Hand-Held Terminal

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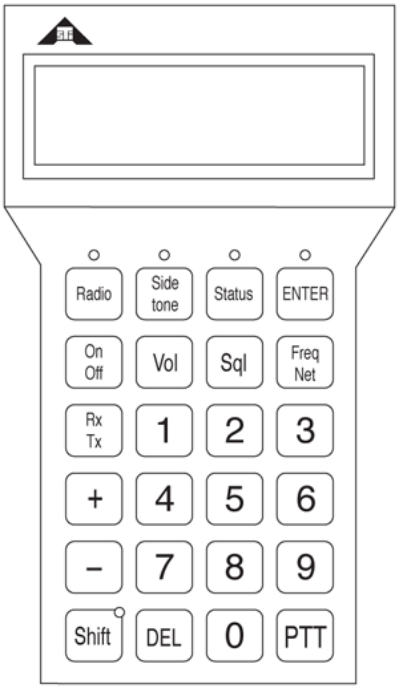
Contents

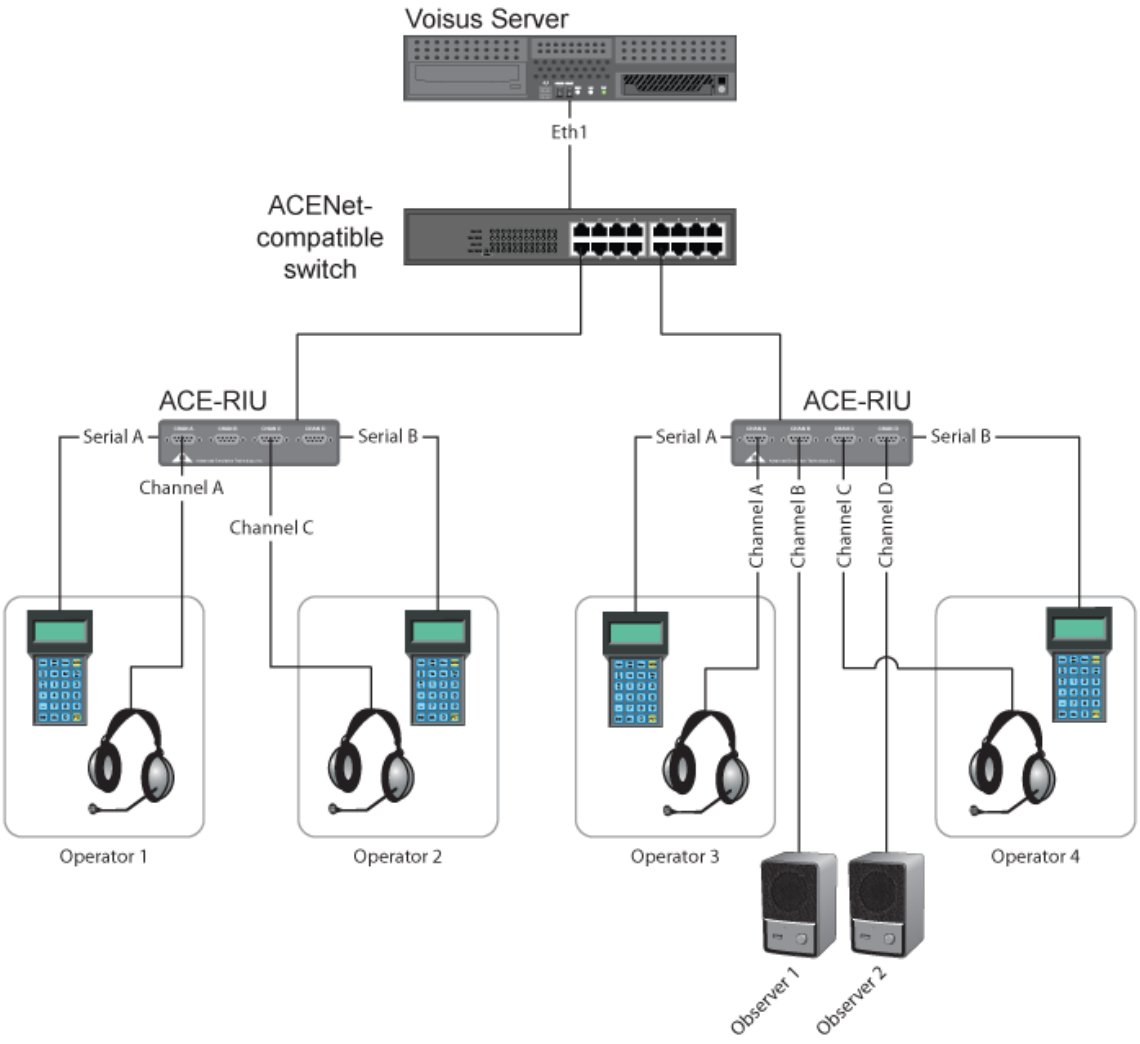
1 Introduction

The Hand-Held Terminal is an all-purpose radio control interface for up to 8 simulated radios and/or intercoms. Common radio control functions are supported by the HHT, including net selection, squelch level, volume, and PTT.



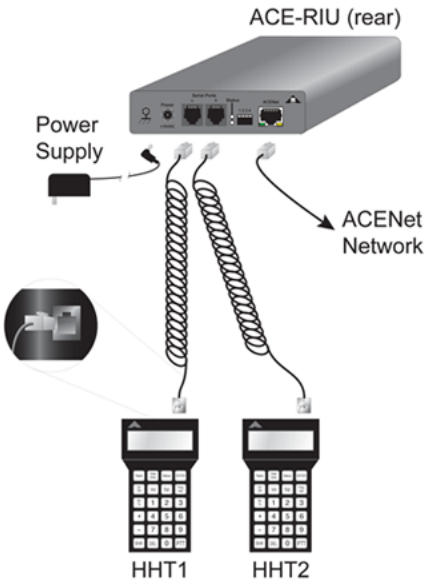
2 System Architecture

The HHT is commonly paired with a headset to provide an independent operator communications station. The HHT and headset connect to the Voisus server via an ACENet audio and I/O distribution device (such as the ACE-RIU or ACU2).

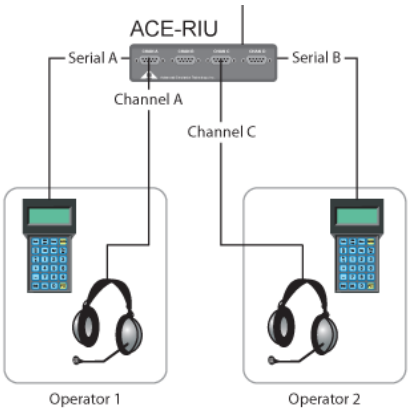


3 Installation

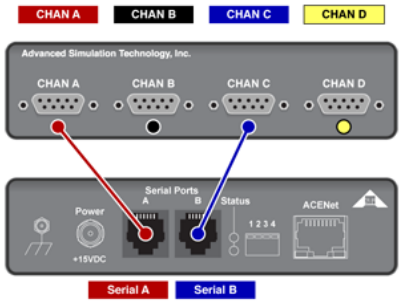
1. The HHT connects to a serial port on the back of the ACENet device. Each ACENet device can accomodate two HHTs.



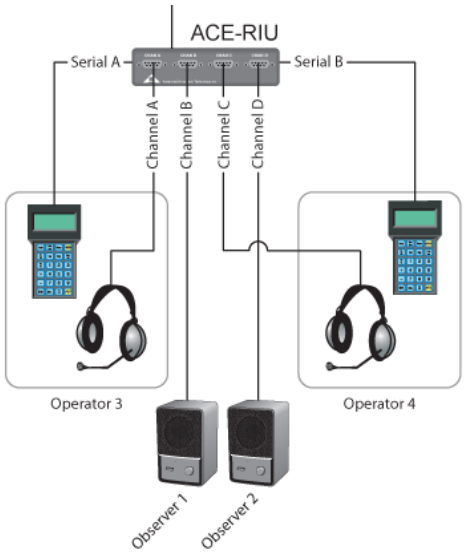
2. Connect the headset to the audio channel that corresponds with the HHT serial connection.



Each serial port is associated with an audio channel as illustrated below. Serial A is linked to Channel A. Serial B is linked to Channel C.



3. **Optional:** The remaining audio channels (B and D) may be connected to speakers and used as observer positions (see the Voisus Client User Guide[1] for more information on observers).



4 Software Configuration

4.1 Access the Voisus Web Interface

1. Using a computer on the same network as the Voisus server, enter the Voisus server's Eth0 IP address in the address bar of a web browser.
2. Log in to the web interface

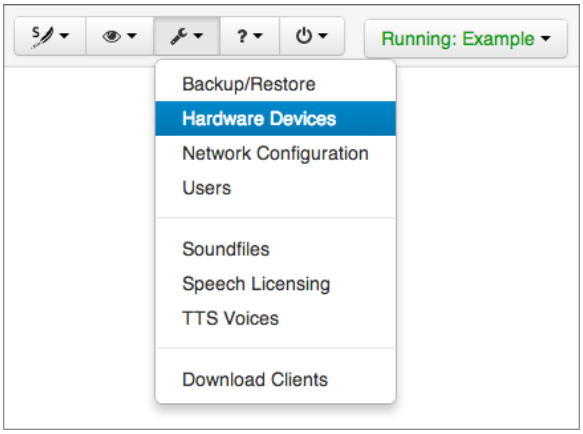
   Username: `admin`

   Password: `astirules`

[1] voisus_client_ug.pdf

4.2 Configure Hardware Devices

1. Using the wrench drop-down menu, open the Hardware Devices page.



2. On the RIU tab, find the ACE-RIU connected to your HHT. Add it to the Voisus server cloud.
3. Name the channel/serial port combination that is connected to your HHT and headset. This channel identifier can include up to 9 characters consisting of letters, numbers, and periods.

4.3 Create a Scenario

A scenario contains customized resources for a communications exercise. In this case, you are creating communications resources for HHT operators.

1. Click "Scenarios" in the menu bar.
2. Add a new scenario. You may wish to start with the HWPanel_Example, which is preconfigured with nets and an HHT role.
   - Run the new scenario, then open it.
3. Open the Comm Plan and add or edit nets to fit your exercise.
4. Navigate to Configure > Roles/Radios.
   - Add a new Role. The Role will determine which radios the HHT operator can access.
   - Add a new radio to the role using the generic radio type. The HHT will accept up to 8 radios.
   - Open the new radio and add nets.
5. Navigate to Configure > Manage Clients.

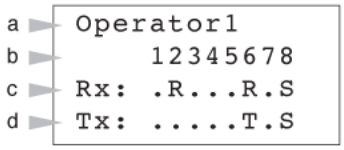
- Add a new client in the "Client Mapping" section, giving it the same name you assigned to the ACE-RIU channel on the Hardware Devices page. Matching the client name to the ACE-RIU channel identifier will link the software scenario resources to the hardware devices.
- Assign a default role and DIS exercise to this HHT.
- Enter an HHT Display name. This name will appear on the main screen of the HHT.

5 Operation

When Software Configuration (chapter 4) is complete and the scenario is running on the Voisus server, the HHT will access the resources you assigned to it in the Voisus web interface.

5.1 Main Status Page

The Status page is the main display on the HHT. This page displays the HHT Display Name, available radios, and RX/TX state.

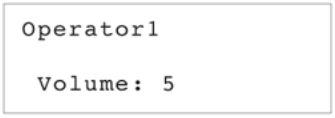


a) HHT Display Name, b) Available Radios,
c) Receive Status, d) Transmit Status

- **HHT Display Name:** This name is configured in the Voisus web interface on the Manage Clients page.
- **Available Radios:** Up to 8 radios will show here. A digit represents each radio. When the operator receives a transmission on a particular radio, the radio's associated digit will change to an asterisk (*).
- **Receive Status**
  - An "R" indicates that this radio is in receive mode.
  - A period (.) indicates that Rx is not selected.
  - An "S" indicates that this radio is in secure mode.
- **Transmit Status**
  - A "T" indicates that this radio is in transmit mode.
  - A period (.) indicates that Tx is not selected.
  - An "S" indicates that this radio is in secure mode.

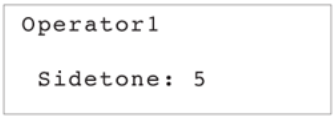
Master Volume

From the main Status page, press the **Vol** button. Enter a numeric value (0–9) or use the + and **-** buttons. When you have reached the desired volume level, press **ENTER**.

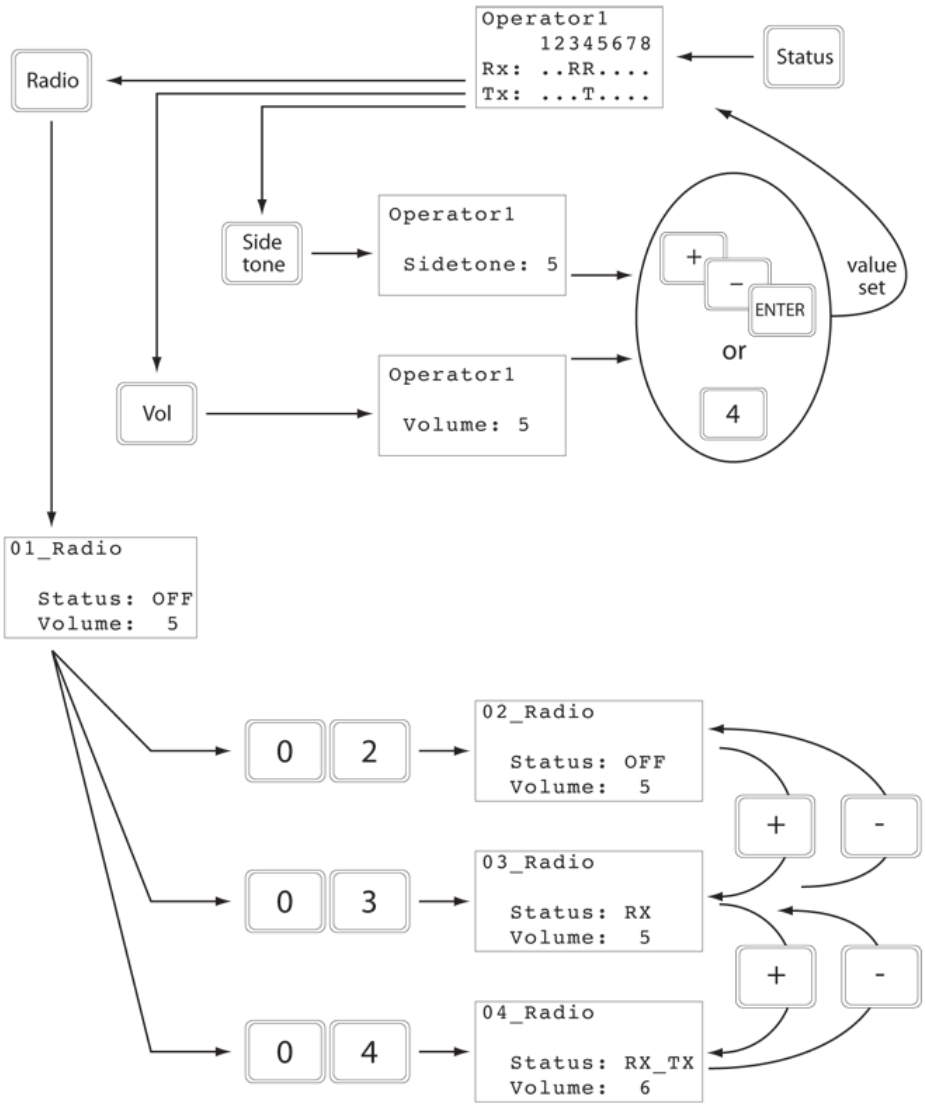


Sidetone

From the main Status page, press the **Sidetone** button. Enter a numeric value (0–9) or use the + and **-** buttons. When you have reached the desired volume level, press **ENTER**.



Main Status Page Operation Controls



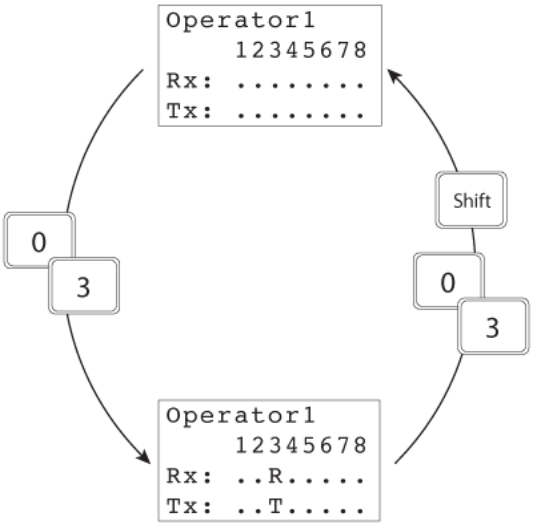
5.2 Hot Keys

Hot keys are used to access the most frequently used functions.

Rx/Tx

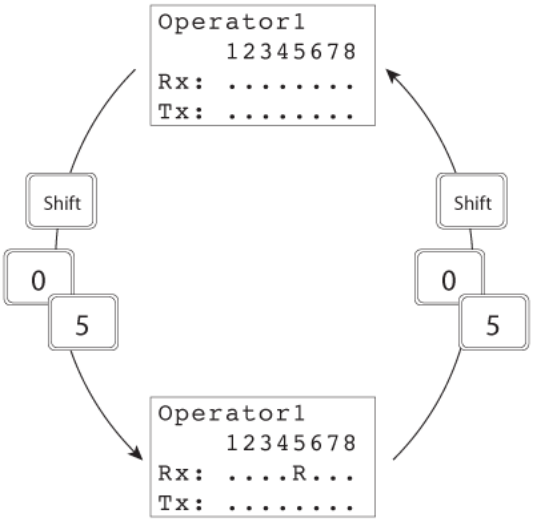
- To select a particular radio for Transmit or Receive, enter the two-digit number that represents the radio (e.g., 01, 02). Radio numbers (1–8) are shown on the Status page.

- To turn off a Transmit/Receive radio, press **SHIFT** followed by the radio's two-digit number.



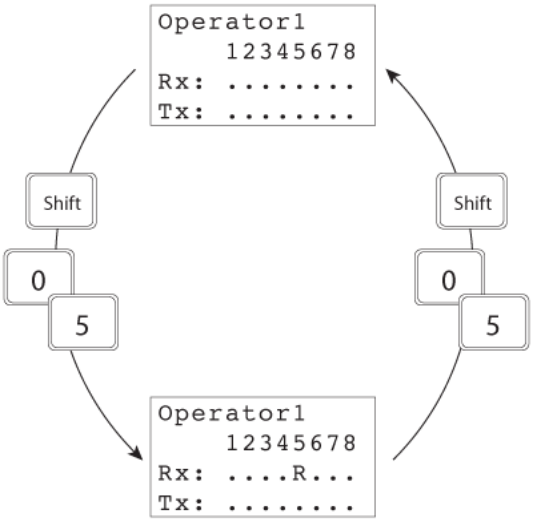
Rx Only

- To select radios for Receive-only mode, press **SHIFT** followed by the two-digit radio number.
- To turn off a Receive-only radio, press **SHIFT** followed by the two-digit radio number.



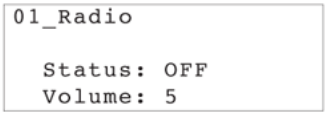
Secure Mode

To toggle the Secure mode of a particular radio, press **SHIFT** + **ON/OFF** + the two-digit radio number.

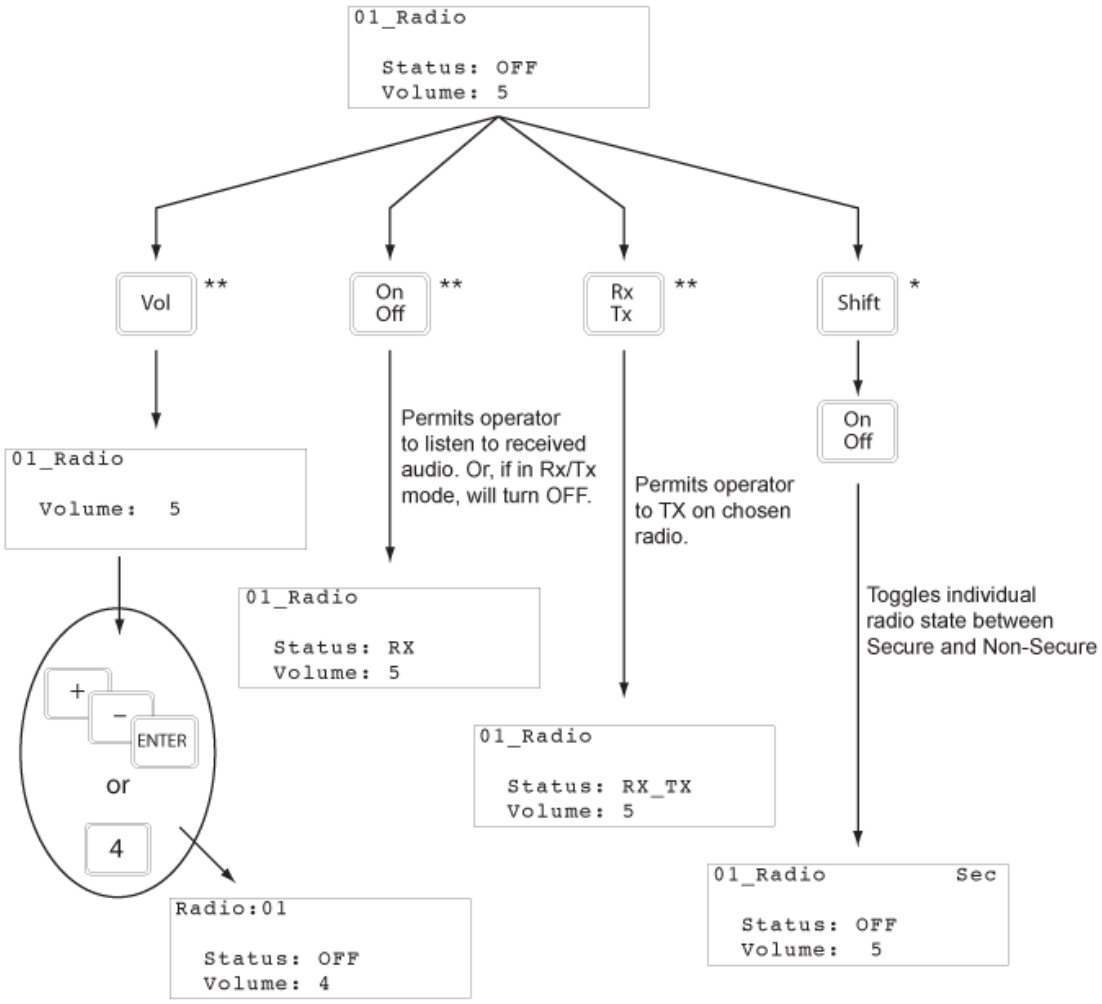


5.3 Radio Status Page

Press **Radio** + a two-digit radio number to view the radio's status page.



- Press **Vol** and use the **+/-** keys or a number key to modify the individual radio volume. Press **ENTER** to submit.
- Press **On/Off** to toggle the radio mode between OFF (silent) and Rx.
- Press **Rx/Tx** to toggle the radio mode between Rx and Rx_Tx.
- Press **SHIFT** + **On/Off** to toggle Secure mode on and off.



* This control affects operation of the simulated radio.
** This control affects how individual operator audio is routed (and its level) to/from a simulated radio.

Modify the Net

Press **Freq Net** and enter the net number (1–999) using the number keys. Press **ENTER** to submit.

Modify Net Frequency

Press **Freq Net** and enter the desired frequency in Hz (1000–999999999) using the number keys. Press **ENTER** to submit.

Squelch

Press **Sql** and use the +/- keys or a number key to modify the value. Press **ENTER** to submit.