8x8, Inc.

Polycom® KIRK KWS300 Base Units

Planning and Installation Guide

When Ordering Handsets and Base Units

Note: 8x8 recommends you plan your installation before ordering handsets and base units.

1. Allocate up to 4 – 6 handsets per KWS300 base unit.

   Important! Each base unit provides a coverage radius of approximately 100 feet and supports up to 4 simultaneous calls.

   - For call centers, allocate up to 4 handsets per base unit.
   - For normal use, allocate up to 6 handsets per base unit.
   - For occasional use, you can allocate up to 12 handsets per base unit, but 8x8 recommends that for more than 6 handsets you order another base unit instead.

2. Determine which handsets will be associated with each new (or existing) base unit on your virtual PBX. This will ensure you receive correct activation codes that link your handset accounts with your base units when you order.
3. Within the same 100-foot radius you can install up to 5 base units.

   Example: 5 base units in the same 100-foot radius support up to 20 simultaneous calls, and up to 30 handsets in normal use.

4. If your coverage area has a radius larger than 100 feet, you can install adjacent base unit groups or cells (that are >100 feet apart) with up to 5 base units each. Alternatively, as described in a later section, you can install overlapping cells with up to 5 base units supported in the areas that overlap.

Special Transmission Limitations and Requirements

- In multiple floor installations, transmission range across floors will likely be less than 100 feet.
- Transmission range across heavy walls will likely be less than 100 feet.
- Base units are normally installed at or near the center of a 100-foot radius cell. At the base unit installation point, either Ethernet with PoE or Ethernet without PoE plus a nearby AC outlet and a PoE AC adaptor / PoE injector are required. 8x8 offers base units with or without AC adaptors.

Prepare your Handsets and Base Unit for Installation

Before permanently installing base units, complete the following steps.

1. Charge the batteries in the handsets so the handsets can be activated and tested.
2. Turn on the base unit(s) and verify the power LED is light is on.
3. Activate the base units (if not previously activated) and then activate the new handsets for each base unit following the instructions in the 8x8 KIRK Handset and Base Activation Guide. The guide can be found at http://sims.8x8.com/GetDocument.aspx?docid=710670.
4. Before physically installing the base units onto walls:
   - Place the base units close to their planned locations
   - Establish test calls between handsets in the areas where they will be used.
   - Verify range and sound quality.
   - Change the base location if necessary to ensure optimal call coverage and voice quality.

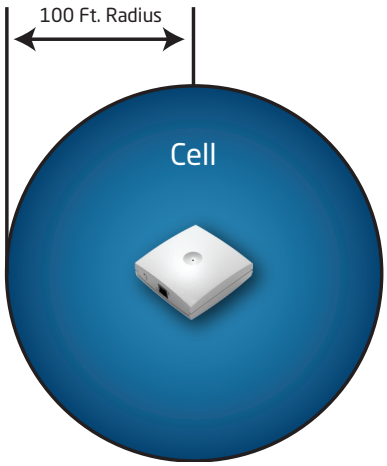
Find the Best Installation Locations

1. Avoid areas with large metal surfaces and heavy machinery that may interfere with base unit signals.
   - Keep base units at least 4 feet away from steel constructions.
   - Do not place base units directly on metallic surfaces.
   - Do not hide base units behind furniture or other physical objects.
   - Do not paint base units. Paint contains metallic/carbon particles that can affect transmission.
2. Locate Ethernet access and either PoE or AC power outlets required to support the base units. (Note: Order KWS300 with AC Adaptor bundle if you do not have PoE, or simply add a standard PoE switch or standard PoE injector to power the base unit.)
3. Verify with the end users where coverage is needed so the base unit can be placed near center of the 100-foot radius where users normally roam.

   Tip: Also identify areas where coverage is not required to simplify the installation.
4. Consider where you might install future base units as your system grows. Note that while you can add base units later, re-assigning installed users to a different base unit requires more work than advance planning.
5. Base units should be placed between 6 - 12 feet high on a wall. If placed lower, a passersby can interfere with the signal.
6. Do NOT install units upside down or on the ceiling. Doing so decreases coverage by 40 - 50%.
7. Ensure there is no heavy use of DECT headsets or residential DECT phone systems with individual transmitters all in the same area you are installing your additional DECT devices. This can cause interference and could affect performance of the base units.

Different Installation Use Cases

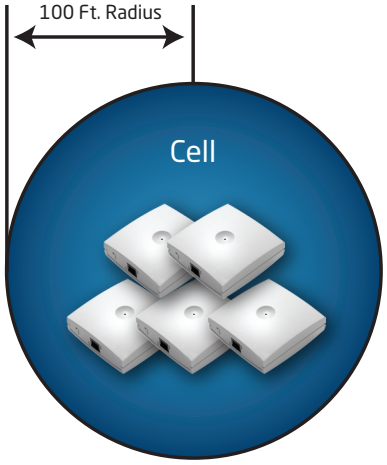
Installing a Single Base Unit in a Small Area (with a radius of less than 100 feet)



1. Follow the previous instructions and select the optimal location for the base unit within a 100-foot radius cell that contains the users and the areas where they roam.
2. If the coverage area has multiple floors or goes across heavy walls, the base unit's range may be limited to ~50 feet or less for the floor above or across the heavy walls. Test the base unit's range and call quality before installing it.

FIGURE A: Single cell configuration with 1 base unit.

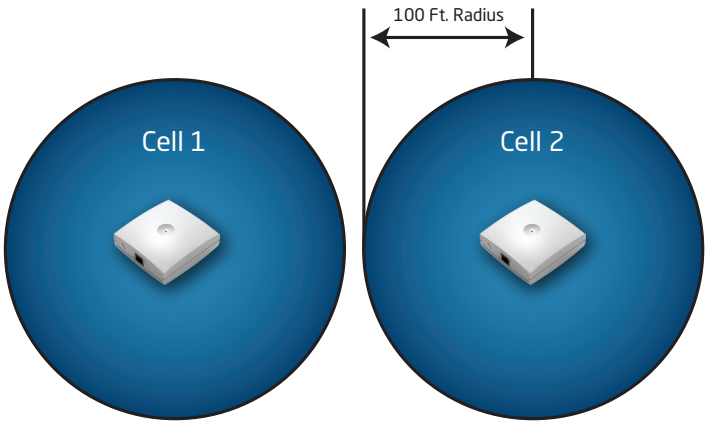
Installing Multiple Base Units in a Small Area (with a radius of less than 100 feet)



1. Follow the previous instructions and select the optimal locations for up to 5 base units serving up to 30 handset users and the areas where they roam. Ideally, mount the individual base units about 2 feet apart from each other, but place all near the center of the cell as in the diagram above.
2. In coverage areas with multiple floors or heavy walls, the base units' range may be limited to ~50 feet or less for the floors above or across the heavy walls. Test the base units' range and call quality before permanently installing them.
   - The same limit of up to 5 base units per 100-foot radius cell applies across floors and heavy walls.
   - You will achieve the best results by mounting all the base units:
     - High on the wall near where most users reside or roam most of the time, or
     - On the side of any heavy wall where most users reside or roam most of the time.

Figure B: Single-cell configuration supporting up to 5 base units within a 100-foot radius. Users can roam and talk within their own 100-foot cell.

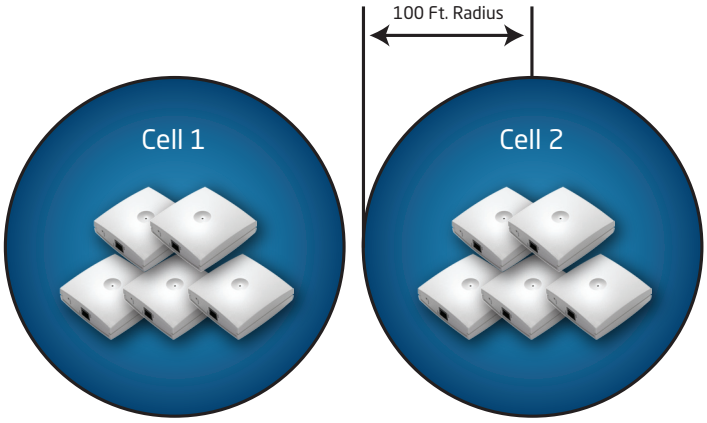
Installing Single Base Units in Large Areas (each area with a radius larger than 100 feet; 100-foot cells do not overlap)



1. Follow the previous instructions and select the optimal location for each base unit within its own 100-foot radius cell.
2. The cells in this configuration do not overlap, which means each unit can be installed and will operate independently.

Figure C: 2 independent cells over 100 ft. apart with 1 base unit in each.

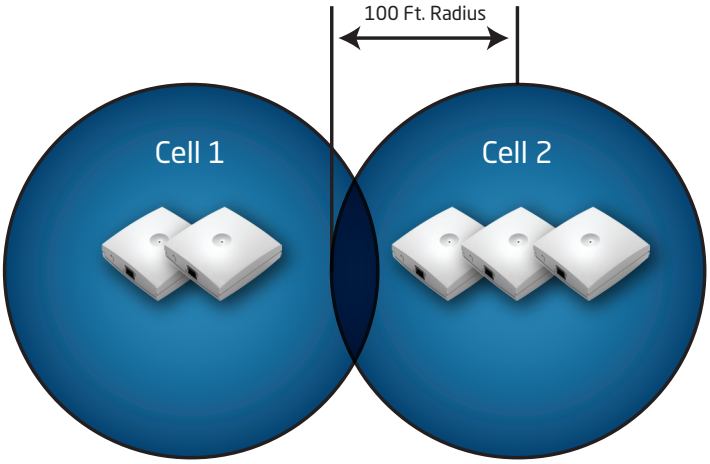
Installing Multiple Base Units in Large Areas (with a radius larger than 100 feet; 100-foot cells do not overlap)



1. Follow the previous instructions for installing multiple base units and select the optimal locations for up to 5 base units.
2. If each cell has a ~100 ft radius that does not overlap with adjacent cells, then each base unit can be installed and will operate independently.
3. If the 100 ft radius cells overlap, then the maximum number of base units installed in the area that overlaps must be 5 or fewer to avoid interference (refer to the next use case below).

Figure D: Multiple base units in non-overlapping cells. Each cell can support up to 5 base units, and users can roam and talk within their own 100-foot cells.

Installing Multiple Base Units in Large Areas (with a radius larger than 100 feet; 100-foot cells overlap)



Users can roam and talk within their own 100-foot radius cells. Users from both cells can talk in the common (overlapping) area. Cells on adjacent floors can also overlap.

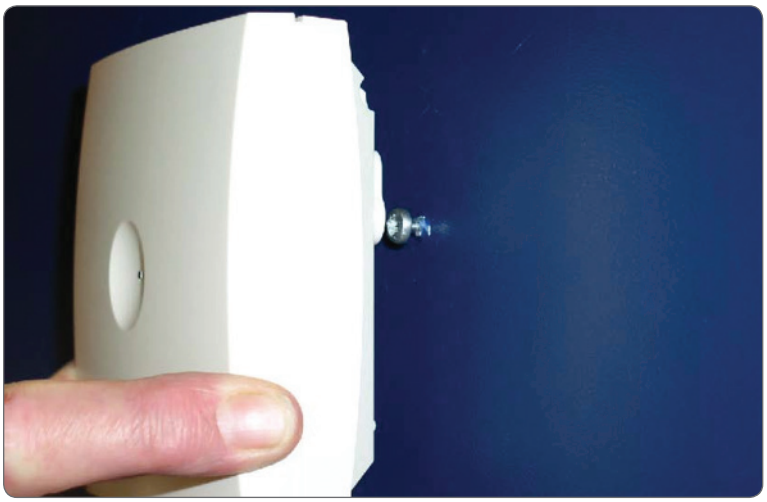
1. Follow the previous instructions for installing multiple base units and select the optimal locations for up to 5 base units.
2. Where the 100 ft radius cells overlap, then the maximum number of base units installed in the area that overlaps must be 5 or fewer to avoid any interference. This includes where adjacent floors may overlap.

Figure E: Overlapping cells support up to 5 base units (total).

Wall-Mount and Power on Base Units

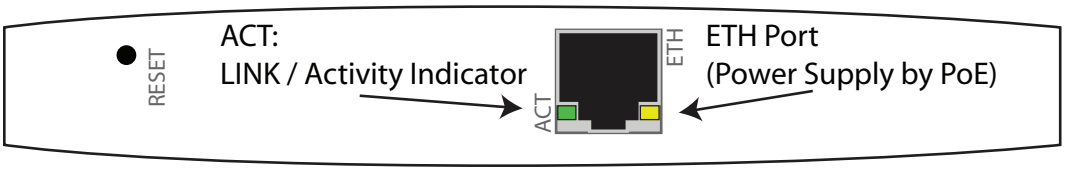
1. Mount the base unit on the wall, using the anchors and screws provided.

Note: Ensure the screws do not touch the printed circuit board.



Base units are easily wall-mounted using the anchors and screws provided.

2. Plug the Ethernet cable into the RJ45 jack on the base unit.



3. Connect the base unit to a PoE LAN Ethernet line or use a KWS300 bundle that includes a power injector. In either case, the Ethernet cable plugged into the base unit must be powered.

Note: 8x8 sells the base unit for PoE deployments (where the Ethernet cable used to deploy the base unit is powered) or with an AC adaptor bundled (where the bundle includes a PoE power injector to power the base unit). If you order a base unit ordered without a power adaptor and then find that PoE Ethernet is not available or no longer available, you can use any standard PoE switch to power the base unit.

If you have questions about installing and activating your base units and handsets, contact 8x8 customer support at 888-898-8733.

Note: To activate your base unit and handsets, see the 8x8 KIRK Handset and Base Activation Guide at http://sims.8x8.com/GetDocument.aspx?docid=710670.

8x8, Inc.

NASDAQ: EGHT
www.8x8.com

The Champion For Business Communications