

Installation Instructions

CBR-2AC, CBR-2DC
CBR-3AC, CBR-3DC

CARRIERBAND FIBER OPTIC REPEATERS

Power

The Repeater is powered from an AC or DC power source depending on the model chosen.

- AC power requirements are 120/240 Vac, 50/60 Hz, 15 W. The power cord connection to the Repeater is a standard IEC 320 plug. Different types of power cords can be used to adapt to various power sources.
- DC power requirement is 24Vdc, 15W. It is important to note that the CBR-2DC is considered to have a permanent connection to the power supply. A readily accessible disconnect device is required between the power connections on the Repeater and its power source. This shall be provided during the installation of the unit in a manner to comply with local electrical regulations. The power wiring should also be protected from electrical surge.

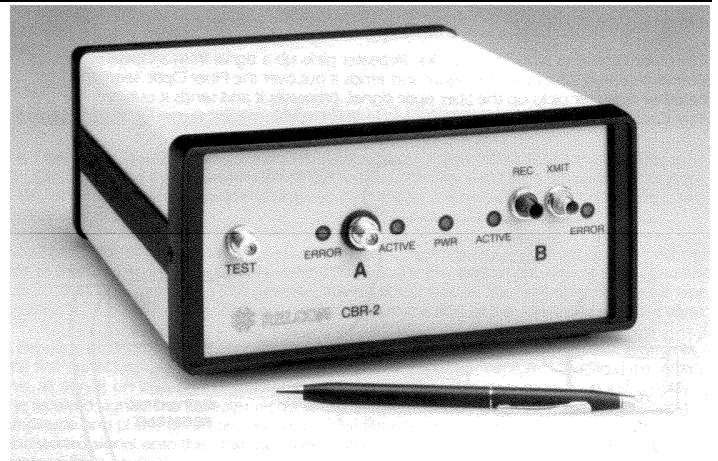
Installation

The Repeater is connected to segments of the Carrierband network like any other station through a drop cable and a tap. The following should be considered when installing a Repeater:

- The Repeater should be installed in accordance with the hazardous area control drawing on the last page of these installation instructions.
- Place the Repeater where its indicator lights can be seen. This will help identify and isolate network problems if they occur.
- While the Repeater is fully enclosed, it is not waterproof. Install the Repeater in a dry place.
- The Repeater operates at temperatures between -20 and +65 degrees Centigrade (-4 to 150 degrees F). However, do not install the Repeater in places where it will be heated by other equipment or where there is no airflow.
- No special requirements for mounting. 19" rack mounting kits for Repeaters are available:
 - CBR-A0050A Single
 - CBR-A0060A Double

For guidance on Carrierband networks and Industrial fiber optics, see Relcom's "Carrierband Network Handbook" and "Guide to Industrial Fiber Optics" on our website: www.relcominc.com.

More detailed operational information for the repeaters is available on our website in document 500-375.



Grounding

Both F-connectors are grounded to the Repeater's case to reduce RFI emissions.

- On AC powered Repeaters the case is connected to the mains ground and to the ground stud.
- On DC powered Repeaters the case is connected to the ground terminal and ground stud.
- Attach a ground wire from the ground stud to the grounding facilities provided in the building. Use a grounding wire that has a current carrying capacity equal or greater than that of the drop cable outer conductor.

Front Panel Connectors

Test: F-type (Normally not connected. See manual for information.)

A: F-type (connected to an IEEE-802.4 tap drop port). (torque to 35 in-lbs.)

B: ST-type front panel fiber-optic connectors.

Note: OEM models have the power and ground connections on the front of the unit.



DC Models:

WARNING: FOR PERMANENTLY CONNECTED EQUIPMENT, A READILY ACCESSIBLE DISCONNECT DEVICE SHALL BE INCORPORATED IN THE FIXED WIRING.

AVERTISSEMENT: POUR LES ÉQUIPEMENTS RACCORDES EN PERMANENCE, UN DISPOSITIF DE DÉCONNEXION FACILEMENT ACCESSIBLE DOIT ÊTRE INCORPORÉ DANS LE CÂBLAGE FIXE.

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Equipment Ratings:

- Pollution Degree 2;
- Installation category II;
- Altitude 2000m;
- Humidity 80% up to 31°C decreasing linearly to 50% rH at 40°C; max. 80% rH non-condensing.
- Electrical supply
 - AC versions: 120/240 Vac, 50/60 Hz, 15W
 - DC versions: 24Vdc, 15W
- Indoor use only. Not intended for outdoor exposure. Must be adequately protected from the elements, dust, moisture, hazardous substances, etc.
- Temperature -20°C to 65°C
- Electrical supply variations not to exceed +/- 10% of the nominal values above.

This equipment has been certified by CSA for electrical safety. Use outside of these specifications and instructions may impair that protection.

Equipment Maintenance and Service:

No regular maintenance is required on the product. Proper operation requires that the connections to the unit are done correctly and that they do not loosen. Occasional maintenance may be required to ensure the connections remain secure.

These products contain no user serviceable parts. Please contact the factory for repair options. Do not open and attempt service to the unit.

Ensure that the Mains power cord used to connect the unit to AC power is adequately rated.

If cleaning is necessary, use a damp cloth and if needed a mild detergent.

Note:

These instructions apply to the OEM versions of the CBR-2 products which contain an "H" or "HC" suffix on the listed part numbers.

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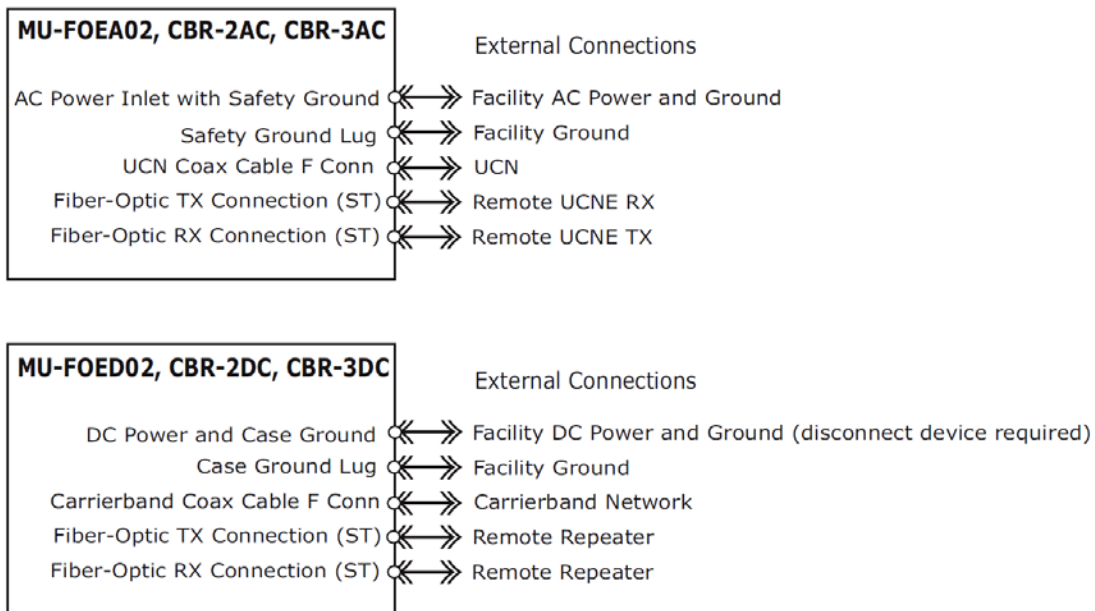
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CARRIERBAND FIBER OPTIC REPEATERS

HAZARDOUS (CLASSIFIED) LOCATION

Class I, Division 2, Groups A, B, C, D

-20°C ≤ Tamb ≤ 65°C



WARNING:

EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.



Installation should be done in accordance with this drawing

Part Numbers:
MU-FOEA02, MU-FOED02, CBR-2AC, CBR-2DC
CBR-3AC, CBR-3DC

Installation must be in accordance with the National Electrical Code (NFPA 70, Article 504), ANSI/ISA-RP12.6, and CEC Part 1

Relcom Inc. <small>INDUSTRIAL LAN WIRING COMPONENTS AND TESTERS</small> 2221 Yew Street, Forest Grove, Oregon 97116 USA	
Title: CONTROL DRAWING for Carrierband Repeaters Class I, Division 2 Hazardous Locations	
Approved By: Mike Strauser	Date: 3-22-16
Drawing Number: 501-501	Rev.: B.0