

SEI RECORDER

PUBLIC SAFETY RECORDER



SETUP AND INSTALLATION

SMALL SIZE

Smart Equipment Innovators

seinnovators.com

SEI
SINCE 1980

SEI RECORDER

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RECORDER FEATURES

Wifi Connected Optional Cloud Connection

FIREHOUSE RECORDING

- RECORDS ALL RADIO TRAFFIC WITH DATE AND TIME
- IDENTIFIES WHAT UNITS WERE TONED OUT
- BACKUP AUDIO FILES TO LOCAL PC OR CLOUD
- LISTEN TO FILES FROM ANY DEVICE ON THE LOCAL WIFI NETWORK
- WITH CLOUD SERVICES IT WILL AUTOMATICALLY UPLOAD TO THE CLOUD ALLOWING ACCESS FROM ANYWHERE



FIREGROUND RECORDING

- MOBILE MOUNTING - CONNECTS TO RADIO IN VEHICLE OR RECORDER WITH RECEIVER
- RECORD ALL MOBILE AND PORTABLE FIRE GROUND TRAFFIC AT THE SCENE
- AUDIO FILES CAN BE ACCESSED FROM ANY PC WHEN THE UNIT RETURNS TO WI-FI RANGE AT THE STATION
- PLAY BACK LOCALLY ON YOUR CELL PHONE OR LAPTOP
- SMALL SIZE EASILY MOUNTS ANYWHERE
- AUTO CONNECTS WHEN IN THE RANGE OF STATION WIFI
- WITH CLOUD SERVICES IT WILL AUTOMATICALLY UPLOAD TO THE CLOUD WHEN BACK IN THE RANGE OF STATION WIFI ALLOWING ACCESS FROM ANYWHERE



Small Size



RECEIVER / RECORDER

PLAY BACK

Shuts Down if Vehical is Not Used



Playback and Configuration can be Accessed from any WIFI Device.

Browser Based Playback and Analysis.
Calendar to easily find Historical Dispatches.
Tone Decoder to Identify Tone Outs.
Time Clock displays time as Recording Plays.
"Auto Play" and "Click to Play" to easily review Incidents.
Forward/Rewind by simply moving slider.

OPTIONAL CLOUD SERVICES:
Backup Files to the Cloud Automatically.
Review Files from Anywhere in the World.
Dispatch can Verify that Tones and Message Transmitted Correctly.

RECORDER SPECIFICATIONS

SD CARD CAPACITY 128 GB 4303 HRS

WHEN THE SD CARD IS FULL, IT STARTS RECORDING AT THE BEGINNING AGAIN

VOX OPERATION WITH SETTABLE THRESHOLD

WIFI ACCESS

**DIRECTLY FROM PHONE TABLET, PC OR
FROM BUILDING WIFI ON ANY DEVICE IN
THE WIFI NETWORK**

OPTIONAL CLOUD SERVICES

**BACKUP FILES ON THE CLOUD
PLAYBACK AUDIO FROM ANYWHERE**

**MOBILE RECORDER WILL AUTOMATICALLY CONNECT WHEN IN
RANGE OF THE WIFI SYSTEM**

BACKUP FILES ON PC

POWER REQUIREMENTS

10 - 15 VDC

CURRENT DRAW

**140MA MAX MOBILE UNIT SHUTS DOWN AFTER 24HRS OF
NO IGNITION VOLTAGE (TO PREVENT LONG TERM BATTERY
DRAIN IF VEHICLE IS NOT USED)**

PLUG AND PLAY COMPATIBLE WITH ADVISOR

POWER REQUIRMENTS

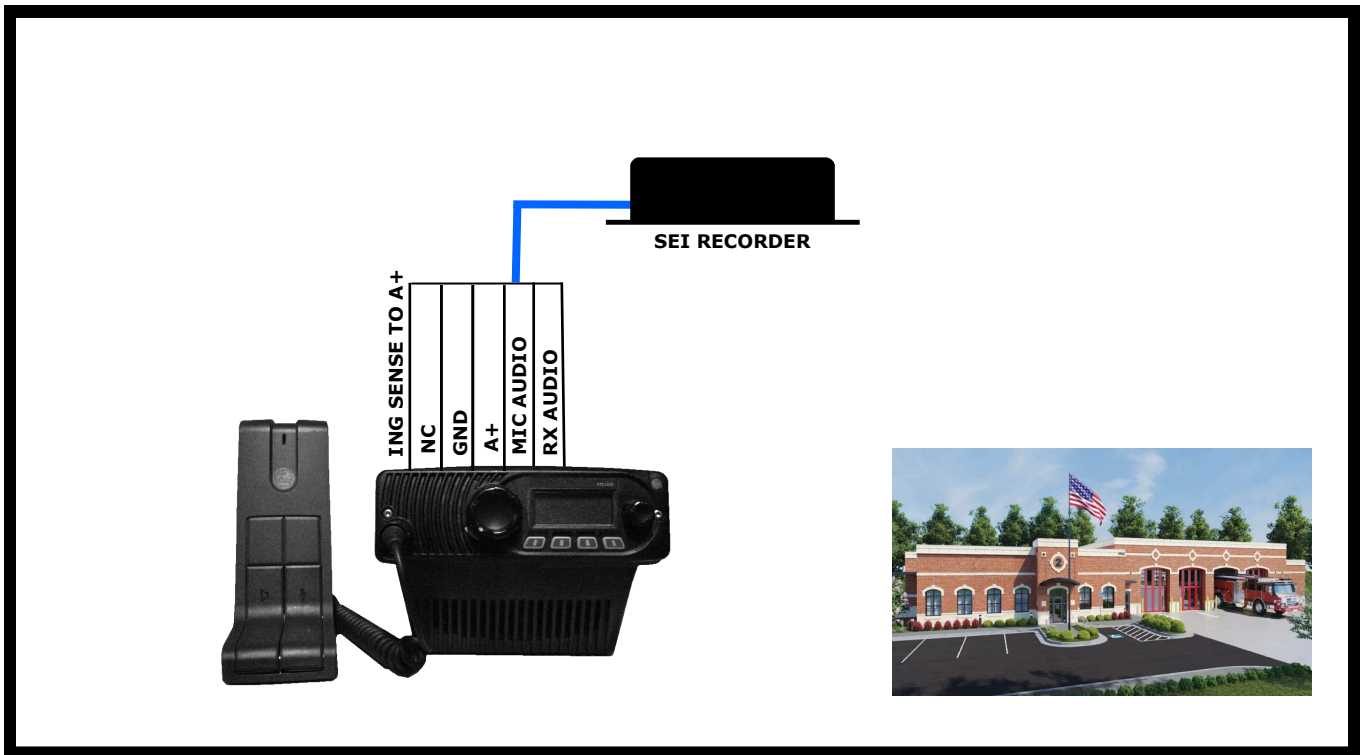
**MUST BE POWERED BY AN
UNINTERRUPTIBLE POWER SUPPLY**

**IF THE POWER TO THE RECORDER IS INTERRUPTED, WHILE IT IS RECORDING,
THE MEMORY CAN BE CORRUPTED. CONNECT TO A UPS IN THE STATION OR TO
THE BATTERY IN A MOBILE INSTALLATION.**

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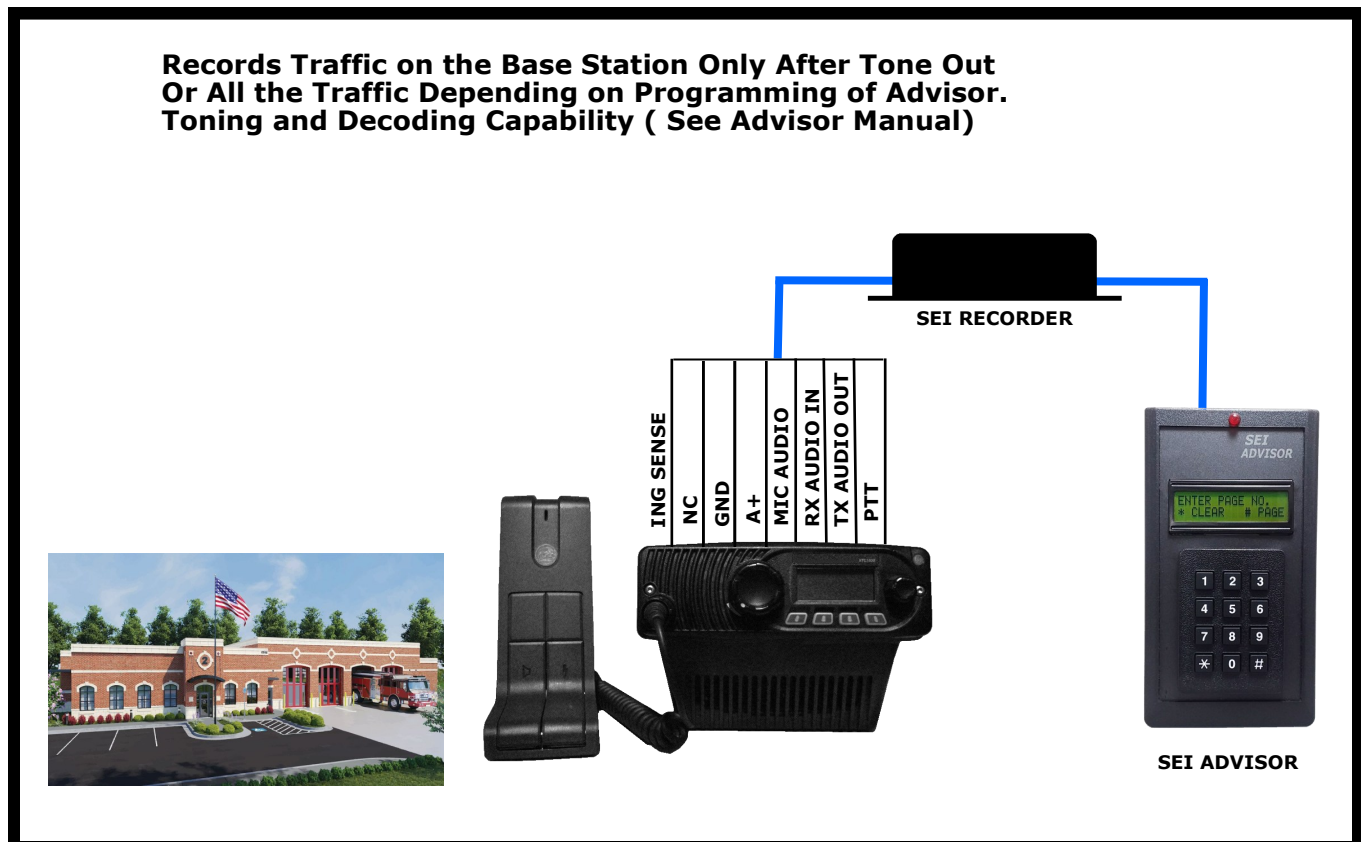
SYSTEM CONFIGURATIONS

RECORD ALL TRAFFIC



RECORD ALL TRAFFIC OR ONLY AFTER TONE OUT

Records Traffic on the Base Station Only After Tone Out
Or All the Traffic Depending on Programming of Advisor.
Toning and Decoding Capability (See Advisor Manual)



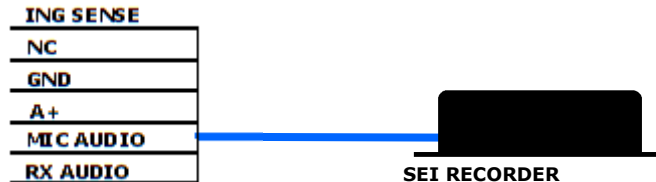
SYSTEM CONFIGURATIONS

MOBILE INSTALLATION

RECORD ON SCENE EMERGENCY COMMUNICATIONS

CAN BE READ OR DOWNLOADED WHEN THE VEHICLE IS PARKED WITHIN THE RANGE OF THE STATION WIFI SYSTEM

READ FILES ON SCENE WITH CELL PHONE OR LAPTOP



-RECEIVER/RECORDER COMBINED - PLUG IT IN AND CONNECT AN ANTENNA (PORTABLE OR EXT ANTENNA)
-4000 HOURS OF RECORDING BEFORE IT STARTS TO RE-RECORD OVER THE OLDEST MEMORY
-WIFI CONNECTION ALLOWS ACCESS FROM ANY DEVICE IN THE WIFI NETWORK OR CAN BE ACCESSED DIRECTLY FROM A CELL PHONE OR ANY WIFI DEVICE
-OPTIONAL CLOUD WEBSITE AND STORAGE ALLOWS ACCESS FROM ANY INTERNET CONNECTED DEVICE FROM ANYWHERE IN THE WORLD
-PERSONAL CAN REPLAY THE CALL ON THEIR PHONE WHILE RESPONDING

FIRE GROUND RECORDING

-CHANGE CHANNELS USING A CELL PHONE

-PLAY BACK DIRECTLY TO A CELL PHONE AT THE SCENE
-CONNECT TO THE CLOUD IF VEHICLE HAS ON BOARD WIFI OR THROUGH A CELL PHONE AS A HOT SPOT
THIS ALLOWS OFF SCENE PERSONAL TO FOLLOW THE COMMUNICATIONS AT THE FIRE SCENE IN ALMOST REAL TIME (APPROXIMATELY 60 SEC DELAY)

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SETUP

NEVER UNPLUG WHILE THE UNIT IS RECORDING.

STEP 1

CONNECT DIRECTLY TO THE RECORDERS INTERNAL WIFI.

Use a computer with a WIFI card or adaptor to communicate with the Recorder

- Reboot the Recorder by unplugging and plugging back in.

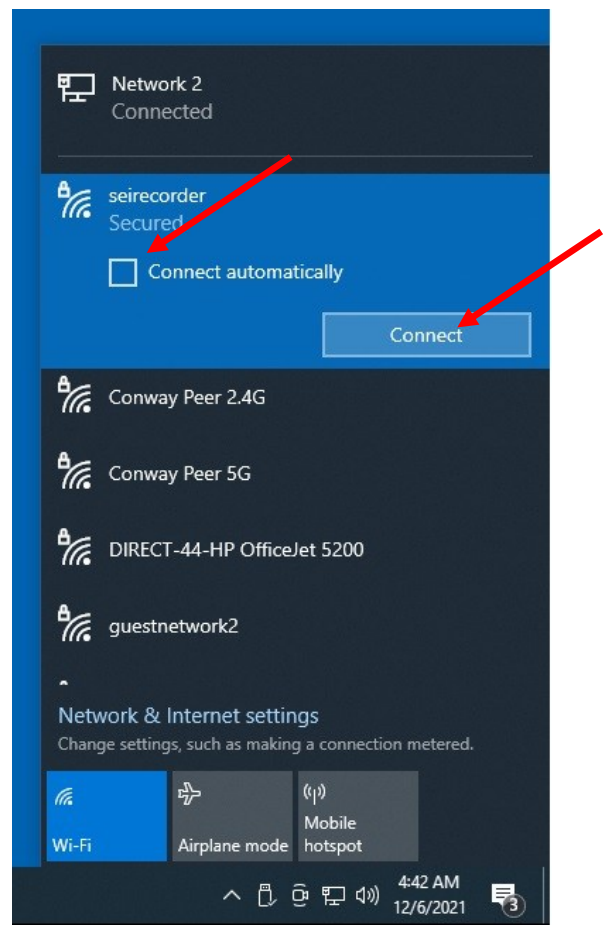
- Connecting to the Recorder

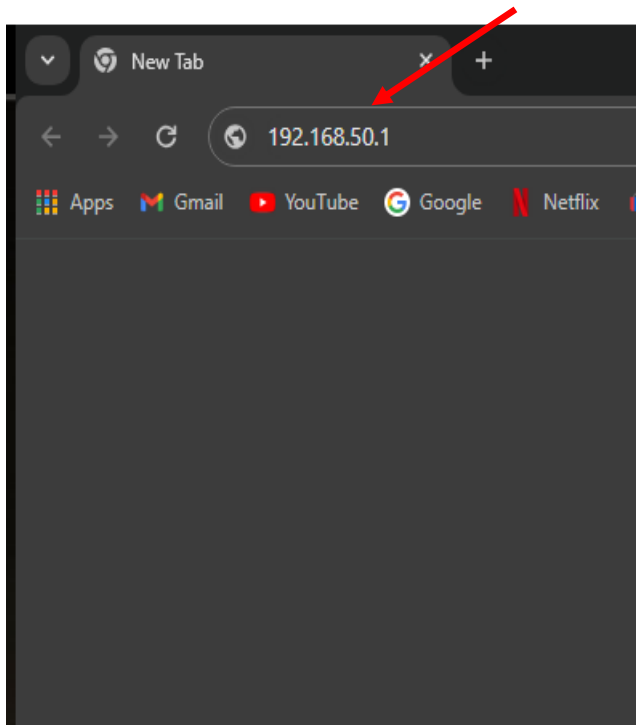
Disconnect your computer from the WIFI network.

Find the Recorder in the list of WIFI networks.

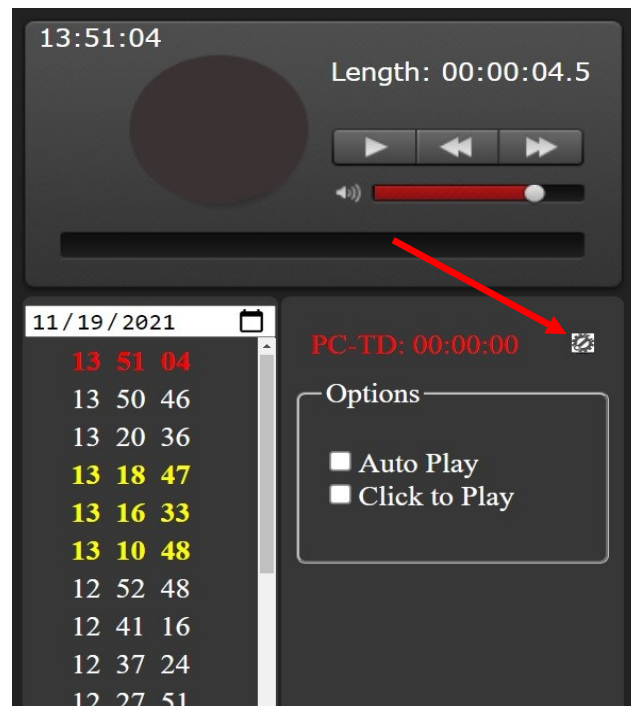
If it is a new recorder, the name will be "seirecorder."

Check the box for "Connect automatically." Password is "seirecorder123"

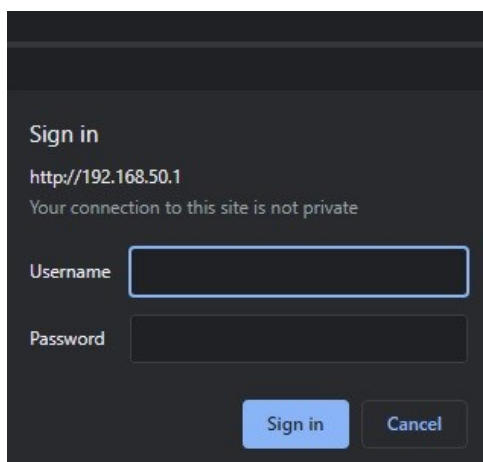




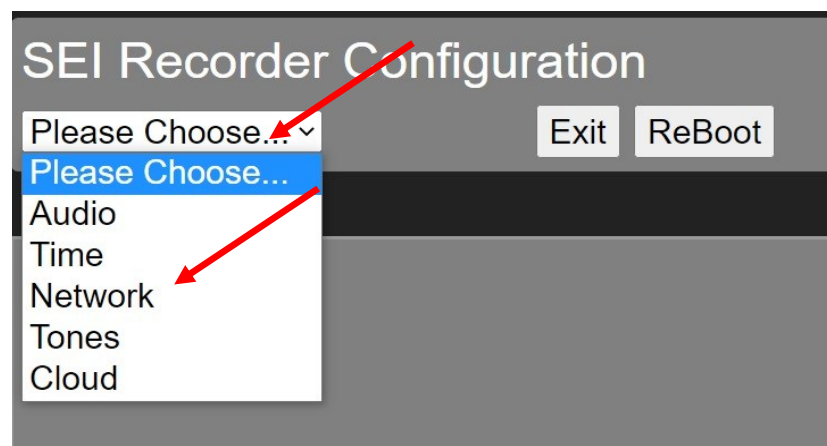
- Open a new Browser.
Enter a URL of "192.168.50.1"



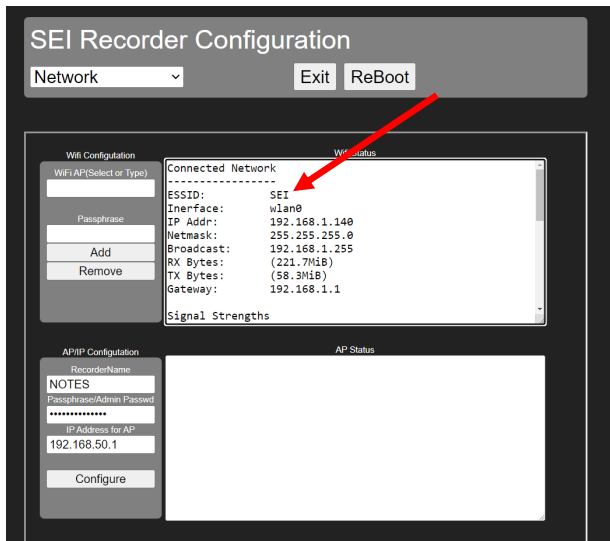
- The Recorder GUI will be Displayed. Click Button for the Configuration Screen



- Enter:
Username "admin"
Password "seirecorder123"

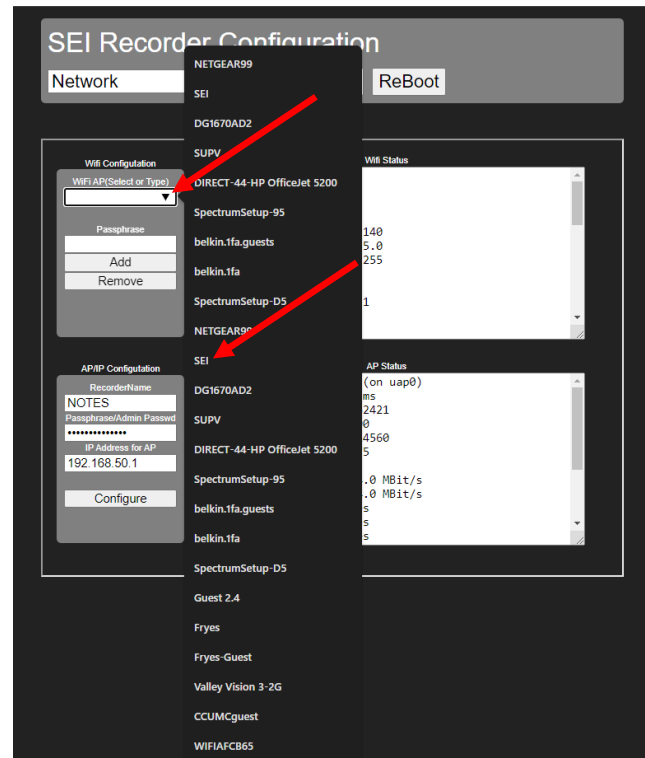


- Select the dropdown box then select "Network"



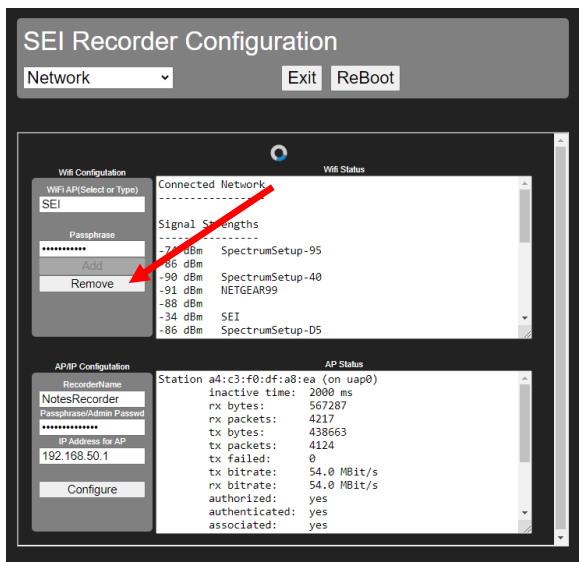
- If another Network is Connected then it must be removed before proceeding with the setup

If no Network is connected then Skip to ENTER NEW NAME



REMOVE WIFI NETWORK

- Click the Dropdown Box and Select the Network to be removed or type the name into the window



- Click on the "Remove button and wait for the wheel to stop



**- Exit the Config screen
Go back to step 1 (PAGE 7)**

ENTER THE NEW NAME FOR THE RECORDER

Skip if already renamed.

SEI Recorder Configuration

Network

Wifi Configuration

Wifi AP(Select or Type)

Passphrase

Add

Remove

Connected Network

Signal Strengths

- 87 dBm SpectrumSetup-D5
- 82 dBm SpectrumSetup-BA
- 87 dBm Spaulding's
- 36 dBm SEI
- 68 dBm Family Room Speaker.o,
- 78 dBm DG1670AD2
- 42 dBm DIRECT-44-HP OfficeJet 5200

AP/IP Configuration

RecorderName

seirecorder

Passphrase/Admin Passwd

IP Address for AP

192.168.50.1

Configure

Station 9c:c9:eb:24:9c:d9 (on uap0)

inactive time: 4000 ms

rx bytes: 655253

rx packets: 5293

tx bytes: 7490613

tx packets: 7861

tx failed: 0

tx bitrate: 72.2 MBit/s

rx bitrate: 52.0 MBit/s

authorized: yes

authenticated: yes

associated: yes

Enter the New Name for the Recorder (NO SPACES) and Click "Configure"

SEI Recorder Configuration

Network

Wifi Configuration

Wifi AP(Select or Type)

Passphrase

Add

Remove

Connected Network

Signal Strengths

- 92 dBm
- 41 dBm SEI
- 55 dBm DIRECT-44-HP OfficeJet 5200
- 77 dBm Family Room Speaker.o,
- 74 dBm DG1670AD2
- 70 dBm Valley Vision 3-2G
- 80 dBm Spaulding's

AP/IP Configuration

RecorderName

car1

Passphrase/Admin Passwd

IP Address for AP

192.168.50.1

Configure

Station 9c:c9:eb:24:9c:d9 (on uap0)

inactive time: 5000 ms

rx bytes: 425393

rx packets: 3316

tx bytes: 3360853

tx packets: 4050

tx failed: 0

tx bitrate: 72.2 MBit/s

rx bitrate: 39.0 MBit/s

authorized: yes

authenticated: yes

associated: yes

When the Wheel stops spinning - Close the Browser.

Go back to step 1 (PAGE 7) and reconnect directly with the new name.

ADD WIFI NETWORK TO RECORDER

SEI Recorder Configuration

Network Exit ReBoot

Wifi Configuration

WiFi AP(Select or Type)

Passphrase

Add Remove

Signal Strengths

Signal Strength	Network Name
-87 dBm	SpectrumSetup-D5
-82 dBm	SpectrumSetup-BA
-87 dBm	Spaulding's
-36 dBm	SEI
-68 dBm	Family Room Speaker.o,
-78 dBm	D61670AD2
-42 dBm	DIRECT-44-HP OfficeJet 5200

AP/IP Configuration

RecorderName: seirecorder

Passphrase/Admin Passwd: *****

IP Address for AP: 192.168.50.1

Configure

AP Status

Station 9c:c9:eb:24:9c:d9 (on uap0)

inactive time: 4000 ms

rx bytes: 655253

rx packets: 5293

tx bytes: 7490613

tx packets: 7861

tx failed: 0

tx bitrate: 72.2 MBit/s

rx bitrate: 52.0 MBit/s

authorized: yes

authenticated: yes

associated: yes

Click on the WIFI AP Dropdown Box and Select the WIFI Network

Enter the WIFI Passphrase

Click Add

SEI Recorder Configuration

Network

Wifi Configuration

WiFi AP(Select or Type)

Passphrase

Add Remove

Signal Strengths

Connected Network

ESSID:

DIRECT-44-HP OfficeJet 5200

SUPV

Valley Vision 2G

SEI

Fryes

Fryes-Guest

MySpectrumWiFi70-2G

Kathulhu's home

CCUMCguest

AP/IP Configuration

RecorderName: seirecorder

Passphrase/Admin Passwd: *****

IP Address for AP: 192.168.50.1

Configure

When the wheel stops spinning, you should see the new IP address that the router has assigned on the right. (if it does not show up then go to another window then back to NETWORK) Make a note of the IP address.

YOU MUST HAVE ONLY 1 WIFI NETWORK AT A TIME.

Exit the Configuration Screen and close the browser. Reboot the Recorder.

DO A DHCP RESERVATION OF THE IP ADDRESS IN THE ROUTER. CONNECT RECORDER TO AN UNINTERRUPTABLE POWER SOURCE.

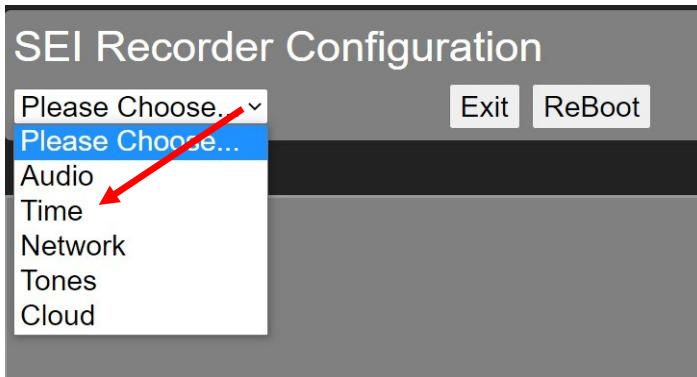
CONNECTING TO THE WIFI NETWORK

You can now connect with the Recorder on the WIFI Network. Connect your computer to the WIFI network. Open a browser.

Connect to the Recorder using the Recorder's IP address or "recordername".local

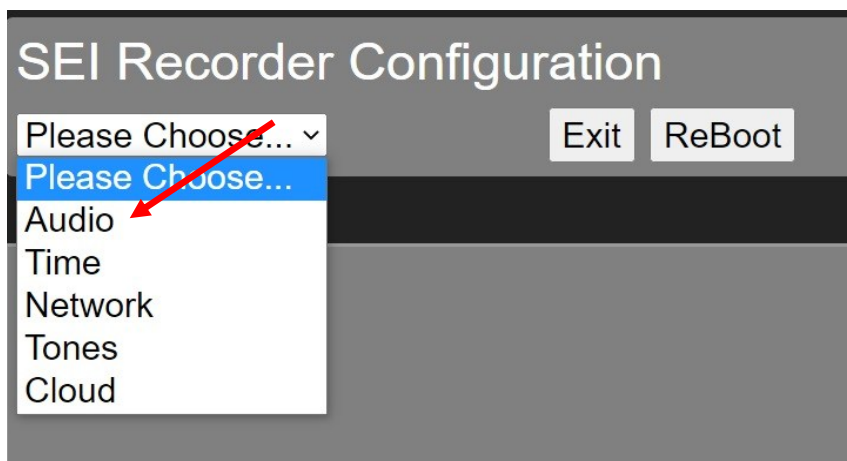
NOW YOU CAN CONTINUE WITH THE REST OF THE RECORDER SETUP

SETUP TIME CONFIGURATION

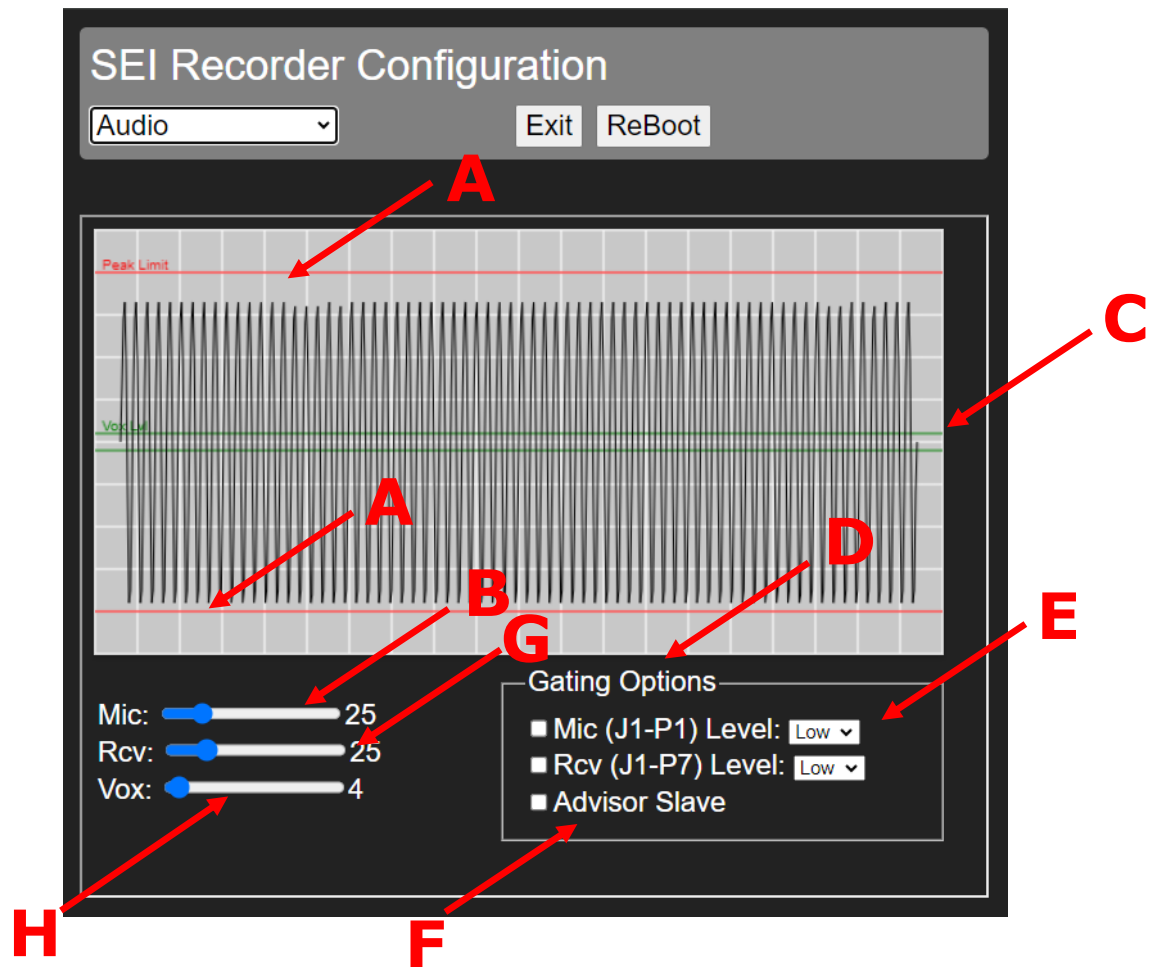


- Select "Time" in the dropdown box. Select the City with the Correct Time Zone Click "Synchronize" to sync the time with the computer. (It will periodically sync with the network)

SETUP AUDIO CONFIGURATION



- Setup Audio Select "Audio" from the dropdown box



Adjust Mic Audio - Speak into the mic at a normal level and adjust the mic level (B) so it does not extend over the Red Lines (A)
 You can click on the Slider and adjust with the arrow keys

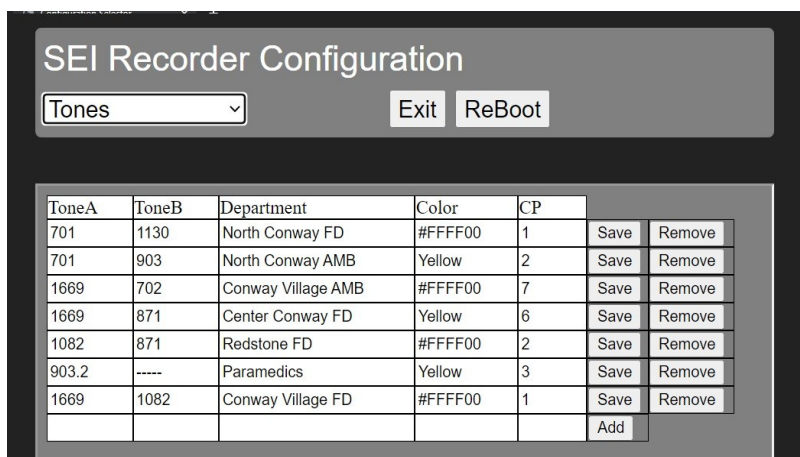
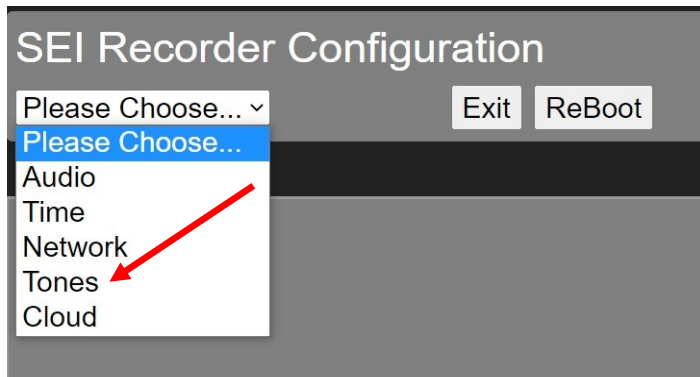
Adjust Receiver Audio - Feed a Signal into the Radio 1000HZ at 1.5KHZ Dev at -90dbm
 Adjust the rec level (G) so the Signal does not extend over the Red Lines (A)
 You can click on the Slider and adjust with the arrow keys

Adjust the VOX level (H) so any systemic noise does not extend over the green lines (C)

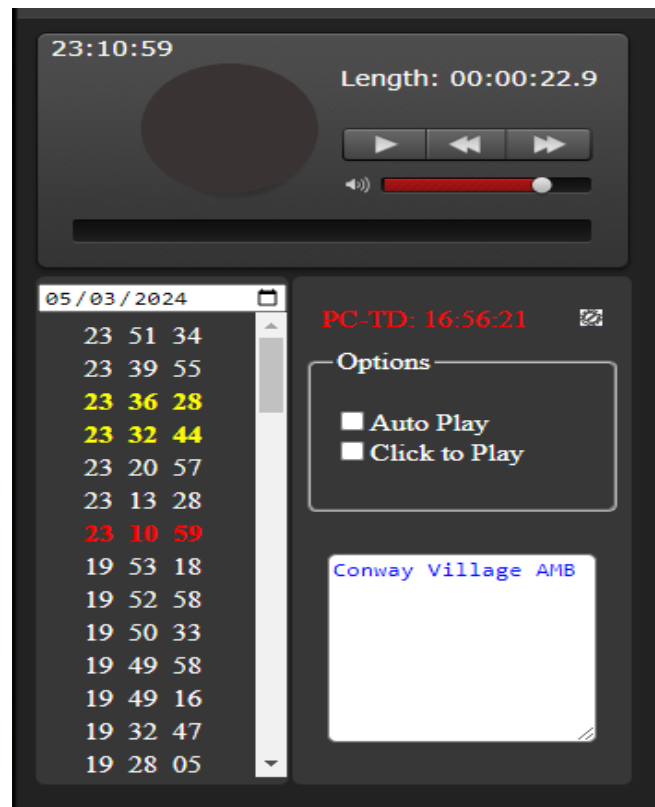
Mic and Rec Audio can be Gated (D) w/high or low outputs (E)
 (Example: A COR or a CTCSS Decode can gate the Rec Audio A PTT level change can gate the Mic Audio)

Advisor Slave (F) - If checked - the recorder only records when the advisor is tripped The Advisor alert relay must be programmed for "on until reset"

- SELECT "Tones"



Enter Tone A, Tone B the Department Name and the Hex Code or the Official Name for the Color. (htmlcolorcodes.com)



The Department Name can be Displayed when the Recording with the Tones is Selected.

The Recording for each Department can show in a Different Color.

CTCSS CODES

Leave Blank for Carrier Squelch.

67.0, 71.9, 74.4, 77.0, 79.7, 82.5, 85.4, 88.5, 91.5, 94.8, 97.4,
100.0, 103.5, 107.2, 110.9, 114.8, 118.8, 123.0, 127.3, 131.8, 136.5,
141.3, 146.2, 151.4, 156.7, 162.2, 167.9, 173.8, 179.9, 186.2, 192.8,
203.5, 210.7, 218.1, 225.7, 233.6, 241.8, 250.3

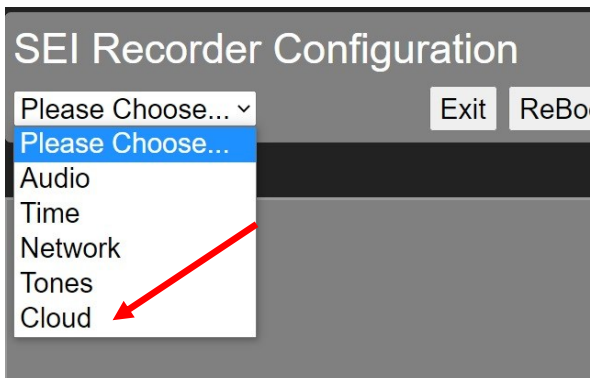
DCS CODES

023, 025, 026, 031, 032, 036, 043, 047, 051, 053, 054, 065, 071, 072,
073, 074, 114, 115, 116, 125, 131, 132, 134, 143, 152, 155, 156, 162,
165, 172, 174, 205, 223, 226, 243, 244, 245, 251, 261, 263, 265, 271,
306, 311, 315, 331, 343, 346, 351, 364, 365, 371, 411, 412, 413, 423,
431, 432, 445, 464, 465, 466, 503, 506, 516, 532, 546, 565, 606, 612,
624, 627, 631, 632, 654, 662, 664, 703, 712, 723, 731, 732, 734, 743,
754

DCS codes must be followed by N or I for Normal or Inverse.

- Setup Cloud Service

SELECT "Cloud"

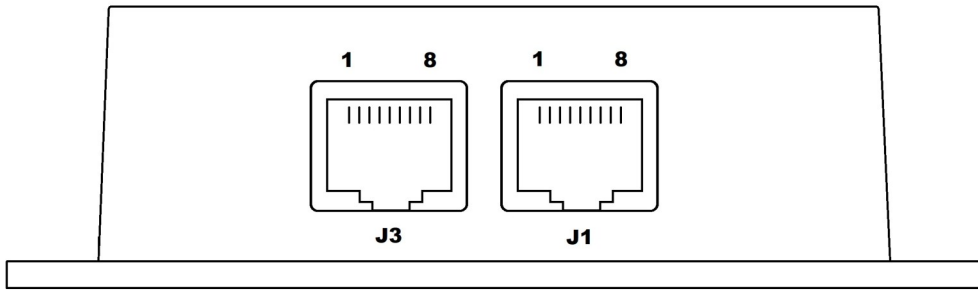


If the Optional Cloud Service is going to be used, then 3 Keys will be emailed to you. Each key must be Copied (Carefully) and Pasted into the box, then Set one at a time.

The Wheel will spin while the Key is Being Set.

A screenshot of the 'SEI Recorder Configuration' screen. At the top, it says 'SEI Recorder Configuration' with a dropdown menu set to 'Cloud'. To the right are 'Exit' and 'ReBoot' buttons. Below this is a section titled 'Cloud Key Configuration'. It contains three rows, each with 'Set Key' and 'UnSet Key' buttons. Each row has a large text area for pasting a key. At the bottom, it says 'Please contact your local Radio Shop to enable Cloud Services' and 'Device Id 284b2d9912b827eb78cc47'.

INSTALLATION



CONNECTION TO RADIO

J1 RJ45 RADIO

CABLE

- 1 PTT - BRN - RECORDER ONLY - NORMAL OPERATION - NO CONNECTION
- USING WITH ADVISOR ENCODE - CONNECT TO RADIO PTT
- IF MIC AUDIO IS LIVE ALL THE TIME THEN CONNECT TO RADIO PTT AND SETUP GATING IN AUDIO MENU (SEE PAGE 11)
 - 2 TX AUDIO OUT - BLU - NOT NEEDED UNLESS ADVISOR ENCODE IS USED
 - 3 RX AUDIO IN - YEL - SQUELCHED AUDIO NOT ADJUSTED BY VOLUME CONTROL (IF NEEDED, THE RX AUDIO CAN BE GATED BY CONNECTING PIN 7 TO A CTCSS DECODE OR A COR PIN)
 - 4 TX AUDIO IN - GRN - CONNECT TO MIC AUDIO IN THE RADIO (A JUMPER, WITH AN INLINE CONNECTOR, IS PROVIDED TO CONNECT TO THE BACK OF THE MIC JACK IN THE RADIO SO THE CONTROL HEAD CAN STILL BE REMOVED) (IF TX AUDIO IS HARD TO CONNECT TO IN THE RADIO THEN A MODULAR MIC JUNCTION BOX CAN BE USED TO PICK UP THE MIC AUDIO IF THE MIC HAS A MODULAR CONNECTOR, PAGE 18)
 - 5 POWER - RED - B+ - 12 - 15VDC
 - 6 GROUND - BLK - GROUND
 - 7 OPTIONAL RX AUDIO GATE - ORG (IF NO SQUELCHED AUDIO IS AVAILABLE THEN PIN 7 CAN CONNECT TO COR OR CTCSS DECODE TO GATE THE RX AUDIO) (SEE PAGE 11)
 - 8 IGNITION SENSE - WHT 12 - 15VDC (IN A MOBILE INSTALLATION, CONNECT TO AN IGNITION SOURCE, IN A STATION INSTALLATION CONNECT TO B+)
- J3 RJ45 RADIO THE ADVISOR ENCODER/DECODER PLUGS INTO J3 (IF IT IS USED) (NOT USED IN MOBILE INSTALATIONS)

INSTALLATION

Mic Audio

**It can be Difficult to get Mic Audio from the Radio.
You must go into the Radio and run a Wire out to the Recorder.**



Mic Junction Box

An optional Mic Junction Box is Available for use with Radios that use RJ45 Mic Jacks. The Mic Plugs into the Junction Box and a Cable runs from the Junction Box to the Radio. Mic Audio, Mic PTT, Gnd etc. can be Picked Up in the Junction Box and Run Back to the Recorder.

WARRANTY

The SEI Recorder is warranted to be free from defects in material or workmanship for a period of 1 year from the date of purchase. Damage due to misuse or modification is not covered under this warranty.

The unit must be returned to the factory and we will repair or replace it (at our option) at no charge.

SMART EQUIPMENT INNOVATORS LLC

603 447 3925

info@seinnovators.com

seinnovators.com

