WARNING! ⚠️ *Only qualified technical personnel should attempt to install this device. An attempt to install this device by a person who is not technically qualified could result in a hazardous condition to the installer or other personnel, and/or damage to this device or other equipment. Please ensure that proper safety precautions have been made before installing the MBC-1.5 and displays.*

Description

Model MBC-1/CPx is a do-it-yourself cable package for the MBC-1.5 Message Board Controller. The package consists of a reverse breakout box and a short RJ-12 cable jumper for the display.

The Beta-Brite and similar displays use unshielded cable with an RJ-12 connector for data I/O. While this is inexpensive and easy to use, it is not the best choice in electrically noisy broadcast environments. Shielded cable works better in this case, especially over longer distances.
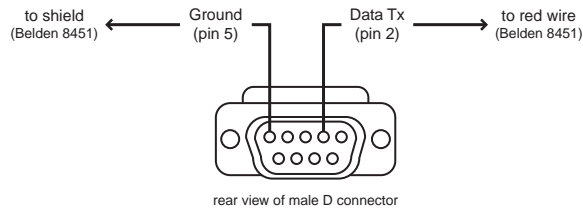
The MBC-1/CPx converts installer supplied, shielded cable to the RJ-12 connector required by the display. It also provides a convenient way to connect multiple displays to a single MBC-1.5.

The MBC-1/CPx requires an MBC-1.5 and one or more Beta-Brite or compatible display devices. These parts are sold separately.

Disconnect power and data cables from the MBC-1.5 before servicing the system.
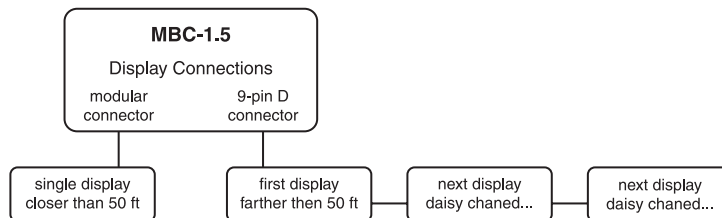
Connection to the MBC-1.5

Only one connection can be made with RJ-12 modular connectors. When long cables and/or multiple displays are used, a custom cable must be made using a 9-pin D connector. A suitable connector is supplied with the MBC-1.5.

to shield (Belden 8451) ← Ground (pin 5)   Data Tx (pin 2) → to red wire (Belden 8451)
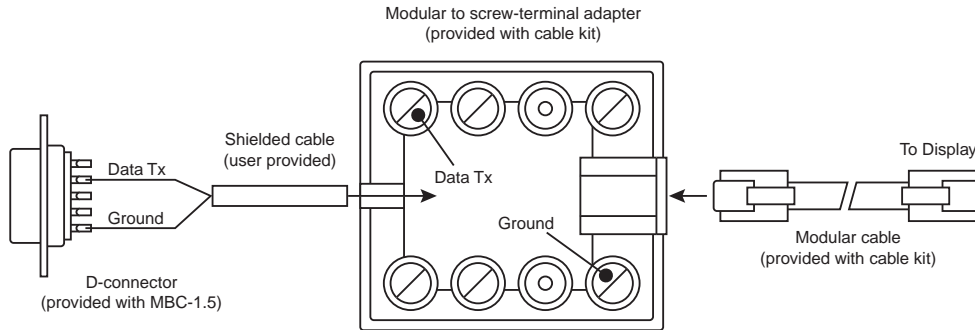
rear view of male D connector

Display Connections

With multiple displays, the goal is to keep the total cable length as short as possible. In many cases, displays can be daisy chained to each other rather than wired directly back to the MBC-1.5. This minimizes the overall cable load.

MBC-1.5
Display Connections
modular connector   9-pin D connector

single display closer than 50 ft | first display farther then 50 ft | next display daisy chaned... | next display daisy chaned...
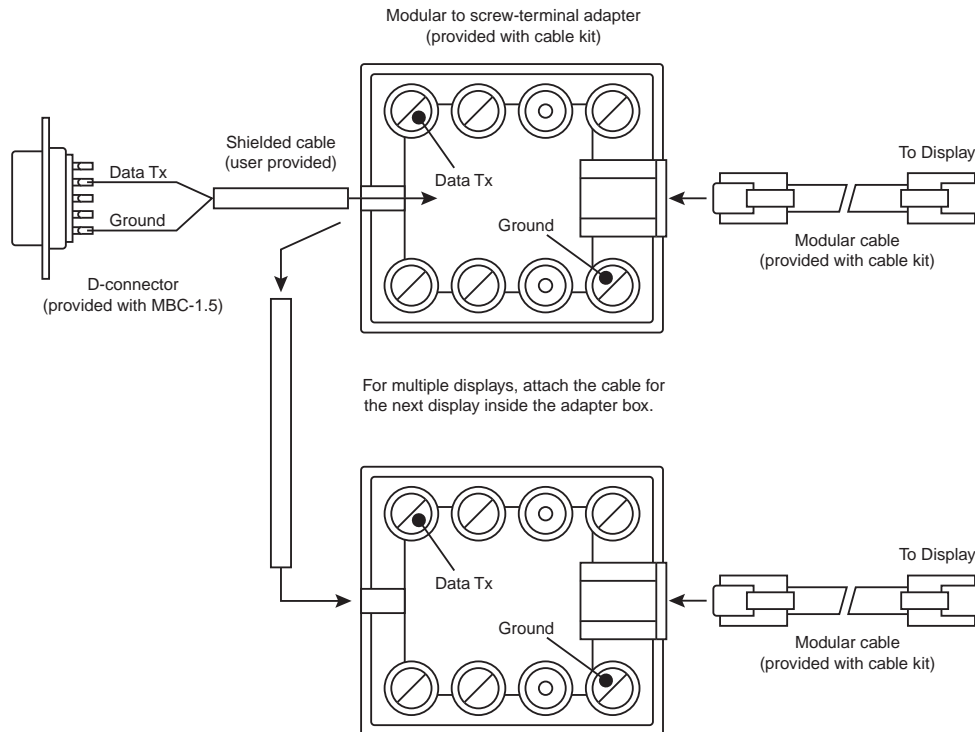
Cable   Termination

When shielded cable is used, it should be terminated with a 9-pin D connector at the end that will attach to the MBC-1.5. The Beta-Brite only receives data so two conductors are needed. Use an insulated conductor for the data connection and use the shield for the data ground connection.

The Beta-Brite has a modular connector that does not accommodate shielded cable. A short RJ-12 cable and an RJ-12 to screw-terminal adapter are included in the cable kit. These form a simple and reliable connection between the shielded cable run and the modular jack on the Beta-Brite.

Multiple displays are connected between the adapter boxes. Each display connects to the adapter of the previous.