



# RAELink3 QUICK REFERENCE

The RAELink3 compact, portable radio-frequency modem provides long-range wireless communication between remote portable air monitors and a base station/computer for comprehensive monitoring. Up to 64 RAELink3-equipped monitors can be networked with a single Host. For applications requiring long-distance monitoring or monitoring in locations with obstructions to clear line-of-sight communication, RAELink3s configured as Repeaters extend the effective reach of the system.

The RAELink3 can be configured to act in one of the following modes:

- 1. Remote.** The RAELink3 Remote functions as a slave modem and communicates to a host modem with the same network ID.
- 2. Remote G.** The RAELink3 Remote G functions as a slave modem to communicate readings from a GammaRAEII R personal radiation detector to a host modem with the same network ID.
- 3. Host.** The RAELink3 Host functions as a host modem and communicates with multiple wireless modems (such as the RAELink3 Remote and RAELink3 Repeater, as well as AreaRAE products equipped with RAELink-family Remote modems) with the same network ID.
- 4. Repeater.** The RAELink3 Repeater functions as a repeater for RAELink3 Remote modems (or AreaRAE or RAELink series products) with the same network ID.

## Connection With Third-Party Devices

The RAELink3 can be configured as a slave modem to communicate sensor data from select 3rd party monitors back to a host modem with the same network ID. Current third-party monitors available to choose from include ChemRAE, LifeShirt, DustTrak and AP4C.

## Battery Replacement

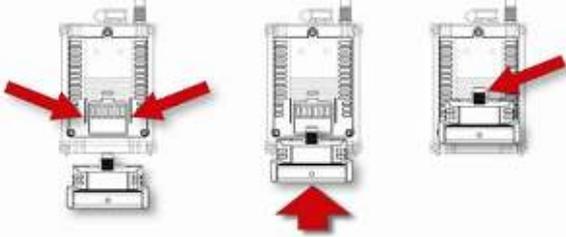
The RAELink3 can use a rechargeable lithium-ion battery or an alkaline battery pack. It can also be operated on its charger. To take the rechargeable battery or alkaline battery pack out of the RAELink3, remove the 3 hex-socket screws and lift it out. To replace the AA batteries in the alkaline battery pack, remove the two hex-socket screws on the inside, remove the cover, and replace the 5 AA batteries (Duracell MN1500 or Energizer E91 only). Make sure that the polarity (“+” and “-”) for each battery is correct. Do not mix old and new batteries. Only change batteries in a non-hazardous location.

## Additional Information And Support

Read the RAELink3 User’s Guide for additional information on features and settings, as well as regulatory information not covered in this Quick Reference. For support, contact RAE Systems Technical Support at (888) 723-8823, or email [tech@raesystems.com](mailto:tech@raesystems.com).

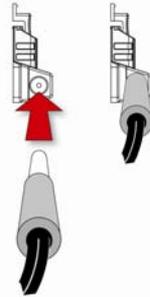
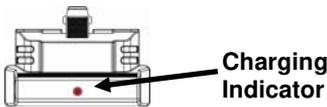
## Setup & Battery Charging

Before using the RAELink3, charge the Li-ion battery by attaching the instrument to the Charging Adapter.



1. Align the Charging Adapter with the back of the RAELink3 (two guides match indentations on the back of the Charging Adapter).
2. Slide the Charging Adapter onto the back of the RAELink3.
3. Make sure the latch clicks into place. (Press the latch when detaching the charger.)
4. Plug the power supply's connector into the input on the side of the Charging Adapter.
5. Plug the power supply into the wall outlet.

The LED Charging Indicator in the Charging Adapter should glow red to indicate it is charging, and glow green when the battery is fully charged.

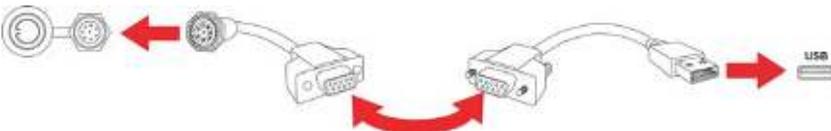


## Connections

Attach all antennas before turning on RAELink3 and other equipment.

**Remote** For the Remote, connect a portable gas monitor (PGM) such as a ppbRAE Plus, MiniRAE 2000, or MultiRAE Plus to the RAELink3 using an optional Portable Coiled Cable (part number 400-0189-000), or cordlessly with Bluetooth to monitors such as the MiniRAE3000 and ppbRAE3000. Third-party portable monitors require unique cables to connect to the RAELink3. Make sure Bluetooth is turned on in any monitors that use Bluetooth.

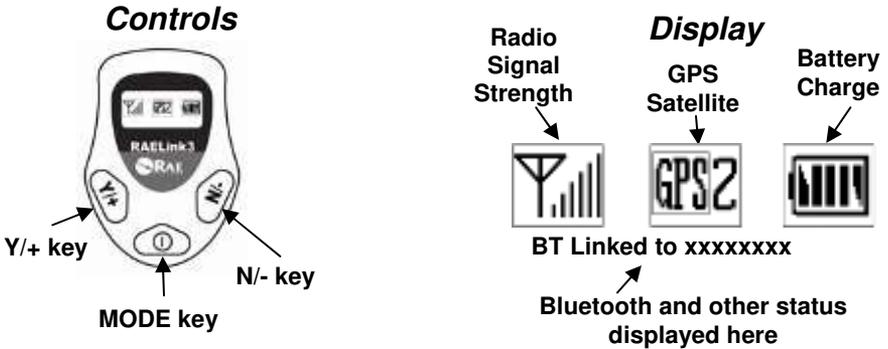
**Host** Plug the multi-function cable into the RAELink3 and the other end into a computer. If the computer does not have a serial port, use a USB-to-9-pin Serial Adapter (part number 410-0210-000) to connect the cable to the computer.



**Repeater** For repeater operation, no connections are necessary.

## User Interface

The user interface consists of the display and three “soft” keys: [Y/+], [MODE], and [N/-]. The LCD display provides visual feedback that includes the reading, time, battery condition, and other functions.



[Y/+] increases values, [MODE] acts as on/off and save, and [N/-] selects “no” and advances to next function.

In addition to their labeled functions as “yes,” “mode select,” and “no,” [Y/+] , [MODE], and [N/-] act as “soft keys” that control different parameters and make selections within the instrument’s menus.

## Operation

**Turn On** Press and hold [MODE] until the display is on.

**Turn Off** Press and hold the [MODE] for 3 seconds. After a 5-second countdown, you see “Unit off...” Release your finger.

**Backlight:** Press any key to turn on backlight. After 15 seconds, it shuts off.

## Establish Bluetooth Link

1. Turn on the Bluetooth-enabled monitor. Make sure it is set up to run Bluetooth (Bluetooth is turned on).
2. Turn on the RAELink3. It should be in Remote Mode, and Bluetooth turned on.
3. \*The two units connect, and exchange ID numbers. The ID number of the monitor is shown below the icons. They are now connected.

\*The RAELink3 can scan for Bluetooth-enabled monitors, and stores up to 2 connections in memory for faster re-deployment. Upon powering on, the RAELink3 automatically searches for the primary Bluetooth device indicated by the asterisk in memory.

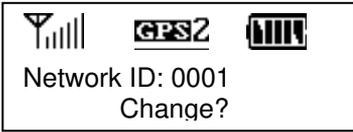
To perform the initial pairing of a detector with RAELink3, scan for a Bluetooth-enabled monitor: Press and hold [MODE] and [N/-] for 3 seconds. When the “BT Search” message appears, press [Y/+]. For fastest operation, only turn on one RAELink3 and one monitor at a time during this initial pairing.

## Set Network ID

**Important!** All units in a network must have the same Network ID.

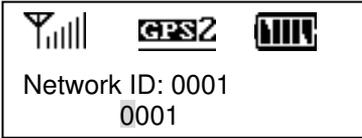
With the RAELink3 turned on, press and hold both [MODE] and [N/-] for 3 seconds.

The RAELink3 enters programming mode:



To change the Network ID, press [Y/+].  
To advance without changing, press [N/-].  
To exit Programming Mode, press [MODE].

When changing the Network ID, the cursor flashes on the selected digit:



1. Press [Y/+] to increase the number or [N/-] to decrease the number.
2. Press [MODE] to advance to the next digit.
3. Input a network ID from 1 to 4095 (except 255).

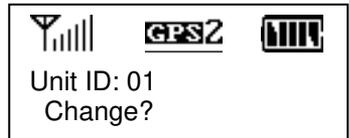
To accept the new Network ID, press and hold [MODE] for 2 seconds. When the confirmation screen appears, press [Y/+] to save, or press [N/-] to abort the change.

## Set Unit ID

**Important!** Every remote unit in a network must have a unique Unit ID.

**Note:** When RAELink3 is configured as a Repeater or Host, it does not require a Unit ID. Some portable monitors require setting of the Unit ID on the monitor. Refer to the operation manual for the monitor.

With the RAELink3 turned on, press and hold both [MODE] and [N/-] for 3 seconds. The RAELink3 enters programming mode. Press [N/-] until you see the screen at right.



Press [Y/+] if you want to change the Unit ID. When changing the Unit ID, the cursor flashes on the selected digit.

1. Press [Y/+] to increase the number or [N/-] to decrease the number.
2. Press [MODE] to advance to the next digit.
3. Input a network ID from 00 to 99.

To accept the new Unit ID, press and hold [MODE] for 2 seconds. When the confirmation screen appears, press [Y/+] to save, or press [N/-] to abort the change.



**TTT Environmental**  
Instruments and Supplies

### RAE Systems, Inc.

3775 N. First St.  
San Jose, CA 95134-1708 USA

Toll-free: 888-723-8823  
Website: [www.raesystems.com](http://www.raesystems.com)

*The preferred source for instrument  
Rentals, Sales, Service and Supplies!*

4201 B Street  
Anchorage, AK 99503  
(907) 770-9041

[www.tttenviro.com](http://www.tttenviro.com)

25420 74<sup>th</sup> Avenue S.  
Kent, WA 98032  
(253) 373-9041

[info@tttenviro.com](mailto:info@tttenviro.com)

Rev B August 2010

PN: 029-4506-000