

OptionFinder[®] G3

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 G3 Keypads Work

- The G3 Keypads must be turned on before polling. Press the power key in the lower right corner of the keypad.
- Each base station supports up to 500 keypads.
- If polling is open, participants may change their response to a question. To change a response to a single-digit question (question requiring one number for a response), press a new number. The last number pressed is the number that is saved. To change the response to a multi-digit question, enter the series of numbers and press Send.
- The range for the base station is 650 feet.
- The OptionFinder G3 system is a wireless radio system that works in the 2.4GHz range. The base stations may be set to 31 different ID's within this range.
- The base station will work with either a USB or Ethernet connection.
- The ! key is never used.
- The three arrow keys and the world key are used for programming the keypads only. They are never used for polling.
- During polling, the Send key is used to send a multi-digit response, i.e. enter all of the numbers in your sequence and press send. The send key is also used to save changes you make when programming keypads.
- The DEL key is used to delete one digit in a multi-digit response, i.e. you enter 451 and meant to enter 452, press DEL to remove the 1 and enter the correct number. DEL is also used when programming the keypads.
- The * is used to enter symbols such as a decimal point.
- The system has two modes: dynamic and static. In static mode, a specific address (ID) is programmed into the keypads and the keypads are programmed to work with a specific base station ID. The software tracks responses from the keypad by the address. In dynamic mode the keypad is not programmed to work with a specific base station. The keypad searches for all available base stations and a list of the base station ID's appears in the keypad display. The user selects the base station they want to use. The keypads do not use their programmed addresses, the responses are tracked by the keypad's serial number.
- If the base station is disconnected or turned off, the keypads will turn off automatically after ten minutes

- The keypads will not turn off automatically as long as the base station is on and a slide show with OptionPower slides is open.
- Each keypad has 2 AA alkaline batteries. The batteries should be good for 150 hours of use.

Setting Up the Keypad System

Connecting the base station

USB Connection

1. Connect one end of the USB cable to the base station and other end to a USB port on your computer.

Note The first time you connect the base station to your computer you will receive a “New Hardware Found” message. You must install drivers for the base station. See the instructions below.

Ethernet Connection

1. Connect one end of the RJ-45 cable to your computer and the other end to the base station. If the network card in your computer does not have auto-negotiate capabilities, you must use a cross-over cable or a cross-over adaptor for the standard Ethernet cable.
2. Connect the power cord to the base station. Plug the cord into a power outlet.

Installing the Drivers for the Base Station

1. Insert your OptionPower Installation CD into your CDROM drive (exit the Installation Wizard)
2. Connect the base station to your computer.
3. Click **No, not at this time** on the Windows “**New Hardware Found**” dialog and then click **Next**.
4. Click **Install software automatically** and then click **Next**.
5. Click **Continue Anyway**
6. Repeat steps 3 through 5 when the New Hardware Dialog appears a second time.

If you do not have the OptionPower CD

1. Click **Install from a list or specific location**, and then click **Next**.
2. Click **Include this location in the search** and then browse for the folder under c:\Program files\Common files\OptionTech Shared\Drivers\OptionFinder G3 USB Drivers.
3. Click **Next**.

4. Click **Continue Anyway**
5. Repeat the steps 1 – 4 when the “New Hardware Found” dialog appears a second time

Installing Drivers if the New Hardware Found dialog does not appear

1. On the **Start** menu, or on your desktop, right-click **My Computer** and then click **Properties**
2. Click **Hardware**
3. Click **Device Manager**
4. Click the plus sign next to **Ports**
5. Right-click the USB port, and then click **Update Driver**
6. If you have the OptionPower CD, insert it now and then click **No, Not at this time**, click **Install software Automatically**, click **Continue Anyway**, repeat when prompted to Install New Hardware a second time.
7. If you do not have the CD, Click **Install from a list or specific location** and then click **Next**
8. Click **Include this location in the search** and then browse for the folder under c:\Program files\Common files\OptionTech Shared\Drivers\OptionFinder G3 USB Drivers.
9. Click **Next**.
10. Click **Continue Anyway**
11. Repeat the steps 6 - 10 if the “New Hardware Found” dialog appears a second time.

Placing the Base Station

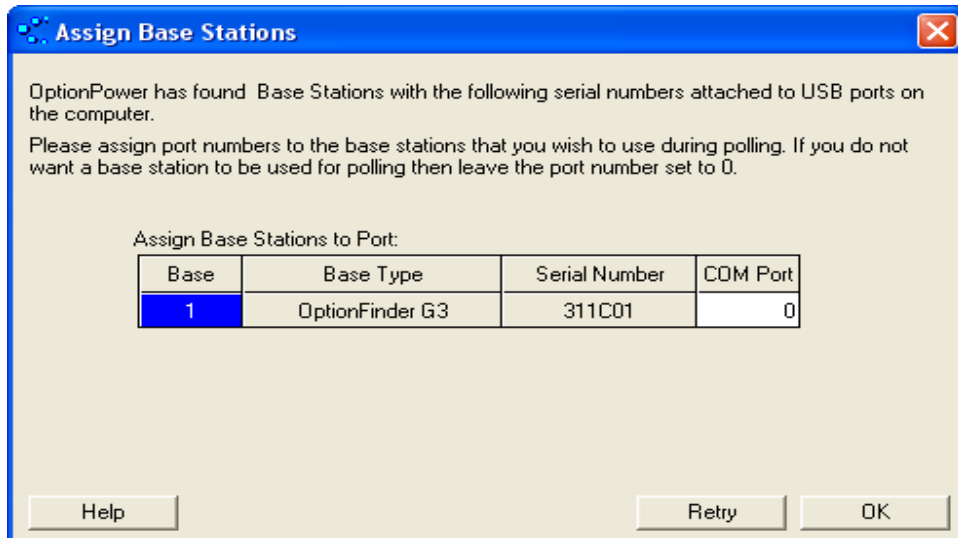
- Place the base station in a central location within 650 feet of the keypads.
- Position the base station 5 to 6 feet off the ground.
- Position the base station away from other electronic devices, i.e. projectors, speakers, computers, etc.
- If you are using multiple base stations, place the base stations at least 3 feet apart.

Define and Test the Keypads

USB Connection

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 the base station is found, a dialog will appear with the list of serial numbers for you base station or stations. Enter the COM port number you wish to assign to the base station. Make sure you select a COM port that is not currently being used by other devices. Click **OK** to save your changes and close the dialog.



4. After the status for the base station changes to Found, enter the lowest and highest numbered addresses of the keypads you will be using with the base station
5. Remove keypad addresses entered for other ports
6. Click **Next**.
7. Click **Next** again
8. The table displays addresses for all of the keypads in your keypad universe
9. Press a number key on a keypad
10. The number you pressed should appear to the right of the keypad address
11. Test all keypads
12. Click **Close** and then click **Finish**

Manually Select Ports

1. On the **Start** menu or your desktop, right-click **My Computer** and click **Properties**
2. Click **Hardware**
3. Click **Device Manager**

4. Click the plus sign next to ports and note the USB port number.
5. On the **OptionPower** menu, click **Keypad Setup Wizard**.
6. Select my ports
7. Click I need to change my keypad settings. I would like to manually select my ports, and then click **Next**.
8. Double click the Serial/Brand column next to the USB port number you noted above and select **OptionFinder G2**.
9. Enter the low and high keypad addresses.
10. Remove keypad addresses entered for other ports
11. Click **Verify**. If the base station is found, OK will appear in the COM Port column. If the base station is not found, click the port and then click Diagnose to try and troubleshoot the error
12. Once the base station is found, click **Next**.
13. Click **Next** again.
14. The table displays addresses for all of the keypads in your keypad universe.
15. Press a number key on a keypad.
16. The number you pressed should appear to the right of the keypad address.
17. Test all keypads.
18. Click **Close** and then click **Finish**.

Ethernet Connection

There are two things that must occur before using the OptionFinder G3 base station in Ethernet mode: your computer must have a static IP address and you must assign a compatible IP address to the base station. You may permanently assign the IP address for the base station or may assign it a temporary address. If you use a temporary address you will have to re-enter the IP address every time you turn the base station off and on.

Obtain an IP address for your computer

Your computer must have a static IP address if you wish to use the IQ base station in Ethernet mode. You must obtain the IP address, subnet mask and default gateway (if any) before assigning an IP address to the base station.

If you are connected to a Network

If your base station is connected to a network you should contact your IT department for a static IP address, the subnet mask, and the default gateway.

If you are not connected to a Network

If the base station is connected directly to your computer then you must define an alternate IP address or, if that isn't available, set your computer to a specific IP address.

1. Open the Control Panel. (Start menu)

2. Open Network Connections.
3. Right-click your **Local Area Connection** and then click **Properties**.
4. Scroll to the bottom of the “**This connection uses the following items**” list and click **Internet Protocol**.
5. Click **Properties**.
6. Click the Alternate Configuration tab and then click User Configured
7. Enter 10.1.1.1 as the IP address
8. Enter 255.255.255.0 as the subnet mask.
9. Click OK.
10. Click OK again.

Set the IP Address for the Base Station and Define the Hardware Settings

1. On the **Start** menu, click **All Programs**, point to **OptionPower** and then click **G3 Ethernet Utility**
2. The Digi Device Discovery dialog appears
3. Click **Configure network settings**
4. Enter the IP address, subnet mask and gateway (if one was provided)
5. Click **Save**
6. Click **OK** to reset the base station (this will take 30 to 45 seconds)
7. Close the Digi Device Discovery dialog
8. Open PowerPoint
9. Start OptionPower
10. On the **OptionPower** menu click **Keypad Setup Wizard**
11. Click **Next**
12. Click “**I need to change my keypad settings, I would like to set my ports manually**” and then click **Next**.
13. Double-click the Keypad Brand/Model cell for the port you wish to use for your base station.
14. Select **OptionFinder G3** on the drop-down menu
15. Click the port and then click **Settings**
16. Click **Ethernet Connection**

17. Enter the IP address you entered on the Digi Device dialog
18. Leave the TCIP port set to the default of 2101
19. Click **Verify**
20. 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
21. Remove keypad addresses entered for other ports
22. Click **Next**
23. Click **Next** again
24. The table displays addresses for all of the keypads in your keypad universe
25. Press a number key on a keypad
26. The number you pressed should appear to the right of the keypad address
27. Test all keypads
28. Click **Close** and then click **Finish**.

Programming Keypads

All programming changes to the keypad are done through the keypad menu. Some of the menu options for keypads set to static mode are different from those for keypads set to dynamic mode.

You must enable the menu through the hardware settings in the keypad setup wizard.

Enable the Keypad Menu

1. The base station must be connected to your computer, have power, and be recognized by the software (see Defining your Hardware Settings)
2. On the **Start** menu, click **Keypad Setup Wizard**
3. Click **Next**
4. Click **"I need to change my keypad settings. I would like to select my ports manually"** and then click **Next**
5. Click the port for the G3 base station and then click **Settings**
6. Click **Advanced**
7. Make sure your base station is set to the same mode as the keypads, if it is not, change the Address Mode setting
8. Change the Menu Access setting to **Operational**

9. Click **OK**
10. Click **Next**
11. Click **Next** again to open the keypad test
12. On the keypads press and hold the **world** key and press the **DEL** key
13. The menu should appear in the keypad display
14. If Key Disabled appears in the display then your base station and keypads are set to different address modes

Changing and Verifying the Keypad Address

Changing keypad addresses is only necessary when using the keypad in static mode. In dynamic mode, the keypad serial number is used. To change the address

1. Enable the keypad menu
2. Press the right arrow three times until the menu reads Address
3. Press the center arrow
4. The current address will appear in the display, enter a new three digit address and press **Send**
5. Press **DEL** to return to the menu
6. Press **DEL** to close the menu

Changing the Keypad Base ID

1. Enable the keypad menu
2. Press the right arrow four times until the display reads Base ID
3. Press the center arrow
4. Enter a new two-digit ID
5. Press **Send**
6. Press **DEL** to return the menu
7. Press **DEL** again to close the menu

Change the Keypad Mode

1. Enable the keypad menu
2. Press the left arrow once until the display reads Mode

3. Press the center arrow
4. Use the right or left arrow to select a different mode
5. Press **Send** to save your changes
6. Press **DEL** once to return to the menu
7. Press **DEL** again to close the menu

Change the ID for the Base Station

1. Connect the base station to your computer
2. On the **OptionPower** menu, click **Keypad Setup Wizard**.
3. Click **Next**.
4. Click **"I need to change my keypad settings. I would like to select my ports manually"** and then click **Next**
5. Click the port for the base station and click **Settings**
6. The base station's current ID is listed on the lower left side of the dialog box
7. Select a new ID number and then click **Change to ID**
8. Click **OK** to save your changes and close the dialog box

Using the Keypads in Dynamic Mode

When the OptionFinder G3 system is set to dynamic mode the keypads are not programmed to work with a specific base station. When the keypad is turned on it searches for all available base stations and the user selects the base station they wish to connect to.

In dynamic mode the keypads are identified by their serial number whereas in static mode they are identified by a user-assigned keypad address. When setting up the system in static mode the user enters the keypad addresses they will be using on the search results page of the keypad wizard. When setting up the system in dynamic mode the user must enter serial numbers of the keypads they intend to use. The numbers are entered on a named roster for serial keypads. The roster must be activated before polling takes place.

Create a Named (Serial) Roster

1. On the **OptionPower** menu, click **Rosters**
2. If a dialog box asking if you want to create a roster appears, click **OK**
3. The roster manager appears
4. If you have not already created a roster group, click **All Roster Groups**, and click **New Group**, type a name for the new group, press **Enter**, and then click **New Roster**

or,

If you previously created a roster group, click the group name and

5. Type a name for the roster
6. Double-click the roster to open the editor
7. Click **Keypad Serial Number** in the **Keypads Defined by settings**
8. Enter the serial numbers for the keypads you intend to use. The serial number is listed on a label on the back of the keypad
9. Click **OK** to save the changes
10. Click **Activate**. The roster you just created will remain the active roster until you open the roster manager again, activate another named roster or activate the anonymous roster. (The anonymous roster is the default roster for OptionPower)
11. Click **Close**

Selecting the Base Station on the Keypad

There are two instances when the user will have to select the base station they want to connect to:

- When the keypad finds multiple base stations
 - When the settings for the base station are not set to automatically connect if a base station is found (this setting is controlled through the base station settings in the Keypad Setup Wizard)
1. Turn the keypad on. If the keypad is set to dynamic mode it will automatically search for base stations
 2. Use the right and left arrow keys to browse the base stations, press Send to select the base station you wish to connect to