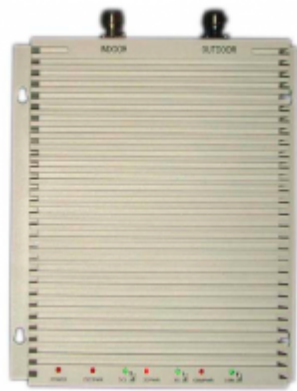




Mobile Phone Repeater Kit - Installation Guide

MR Mini Tri-Band Repeater Kit

GSM 900/1800 and 3G Networks





Sec 1: Installation Procedure

Sec 1-A: Pre-Installation consideration

Before installing the repeater kit you should check the availability of adequate signal from the service provider outside the premises, which can be confirmed by making calls from the mobile phone and observing the signal bars on the phone. If there is adequate signal strength available outside the premises, you can continue with installation of the kit. If you do not have sufficient signal to place a call please contact us for an alternative solution.

Sec 1-B: Location of external signal antenna

The external antenna captures the mobile signal from the provider's local mast and feeds the input to the repeater unit. The antenna location therefore is important to overall system performance. Some factors that should be considered are:

- Line of sight – if possible mount the antenna so that it's face has clear light of site to the closest mobile base station mast. If you are not sure where the mast is or in which direction locate the spot outside with the strongest signal and mount there.
- The external antenna should ideally be mounted on the rooftop in order to clear as many obstacles as possible. In general, the higher the antenna is mounted the stronger signal it will capture.
- The cable route from the antenna to the base unit should be free from sharp bends and kinks to avoid damage to the cable. Bends and kinks can severely impact system performance by reducing the input signal to the booster.



Sec 1-C: Location of the Mobile Repeater base unit

The following points should be considered in locating the base unit:

- Accessibility to AC power supply for the repeater base
- Flat surface for mounting the base unit
- Locate a cool, dry location away from heat generating appliances or other equipment
- The repeater unit should be located centrally where coverage is needed.

Sec 2: Installation Procedure

The following points should be used as a guideline for installing your repeater

- Unpack the system and identify the external omni-directional signal antenna, base unit repeater, indoor directional panel antenna, 10m coaxial cable and AC/DC power pack.
- Mount the external signal antenna as per points discussed above in Sec 1-B.
- Determine cable route from external antenna to the location of the base unit discussed in Sec 1-C.
- Provide a firm connection of the coaxial cable with the outdoor antenna through the connector fixed at the cable end and connect the other side of the cable to the port on the booster base unit labeled 'Outdoor'. When routing cable ensure that the cable is supported and does not sag.
- Connect the indoor panel antenna to the port labeled 'Indoor' on the booster base unit.



Sec 3: Commissioning

- Plug in the AC/DC Power Adapter power cord to AC mains and other side DC plug shall be inserted in DC socket on the MR Mini Repeater base unit.
- When power is supplied the red indicator light labeled “Power” should glow.
- If there is a sufficient signal level for each sub-band of the Tri-Band repeater, the corresponding ‘Signal’ LED should glow green. Note there is a signal light for each of the two 2G voice bands i.e. GSM 900 and DCS 1800 and a third LED that corresponds to the high speed 3G 2100 data connection. If an LED is off it means that either:
 - There is an insufficient signal level at the external antenna. If this happens you should attempt to re-mount or re-orient the external antenna to achieve a higher signal level. The best location can be found by monitoring the ‘bars’ level on your phone.
 - There may be interference between the outdoor panel antenna and the indoor whip antenna attached to the booster if the two items are located too close to each other. This feedback creates system oscillation, feedback and reduces the signal input signal level to the base unit. You should try and maximize the separation both vertically and horizontally between the antennas. Note it is important to have a physical barrier between the outside antenna and indoor whip antenna (i.e. roof, wall etc.) which helps isolate the two.



In regards to the isolation between antennas the following may be considered:

- The optimal location for the outdoor antenna should be high above the rooftop and exterior to the building.
- Do not mount the base unit repeater near a window or near the external aerial
- Mount the outdoor antenna as high as physically possible to the exterior of the building for maximum vertical separation between antennas and pointing away from the building towards the mobile mast site.
- Install the antennas taking advantage of any existing building structure such as brick walls, metal roofs or multiple wall structures for providing additional attenuation to the signals directly reaching from one antenna to another antenna.

Thank you for choosing Mobile Repeater. For customer support or sales enquiries please contact our location below.

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