OptionFinder® Micro Plus

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 Micro Keypads Work

- The keypads work with both OptionFinder G3 and OptionFinder Micro Plus base stations

- Each keypad has a unique address or serial number. The software uses the address or serial number to identify a signal from a specific keypad

- If polling is open participants may change their responses to a question. To change a response, press a new number. The last number pressed is the number that is saved.

- OptionFinder Micro Plus is a wireless radio system that works in the 2.4GHz range. The base stations may be set to 31 different ID (channels) within this range.

- 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 user enters the base station ID they want to use. The keypads do not use their programmed addresses, the responses are tracked by the keypad's serial number.

- To enter responses on multi-digit slides, enter the sequence of numbers and then press Send.

- On single-digit slides press the * to enter a response of zero and the 0 to enter a response of 10. On multi-digit slides press the * to enter a decimal point and press the 0 key to enter a response of zero.

- The link key is used when selecting a base station when the hardware is set to work in dynamic mode.

- The ! alert key is not used.

- Both address and serial number identification are transmitted with each keypad response.

- The keypads have a range of 300 feet.

- The polling rate is 200 keypads per second.

- When using the fastest response feature, responses are scored to .05 seconds.

- One base station will support a maximum of 500 keypads.

- Each keypad uses one CR2032 Lithium coin cell battery. If the keypad battery is low the LED will flash red four times after a vote is sent. The battery life is 20,000 key presses if the keypads are used in static mode. Battery life decreases when the system is used in dynamic mode.

- The keypads automatically turn off after each response is transmitted.

- An additional device called a Keypad Director is used to update reprogram the address and base station ID for the keypads.

- When a participant enters a response a green light will appear in the LED the light will disappear when the response is received. If the response is not received a red light will appear in the display.

- To link keypads with a base station in dynamic mode, click the link button, enter the two digit number of the base ID (i.e. 02) and then click Send.

Setting Up the Keypad System

Connecting the base station

OptionFinder G3 Base Station

USB Connection

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

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 auto-negotiate, you must use a cross-over cable or a cross-over adaptor.

2. Connect the power cord to the base station. Plug the cord into a power outlet.

OptionFinder Micro Plus Base Stations

- Connect the base station 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.

Installing the Drivers for OptionFinder Micro Plus 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.

If you do not have the OptionPower CD

1. Click Install from a list or specific location, and then click Next.

2. Uncheck Search Removable Media. Click Include this location in the search and then browse for the folder.

a. If you are running OptionPower 3.2 for Office 2003 browse under c:\ProgramFiles\Common Files\OptionTech Shared\Drivers\FTDI WHQL G3-G2 Universal Driver.

b. If you are running OptionPower 3.2 for Office 2007 browse under c:\Program Files\OptionPower\Drivers\FTDI WHQL G3-G2 Universal Driver.

3. Click **Next**.

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. Look for the base station under Other Devices. If it does not appear there, look under USB Serial Bus Controllers.

5. Right-click 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.

a. If you are running OptionPower 3.2 for Office 2003 browse under c:\Program Files\Common Files\OptionTech Shared\OptionPower\Drivers\FTDI WHQL G3-G2 Universal Driver.

b. If you are running OptionPower 3.2 for Office 2007 browse under c:\Program Files\OptionPower\Drivers\FTDI WHQL G3-G2 Universal Driver.

9. Click **Next**.

Placing the OptionFinder G3 Base Station

- Place the base station in a central location 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.

- If you are using multiple base stations, place the base stations at least 3 feet apart.
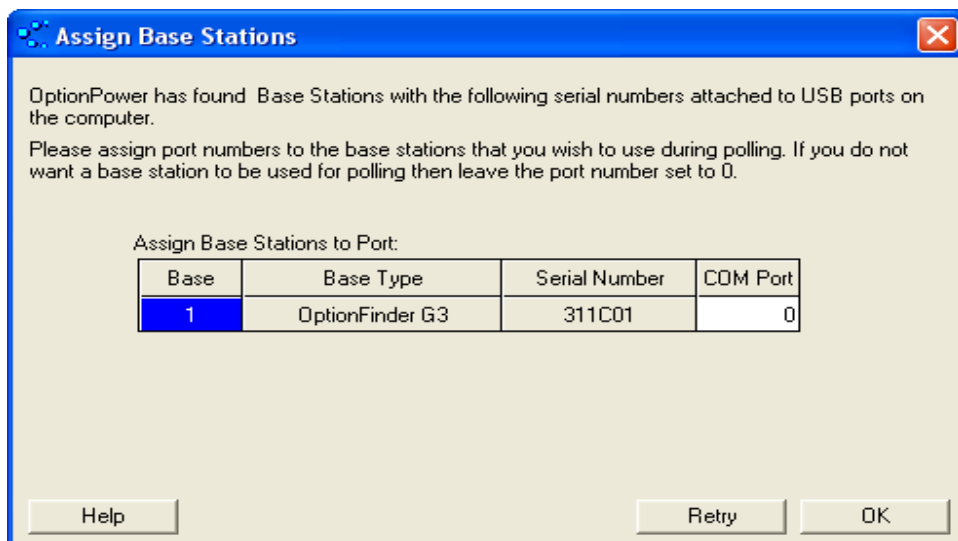
Define and Test the Keypads

OptionFinder Micro Plus Base Stations and OptionFinder G3 Base Stations with a USB Connection

OptionPower 3.2 for Office 2003/Office XP

Automatically Define the Hardware Setup

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 your base station or stations. Enter the COM port number you wish to assign to the base station. 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 Define the Hardware Setup

1. On the **OptionPower** menu, click **Keypad Setup Wizard.**

2. Click I need to change my keypad settings. I would like to manually select my ports, and then click **Next.**

3. Double click the Serial/Brand column next to the USB port number you wish to use and select **OptionFinder G3.** (Select a port not used by other devices you connect to your computer.)

4. Enter the low and high keypad addresses.

5. Remove keypad addresses entered for other ports

6. Click the text OptionFinder G3 and then click **Settings.**

7. Enter the serial number for the base station and then click **OK.** The serial number is located on a label on the base station. If you are using an OptionFinder G3 base station, the serial number flashes in the base station display when the base station first receives power.

8. 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

9. Once the base station is found, click **Next.**

10. Click **Next** again.

11. The table displays addresses for all of the keypads in your keypad universe.

12. Press a number key on a keypad.

13. The number you pressed should appear to the right of the keypad address.

14. Test all keypads.

15. Click **Close** and then click **Finish.**

OptionPower 3.2 for Office 2007

Automatically Define the Hardware Setup

1. Connect the base station or stations to the computer

2. On the **OptionPower** tab, click **Hardware**

3. Click **Auto Detect Hardware**

4. OptionPower will search all of the ports on your computer for connected hardware.

5. If the connections are found, the model name will appear and the status will change to green and **Found.**

6. Enter a number for the base station

7. Enter the low and high keypad numbers

8. Remove all unused base stations

9. Click **Test Hardware**

10. Press a number on each keypad, if the keypad is working properly the number you press will appear next to the keypad's address

11. Click **Close**

12. Click **OK**

Manually Define the Hardware Setup

1. Connect the base station or stations to the computer

2. On the **OptionPower** tab, click **Hardware**

3. You may either modify the settings for an existing base station or add a new base station:

4. To modify the settings for an existing base station, click the Model drop down menu and select your hardware platform

5. To add an new base station, click **Add New Base Station**, click the Model drop down menu and select your hardware platform

6. Enter a number for the base station

7. Enter the low and high keypad numbers

8. Click **Base station settings** and select the port for the base station.

9. Click **Verify Base Station**. If a connection is found, the status will change to green and **Found**. If it changes to red and Not Found, check the cables for the base station or try another COM port if one is available.

10. Click **Test Hardware**

11. Press a number on each keypad, if the keypad is working properly the number you press will appear next to the keypad's address

12. Click **Close**

13. Click **OK** to save changes and close the Hardware Setup dialog

Verifying the Keypad Address and Channel

1. Press and hold the 1 and link for three seconds

2. A series of red or green lights will appear in the display, followed by a pause and then a second series of lights. The first series represents the two-digit base ID. The second series of lights represents the three-digit address. The green lights represent numbers for the address or channel. The red lights delineate the digits in each numbering sequence. No green light will flash for zeros.

   Ten digit of the Base ID
   Red Flash
   Ones digit of the Base ID
   Red Flash
   pause
   Hundreds digit of the Keypad Address
   Red Flash
   Tens digit of the Keypad Address
   Red Flash
   Ones digit of the Keypad Address
   Red Flash

Using the Keypad Director

Programming for the keypads is done with an additional device called a Director.

Turn the Director Off/On

- Press the Power key to turn the Director on

- Press and hold the Power key to turn the Director off

Programming the Keypads

Use the settings keys just below the LCD on the Director to access the programming menus.

To reprogram a keypad:

1. Press the fourth settings key (Setup)

2. Press 1

3. Make sure Reply Mini+ is selected

4. Press the Exit key

5. Press 2

6. Use the arrow keys to select the channel number you want to use

7. Press the Exit key

8. Press 3

9. Make sure Yes is highlighted and then press the Exit key

10. Press the Exit key again to return to the main menu

11. Press the first setup key to access the Start Menu

12. Use the arrow keys if you want the numbering for the keypad addresses to start at something other than 1.

13. Hold the keypad over the designated place on the director. The LED on the keypad will Flash red and then Green when the programming is complete.

14. Press the Exit key when programming for all of the keypad is complete.

15. Press the third settings key to Delete Data

16. Press 1

17. Disconnect the director or press and hold the power key to turn the Trainer off.