1-118-202-25
Capacitor *	C223L/C223R	0.068mfd	10.0 mfd 16 V	E510601610

*Minus to emitter of Q218L / Q218R

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Service bulletin # 9601 -January 1996 Warranty labor rate: MINOR repair

To: All harman/kardon Service Centers

Models: AVR-20/AVR-20II Surround receiver/amplifier
AVR-25/AVR-25II

Subject: Poor or intermittent reception of FM

In the event you receive a unit from a consumer with a complaint "FM cuts out intermittently" use the procedure listed below in addition to the procedure listed in the service manual for FM alignment.

To supplement the manual, for FM center tuning alignment follow these procedures;

AVR20/AVR20II

Alignment	Equipment settings	Adjust	Adjust For
Quadrature	Tune to a known strong FM station around center of the band (98.1MHz)	T803	0 VDC across R809, confirm by tuning to another strong station.

Repeat step 1 in service manual for minimum distortion. Repeat both steps again for optimum sensitivity.

**note: step #4 in AM IF states adjustment point VR802, should be VR801*
step #2 in FM IF states adjustment point VR801, should be VR802

AVR25/AVR25II

Alignment	Equipment settings	Adjust	Adjust For
Quadrature	Tune to a known strong FM station around center of the band (98.1MHz)	T903	0 VDC across R914, confirm by tuning to another strong station.

Repeat step 1 in service manual for minimum distortion. Repeat both steps again for optimum sensitivity.