HME

R

EC10 Antenna Coverage Extension Kit

INSTALLATION INSTRUCTIONS

Use this Antenna Coverage Extension Kit to improve the signal coverage area and reduce multi-path dropouts. It allows two antennas to be mounted on or near the base station, and two antennas to be mounted remotely, up to 30 feet (9.14 meters) from the base station. The remote antennas can be mounted inside for normal operation or outside for speed-team coverage. Note the various configurations shown in Figure 5 (page 5). Other combinations of cables and antennas may be required, depending on the store layout.

Things to consider before mounting the base station and antennas

- Sheets of stainless steel on the walls may shield or reflect radio signals.
- The base station should be located where, if you stand with your back to the wall, you can see most of the work area where the Communicators will be used.
- The number of walls between the base station and where the Communicators will be used should be minimized.
- Outside coverage may be needed for Speed Team operation.
- Large windows will allow the signal to pass through and can improve outside coverage.
- If a system is being replaced, it may not be desirable to use the same mounting location for the base station as used before.

Each EC10 kit consists of a splitter, one 30 foot (9.14 meter) cable and one 6 foot (1.83 meter) cable, an antenna and two antenna wall-mount brackets. The splitter shown in Figure 1 attaches to an antenna connector on the base station, allowing two cables, or a cable and an antenna to be connected in place of one antenna. Instructions on the following pages describe standard antenna connections using the EC10 splitter and cables. Varying site conditions may require different configurations than those described.



Figure 1. EC10 splitter



Figure 2. Typical one and two splitter hookups

Tools Required:

- Phillips (cross-point) screwdriver, size #2
- Power drill and drill-bit set

Procedure:

Before doing anything else, install two antennas on the base station. With the base station power on, do a walk test to observe the antenna coverage dropout areas. Walk the speed team area and all areas in the store where coverage is needed. Using a COMMUNICATOR[®] with a fully charged battery, press and release the "B" button often as you walk, to be sure you can make a connection from all locations. Note areas of spotty coverage, where remote antennas may need to be mounted.

1. To install splitters, extension cables and antennas

After you know the antenna coverage requirements, install the enclosed EC10 splitter(s) with the extension cable(s) and mounting bracket(s) as follows, to mount up to four antennas at various locations inside and/or outside the building for extended coverage.

- Remove electrical power from the base station.
- Lay out the enclosed antenna cables, with their female connectors near the base station and male connectors at the locations where the antennas will be mounted. To minimize stress on the base station connectors, bend each cable so its female connector is aligned with the base station antenna connector before connecting it.

• Mount the enclosed splitter on the base station antenna connector as shown in Figure 3.



Figure 3. Splitter on base station antenna connector

- Screw the female connector of the 30 ft (9.14 meter) antenna cable onto one of the antenna connectors on the splitter.
- Screw an antenna onto the male connector at the other end of the antenna cable.
- Screw another antenna onto the other splitter connector.

NOTE: If necessary to further improve the coverage area, the 6 ft (1.83 meter) antenna cable can be used between this antenna and the splitter.

- Return electrical power to the base station.
- Place the antenna in the area where improved performance is required, and walk test transmission and reception again, with two people using COMMUNICATOR®s (with fully charged batteries), pressing the "B" button to talk to each other. Move the antenna around the area while talking, to determine the mounting location where the antenna will have the best possible transmission and reception.

2. To mount remote antennas on walls

- Hold the enclosed antenna mounting bracket against the wall at the desired mounting location and mark the wall through the two screw holes in the bracket. It may be necessary to mount the antenna high enough to avoid a safety hazard or possible damage to the antenna.
- Remove the bracket from the wall and drill two ³/₁₆ inch (4.76mm) holes in the wall at the marked spots.
- Insert the enclosed screw anchors into the holes.
- Place the enclosed screws through the holes in the bracket and screw them into the two screw anchors to secure the bracket to the wall.
- Again remove electrical power from the base station.
- Remove the antenna from the antenna cable. DO NOT remove the antenna cable from the base station.
- Unscrew the hexagonal nut from the antenna cable connector.
- Insert the antenna cable connector through the hole in the mounting bracket as shown in Figure 4, and screw the hexagonal nut onto the connector to secure it in place on the bracket.

NOTE: To minimize stress on the bracket, bend the cable to line it up with the bracket before connecting it.

- Replace the antenna on the cable connector mounted on the wall.
- **NOTE:** The best transmission and reception may be achieved with the antenna perpendicular to the wall. However, if it is a safety hazard or is likely to be bumped and damaged in that position, it may be necessary for the antenna to be parallel to the wall.
- Return electrical power to the base station and resume normal operation.



Figure 4. Antenna mounting on wall bracket



One EC10 configurations



Two EC10 configurations

Figure 5. Antenna Coverage Extension Kit configurations using one and two EC10s

FCC NOTICE

The use of all radio equipment is subject to radio regulations in each country. It is the responsibility of the purchaser/installer/operator to insure that only approved equipment is installed/used. For the ISM band equipment (equipment that generates RF energy for industrial, scientific or medical purposes) manufactured, sold/or used in the USA, FCC Title 47, Part 15 governs its sale, lease, use and manufacture, and prohibits the same unless such equipment is used in the FCC-certified system configuration with which it is authorized. This equipment is intended for use in industrial or commercial environments only, and is not intended for use by the general public.

According to FCC rules, this equipment requires professional installation. This equipment must be purchased only from HME authorized dealers, and its installation must be done by HME certified professionals. The installation of this equipment must be done appropriately to ensure that its placement and setup meets the needs of individual customers and locations. To ensure system components are installed in compliance with applicable building codes, installation of this equipment may require a trained electrician.

Waste Electrical and Electronic Equipment (WEEE)

The European Union (EU) WEEE Directive (2002/96/EC) places an obligation on producers (manufacturers, distributors and/or retailers) to take-back electronic products at the end of their useful life. The WEEE Directive covers most HME products being sold into the EU as of August 13, 2005. Manufacturers, distributors and retailers are obliged to finance the costs of recovery from municipal collection points, reuse, and recycling of specified percentages per the WEEE requirements.

Instructions for Disposal of WEEE by Users in the European Union

The symbol shown below is on the product or on its packaging which indicates that this product was put on the market after August 13, 2005 and must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of the user's waste equipment by handing it over to a designated collection point for the recycling of WEEE. The separate collection and recycling of waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local authority, your household waste disposal service or the seller from whom you purchased the product.



The antenna(s) used for the base transmitter must be installed where there is a separation distance of at least 7.87 inches (20 cm) from all persons, and must not be near or operating in conjunction with any other antenna or transmitter.

"HME Proprietary and Confidential Information not to be duplicated, disclosed or distributed except as permitted by an executed Confidentiality and Non-Disclosure Agreement with HME. Copyright HM Electronics, Inc. 2014"