

1. Safety Notes

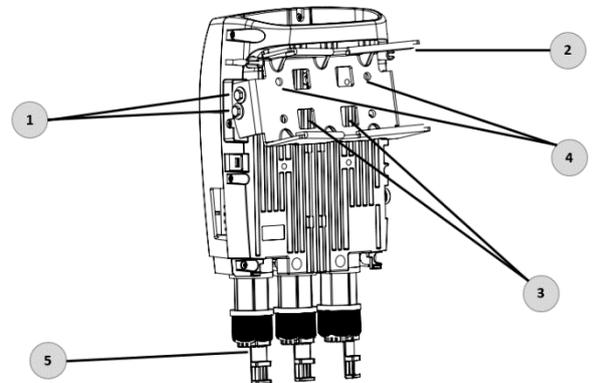


This Quick Guide is intended as a handy reference for setting up the MultiHaul™ Base-Units and Terminal-Units with integrated antenna. This guide does not replace the full manual; please refer to the “Installation User Manual” for full installation and setup details. The Installation and maintenance of this link should be performed by service personnel who are properly trained and certified to carry out such activities. Make sure to disconnect all power cables before service!
The radio must be grounded using min 16AWG cable or according to local electrical code.

2. Mounting the MultiHaul™

1. Elevation Lock Bolts (2x 7mm on each side)
2. Mounting Bracket
3. Self-locking bands fixing points (for 2x 130mm bands provided)
4. Wall-mount fixing holes (x4).
5. All-weather shells (up to 3, depending on model)

The mounting kit may be installed on a wall. Use 4 wall mount screws (not provided). The MultiHaul™ radio is compatible with the EH-MK-SM mounting kit that may be used in case of extreme height difference between the sides.

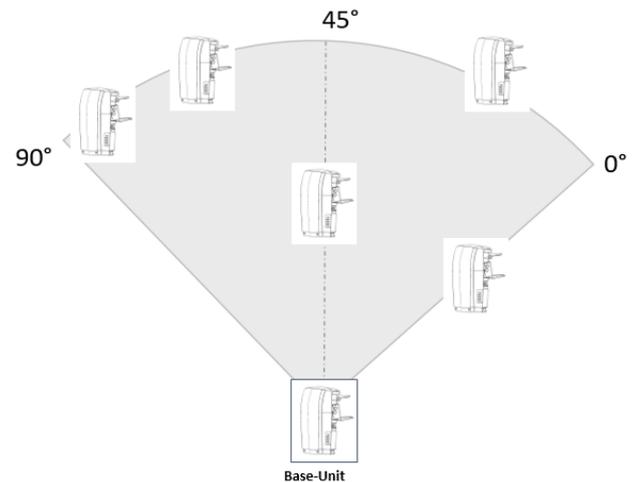


3. Installing the MultiHaul™

1. Mount the radio and its mounting bracket on a fixed reinforced steel mounting pole, 1.5-12 diameter (recommended 2-4 inches).
2. Use included self-locking bands to secure the bracket to the mounting pole.
3. In order to allow free movement when pointing the radio, unlock the Elevation Lock Bolts.
4. Verify visually that the radio is pointing to the remote site. Optimize the Azimuth alignment by turning the mounting bracket (make sure the self-locking bands are not tightened) and change the Elevation alignment by moving the radio up and down.
5. Once achieved, fasten the self-locking bands to secure the bracket to the mounting pole and tighten the Elevation Lock Bolts.

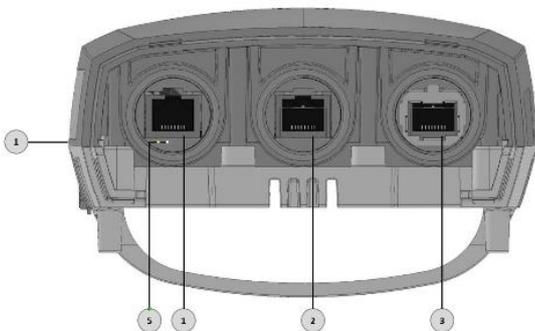
Notes regarding alignment:

The Multihaul™ antenna sector coverage is 90° horizontally and 20° vertically. For optimal coverage, point the Base Unit towards the sector center (45°) horizontally and to the farthest terminal unit vertically. Terminal Units should be pointed towards the Base Unit.



Alignment is now completed. The system’s scanning antenna will automatically align the beams for optimal performance.

4. Connecting the Cables



1. Electrical Ground Point (GND)
2. Ethernet RJ45 Eth#1 (PoE in)
3. Ethernet RJ45 Eth#2 (PoE Out) [model dependent]
4. Ethernet RJ45 / SFP Eth#3 (PoE Out) [model dependent]
5. Push-button. Restore Factory Default (push for more than 10 seconds)

1. All cabling connected to the radio should be outdoor-grade, with UV protection.
2. Shielded outdoor Cat5e cables terminated with metallic RJ45 connectors must be used.
3. Connect the ground cable to the GND point.
4. Power up the radio using Power over Ethernet (connection available on port 1 only).

5. Weatherproofing the Connectors

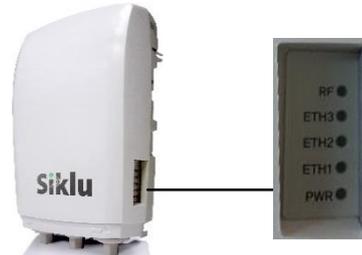
The provided protective All-Weather Shells fit cables from 3.5mm to 9.0mm diameter.

1. Thread the cable and tight the shell to the ODU firmly by hand (do not use tools).
2. Insert the rubber gasket snugly and tight the connector lock.
3. When removing the All-Weather Shell, unlock the gland first before removing the shell.



6. System LEDs

LED	Color	Status
PWR	Green – Power On	Blinking – boot up
	Orange - reboot	
RF	Green	RF Link UP
Port#1/2/3	Green	1Gbps
	Orange	10/100Mbps



7. Initial System Setup

Base-Unit (BU):

1. Verify the BU is pointing towards the sector center (45°) horizontally and to the farthest terminal unit vertically.
2. Verify the self-locking bands are tightened.
3. Power up the BU and verify Power LED is green.

Terminal Unit (TU):

Up to 8 TUs may be connected to one BU.

1. Point the TU towards the BU. When wall mount is used, verify the BU is located within the 90° sector's coverage.
2. Verify the self-locking bands and the Elevation Lock Bolts are locked.
3. Power up the TU and verify Power LED is green. The RF LED should be green, indicating correct association (Link Up).

Repeat these steps for the next TUs.

8. Basic Configuration Using the Web-Based Management GUI

1. Launch an Internet browser and enter the ODU's IP address in the address bar. For the default IP address enter: **https://192.168.0.1**. Default read/write access: **admin, admin**).
 2. Use the Quick Config wizard to configure the basic system parameters for both local and remote systems.
 3. System section/page: set general system information such as Name, Date (YYYY.MM.DD) and Time (HH:MM:SS).
 4. Radio section/page: set SSID (default: MultiHaul), Password (default: MultiHaul) and Frequency (default: channel-2).
- Note: A Terminal Unit will connect to a Base Unit only in case their SSID & Password match while same channel is used. You may keep the default settings during installation and change them when commissioning the PTMP cluster.
5. Eth Ports section/page: set Ethernet ports configuration, such as enable/disable, auto-negotiation, Speed/Duplex and SFP type.
 6. Network section/page: set IP addressing and SNMP attributes.
 - IP Address – static or DHCP. set up to 4 IP addresses: IP, Prefix-length in mask bits) and management VLAN (VLAN 0=untagged). It is recommended to leave default IP as IP #1 and configure the new IP address as IP #2.
 - Default gateway
 - SNMP Manager – set SNMP trap destination (up to 5 managers can be defined).
 7. Click **Apply**. Settings will be applied for local and remote systems.

Note: when changing RF parameters the link will go down and recover within 1 minute.

Note: changing IP address will terminate your connection. Reconnect and launch the Web management using the new IP address.

8. To save the configuration, click **Save Configuration** on the Main page for local and remote systems.

Note: System will lose its configuration upon next reboot if you do not save the configuration.

9. Commissioning the Cluster After all TUs Installed

1. Set unique SSID, Password and Frequency on TUs and BU.
2. Verify all remote terminals are available on the BU. For each one of the TUs installed (x=1 to 8), change association from 'Guest' to 'Managed' on the Radio-Remote Terminals page.
3. Disable guest connection on the BU on the Radio page.
4. Activate licenses and apply rate limiters if needed.
5. Save configuration on BU and TUs.

10. Support Contacts

1. Contact your local distributor for the technical support. Technical support for Siklu's direct customers: support@siklu.com
2. Download your copy of the product's user manuals from ftp://ftp.siklu.com (user: installmanual, password: siklu).
3. Watch us install and setup a link at www.youtube.com (search: Siklu MultiHaul Installation)