

860 DSP and 860 DSPi Quick Start Guide

Although your 860 is delivered from the factory ready-to-use, there are a few items you will want to setup to get you started using your 860 effectively. Only basic setup information is included in this guide. Need more detailed information on your 860 DSP or DSPi? See your operation manual.

POWER

1. Make sure your 860 has been fully charged (approximately 4 hours).
2. From Main Navigation screen select , select  and press .
3. Select the power scheme from the list below that best meets your needs.
 - **Low** – Most efficient. No backlight, 1X processor speed. Extends battery life.
 - **Normal** – Normal usage. Backlight level on, 1X processor speed.
 - **High** – Fastest. Backlight level on, 2X processor speed. Faster refresh speeds.
 - **Custom** – User defined backlight level on or off and processor speed. (1X or 2X).
 - **UNIT OFF TIMER** – Sets time unit will sit idle before automatically shutting down.
 - **BACKLIGHT TIMER** – Sets time unit will sit idle before automatically turning backlight off.
4. Press  to return to the Set up menu.

LEARN CHANNEL PLAN



Note: Although you can build channel plans in the 860 DSP, it is more convenient to create complex channel plans or setup multiple instruments using the WorkBench software.

Before your 860 knows which channels are active in your system, it will need to learn your specific Channel Plan.

1. From main Navigation screen select , select  and press .
2. Press  or  to highlight LEARN CHANNEL PLAN and press .
3. You will need to set the following parameters:
 - **BASE CHANNEL PLAN** – Choose plan for your system, NCTA, HRC, etc.
 - **LOW LEVEL LIMIT** – Carriers below this level will not be included in Plan
 - **HIGH LEVEL LIMIT** – Carriers above this limit will not be included in Plan.
 - **START FREQUENCY** – Sets lowest frequency of Channel Plan.
 - **STOP FREQUENCY** – Sets highest frequency of Channel Plan(max 1000 MHz)
 - **LEARNED PLAN NAME** – allows naming of plan so that more than one plan can be saved on 860 DSP. This allows custom plans to be used at numerous systems.
4. Once Channel Plan parameters are set, pressing the  button tells your 860 to start the process of learning the channel plan. The information bar will tell you when the Channel Plan has been learned successfully.

EDIT CHANNEL PLAN

Once the 860 has learned which channels are active, you will need to edit the channel plan to setup the individual parameters of each channel.

1. Press **Bk** to return to the SETUP menu screen.
2. Use  or  to highlight EDIT CHANNEL PLAN and press **Ent**.
3. The channel plan to be edited is listed in top of window. If you wish to edit a different channel plan, press **MORE...** until **LOAD** is displayed. Press **LOAD**, highlight desired plan and press **Ent**.
4. You will need to set the following parameters. Use  or  to move the cursor to the item to change. Use  or  to make a selection.
 - **CHANNEL NUMBER** – Standard channel format for base channel plan chosen.
 - **CHANNEL NAME** – Defined by user.
 - **CHANNEL TYPE** – Change for digitals, CW or channels different from base.
 - **CHANNEL DETAILS** – Allows setting of options such as scrambling details or digital options. Annex B options will automatically set symbol rate and digital bandwidth. Annex A requires that these be set manually.
 - **VIDEO / CENTER** – Frequency of video carrier for analog channels, or center frequency for digital channels. Can be changed for nonstandard channels.
 - **AUDIO / DIG BW** – Frequency of audio carrier on analog channels, or band width of digital. Can be adjusted for non standard channels.
 - **SAP / SYMBOL RATE** – Frequency of Secondary Audio Programming for analog channels, or Symbol rate of digital modulation.
 - **TILT, MER, QAM, C/N, HUM, MOD, USE** – These options will vary depending on if you are editing an analog or digital channel. They are either used to select the tests (if any) to be run on a channel or to enable advanced options. The  or  buttons toggle Yes to No. A “Skip” in the USE section will disable channel from plan. A “Pulse” in the USE section will mark a channel only used by the 8300 FST sweep transmission.
5. After making any changes to a Channel Plan, press **SAVE**. “Channel Plan Saved” will appear in the message bar. Soft keys will also allow you to “Save As” an edited plan as another name, or delete an unneeded plan.
6. Press **Bk** to return to the Setup menu and **Bk** again to return to the main NAVIGATION menu.

TRY IT OUT!

- Select  from the main NAVIGATION menu.
- Select **CH PLAN** and choose your channel plan from the list.

860 DSPi CABLE MODEM SETUP & CONNECTION



Note: This section applies to any 860 DSPi or any 860 DSP that has been upgraded to an 860 DSPi.

You will need to get your 860 DSPi to connect to a cable system's DOCSIS network via the 860 DSPi's internal cable modem.

1. Provision the 860 DSPi on your network

You must provision the 860 DSPi on the cable system's DOCSIS network via its internal cable modem. This can be done one of two ways:

- You can provision your meter on the system by sending the cable modem's MAC address to your network group for provisioning.
- Spoof an existing cable modem's MAC address (only if DOCSIS 1.1 Baseline Privacy Plus is disabled).

2. Determine your system's downstream DOCSIS carrier frequency

You will need it in the next step.

3. Set up the Modem

From Main Navigation screen select **SETUP**, select  and press **Ent**.

Now set the following parameters:

- Select the **CM/CPE** and press **Ent**.
- **860 DSP(i) Mac** - If you are spoofing another PC, press **▲** until the field says *Spoof Enabled* and enter Spoof MAC. Otherwise, select *Spoof Disabled*.
- **Modem Mac** - If you are spoofing another cable modem, press **▲** until the field says *Spoofing Enabled* and enter a Spoof MAC. Otherwise, select *Spoof Disabled*.
- **Search Frequency** - Enter the center frequency in MHz of the downstream DOCSIS carrier you found in step 2. If the frequency is not known, press **0** then **Ent**.
- **Show Modem Info** - Press **▲** until **YES** is shown.
- Press **Bk** to return to the SETUP menu screen.

4. Set up the Com/Net

- Select the **COM/NET** field and press **Ent**.
- In **Network Port** Press **▲** until **Internal Modem** is shown.
- In **MY IP ADDRESS** Press **0**, **Fn**, **0**, **Fn**, **0**, **Fn**, **0**, then **Ent** to put the 860 DSPi in DHCP mode.
- Repeat for the **Subnet Mask**, **Gateway Address**, **Pri. DNS Address**, and **Sec. DNS Address**.
- Press **Bk** to return to the Setup menu.
- Press **Bk** again to return to the Navigation Screen.
- Press the **INSTALL** soft key.

5. Connecting to the DOCSIS network

- Look at the top of your NAVIGATION screen, and make sure the field to the left of the time says **RDY**. If not turn off the 860 DSPi, and then turn it back on. **RDY** means the unit is ready to connect to the network.
- Make sure the RF input is connected to the FORWARD port of the 860 DSPi.
- Select  and press . This will start the log in process.
- The **Logging on to Network** pop-up window that will appear and give the current status of the log-on process. This process will take about 30 seconds if the downstream carrier frequency was set back
- The **STATUS** field will display the following information.

Finding Downstream – 860 DSPi is searching for the downstream carrier.

Downstream Found– The downstream frequency has been found.

Ranging Begin – indicates that the ranging process has been started.

Ranging Success – indicates that the ranging process has completed.

Traffic Enable – indicates the modem has successfully been configured to operate on the cable modem network.

- **Before the unit can operate on the cable modem network**, the 860 DSPi must receive an IP address from a DHCP server on the cable network. If this happens successfully the *Internal IP* field on the pop up window will be updated with the received IP address, then the unit will enter the *PING* menu.

TRY IT OUT!

- Enter an I.P. Address or select 1 of 4 favorite stored IP addresses  and select  to PING HOST.
- PING Statistics will update on the screen.