

OptionFinder[®] IQ

Hardware Guide for OptionPower



About this Guide

The purpose of this guide is to provide you with instructions for setting up and configuring your keypad system. Please refer to the on-line help (OptionPower/Help) for additional troubleshooting tips and information about the software.

How the IQ Keypad System Works

- The IQ keypads must be turned on before they can be used for polling. If the battery symbol and text appears at the top of the keypad display, then the keypad is on. If a keypad is off, press any key and the OptionFinder logo will appear briefly in the display. Once the logo disappears, the keypad is on and is ready to use.
- If not used, the keypad will go into “sleep” mode after 5 or 6 minutes. To wake up the keypads press the **Send** key or advance to an OptionPower polling slide.
- If not used, the keypads will remain in sleep mode for 10 minutes and then the power will automatically shut off.
- Each keypad has a unique address. The software uses the address to identify a signal from a specific keypad.
- During polling, participants press the number on the keypad that corresponds with their response choice. The keypad address and the participant's response are transmitted to the base station and then to the software. When the response is acknowledged by the base station **OK** will flash briefly in the upper right corner of the keypad display.
- The IQ keypads work in both single and multi-digit mode. When a log-in slide is displayed, the keypad will automatically switch to multi-digit mode. When a regular polling slide is displayed, the keypad will automatically switch back to single digit mode.
- If polling is open, participants may change their response to a question. To change a response when the keypad is in single-digit mode, just press a new number. The last number pressed is the number that is saved.

To change a response when the keypad is in multi-digit mode, press the **arrow** key to delete the last number entered or press the **Clear** key to delete all of the numbers entered, and then enter the new response(s).

- If a participant presses an invalid number, the number will go in on the keypad, but the software will exclude the response.
- The flag key is not used in version 1.1.
- The left arrow, when used in conjunction with the number 1, provides access to the keypad function menu.
- One base station will support a maximum of 300 keypads.

Setting Up the Keypad System

Connecting the Base Station

Serial Connection

1. Connect the base station to your computer. Attach the "male" connector to the base station and the "female" connector to the serial port on your computer.
2. Connect the power cord to the base station, plug the cord into a power outlet, and flip the power switch to "on". If the base is receiving power, the channel will appear in the display.
3. Make sure the antennae connections are tight and tilt the antennae 45 degrees. (pointing away from one another)

Ethernet Connection

1. Connect one end of the RJ-45 cable to your computer. Connect the other end to the adapter and then plug the adapter into the Ethernet port on the base station.
2. Connect the power cord to the base station. Plug the cord into a power outlet, and then flip the power switch to "on". If the base station is receiving power, the channel will appear in the display.

Note: For multiple connections or advanced configurations, please contact your System Administrator or Network Group for assistance.

3. Make sure the antennae connections are tight and tilt the antennae 45 degrees. (pointing away from one another)

Verifying and Changing the IQ Base Station Connection Type

IQ base stations may be set to work with either serial or Ethernet connections. You should verify and if necessary, change the connection type when setting up and testing your hardware system.

Verify the Connection Type

1. Turn the base station on.
2. Watch the display on the front of the base station.
3. If E.C. appears, then the base station is set to work with an Ethernet connection. If S.C. appears, the base station is set to work with a serial connection.

Change the Connection Type

1. Plug the power cord into the base station and into an outlet.
2. Make sure the base station is turned off.

3. Press and hold the recessed button next to the power jack on the base station.
4. Switch the power to on.
5. The current connection type, the channel and then six bars will appear in the display.
6. After 3.5 seconds the connection type will change. Release the button to save the changes.

Setting up the Base Station for Ethernet Polling

Use this wizard to setup your base station before you run the Keypad Setup Wizard or test your keypads.

1. On the **Start** menu, point to **Programs**, point to **OptionPower**, and then click **IQ Ethernet Setup Utility**.
2. Click **Next** and follow the prompts on the Wizard.

Turn the Keypads On

1. Press the **Send** key on each keypad.

Note If not used, the keypad will go into “sleep” mode after 5 or 6 minutes. To wake up the keypads, press any key or advance to an OptionPower polling slide. The keypads will remain in sleep mode for 10 minutes and then they will automatically turn off.

Placing the Base Station

- Place the base station within 300 feet of the keypads.
- Position the base station 5 to 6 feet off the ground.
- Position the base station away from other electronic devices, i.e. projectors, speakers, computers, etc.

Define and Test the Keypads

1. On the **OptionPower** menu, click **Keypad Setup Wizard**.
2. Click **Next**.
3. Click **I need to change my keypad settings. I would like OptionPower to detect my ports**, and then click **Next**. The wizard will search for the connected base station. If no base station is found, click **Diagnose** and then click the Help button for further instructions.
4. Once your base station has been found, enter the lowest and highest numbered addresses of the keypads you will be using with the base station.
5. Click **Next**.

6. Click **Next** again.
7. The table displays addresses for all of the keypads in your keypad universe.
8. Press a number key on a keypad.
9. The number you pressed should appear to the right of the keypad address.
10. Test all keypads.
11. Click **Close** and then click **Finish**.

Programming IQ Keypads

Use the OptionFinder IQ keypad menu to enable or disable keypad features and to modify the keypad properties.

The menu is locked when the keypads are shipped. Use the IQ Keypad Utility or the feature connector to lock and unlock the keypad menu.

Keypad Menu Selections

- 1: Single - Do not use. The keypads will automatically switch to the correct mode during polling.
- 2: Multi - Do not use. The keypads will automatically switch to the correct mode during polling.
- 3: Moment - Not used in OptionPower 1.2
- 4: Speed - Not used in OptionPower 1.2
- 5: Send - Close the keypad menu
- 6: Address - change the keypad address
- 7: Channel change the keypad channel
- 8: Power - Turn the keypad off
- 9: Splash - Turn the splash screen on or off

Keypad Display Symbols

- **Battery** – Displays the amount of charge remaining
- **123** – Indicates the mode (Single-digit/Multi-digit) in which the keypad is working

If the 1 is bold, the keypad is in single-digit mode. If all three numbers are bold, the keypad is in multi-digit mode.

- **Up/Down Arrows** – Appear when the base station is sending a signal to the keypads

Both arrows move when polling is open and the base station and keypad are communicating. If only the down arrow moves, then the keypad is receiving a signal from the base station, but the base cannot receive a signal from the keypad. This occurs when the address for the keypad is outside of the range of addresses (keypad universe) the base station will accept. Use the Keypad Wizard to check your keypad system definitions. This also occurs when you use the **Decrease to current** command to exclude keypads when polling. The Decrease/Increase commands are on the slide show shortcut menu.

- **Null** – Appears when the base station is not sending a signal to the keypads

The OptionFinder IQ Keypad Utility

The utility is a stand-alone tool that is used to program and test IQ keypads.

You may use the utility to perform the following functions:

- Unlock or lock the Keypad Menu on all of the keypads at one time.
- Turn all of the keypads off.
- Test the keypads.

Open the IQ Keypad Utility

1. On the **Start** menu, point to **All Programs**.
2. Point to **OptionPower** and then click **IQ Keypad Menu Utility**.

Note: You must connect and turn on the IQ base station before using any of the utility functions.

Unlock the Keypad Menu

You can unlock the menu in one of two ways: with the OptionPower Keypad Utility, or with the feature connector.

The feature connector is a piece of hardware that is inserted into a keypad. When the connector is in place, the keypad menu will automatically open and will remain unlocked until the connector is removed. You may only change one keypad at a time with the feature connector.

Use the keypad utility if you want to unlock the menu for all of the keypads at one time or if you want to leave the menu unlocked.

Unlock the Menu with the Keypad Utility

1. Connect the IQ base station to your computer and turn it on.
2. On the **Start** menu, point to **All Programs**, point to **OptionPower**, and then click **IQ Keypad Menu Utility**.

3. Click **Open IQ base station**. The status will change to Open. If the status does not change, then the software does not recognize your base station. Use the Keypad Setup Wizard to identify the problem.
4. Press **Send** on all of the IQ keypads to turn them on.
5. Click **Unlock Menu**.

Unlock the Menu with the "Feature Connector"

1. Insert the feature connector into the keypad.
2. The keypad menu appears automatically. If you close the menu and want to reopen it, hold down the arrow key and press 1.
3. Remove the connector to lock the menu again.

Lock the Keypad Menu Utility

1. Connect the IQ base station to your computer and turn it on.
2. On the **Start** menu, point to **All Programs**, point to **OptionPower**, and then click **IQ Keypad Menu Utility**.
3. Click **Open IQ base station**. The status will change to Open. If the status does not change, then the software does not recognize your base station. Use the Keypad Setup Wizard to identify the problem.
4. Press **Send** on all of the IQ keypads to turn them on.
5. Click **Lock Menu**.

Changing IQ Keypad Addresses

1. Make sure the keypad is on. If the battery symbol and text appear at the top of the keypad, the unit is on. If the keypad is not on, press any key, the OptionFinder logo appears in the display, once the logo disappears, the keypad is ready to use for polling.
2. Hold down the **arrow** key and press **1** to view the keypad menu.
3. Press **5**.
4. Enter the new address for the keypad and then press **Send**.
5. Press **Send** again to exit the menu.

Change the Keypad Channel

1. Make sure the keypad is on. If the battery symbol and text appear at the top of the keypad, the unit is on. If the keypad is not on, press any key, the OptionFinder logo appears in the display, once the logo disappears, the keypad is ready to use for polling.

2. Hold down the **arrow** key and press **1** to view the keypad menu.
3. Press **6**.
4. Enter the new channel.
5. Press **Send** to save the changes or press **Clear** to exit without saving.
6. Press **Send** again to exit the keypad menu.

Change the Base Station Channel

1. Plug in the base station.
2. Switch power to on and immediately press the recessed button next to the power jack.
3. The display on the front of the base station will read CH 1, keep pressing the recessed button until you reach the correct channel.

Turn the Keypad Off

The keypads will automatically turn off approximately 15 minutes after you close the polling presentation. Turn the keypads off manually to preserve the life of the batteries.

From the Keypad Menu

- If the keypad menu is unlocked, hold the arrow key and press 1, and then press 7.

From the IQ Keypad Menu Utility

1. On the **Start** menu, point to **All Programs**, point to **OptionPower**, and then click **IQ Keypad Menu Utility**.
2. Click **Open IQ Base Station**.
3. Click **Keypads Off**.

Troubleshooting

Problem: Keypad responses are not received during polling or testing.

Cause The keypad address is outside of the defined keypad universe.

Solution: Change the keypad address or change the keypad universe.

See the instructions above for changing keypad addresses.

To change the keypad universe:

1. On the **OptionPower** menu, click **Keypad Setup Wizard**.
2. Click **Next**.
3. Change the High and Low keypad numbers to include the addresses for all of the keypads used during polling.