

Model

OZV-1

Vehicle On-Glass Mount

VHF Mobile Antenna, 86 cm

Frequency Range

VHF 144 – 175 MHz

Field Tune to 4 MHz Bandwidth

2.1 dBi Gain

- Includes 4.5 metre RG58 low loss stranded cable.
- 30 watts maximum input power.

INSTALLATION and TUNING GUIDE

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PLEASE READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY PRIOR TO INSTALLATION

Absolute cleanliness is essential to provide a good adhesive bond to the glass. Prior to installation the window should be cleaned with a good non-silicone based cleaner. To ensure maximum adhesion it is recommended the vehicle is not driven any significant distance for a period of 2 hours after installation.

INSTALLATION GUIDE

1. Find a suitable mounting location on the rear or side window of the vehicle. This location should be clear of any metallic attachments. ie. Roof racks, ski bars and other antennas. If this is not possible, the whip length may need extra trimming to counteract the loading effects provided by these attachments. In this case start 5 mm longer than the cutting chart indicates.

Caution: Make certain that the chosen location for the antenna does not interfere with the windscreen wipers or the driver's visibility.

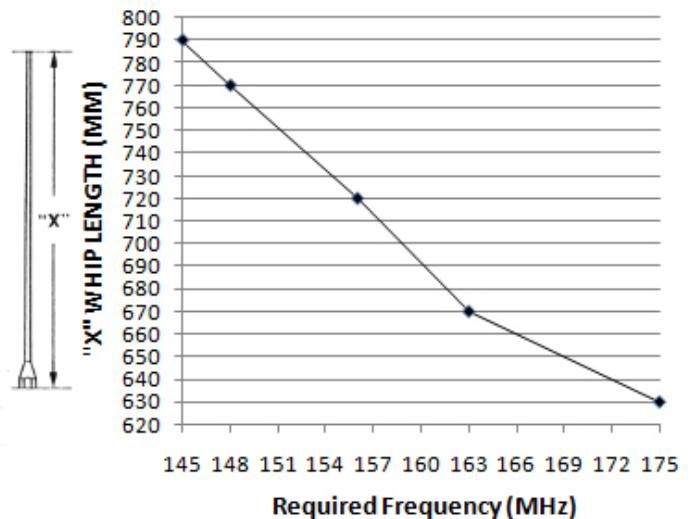
Normally the antenna is installed above and clear of any vehicle screen demister wires. If the demister wires extend all the way to the top of the window the antenna should be installed so as the antenna is situated equally between two top demister wires. The metal antenna coupling plates must not cross any of the demister wires. Problems may occur where demister wires also act as an AM/FM radio antenna.

2. When the area has been selected, wash the window with a detergent solution and wipe dry. Then use one of the supplied alcohol pads to further remove the road film from the window area where the antenna base will be mounted.
3. Remove the white protective film from antenna base and place the antenna in its desired location. Observe from the inside of the vehicle and if air bubbles are seen between the glass and the adhesive pad, press the antenna outer molding firmly so as to remove these air bubbles.
4. Using the second alcohol pad, similarly clean the glass area inside the vehicle adjacent to the external whip assembly.
5. Remove the white protective film from the coupling box and install the internal coupling box exactly under the external antenna base.
6. Route the un-terminated end of the 4.5 metres of RG58 coaxial cable to the communications equipment via the most direct route. The cable can be located in the head lining or under the carpet as desired.
7. Fit the connector end of the cable to the internal coupling box.
8. The un-terminated end of the cable may be cut to the shortest length necessary. Carefully fit a connector suitable for the communications equipment. (No connector is supplied.)
9. The maximum input power is 30 watts.

TUNING GUIDE

1. Using the whip cutting chart below, cut the whip to the length indicated for your operating frequency.
2. Adjust the angle of the whip to vertical and lock in place with the 3 mm hex key supplied.
3. Connect a suitable SWR meter between the communications equipment and the antenna.
4. Remove the Tuning Dust Cap located centrally on the Internal Coupling Box. This provides access to the tuning capacitor located inside.
5. Adjust for minimum VSWR using a non-conductive tuning tool. A result of typically 1.2:1 should be attainable at the centre frequency.
6. If the VSWR is higher than 1.5:1, trim 2 mm off the top of the whip and tune again.
7. Repeat until an acceptable VSWR is obtained, ideally lower than 1.5:1.
8. Once adjustment is complete, replace the Tuning Dust Cap.

WHIP TUNING CHART



TYPICAL V.S.W.R. RESPONSE CURVE

