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# VOLVO TRUCKS

## Troubleshooting Guide For Multiband Antenna System

# Troubleshooting Part Numbers and Models

## VERIFYING VOLVO TRUCK MODEL AND MULTIBAND ANTENNA SYSTEM

<u>Truck Model</u>	<u>Antenna System Type</u>	<u>Whip</u>		<u>Multiplexer</u>	
		<u>RAMI P/N</u>	<u>Volvo P/N</u>	<u>RAMI P/N</u>	<u>Volvo P/N</u>
VN Series	Dual Antenna System	MASC-3A-2	8078537	MASC-4A-2	20461892
VN Series	Single Antenna System	MASC-3A-1	20461808	MASC-4A-1	20461806
2287 Model	Dual Antenna System	MASC3AV2-48	N/A	MASC4AV3	20446445
2287 Model	Single Antenna System	MASC3AV2S-48	N/A	MASC4AV3S	20478021
WG Model With Fiberglass Roof	Dual Antenna System	92D-MMAS-1A-1	N/A	92D-MMAS-3A-1	N/A
		92D-MMAS-1A-2	N/A	92D-MMAS-3A-2	N/A
		92D-MMAS-1A-3	N/A	92D-MMAS-3A-3	N/A
		92D-MMAS-1A-9	N/A	92D-MMAS-3A-9	8179516
WG Model With Metal Roof	Dual Antenna System	92D-MMAS-1A-1M	N/A	92D-MMAS-3A-1M	N/A
		92D-MMAS-1A-2M	N/A	92D-MMAS-3A-2M	N/A
		92D-MMAS-1A-3M	N/A	92D-MMAS-3A-3M	N/A
		92D-MMAS-1A-9M	N/A	92D-MMAS-3A-9M	8179517

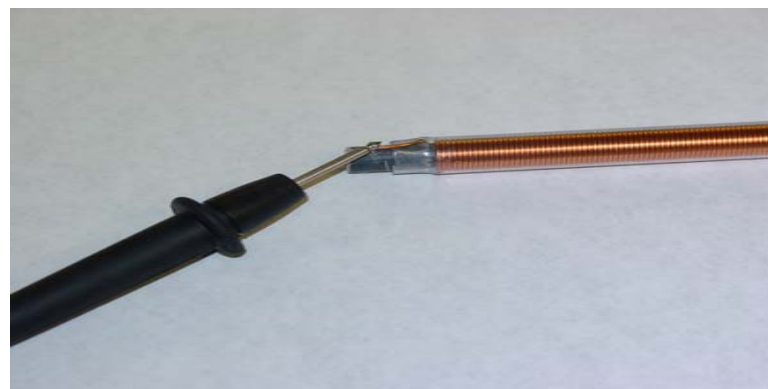
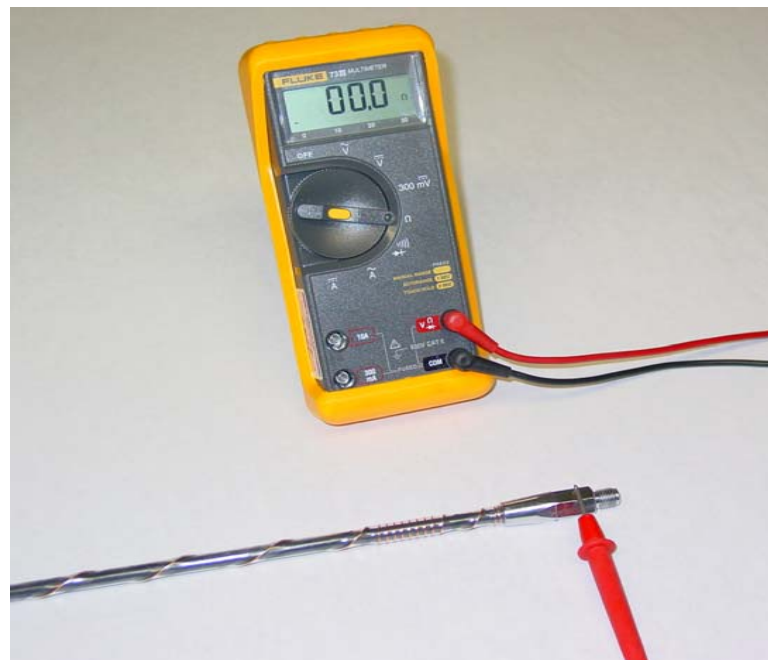
Whip lengths available: 30", 36", 42", 48" & 54"  
 Not all whip lengths are available for all Antenna Systems.  
 Contact R.A. Miller Industries for details.

# Troubleshooting Whip

## Whip Antenna:

Verify that each whip antenna has a good connection/solder joint at the ferrule end of the antenna. Remove the antenna cap and make a small cut in the heat shrink if required to expose the wire. Do not allow the wire to come out of the slot and uncoil. Using an ohmmeter, check for dc continuity from the antenna ferrule to the tip of the coiled wire at the opposite end of the antenna. While checking for continuity, flex/twist the ferrule end to check for intermittent breaks at the solder joint.

NOTE: The wire is coated with an insulating material. Before performing a continuity check, lightly sand the coiled wire end to expose a small “uncoated” portion near the tip of the antenna.



# Troubleshooting Bracket

With the CB and AM/FM/WB cables disconnected from the radios, test the following:



Using an ohmmeter, verify that the antenna mount bracket assembly has no dc continuity between the standoff nut and the ground portion.

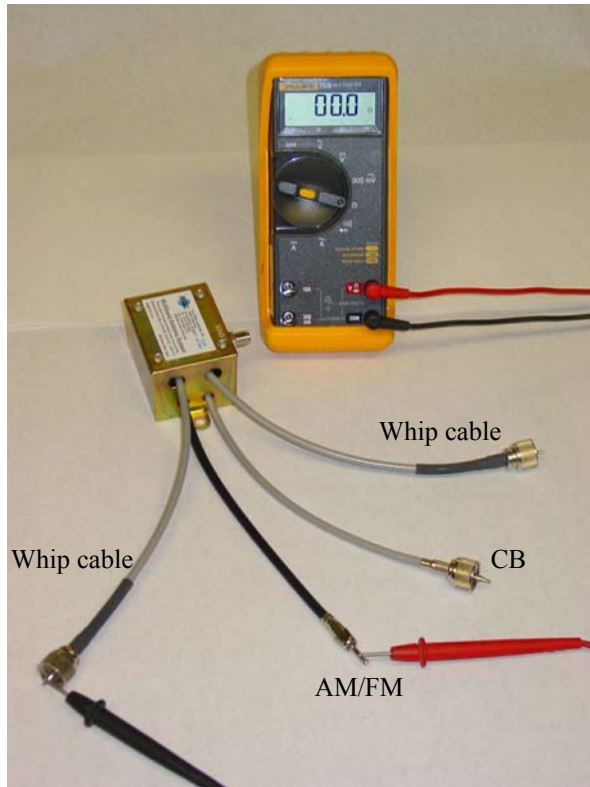


Then verify that the ground portion of the bracket has dc continuity to chassis ground (less than 5 ohms).

# Troubleshooting Multiplexer Box

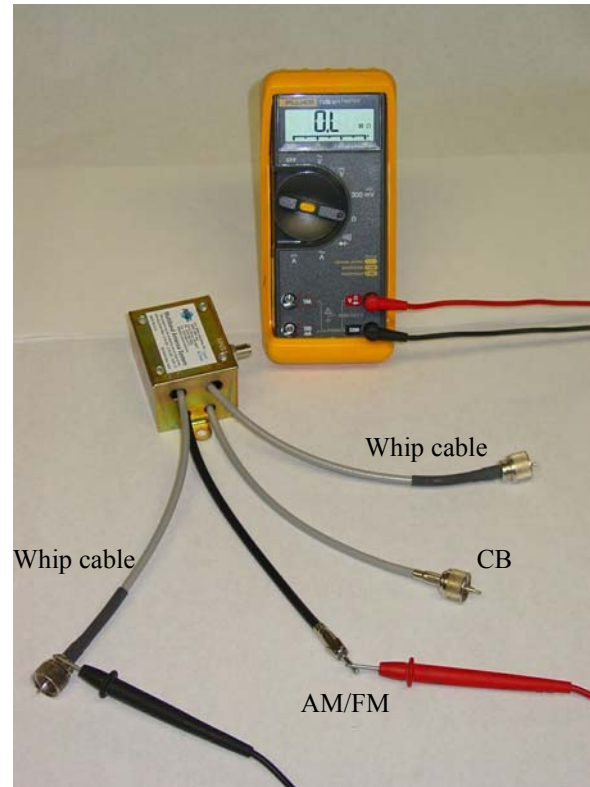
\*Testing continuity through the CB cable is no longer possible as the internal components do not provide a D.C. path. To verify continuity through the whip antenna cables, checks are made to the AM/FM Motorola connector.

Center to Center



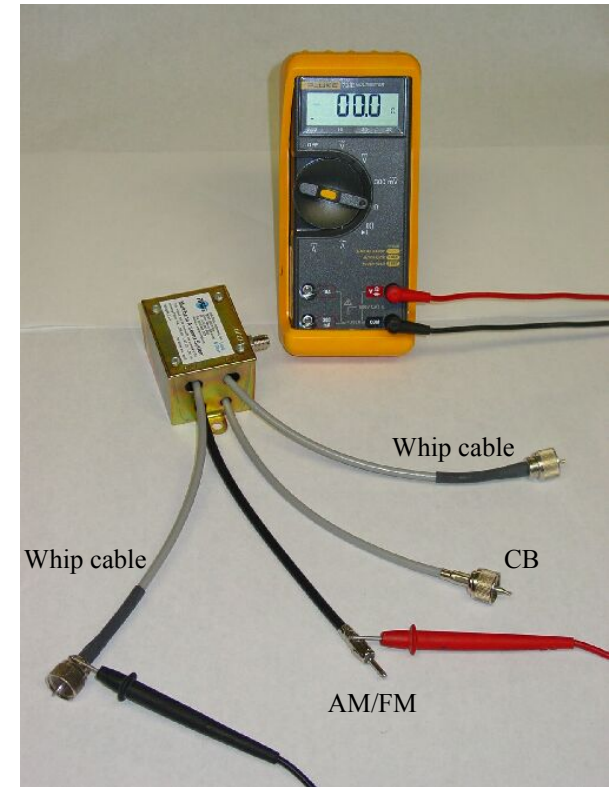
With cables disconnected from the bracket mount assemblies Test from the AM/FM cable center conductor to the whip cable center conductor – dc continuity

Center to Outer



With cables disconnected from the bracket mount assemblies Test from the AM/FM cable center conductor to the whip cable outer conductor – no dc continuity

Outer to Outer



With cables disconnected from the bracket mount assemblies Test from the outer shell of the AM/FM cable connector to the whip cable outer conductor – dc continuity