



## **Instructions for connecting LiftMaster Passport Receiver (Model PPWR) to PTI and DigiGate Systems**

This receiver, in conjunction with hand-held remote transmitters, can be used to input a Wiegand signal into the PTI or DigiGate access control systems. Each remote has a different ID code that is sent through the receiver to the system and picked up just as if the code had been entered on a keypad.

### **Parts Needed:**

- (1) LiftMaster Wireless Wiegand Receiver Model PPWR.
- ( At least one ) Remote Transmitter, PPV1, PPV3, PPK1, PPK1PH, PPK3 or PPK3PH series.
- ( Up to 500 feet ) 18 to 22 gauge four conductor shielded cable with bare drain. (Five conductor shielded with bare drain if connecting the optional LED wire)

(For connection to SDM boards only) Two 2.2K ohm ¼ watt resistors.

### **Mounting and Connections**

**Connection to the PTI equipment**

**Connection to a Single Door Module (SDM)**

**Connecting directly to a Falcon XT controller**

**Connecting to a PWIE board**

**Connecting to a DigiGate Keypad Board**

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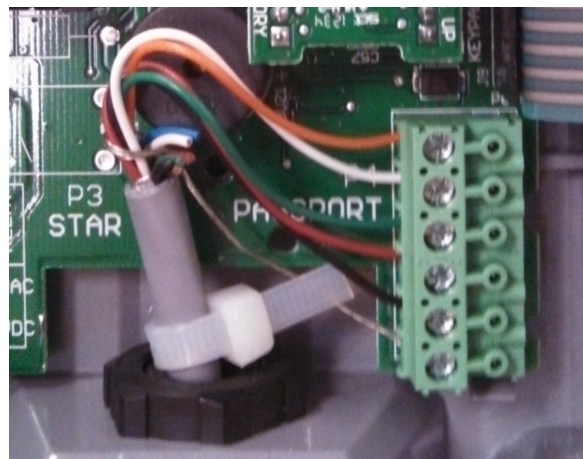
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## Mounting and Connections:

1. Mount the receiver following the instructions supplied with the receiver. Note: The receiver should be mounted with the antenna oriented on the top and vertical. Make sure to leave adequate space above the receiver for the antenna. (15' and 25' Remote mount antenna kits are available). The antenna should be in the line of sight of the transmitters when they are used.
2. Route the cable from the PTI device to the receivers location. Feed the cable through the cable access port on the bottom of the unit.
3. Connect the incoming wires and the bare shield to the following terminals. ( Top to bottom, with the plug in the lower right corner of the board )

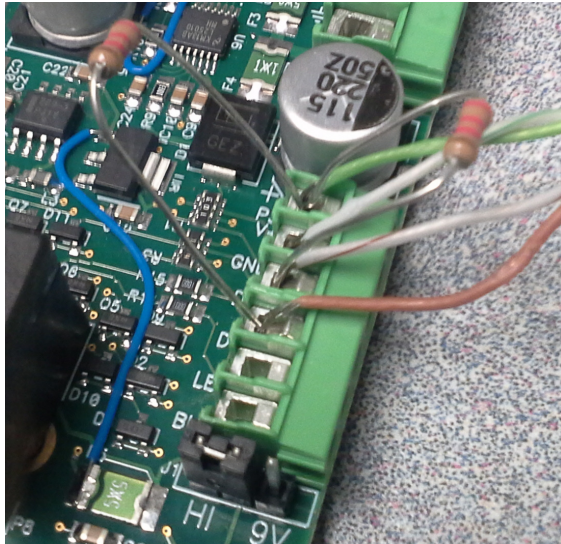
Terminal #1 LED (Optional)  
Terminal #2 DATA1  
Terminal #3 DATA0  
Terminal #4 +12VDC  
Terminal #5 Common  
Terminal #6 Bare Shield Wire





## Connection to a Single Door Module (SDM):

The wires connect to plug P3:



DATA1 – Pin labeled “D1”.  
DATA0 – Pin labeled “D0”.  
Common – Pin labeled “GND”  
+12 VDC – Pin labeled V+.  
Optional LED – Pin labeled LED.

Connect two 2.2K ohm resistors to the terminals as shown in the picture. One resistor is connected from the V+ terminal to the D0 terminal. The second resistor is connected from the V+ terminal to the D1 terminal. Make sure the leads of the resistors do not short to any other components or to each other.

**Note:** Below plug P3 is a jumper labeled **HI** and **9V**. Make sure that the jumper is set to the HI position, as shown in the picture. The SDM board is powered by 12 VDC and this voltage will be passed through to the Passport unit to power it, so no separate power supply is needed.

Bare Shield – Connect to earth ground at the SDM board location. (The ground connection on plug P1)



### **Programming a Falcon Base Unit for use with an SDM module:**

To have a SDM be read through a Falcon base unit, there are a few items that need to be observed.

1. The Falcon base unit must have a firmware version of 4.41 or higher.
2. The SDM is added to the setups via the “Add Remotes” function of the base unit. (\*18#)
3. When adding the remote to the Falcon unit, it is added as device type “Apex Keypad”.

### **Programming StorLogix and a Falcon XT for use with an SDM module:**

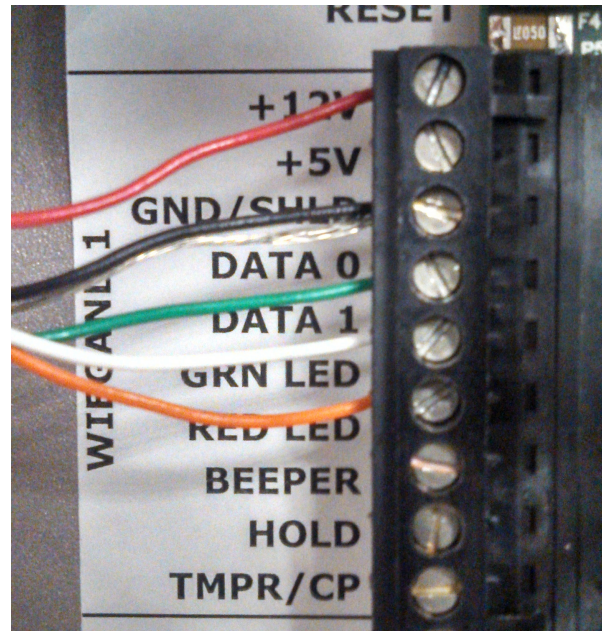
To have the SDM be read through a Falcon XT unit, use the following steps in StorLogix.

1. Select the ‘Setup’ Menu.
2. Select ‘AI Device Properties’ (#16)
3. Click on ‘Add’ then click ‘Next’
4. Select device type as “Single Door Module”
5. Enter a description for the device
6. Set up other items as needed
7. Click on ‘Next’
8. Set up relays to be activated as needed
9. Click on ‘Next’
10. Set operating mode and alarm zones as needed
11. Click on ‘Next’
12. Set options for door contacts as needed
13. Set the Wiegand Device to ‘26 bit’
14. Click on ‘Next’
15. Set request to exit options as needed
16. Click on ‘Done’



**Connecting directly to a Falcon XT controller:** The wires connect to the Wiegand 1 (P5) or Wiegand 2 (P6) connector inside the XT.

DATA1 – Pin labeled “DATA 1”.  
DATA0 – Pin labeled “DATA 0”.  
Common – Pin labeled “GND/SHLD”  
+12 VDC – Pin labeled +12V.  
Bare Shield – Pin labeled “GND/SHLD”  
Optional LED – Pin labeled GRN LED.



The Wiegand inputs of the XT are programmed into the Storlogix setups by default.



**Connecting to a PWIE board:**

DATA1 – Pin labeled “D1”.

DATA0 – Pin labeled “D0”.

Common – Pin labeled “V-”

+12 VDC – Pin labeled V+.

Optional LED – Pin labeled LED.

The PWIE board is powered by 12 VDC and this voltage will be passed through to the Passport unit to power it, so no separate power supply is needed.

Bare Shield – Connect to earth ground at the PWIE board location. (The ground connection on plug P1)



### **Programming a Falcon Base Unit for use with a PWIE module:**

To have a PWIE be read through a Falcon base unit, there are a few items that need to be observed.

1. The Falcon base unit must have a firmware version of 4.41 or higher.
2. The PWIE is added to the setups via the “Add Remotes” function of the base unit. (\*18#)
3. When adding the remote to the Falcon unit, it is added as device type “Apex Keypad”.

### **Programming StorLogix and a Falcon XT for use with a PWIE module:**

To have the PWIE be read through a Falcon XT unit, use the following steps in StorLogix.

1. Select the ‘Setup’ Menu.
2. Select ‘AI Device Properties’ (#16)
3. Click on ‘Add’ then click ‘Next’
4. Select device type as “Apex / Wiegand”
5. Enter a description for the device
6. Set up other items as needed
7. Click on ‘Next’
8. Set up relays to be activated as needed
9. Click on ‘Next’
10. Set operating mode and alarm zones as needed
11. Click on ‘Next’
12. Set options for door contacts as needed
13. Set the Wiegand Device to ‘26 bit’
14. Click on ‘Next’
15. Set request to exit options as needed
16. Click on ‘Done’



### Connecting to a DigiGate Keypad board:

The passport unit can be connected to a DigiGate RS485 Keypad board. The Wiegand input is used for this.

DATA1 – Terminal #2 of plug P4. Also, place a short jumper wire to terminal #4.

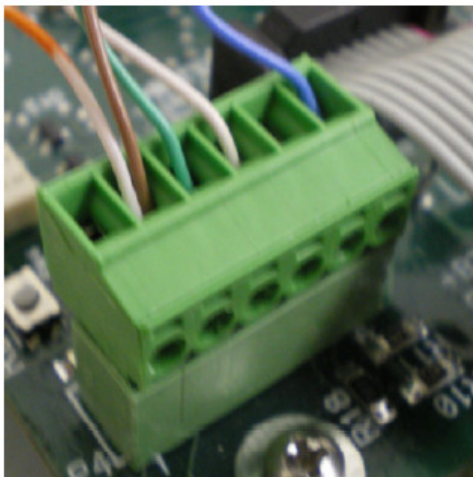
DATA0 – Terminal #3 of plug P4.

Common – Terminal #6 of plug P4.

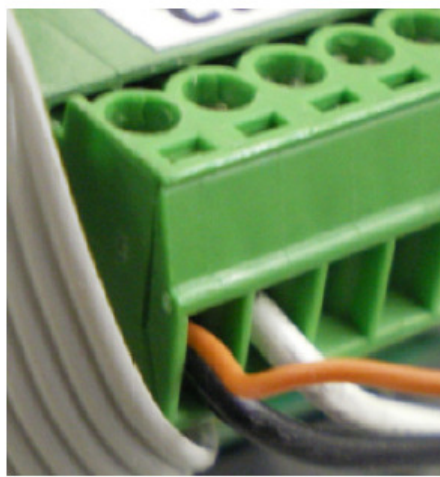
+12 VDC – Terminal #1 of plug P3. This terminal may or may not have a black wire already connected. If it does, make sure that the wire remains connected to the terminal.

Bare Shield – Connect to earth ground at the PWIE board location. (The ground connection on plug P1)

The keypad will provide power to the Passport unit, so no separate power supply is needed.



Plug P4



Plug P3

On the keypad board, make sure switch #3 on the switch pack S3 is turned ON.





## **Programming the LiftMaster Passport PPWR receiver:**

The remote receiver comes from the factory with the default settings as follows:

- 1: 26 bit Wiegand format.
- 2: Pass-thru mode. This means that remotes with any facility code will work.
- 3: All three remote buttons are enabled (if using remotes with 3 buttons).

The installer should check to make sure that the unit is set up for 26 bit format and pass-thru operation.

When using passport receivers, it is common for more than one receiver to be used on a site. In most cases, one receiver would be used for entering the site, and another for exiting. Some custom sites may use more receivers to control such things as roll up doors.

In these special situations, each receiver would be programmed to accept inputs from only one button on a 3 button transmitter. Press any of the 3 “soft keys” at the top of the receivers keypad to go to the main menu, then scroll down to “BUTTON FILTER” and press the soft key for “OK”, then press the soft key for “EDIT”. Scroll down to the button filter desired and press the soft key for “ON/OFF” to change the setting.

A: If the receiver is controlling the ENTRANCE to a facility gate or door, button 1 filter should be set to “ON” and buttons 2 and 3 should be “OFF”.

B: If the receiver is controlling the EXIT to a facility gate or door, button 2 filter should be set to “ON” and buttons 1 and 3 should be “OFF”.

C: If the receiver operates a roll up unit door, button 3 filter should be set to “ON” and buttons 1 and 2 should be “OFF”.

**Note:** If you have only 1 receiver on the site, leave all three button filters set to ON.



## **System Operation:**

Each remote control transmitter is individually coded so that the odds of getting a duplicate transmitter are minimal. The transmitters have either one or three buttons depending on the model.

### **Determining Access Codes (For All except the DigiGate Keypad Board) :**

On the back of the transmitter is a Facility Code ( FC ) and a 5 digit PIN number (use the one marked for 26 bit format). These two numbers are added together to determine the access code that is generated by the transmitter. For example, a transmitter with a FC of 15 and a 5 digit PIN of 02398, the access code that would be generated is 1502398.

### **Determining Access Codes (When used with a DigiGate Keypad Board) :**

On the back of the transmitter is a Facility Code ( FC ) and a 5 digit PIN number (use the one marked for 26 bit format). Multiply the Facility Code by 65536 and then add the result to the PIN number to determine the code generated by the transmitter. For example, a transmitter with a FC of 15 and a 5 digit PIN of 02398, the access code that would be generated is  $(15 * 65536) = 983040 + 2398 = 985438$ .

## **Example of use:**

The transmitter is operated by pressing the applicable button for 1 second. Generally, the system will be set up to open the gate (when entering) with button #1. Open the gate (when exiting) with button #2, and to operate any other devices (such as a motorized roll up door into a unit) with button #3.

The transmitter should be in line-of-sight to the receiver antenna to obtain the maximum possible range of 250 feet. If the transmitter is not in line of sight or has a depleted battery, then ranges of less than 250 feet will be the norm.

**Warning:** Users should be cautioned that for safety reasons, to not use the transmitter to open any gate or door when they cannot actually see the gate or door in operation.

The batteries (Coin type 2032) in the remote are replaceable. See the instructions included in each remote for details.



**Options:**

Transmitters with model numbers ending in PH have a built-in HID proximity chip. This can be used with proximity card readers by holding the transmitter within 1" to 2" of the reader.

The code number for the proximity chip is the same number that is transmitted to a receiver when the buttons are pushed.

For example, the remote could be used to enter a gate using the wireless pushbutton. Once inside the gate the same remote could also be used at a proximity reader to enter a door, elevator or other controlled device.