



R.A. Miller Industries, Inc.
P.O. Box 858
Grand Haven, MI 49417-0858
(616) 842-9450

FREIGHTLINER TRUCKS

Troubleshooting Guide For
Multiband Antenna System

Troubleshooting Part Numbers and Models

VERIFYING FREIGHTLINER TRUCK MODEL AND MULTIBAND ANTENNA SYSTEM

<u>Truck Model</u>	<u>Antenna System Type</u>	<u>RAMI P/N</u>	<u>Whip</u>		<u>Multiplexer</u>	
			<u>Freightliner P/N</u>	<u>RAMI P/N</u>	<u>Freightliner P/N</u>	
Columbia or Century Class	Dual Whip System	MASC3AF1	06-32595-000	MASC4AF1	06-32594-000	
Columbia or Century Class	Single Whip System	MASC3AF1S	06-32595-001	MASC4AF1S	06-32594-001	
FLD-120	Dual Whip System	MASC3AF2	06-32595-004	MASC4AF2	06-32594-004	
Business Class	Dual Whip System	MASC3AF3-48	06-32595-006	MASC4AF3	06-32594-006	
Business Class	Single Whip System	MASC3AF3S-48	06-32595-007	MASC4AF3S	06-32594-007	
Argosy	Dual Whip System	MASC3AF4-48	06-32595-002	MASC4AF4	06-32594-002	
Argosy	Single Whip System	MASC3AF4S-48	06-32595-003	MASC4AF4S	06-32594-003	
XL Classic	Dual Whip System	MASC3AF5	06-32595-005	MASC4AF5	06-32594-005	
Coronado	Dual Whip System	MASC3AF1	06-32595-000	MASC4AF6	06-32594-010	
FLM	Dual Whip System	MASC3AF7-48	06-32595-011	MASC4AF7	06-32594-012	
FLM	Single Whip System	MASC3AF7S-48	06-32595-010	MASC4AF7S	06-32594-011	
Cascadia	Dual Whip System	MASC3AF8-48	06-32595-012	MASC4AF8	06-32594-013	

Whip lengths available: 30", 36", 42", 48" & 54"

Not all whip lengths are available for all Antenna Systems.

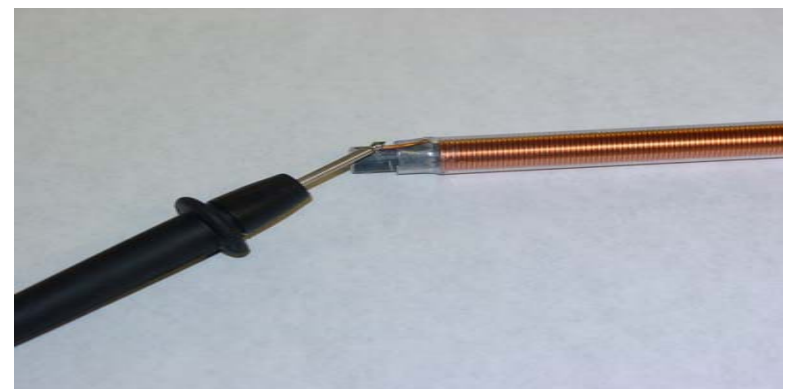
Contact R.A. Miller Industries for details.

Troubleshooting Whip

Whip Antenna:

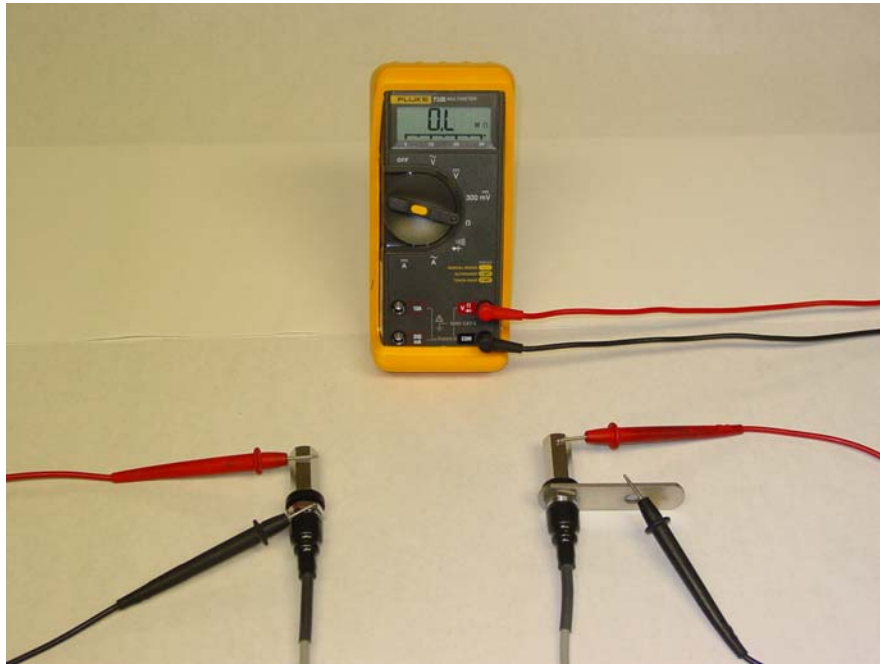
Verify that each whip antenna has a good connection/solder joint at the ferrule end of the antenna. Remove the antenna cap and make a small cut in the heat shrink if required to expose the wire. Do not allow the wire to come out of the slot and uncoil. Using an ohmmeter, check for dc continuity from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

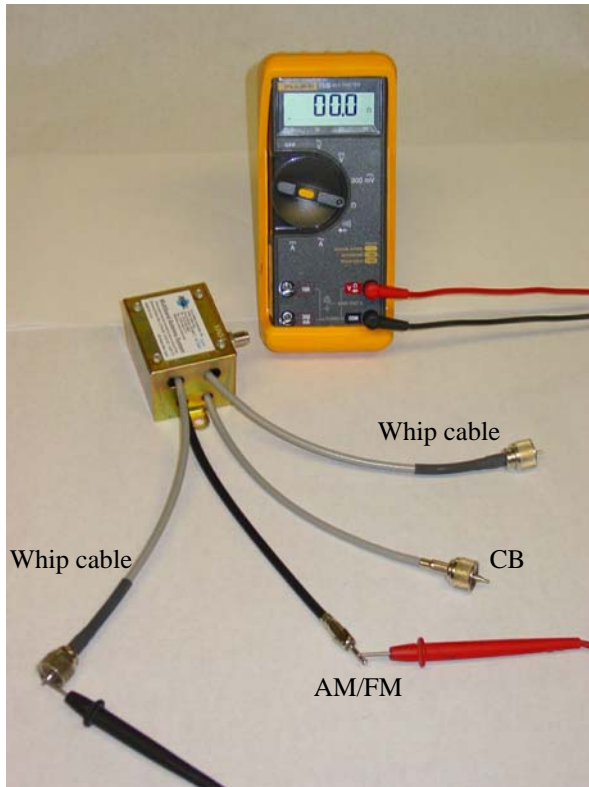


Then verify that the ground portion of the bracket has dc continuity to chassis ground (less than 5 ohms).

Troubleshooting Multiplexer Box

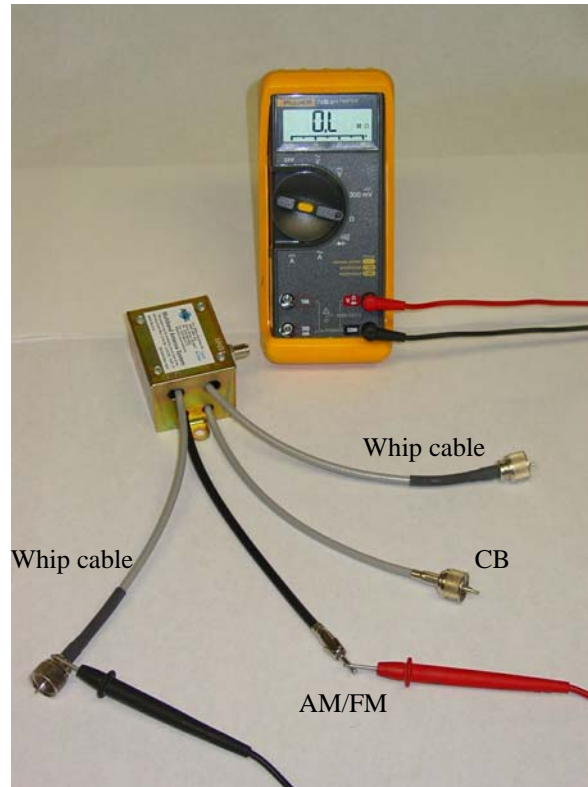
*Testing continuity through the CB cable is no longer possible as the internal components do not provide a D.C. path. To verify continuity through the whip antenna cables, checks are made to the AM/FM Motorola connector.

Center to Center



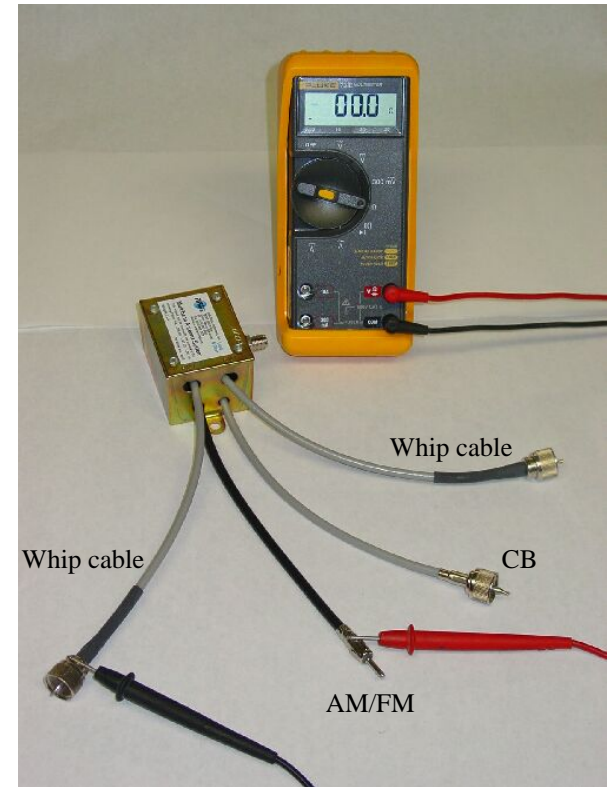
With cables disconnected from the bracket mount assemblies Test from the AM/FM cable center conductor to the whip cable center conductor – dc continuity

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