Universal Installation Guide for all MR PowerMAX Models

MRE047 – MRE048 – MRE049 – MRE050 – MRE051 - MRE052

MRE053 – MRE054 – MRE055 – MRE056 – MRE057

Unit 1a Learoyd Road, Mountfield Industrial Estate, New Romney, Kent TN28 8XU

Contents

Section 1: Introduction

Thank you for purchasing through Mobile Repeater. Your product is designed to enhance mobile phone coverage for indoor applications by capturing a signal externally, amplifying and re-transmitting a clear and reliable signal within the desired coverage area. The performance of your Mobile Repeater kit will depend on the external signal strength, which is provided as input to the repeater base unit. This document provides a step-by-step guide to a basic installation and offers some trouble-shooting tips if you are having any difficulty getting your kit to work.

Section 2: External Aerial Installation

The most important part of the installation is the location and orientation of the external aerial. The external aerial is a square flat panel that has a small coax lead connected to it. The external aerial should be separated from the base repeater as much as possible to avoid potential feedback between the two units. When installing the external aerial please consider the following:

- Physical Location
  - The external aerial should ideally be mounted as high as possible outside in order to provide the best signal input to the base repeater unit. Please find the location outside where you have the strongest signal on your phone. Please check to make sure you are able to place a call on your phone at this location.
- Orientation
  - The panel aerial is directional and should be installed so that it points towards to local base station for your network provider. The external aerial applies the highest amount of signal gain when pointed in the direction – The stronger the input signal to the repeater the better the indoor coverage will be.

NOTE - you can use www.sitefinder.ofcom.org.uk to locate base stations in your postcode or call your network provider to check.

If you have the MR Yagi aerial it should be mounted with the tip pointing horizontally outwards and the face in the vertical plane with the two small drainage holes facing down.

Please seal the connection of the cable connector of the aerial on to the end of the coax so that it is waterproof.

Section 3: Mobile Repeater Installation

Section 3-1: Location of the Mobile Repeater base unit

The standard Mobile Repeater kit comes with an omn-directional whip aerial that attaches to the 'Indoor' port of the repeater unit. Since the whip aerial is omni-directional, the signal broadcast is in a circular radius around the base unit. Considering this it is best to locate the base repeater unit in a central area or in a particular spot where signal is needed. The range of the indoor broadcast will depend on the strength of the signal coming from the external aerial.

Please note that the location for the repeater unit will require a standard mains power supply and the base unit should be mounted on a flat surface either ex. on a desk or cabinet or mounted on the wall

The whip aerial when attached to the repeater should be oriented vertically.

Section 3-2: Cable Run to Mobile Repeater Unit

After determining the best cable route from the external antenna to the repeater connect the cable at both ends. 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.

NOTE – it is extremely important that there are no coils or loops of excess cable between the outdoor aerial and the repeater. This in addition to sharp bends and kinks can cause signal oscillation on the system and a false reading of the green LED's on the base unit. Please make sure you have no spare cable coiled or kinked. If you have excess cable you should either use it to raise the height of the external aerial, move the base repeater further away from the external aerial or take an indirect path as to not coil the cable at either end.

NOTE – Please do not remove connectors from the cable, repeater or aerial unless you have the necessary tools to do so. Mobile Repeater will not warranty any equipment that has been tampered with. If you have any concern please contact Mobile Repeater customer support.

Section 4: System Commissioning

Before turning the repeater unit on please ensure that you have the connectors for the outdoor aerial and the indoor whip aerial fastened firmly.

Connect the AC mains to the DC adapter and connect the DC adapter cord to the DC input of the repeater unit. When active the Power LED will glow RED. If you have a strong outdoor signal level you will see the green LED come on as well at which point you should see a signal come through on your mobile phone. Note that if you have a dual band PowerMAX model you will have one Power and one Signal LED for each frequency. GSM corresponds to the 900MHz frequency band, DCS corresponds to 1800MHz and UMTS (3G) is 2100MHz. The same points apply if you have a single or dual band PowerMAX model.

Once the base unit is on you can re-boot your mobile phone and check to see if it is receiving a signal. Try placing a test-call to someone or to your voice mail to see if you can call out.

If you are able to place calls out (and receive calls) your repeater is working properly. You can adjust the direction of the external aerial to try and maximize the indoor signal coverage. Mobile Repeater also supplies signal splitters and indoor coverage aerials that can be used to distribute signal over a building with heavy partition walls.

If you are not able to place calls due to a low outdoor signal level you may need a higher gain external aerial.

If you are not able to place calls but you have a strong signal at the location of your external aerial please review the trouble-shooting tips below for more information or please contact Mobile Repeater customer support for technical advice.

Section 5: Trouble-Shooting Tips

If you get a signal off the repeater but coverage radius is low

If you have established that you are now able to place and receive calls when in range of the repeater and want to extend coverage inside the building it is important to ensure the proper orientation of your external aerial and to ensure that it is pointed towards the local base station for your network provider.

If the Green LED is OFF but you are still getting a signal on your mobile phone

This is OK. The repeater is operating normally. NOTE the green signal indicator does not need to be on in order for the unit to operate properly. The green LED is designed to activate when the repeater unit receives maximum signal input from the external aerial. If the LED is OFF the repeater will still broadcast a signal but may not reach the maximum estimated coverage area.

If the Green LED is ON but you are not getting a signal on your phone –

Some situations can cause false readings of the green signal LED's on the base unit, which can be a result of interference or coiled cable.

- First check to make sure you have the maximum separation possible between the external antenna and the repeater. It is very important that there is no spare cable coiled in loops at any point. If you have the cable coiled please unroll the whole cable and re-check the signal on your phone next to the repeater.

- The external aerial should not be within 5 meters of an active TV or satellite aerial

If the green lights are still ON but you cannot place calls inside or drop calls on a regular basis

Your repeater may be oscillating due to interference between the exernal aerial and the base repeater, due to cable problems or a short circuit. If you are experiencing this and you have already ensured that the cable run is straight and free from coils, sharp bends or kinks please contact Mobile Repeater Customer Support.

If your phone shows a strong signal but the call quality is not clear

This is either a result of coiled cable, a sharp bend or due to external aerial direction. If your cable run is straight and you have not coiled excess cable please check the direction of the external aerial and ensure that it points towards the local base station. As the aerial is directional it needs proper orientation to ensure a reliable communication channel between the external aerial and the nearest base station for your network.

NOTE - you can use www.sitefinder.ofcom.org.uk to locate base stations in your postcode or call your network provider to check

If you are not able to locate the base station from the website above simply rotate the aerial in a full circle and test calls inside near the repeater unit to ensure a quality signal. Otherwise we would recommend contacting your network provider to request information on the nearest base station location.

If the Green LED is OFF and you can not receive a signal near the repeater unit

This is a result of the repeater unit not receiving a strong enough signal externally

- Solution – first ensure that the *entire* length of cable is completely uncoiled and free from any sharp bends or kinks. Next check the coax cable between the outdoor aerial and the repeater and make sure connections and cable are intact. Next check the orientation of the external aerial and ensure it is pointed in the right direction. If necessary simply rotate the external aerial and monitor the signal level on your phone inside near the repeater to see if you are able to pick up the external signal. If you still do not receive a signal on your phone from the repeater (even if the green LED is OFF) then you may need to consider using a higher gain and more directional external aerial that is more sensitive to capturing weak outdoor signals. Visit the accessories page on MobileRepeater.co.uk for more information on aerial upgrades.

Section 6: Contact Information

Mobile Repeater UK
Unit 1a Learoyd Road
Mountfield Industrial Estate
New Romney, Kent TN28 8XU

UK Freefone – 08082 344257
UK Fax – 08082 342379

International - +44 (0) 8082 344257

Section 7: 30-Day Return Policy

MobileRepeater.co.uk is proud to provide high quality products that are guaranteed to increase signal quality and extend mobile coverage. If you are not satisfied with the performance quality of your repeater we will give you your money back! All returns must be received within 30 days of the delivery date.

In order to return your product you must first speak with Mobile Repeater technical support to see if we can resolve your issue. If we are not able to solve your coverage problem you may request an RMA code, which includes a special returns address along with that authorization. Any returns received without an RMA authorization, outside of 30 days from the original delivery date, or to the wrong address will not be refunded. Damaged equipment returned even with an RMA will be subject to a 20% restocking fee. Orders for pre-cut lengths of cable are non-refundable.

Customers are responsible for shipping charges of the return delivery. All returns are subject to a £4.95 re-stocking fee. Your order will be refunded upon receiving the product in its original packaging. Please note that postage costs for the original order are not refundable.

To process a return request please contact customer service at sales@mobilerepeater.co.uk or call us. To browse our mobile coverage solutions Click Here. If you are not sure what type of repeater you need please try our Product Guide.