

### Overview

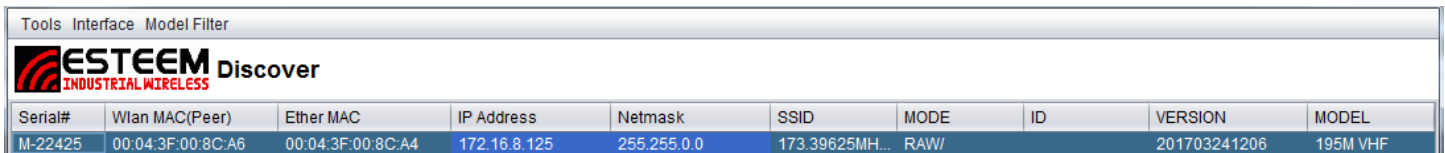
This step by step guide will help in the setup process of configuring the 195 Narrow Band radio (195C or 195M) to communicate with a Model 192 in an existing wireless network. The Model 195C or 195M can only be used at remote locations (not Master or Repeater site) in an ESTeem Model 192 wireless network. If replacement of the Master or Repeater site is required, move one of the Model 192 radios from a remote location to that site and use the 195 Narrow Band radio as a replacement at the remote.

### Step 1: Setting up the EST Discovery Suite & 195 Narrow Band Configuration Tool

1. Download the latest version of the Discovery Suite from the ESTeem website and install the pre-requisite software. (<http://www.esteem.com/esteem-utilities/>)
2. After the Discovery Suite is installed verify the computer has a static IP address (not configured for DHCP).

### Step 2: Discovering the ESTeem Radio and Starting the Configuration Tool

1. Run the Discovery Program and press “Discover EST Radios” button.
2. When the radio appears in the list, select it by left clicking on the radio in the list. Change the IP address to match the network (Netmask) of the computer. Do this by double clicking on the IP Address in the list and enter a new address and netmask. After the changes, have been made to the IP Address and Netmask, click the “Apply Changes” button.
3. After the radio reboots, click Discover EST Radios again to verify the address has changed. (See Figure 1) Select the radio by left clicking on it then select Tools in the upper left-hand corner and then 195 Narrow Band Configuration Tool (Legacy 192).



Serial#	Wlan MAC(Peer)	Ether MAC	IP Address	Netmask	SSID	MODE	ID	VERSION	MODEL
M-22425	00:04:3F:00:8C:A6	00:04:3F:00:8C:A4	172.16.8.125	255.255.0.0	173.39625MH...	RAW/		201703241206	195M VHF

Figure 1: Changing IP Address

### Step 3: Updating Firmware

1. The configuration tool will pop open another window. Navigate to the Firmware tab and select Update Firmware.
  - a. If there is an older firmware in the radio it will update with no other prompts.
  - b. If there is a newer firmware in the radio it will pop-up a warning about downgrading the firmware. Select OK and proceed with the downgrade. (See Figure 2)



Figure 2: Firmware Downgrade

2. After the firmware has been downgraded to the correct version (201905160827), go to the Console tab and press the connect button. A “CMD:” prompt should appear, when it does type “release” (without the quotation marks) and hit enter. Close the configuration tool.
3. Go back to the ESTeem Discover tool and Discover EST Radios again. Verify that the radio displays the correct downgraded version (201905160827).
4. If the IP address has changed, reset as shown above in step 2.

#### Step 4: Configuring your ESTeem 195 NB Radio

1. Open the 195 Narrow Band Configuration Tool (Legacy 192) again and set the Frequency, serial port configuration and Mode of Operation. Press “Write Config” button and the radio will reboot. After successful reboot, press the “Read Config” button to confirm that the changes have been made.
2. Select 192 Compatibility tab. Move the radial for 192 Compatibility Mode to “On” and click Set to program the radio into 192 Compatibility Mode. After the radio has rebooted, it must be trained to communicate with a specific Model 192 radio in the network (See Figure 3 & Example).

#### Example:

In this example, if configuring the 195 at Address 3 set the “Remote Address” in the training tab to 1 then press “Train to Remote” button. If configuring the 195 Address 6, set the remote address to 2 then “Train to Remote.”

Note: The 195 Narrowband Radio can only communicate with a single Model 192 in the network and should only be trained to talk to the radio it is directly communicating with regardless of the end point.

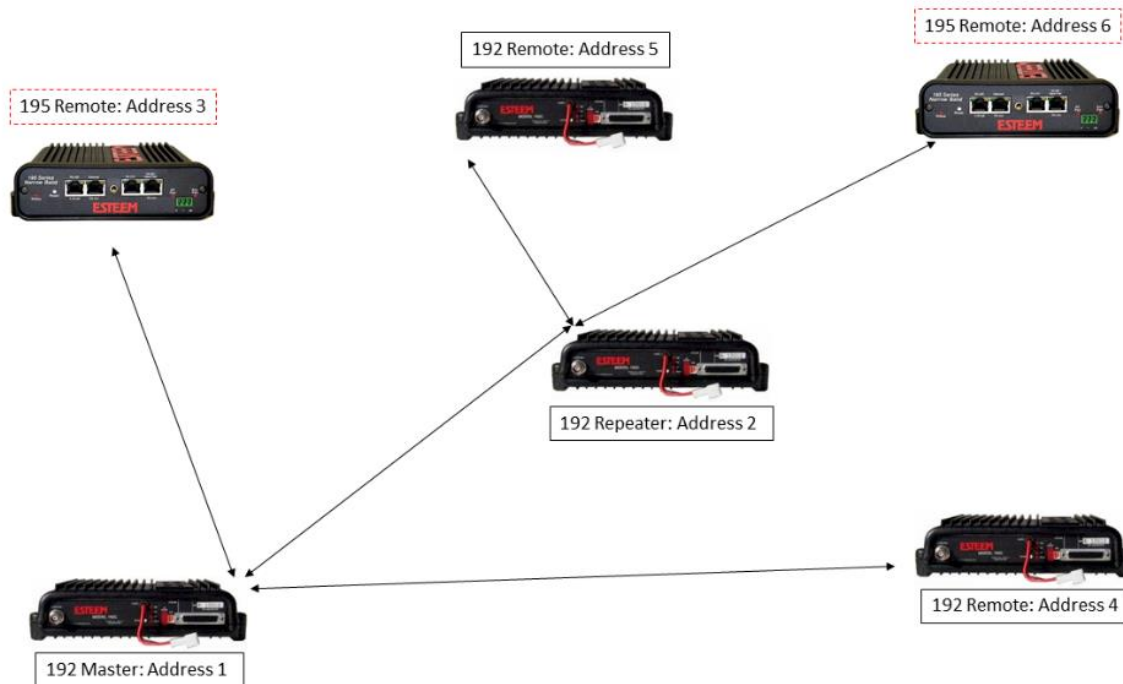


Figure 3: Example Network and Addresses

### Step 5: Testing and verification

1. Once the radio has been properly trained, test with diagnostics utility in the Narrow Band Configuration program. To do this, navigate to the Diagnostics tab and select "Add Units to Test". Input the radio address that the 195 has been trained to in "Remote Unit" block. If the radio that was trained to was a repeater, this Diagnostic tool can be used to test communication through the repeater to the master.
2. Once proper communication has been verified, connect the Model 195C or 195M to the serial device for operation.

