Wireless Receiver User Manual

This user manual describes how to operate the heavy duty wireless KEYFOB transmitters and receiver with a Take-a-number system.

Wireless KEYFOB Transmitters

Two types of transmitters are available.

- RFTX5B – 5 button transmitter with Up, down, left, right and OK buttons.
- RFTX15B – 15 button transmitter with Up, down, left, right and OK buttons and a 10 button keypad.

RFTX5B RFTX15B

Features

This receiver and decoder learns the transmitters.

- Up to 64 transmitters can be learned.
- The transmitters can be assigned to the windows in any combination.

Wireless KEYFOB Transmitter Buttons

The wireless KEYFOB has 15 buttons and one LED.

- **ON/OFF** – Power switch on the right side of the transmitter. Put switch into the ON position to use.
- **UP** – Increment the ticket number.
- **DOWN** – Decrement the ticket number.
- **LEFT** – Serving this client.
- **RIGHT** – Finished serving this client.
- **OK** – Call the same number again. Sounds the beeper or re-plays the voice announce.
- **KEY_0** through **KEY_9** – Used to set the window number during learn mode. Also used with ticket printers that offer multiple types of service. After selecting the type of service, tap the **UP** button to increment the ticket number for the specified service.
- **LED** – A blue LED flashes on each time a signal is transmitted. If the LED does not flash when a button is pressed, check to be sure that the power switch is in the ON position.

NOTE: If the LED does not flash when a button is pressed, the battery may be weak or dead. Check and replace the battery if necessary.

NOTE: See the setup mode to select the number of services available.

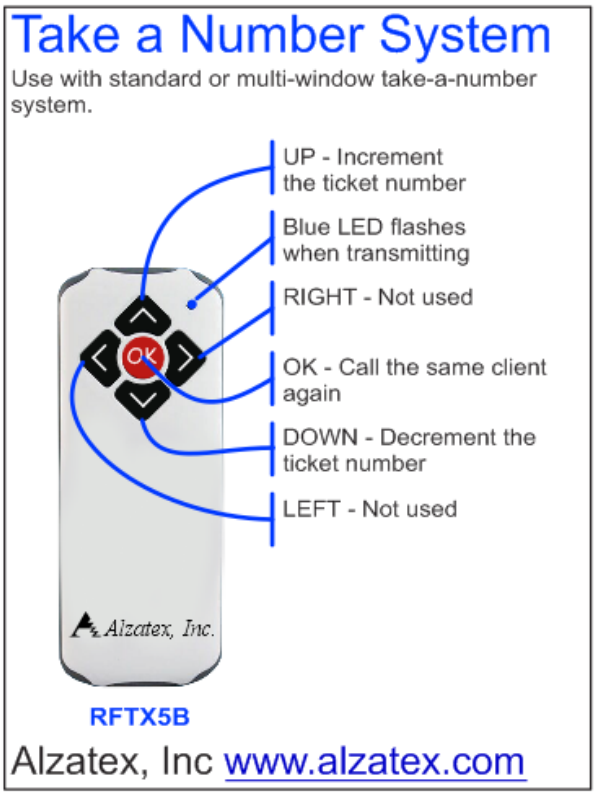
NOTE: See the specific applications for specific button functions. Not all buttons are used with all variations.

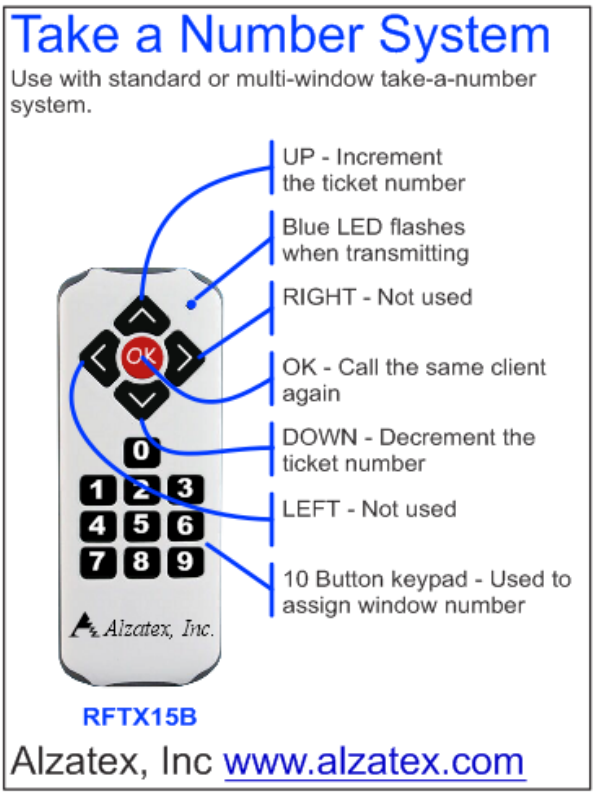
Receiver Types

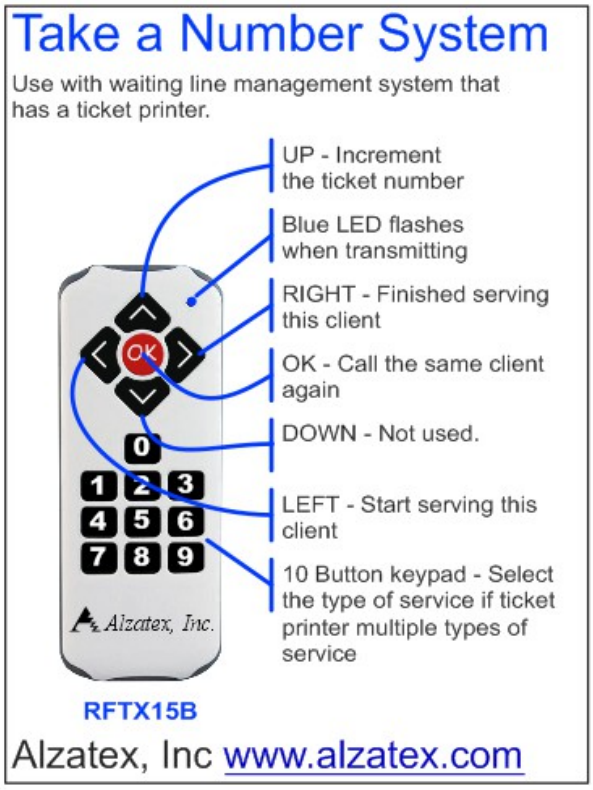
There are two types of receivers.

- RF119B is used with the ticket printer.
- RF492A is used with the standard take-a-number system.

Transmitter Button Functions







The RFTX5B and RFTX15B has the following functions when used with the standard take-a-number systems.

- **UP** – Increment the ticket number.
- **DOWN** – Decrement the ticket number.
- **OK** – Call the same number again. Sounds the beeper or re-plays the voice announce.

The RFTX5B and RFTX15B has the following functions when used with a waiting line management system having a ticket printer.

- **UP** – Increment the ticket number.
- **DOWN** – Not used.
- **OK** – Call the same number again. Sounds the beeper or re-plays the voice announce.
- **LEFT** – Start serving this client.
- **RIGHT** – Finished serving this client.
- **Keypad** – Select type of service if the ticket printer offers multiple types of service.

Receiver Buttons

The RF492A has one button for testing, setup and learn mode.

- **Test** Button. Tap once to enter the learn mode. Tap three times in rapid succession to display the Serial mode. Tap seven or more times in rapid succession to display the version number on the display. Tap ten or more times in rapid succession to generate test patterns on the display.
- Press and Hold the **Test** button for several seconds to enter the display transmitter code function.

The RF119B has a second button for optional functions.

- Tap the **B** button to enter the display serial number mode. A beep is generated on the wall displays.
- Press and hold the **B** button for several seconds to dump the contents of the Learn memory on the RS422 serial port.

Receiver LEDs

The wireless receiver has two LEDs to indicate status.

- **LED DL1 –** Slow flash indicates that the unit is in Learn mode.
- **LED DL2** – Indicates receiver signal status. Continuous random flashing indicates no signal. When a signal is received, the LED flashes brighter and more steady.

Receiver Configurations

The RF492A receiver may be hidden inside of the enclosure making the buttons and LEDs on the receiver inaccessible. The RF492A can be learned using an alternate button.

- Use the **B** button on the display circuit board.

To enter the learn mode using the **B** button, perform the following steps:

- Tap the button at least 5 times in rapid succession.

NOTE: A dash "-" may appear on the display.

- Within one second, press and hold the button for at least 2 seconds.

NOTE: Two dashes "--" may appear on the display.

- The learn button commands will be passed on to the RF492A receiver.
- Tap the button once more to enter the **Learn** mode.
- See the RF492A manual for other commands.

NOTE: See the this manual for details on using the learn mode.

NOTE: If there is no activity for 20 seconds, the learn mode will exit.

Pairing a transmitter with the receiver

Pairing a transmitter is a two step process.

Step 1) Pair the transmitter. This step is always required.

Step 2) Assign a window number to the transmitter. This second step is only required if the transmitter is used in a multi-window system.

Pairing a transmitter

This procedure pairs an individual transmitter to the receiver. Up to 64 transmitters can be paired to a single receiver.

- Remove the rear cover of the ticket printer to be able to access the **Test** button.
- Tap the **Test** button on the receiver to start the learn mode.
- **LED DL1** starts flashing slowly. The message DSP**Ln** is displayed.
- Tap the **OK** button on the transmitter.
- The transmitter is now learned. The message DSP**Save** is displayed.
- To pair the next transmitter, repeat this entire procedure.
- Be sure to replace the rear cover and secure the thumb screw when finished.

*NOTE: If the transmitter had previously been learned, nothing changes. Dashes DSP**--------** are displayed instead of DSP**Save**.*

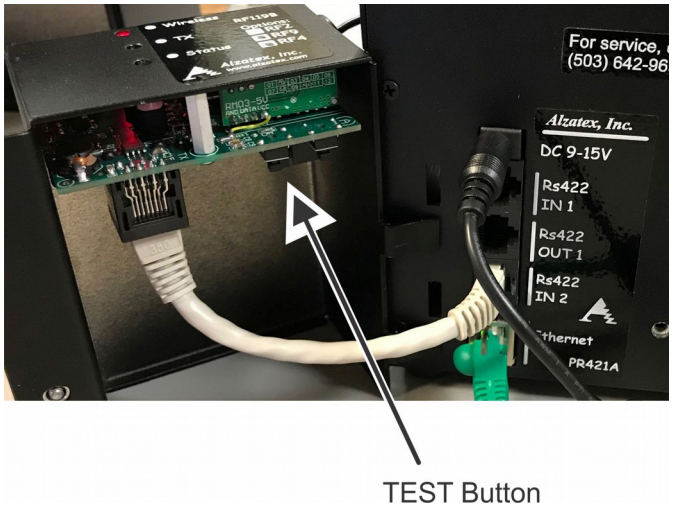
*NOTE: If no buttons are pressed after an eight second timeout delay, the LED stops flashing and the message DSP**<blanks>** is sent to clear the display.*

Displaying the window number

The assigned window number for a remote transmitter can be displayed using the following procedure.

- Press and hold the **Test** button for several seconds to enter the display window number function.
- The message DSP**Cd** is displayed.
- Tap the **OK** button on the selected transmitter. The assigned window number will appear on the wall displays. The message DSP**01** to DSP**64** is displayed.

*NOTE: If the display shows dashes DSP **- -** when you tap the OK button, it means that the transmitter has not been paired with this receiver.*



Assigning the window number

Before performing this operation, the transmitter must first be learned. This procedure is used to change the assigned window number for a remote transmitter that has already been paired.

- Press and hold the **Test** button for several seconds to enter the display **Code** function.
- The message DSP**Cd** is displayed.
- Direct enter a number 1 to 64 on the keypad as the window number. The message DSP**01** to DSP**64** is displayed. If you make more than two keystrokes, only the most recent two keystrokes appear on the display.
- Or tap the **UP** or **DOWN** buttons to select a number 1 through 64 as the window number. The number will wrap once the limit is reached. The message DSP**01** to DSP**64** is displayed.
- Tap the **OK** button on the transmitter. The assigned window number will appear on the wall displays. The message DSP**Sa** is displayed.
- Tap the **OK** button again to verify the window number. The message DSP**01** to DSP**64** is displayed.

*NOTE: If the number entered is out of the range 1 to 64 an error message DSP**Error** is displayed. Direct enter a valid number 1 to 64 on the keypad as the window number.*

*NOTE: Tap the **RIGHT** button to exit without saving. The LED stops flashing and the message DSP**<blanks>** is sent to clear the display.*

Alternate method to change the window number assigned to a transmitter. The remote transmitter must have already been paired.

- Tap the **Test** button on the receiver to start the learn mode.
- LED DL1 starts flashing slowly. The message DSP**Ln** is displayed.
- Direct enter a number 1 to 64 on the keypad as the window number. The message DSP**01** to DSP**64** is displayed. If you make more than two keystrokes, only the most recent two keystrokes appear on the display.
- Or tap the **UP** or **DOWN** buttons to select a number 1 through 64 as the window number. The number will wrap once the limit is reached. The message DSP**01** to DSP**64** is displayed.
- Tap the **OK** button on the transmitter.
- The window number is changed. The message DSP**Update** is displayed.

Removing (UnPairing) a transmitter

An individual transmitter can be removed from the list of learned transmitters.

- Tap the **Test** button on the receiver to start the learn mode.
- The message DSP**Ln** is displayed.
- **LED DL1** starts flashing slowly.
- Tap the **LEFT** button on the transmitter.
- The message DSP**Dl** is displayed.
- Tap the **OK** button on the transmitter to confirm.
- The transmitter is now removed (unPaired). The message DSP**Sa** is displayed.
- If the transmitter cannot be found in the table, the message DSP**No** is displayed.

NOTE: It is OK to assign more that one remote transmitter to the same window number.

Clearing the learn memory

The entire learn memory can be cleared in a single step. All transmitters will be removed.

- Tap the **Test** button eight or more times in rapid succession to display the test patterns on the wall displays.
- The diagnostic DSP**Hello** message will appear.
- Within one second, press and hold the **Test** button for several seconds to clear the learn

memory. All remotes will be removed. The message DSP**Dl** is displayed.

*NOTE: The internal timer will expire in a second or two if you do not quickly press and hold the **Test** button.*

Button Function Setup Mode

The button functions for a remote transmitter can be changed using the following procedure.

NOTE: This is a one time setup procedure and will NOT need to be repeated.

- Press and hold the **Test** button for several seconds to enter the display **Code** function.
- The message DSP**Cd** is displayed.
- Press and hold the **Test** button for several seconds to enter the Setup mode.
- The message DSP**Su** is displayed.
- Tap the **Test** button on the receiver successively until the desired mode is selected.
- See table below for setup options.

*NOTE: The **Setup** mode will automatically exit after several seconds of inactivity. The display will go dark.*

Available Button Function Modes

The button functions for a remote transmitter can be set to any of the following.

- **U00** – Standard single window or multi-window take-a-number system that does not use a ticket printer. Default.
- **U01** – Multi-window take-a-number system that uses a ticket printer with one type of service.
- **U02** – Multi-window take-a-number system that uses a ticket printer with two types of service.
- **U03** – Multi-window take-a-number system that uses a ticket printer with three types of service.
- **U04** – Multi-window take-a-number system that uses a ticket printer with four types of service.
- **U05** – Multi-window take-a-number system that uses a ticket printer with five types of service.
- **U06** – Multi-window take-a-number system that uses a ticket printer with six types of service.
- **U07** – Multi-window take-a-number system that uses a ticket printer with seven types of service.
- **U08** – Multi-window take-a-number system that uses a ticket printer with eight types of service.
- **U09-U11** – Count up/down timer. See separate user manual for details.

Displaying the software version number

The software version number can be displayed.

- Tap the **Test** button eight or more times in rapid succession to display the software version number on the wall displays.
- The version number DSP**V1.01** message will appear.

Generating test patterns

This feature is useful for testing the communications between the **RF492A** or **RF119B** and the wall displays.

- Tap the **Test** button eight or more times in rapid succession to enable generation of test patterns on the wall displays.
- A scrolling "**Hello**" message will appear. The beeper will sound once. If lamps are installed, they will cycle ON in sequence.
- Tap the **Test** button again. All segments ON will appear. The beeper will sound once.
- Tap the **Test** button again. A rotating segment test will appear. The beeper will sound once.
- Tap the **Test** button again. The display will show the Unit address. The beeper will sound once.
- Tap the **Test** button after waiting for 10 seconds, the display will go dark.

Transmitter Serial Numbers

NOTE: this feature is for diagnostics only.

Each transmitter has a serial number. Use the following procedure to display the serial number on the wall displays. The serial number for all valid transmitters will be displayed including transmitters that have NOT been paired with the receiver.

- Tap the **Test** button three or four times in rapid succession to enable display of the transmitter serial number on the wall displays.
- The DSP**Serial** message will appear.
- Tap **any** button on the transmitter, the serial number of the transmitter will appear on the wall display.
- Tap the **Test** button once to exit.

*NOTE: The RF119B board has a **B** button. Tap the **B** button once to enable displaying serial numbers.*

Technical Information

Do not include this section in the user manual.

Dump the contents of the Learn Memory

The contents of the learn memory for each remote can be displayed.

- Press and hold the **Test** Button for several seconds.
- Press and hold the **Test** Button for several seconds again.
- Press and hold the **Test** Button for several seconds one more time to dump the contents of the learn table onto the serial port. A computer must be connected to view the results.

RF119B only. The contents of the learn memory for each remote can be displayed.

- Press and hold the **B** Button for several seconds to dump the contents of the learn table onto the serial port. A computer must be connected to view the results.

*NOTE: The internal timer will expire in a second or two if you do not quickly press and hold the **Test** button.*

NOTE: This feature is used for diagnostics only. Contact the factory on how to use this feature.

Button Code Assignments

This is technical information about the protocol.

Command format: "KEs@ The window number will be anything from 0x40 (@) to 0x7F for windows 1 to 64 where "s" is the command.

*"KEA@ (0x41) - Increment the ticket number. Keypad **UP** button.*

*"KEa@ (0x61) - Decrement the ticket number. Keypad **DOWN** button.*

*"KE#@ (0x23) - Finished with this client. Keypad **RIGHT** button.*

*"KE$@ (0x24) - ReRequest the same client. Keypad **OK** button.*

*"KE%@ (0x25) - Serving this client. Keypad **LEFT** button.*

"KE&@ (0x26) - Window open for service. (Not used)

"KE'@ (0x27) - Window closed for service. (Not used)

Command format: "KEsw The window number will be anything from 0x40 (@) to 0x7F for windows 1 to 64. The "s" is the type of service. The window number "w" is pre-programmed into the internal table for this keypad during the learn process.

*"KEA@ (0x41) - Increment the ticket number for service 1. Tap keypad 1, then keypad **UP** button.*

*"KEB@ (0x42) - Increment the ticket number for service 2. Tap keypad 2, then keypad **UP** button.*

*"KEC@ (0x43) - Increment the ticket number for service 3. Tap keypad 3, then keypad **UP** button.*

*"KED@ (0x44) - Increment the ticket number for service 4. Tap keypad 4, then keypad **UP** button.*

*"KEE@ (0x45) - Increment the ticket number for service 5. Tap keypad 5, then keypad **UP** button.*

*"KEF@ (0x46) - Increment the ticket number for service 6. Tap keypad 6, then keypad **UP** button.*

*"KEG@ (0x47) - Increment the ticket number for service 7. Tap keypad 7, then keypad **UP** button.*

*"KEH@ (0x48) - Increment the ticket number for service 8. Tap keypad 8, then keypad **UP** button.*