

PASSPORT WIEGAND RECEIVER

MODEL PPWR

APPLICATION

The Passport Wiegand Receiver is a Security+ 2.0® receiver with a Wiegand output. The PPWR is compatible with Security+ 2.0® Passport MAX and Passport Lite remote controls and access systems utilizing 26 Bit, 30 Bit, 31 Bit, 34 Bit (even or odd), and 50 Bit Wiegand code formats. The receiver has two modes of operation (see Choose a Mode, page 3):

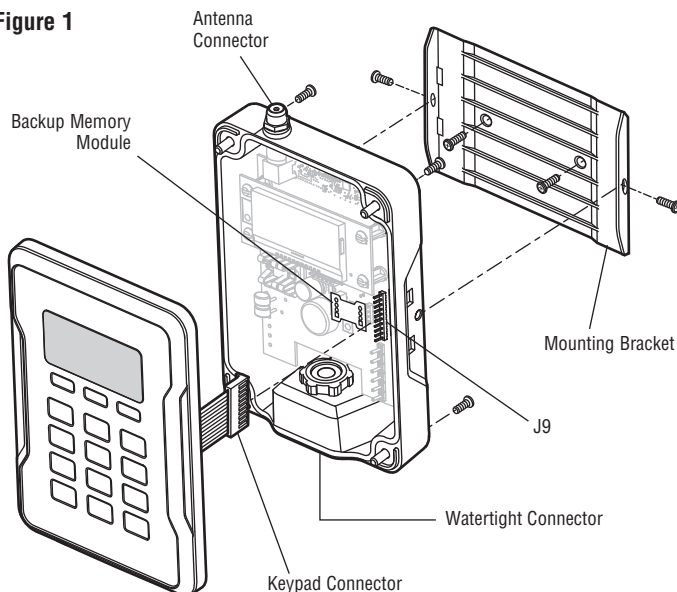
- **Pass Through Mode (Default)** - passes all received remote control signals to the access system host controller.
- **Advanced Mode** - provides an additional layer of security in areas where other remote controls may be operating. The receiver only passes signals from a remote control with a previously programmed facility code. All other signals are blocked.

This receiver is compatible with HomeLink®. Refer to instructions included with your HomeLink® unit for compatibility and programming. The receiver is rated for outdoor use (IP44).

INSTALLATION

1. Select a convenient location near the access system host controller within "line of sight" of the intended transmitting location.
NOTE: Do not mount the receiver in direct sunlight. Avoid mounting the receiver in a metal enclosure or near other wireless receiving or transmitting devices. If mounted in a metal enclosure, a remote antenna must be used. If using multiple receivers, maximize the distance between the two to avoid interference.
2. Mount the bracket to the desired surface with appropriate hardware (not provided)(Figure 1).
3. Remove the 4 #8 screws on the back of the receiver and remove the faceplate. Unplug the keypad connector from the control board.
NOTE: Be careful not to damage the keypad cable while removing the faceplate.
4. Make wiring connections (Figure 2). Refer to your access system host owner's manual for more specific information.
5. Reconnect the keypad connector to the board (labeled J9).
6. Secure the faceplate with the 4 #8 screws previously removed.
7. Install the antenna (provided).

Figure 1



⚠️ ⚡ WARNING

To prevent possible SERIOUS INJURY or DEATH from electrocution:

- Be sure power is NOT connected BEFORE installing the receiver.

To prevent possible SERIOUS INJURY or DEATH from a moving gate or garage door:

- ALWAYS keep remote controls out of reach of children. NEVER permit children to operate, or play with remote control transmitters.
- Activate gate or door ONLY when it can be seen clearly, is properly adjusted, and there are no obstructions to door travel.
- ALWAYS keep gate or garage door in sight until completely closed. NEVER permit anyone to cross path of moving gate or door.

⚠️ WARNING

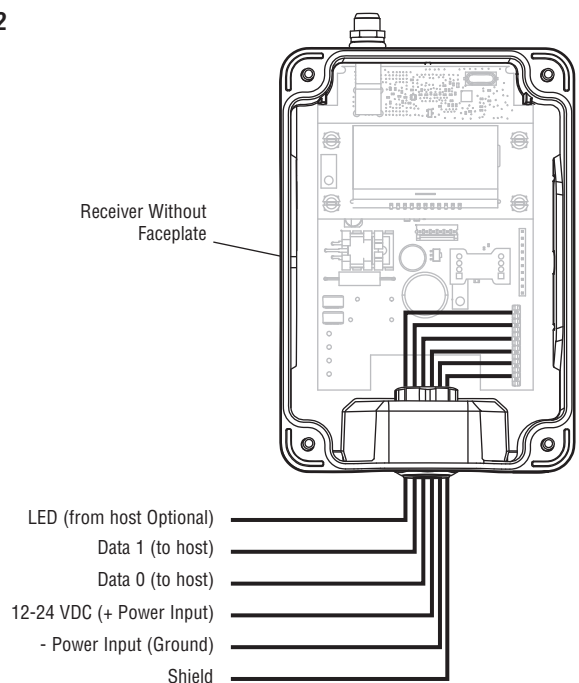
To prevent possible SERIOUS INJURY or DEATH, the use of CONSTANT OPERATION on residential openers is PROHIBITED.

When a receiver is used to activate a commercial door opener, a reversing edge MUST be installed on the bottom of the door. Failure to install a reversing edge under these circumstances may result in SERIOUS INJURY or DEATH to persons trapped beneath the door.

⚠️ WARNING: This product can expose you to chemicals including lead, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

- NOTE:** Use the optional 86LM or 86LMT antenna extension kit (see page 4) to mount the remote antenna as high and far from metallic objects as possible for best radio range.
8. Snap receiver onto the mounting bracket and secure with the #8 screws provided.
 9. Tighten the watertight connector to secure and seal the wiring.

Figure 2

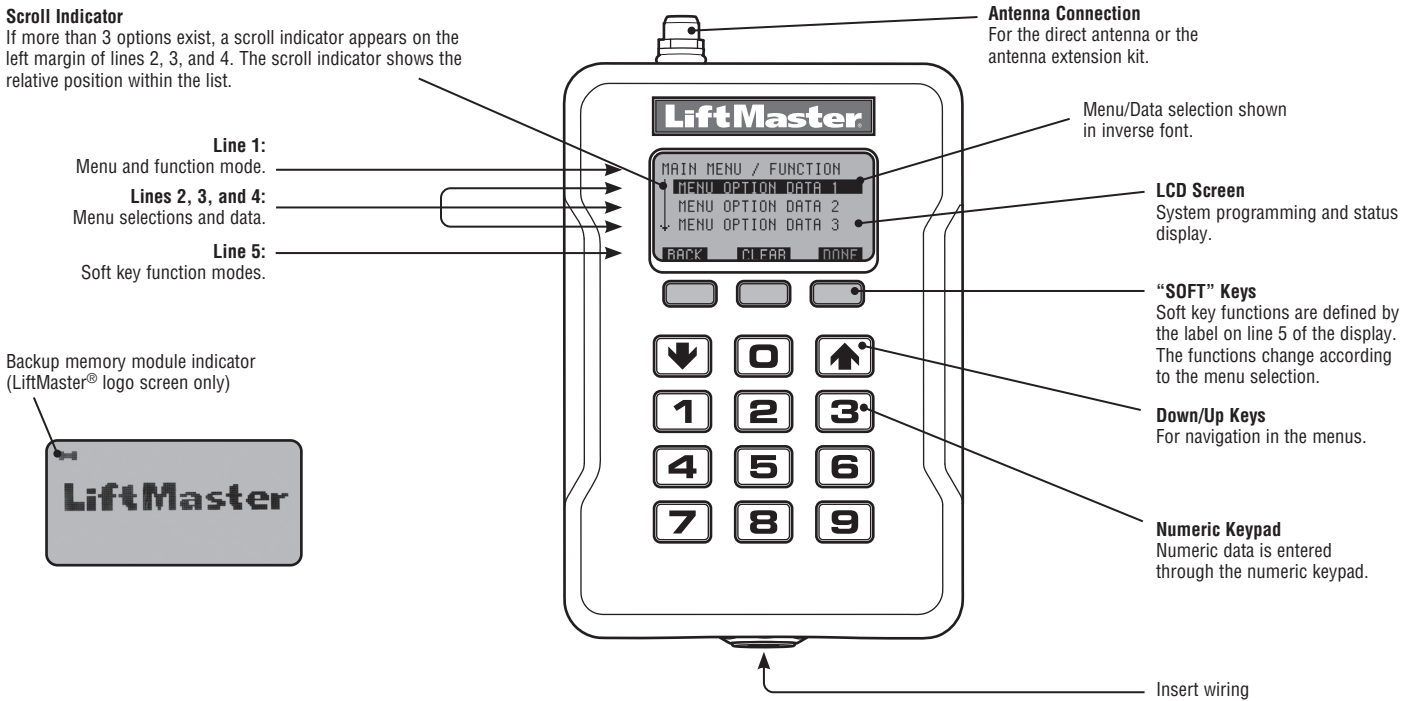


USER INTERFACE

The PPWR user interface consists of a 22 character by 5 line LCD display, 3 “soft keys”, Down/Up arrows and a numeric keypad.

Scroll Indicator

If more than 3 options exist, a scroll indicator appears on the left margin of lines 2, 3, and 4. The scroll indicator shows the relative position within the list.



PROGRAMMING COMMANDS

The table below describes the commands used to program the receiver.

MAIN MENU	COMMAND	DESCRIPTION	
WIEGAND FORMAT	26 BIT (DEFAULT)	26 Bit Wiegand output code.	
	30 BIT	30 Bit Wiegand output code.	
	31 BIT	31 Bit Wiegand output code.	
	34 BIT EVEN	34 Bit EVEN Wiegand output code.	
	34 BIT ODD	34 Bit ODD Wiegand output code.	
	50 BIT	50 Bit Wiegand output code.	
BUTTON FILTER	BUTTON 1 IS ON	Used when multiple receivers are within range of each other. Button filter selects which button the PPWR receiver responds to. Used in areas where of overlapping receiver coverage. Default setting is: Button 1,2,3 ON.	
	BUTTON 2 IS ON		
	BUTTON 3 IS ON		
MODE SELECT	PASS THRU (DEFAULT)	Passes all received remote control signals to the access system host controller.	
	ADVANCED	Receiver only passes signals from a remote control with a previously programmed facility code. All other remote control facility codes are blocked.	
SECURITY TABLE <i>If ADVANCED MODE is turned off this option is disabled and will appear as NOT AVAILABLE FOR PASS THRU MODE</i>	PROGRAM	Learn a facility code from any remote control in a batch that the PPWR will respond to. Also used to resolve any conflicts in code translation. NOTE: Once Advanced Mode is enabled, Facility Codes of all remote controls to be used on site must be added to the Security Table.	
	LIST	CHANGE FC OUT	Displays a list of all programmed facility codes showing facility code conflicts and facility code changes. Options to delete or resolve facility code conflicts. Security Table can hold up to 64 entries. MAX FC and FC IN > FC OUT entries can be configured to translate FC IN to a specified FC OUT. Each FC IN can only have one FC OUT.
		DELETE	
SETTINGS	PIN	Change the 6-digit PIN number for the receiver.	
	DEALER INFO	Display and edit the dealer 10-digit phone number.	
	FIRMWARE VERSION	Displays the current firmware version.	
	BEEP	Turn the audible feedback on or off.	
	MEMORY	This function creates a complete backup of programmed remote controls, and Security Table settings. The backup may be restored to a replacement PPWR or used to copy the configuration into other PPWR	
		DUPLICATE MEMORY	Creates a memory backup. A memory module must be installed.
		RESTORE MEMORY	Restores a memory backup from a memory module. An indicator appears on the LiftMaster® logo screen if a backup memory module is installed. NOTE: Content of memory module will over-write any information already stored in the receiver memory. Remove memory module after backing up for safe keeping.
	CONTRAST	Press Down or Up arrows to adjust LCD contrast.	
	LANGUAGE	Sets language: English (Default), Spanish, and French.	
FACTORY DEFAULT	Reset receiver settings to factory default. NOTE: If a PIN is set and lost the Reset Pin function must be used to unlock the PPWR unit.		

PROGRAMMING

The PPWR receiver has the ability to learn a combination of credentialed remote control transmitters. See page 4 for a complete list of compatible accessories. After 30 seconds of inactivity, the receiver times out and the LiftMaster® logo is displayed. Select “UNLOCK” and enter the master PIN to continue.

1 INITIAL PIN SET UP:

The PIN restricts access to authorized administrators only. If you omit this step, anyone will be able to program the receiver. Upon initial power up, the system firmware revision is displayed for 5 seconds followed by the LiftMaster® logo. When a key is pressed, “CREATE PIN?” is displayed.

1. Press “YES” to create PIN.
2. If the PIN is lost you may request a reset code by pressing “RESET.” You will be provided with a 5 digit serial number. Login to partner portal and go to <https://partner.liftmaster.com/utility>. Enter the Serial Number to retrieve the master code. Once master code is retrieved, come back to the RESET option, and after obtaining the serial number press Next. Enter the master code from the partner portal. Enter the new PIN. Re-Enter the new PIN. You will hear a beep from the unit when the PIN has been successfully programmed.
Note: Resetting the PIN does not clear data or settings on the PPWR.
3. Enter a 6-digit PIN, and press “YES”; enter the 6-digit PIN a second time and press “YES” to program the PIN. If you make a mistake, press “CLEAR” to change your entry. To exit the enter PIN screen, select “BACK”.
4. When your 6-digit PIN is programmed correctly, the LCD display reads “KEYPAD UNLOCKED”. Select “OK” to continue to the Main Menu. After 30 seconds of inactivity, the receiver times out and the LiftMaster® logo is displayed. Select “UNLOCK” and enter PIN to continue.

2 CHOOSE A MODE

The receiver has two modes of operation:

Pass Through Mode (Default)

Passes all received remote control credentials to the access control system. Credential Facility Code and Identification codes are passed through without filtering or translation. No pre-configuration is necessary for normal operation. Pass through mode is most commonly used.

Advanced Mode

Advanced mode provides an additional level of security where sites may have overlapping radio coverage such as large multi-building apartment or industrial complexes. The advanced mode establishes filtered reception, only allowing Facility Codes programmed in the Security Table to pass to the access control system. Transmissions from ALL remote controls not programmed are ignored. When using Advanced Mode any new remote control Facility Codes introduced to the site must be added to the Security Table.

An additional feature of the advanced mode allows a 1 to 1 facility code translation. This feature allows installers and site managers the flexibility to program stock remote controls to the sites using a unique facility code.

NOTE: Facility code translation is limited to a 1-“FC IN” to 1-“FC OUT” or “One to One”. This in effect eliminates the ability to ignore source facility code and have a single/fixed facility code output.

Use case examples:

1. Building complex A entrance within 100’ of Building complex B entrance. Remote controls from each is creating nuisance access denied transactions on the access controllers. Each PPWR can be set to receive only remote controls with specific facility codes.
2. An apartment complex is using HID proximity credential devices programmed to facility code 22 and would like to add PPWR transmitters. The access control system only supports the use of one

facility code. The PPWR advanced mode can be set to translate one source facility code “FC IN” to the desired target facility code “FC OUT”. A specific remote control facility code is then translated to the desired target facility code output.

To choose Mode of operation

1. Select “MODE SELECT” from the main menu. Press “OK”.
2. System responds with message showing current mode setting “PASS THRU SET” or “ADVANCED SET”.
3. Press “EDIT”.
4. Select the mode that you want to use and press “YES”.
5. System responds with “WARNING THIS WILL ERASE MEMORY PROCEED?”. Press “YES”.
6. System responds with “WARNING ARE YOU SURE?”. Press “YES”.
7. System responds with “UPDATING PLEASE WAIT”. DO NOT disconnect power while updating.
8. System responds with a confirmation message that the selected mode is saved.
9. If you chose PASS THROUGH MODE, press “OK”. No further setup is required.
10. If you chose ADVANCED MODE, press “NEXT” to proceed to the SECURITY TABLE menu.

To program Security Table

The Security Table can hold up to 64 unique facility codes. If a facility code is already programmed it cannot be added again.

1. Select “PROGRAM” from the Security Table menu. Press “OK”
2. System responds with “PRESS BUTTON ON DEVICE OR TYPE IN MAX FC”
3. Press a button on remote control or enter the FC # from the remote control’s MAX FC ### (found on remote control id label) using the keypad. Press “OK”
4. System responds with “MAX FC - ## SAVED”. Press “OK”

To edit Security Table, or set facility code translation

1. Select “LIST” from the Security Table menu. Press “OK”
2. System responds with “LIST: # of 64 | MAX FC - ## | FC IN -> FC OUT | ## -> ##”
3. Use “Down” and “Up” to scroll through Security Table. Press “Edit” to select an entry to edit.
4. System responds with “MAX FC - ## | CHANGE FC OUT | DELETE”
5. Select “CHANGE FC OUT” from the menu. Press “OK”
6. System responds with “CHANGE FC OUT | ASSIGN FC OUT | AUTO SEARCH FC OUT?”
7. Select “ASSIGN FC OUT” from the menu. Press “OK”.
8. System responds with “CHANGE FC OUT | ENTER NEW FC OUT - #”
9. Enter FC number with valid range for bit format selected (example: 26 bit format, valid FC range is 1 – 255). Press “OK”
10. System responds with “CHANGE FC OUT | MAX FC - ## | FC OUT - ### | SAVED”.
11. Press “OK”
12. Press “HOME”

NOTE: If a different mode is selected after a site has been in operation, remote controls may initially require multiple button presses to work as the rolling code “re-syncs” to the system.

DIAGNOSTICS

The PPWR receiver was designed to emit a series of audible beeps dependent on programming and error conditions. The table below lists all of the event conditions and related audible beep notifications. Audible notifications may be disabled in the “BEEP SETTINGS” menu.

EVENT	BEEP
Key press	Single
Successful add/change	Double
Successful delete	Triple
Master PIN entry error	Long
Programming error	Long
Generic success	Double
Generic error	Long

SPECIFICATIONS	
System Capacity (Pass Through and Advanced)	12,000 devices
Supply Voltage	12 -24 dc
Operating Current	250 mA Maximum
Stand By Current.	30 mA Maximum
Surge Suppression	6.0kV Min
Operating Temperature Range	-40°C to +65°C @ 50% Rh, (-40°F to +149°F @ 50% Rh)
Storage and Shipping Temperature Range	-40°C to +85°C @ 50% Rh
Compatible Code Format.	Security+ 2.0®
Wiegand Data format	26 Bit, 30 Bit, 31 Bit, 34 Bit (Even or Odd), and 50 Bit
Wiegand Output	5 Vdc, Open Collector

COMPATIBLE ACCESSORIES	
Remote Controls:	
Passport MAX	PPV3M, PPK3M, PPK3PHM
Passport Lite.	PPLV1-X, PPLK1-X, PPLK1PH-X (X refers to 10 or 100 packs)
Antenna Extension Kits:	
15' Extension Kits	86LM
25' Extension Kits	86LMT
Transformer:	
12-24 Vdc	95LM, 002A1699-1

REPAIR PARTS	
Straight Antenna	K76-36681
Mounting Bracket	K13-36651-2

ONE YEAR LIMITED WARRANTY

LiftMaster warrants to the first consumer purchaser of this product that it is free from defect in materials and/or workmanship for a period of 1 year from the date of purchase.

NOTICE: To comply with FCC and/or Industry Canada (IC) rules, adjustment or modifications of this receiver are prohibited. THERE ARE NO USER SERVICEABLE PARTS. This device complies with Part 15 of the FCC rules and IC RSS-210. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.