

INSTALLATION INSTRUCTIONS

The Coverage Extension Kit allows one antenna of an HME 2.4GHz wireless intercom to be mounted up to 30 feet (9.14 meters) from the base station for improved signal coverage. The antenna can be mounted inside a window or outside for extended coverage. To install the kit, follow the instructions below.

There are key elements that should be considered when installing a Wireless IQ base station (BASE 6000) in a QSR environment. Taking care during the installation of the base can mean the difference between a satisfied customer and a Technical Support or onsite service call.

Things to consider before and during base station installation

- 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.
- The customer may need outside coverage 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, but the customer may require it in some cases.

Using the Coverage Extension Kit to increase coverage:

If speed team coverage at location #6 is required, then location #5 should be selected for base mounting. This reduces the number of wall penetrations and allows the coverage extension cable to run outside the store for best outside coverage. Stores with a large window area near the base will have better outside coverage if the base is facing the windows. If there are large windows along the wall next to location #6 outside coverage will be enhanced.

The Wireless IQ base uses two antennas. Both antennas transmit and receive signals. The reason for using two antennas is to avoid multi-path dropouts. The antenna coverage area can be improved by mounting one antenna away from the base. The base will select the antenna that gives the best signal to a particular COMMUNICATOR® location.

If outside coverage is required, mount the base as close as possible to the wall that faces the desired coverage area. In this case, mounting the base at location #5 to cover location #6 will minimize wall penetrations. Also consider in-store coverage when doing this. If the base is located in the best location for inside and outside coverage, but the coverage outside is still spotty then the antenna extension cable needs to be run outside the store. In this case, hanging the antenna under an eave next to the desired area will cover that side of the store very well. Another approach is to go up through the roof and have the antenna overlook the desired side area. This approach overcomes obstacles, like walls, that may shadow the signal when the antenna is at a lower height.

Discuss the location of the base station with the store owner or manager. It should be mounted less than 10 feet (3 meters) from an available electrical outlet, and away from grease and large metal objects. Also, the base transmitter antenna(s) must be installed where they will be at least 7.87 inches (20 cm) from all persons, and will not be near any other antenna or transmitter. The antenna extension kit should be used to extend the coverage area as needed.

How to get the best range and coverage from Wireless IQ:

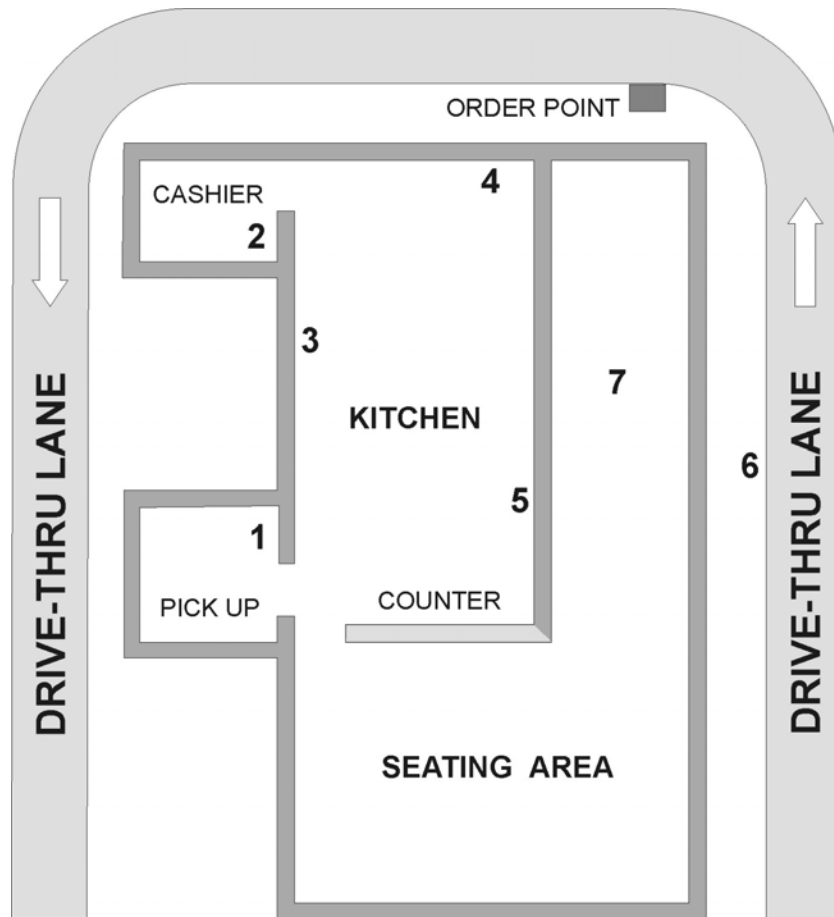


Figure 1. Typical Drive-Thru Store

A typical drive thru QSR building is set up as shown in Figure 1. The numbers in Figure 1 refer to the location numbers in the following instructions. This drawing is similar to most store layouts. The Base 6000 is typically mounted at location #1. This is also where old equipment is usually found. The order taker is usually at location #2 in a high volume store. The order taker Communicator signal from location #2 must penetrate two walls to reach the base at location #1. Communicator signals from the kitchen must only penetrate one wall to reach the base at location #1. If there are large pieces of equipment in the kitchen or speed team operation is needed outside at location #6, location #1 may be a poor choice for mounting the base. For speed team operations, the signal would have to penetrate three walls and get by the kitchen equipment to reach the base at location #1. Coverage in the store around location #7 and outside at location #6 may be poor. Don't forget to check for a basement. Communicator signals from basements may not reach the base at location #1.

If outside coverage is not needed, mounting the base at locations #3, #4 or #5 is best. Communicator signals from most work areas would thereby require no wall penetration. Other work and seating areas may require signals to penetrate one wall. In this case, the antenna extension cable does not need to be mounted very far from the base unless a large piece of equipment causes a dead spot.

Tools Required:

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

Procedure:

- The antenna extension kit allows either of the antennas to be mounted up to 30 feet (9.14 meters) from the base station for improved coverage. With the extension cable and mounting bracket, an antenna can be mounted inside a window or outside for extended coverage. Install the antenna extension kit as follows.
- Lay out the enclosed 30 foot (9.14 meter) antenna cable, with its female connector near the base station and its male connector at the proposed area where the antenna will be mounted. Bend and align the cable to the desired position.
- Remove electrical power from the base station.
- Remove (unscrew) either antenna from the base station.
- Screw the female antenna cable connector onto the base station antenna connector where the antenna was removed.

NOTE: To minimize stress on the connector, bend the cable to line it up with the base station antenna connector before connecting it.

- Screw the removed antenna onto the male connector at the other end of the antenna cable.
- Return electrical power to the base station.
- Place the antenna in the area where improved performance is required, and walk test transmission and reception with two people using COMMUNICATOR®s (with fully charged batteries), pressing button B to communicate with each other. Move the antenna around the area while communicating, to determine the mounting location where the antenna will have the best possible transmission and reception.
- 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 2, 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.

CAUTION:
Use two wrenches when
tightening hexagonal
nuts, to prevent twisting
and damaging cable.

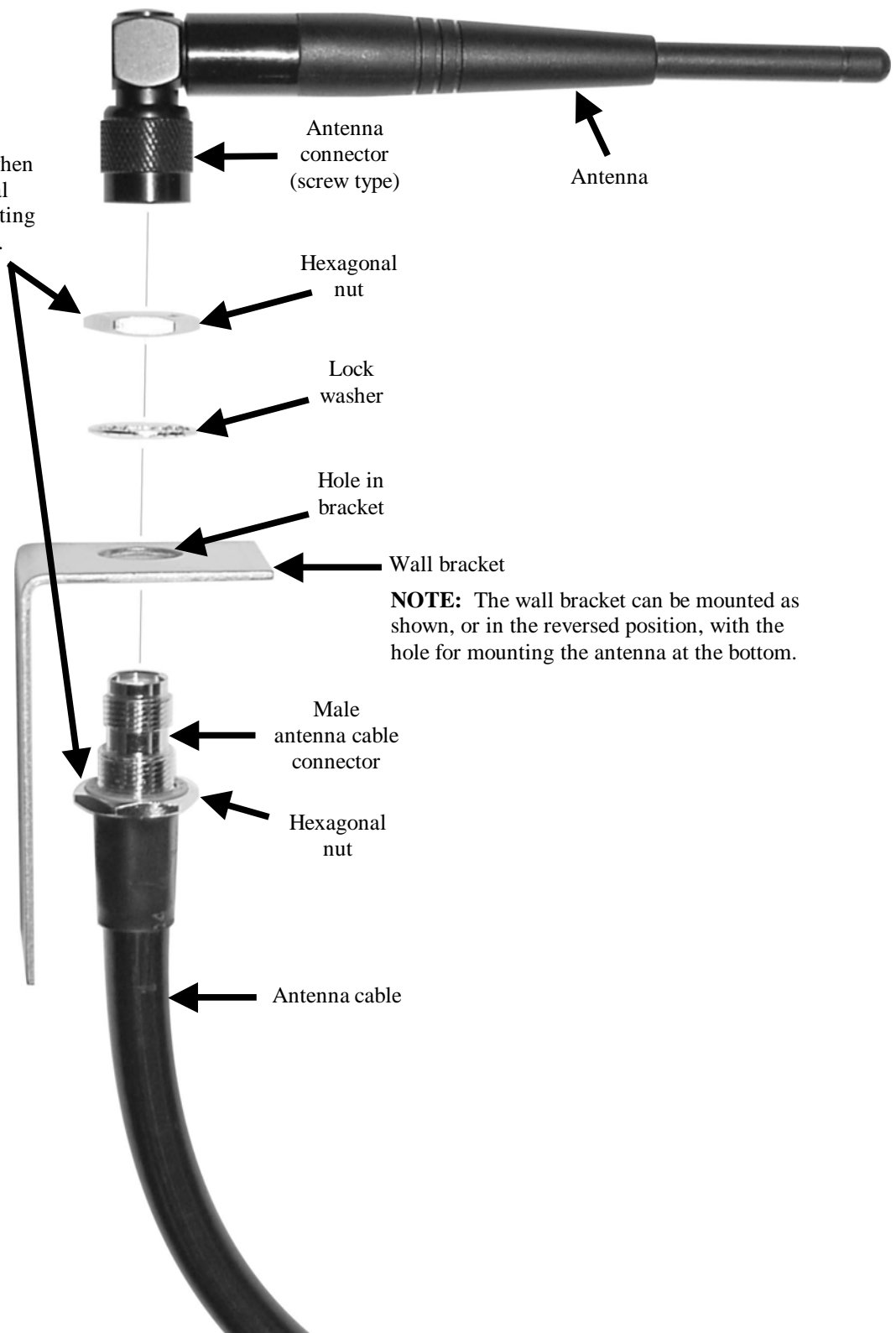


Figure 2. Antenna mounting on wall bracket

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