



 **READ THIS MANUAL CAREFULLY  
BEFORE BEGINNING INSTALLATION** 

# 831 COMMERCIAL RECEIVER INSTRUCTIONS

## MODELS:

- 831E
- 831E MASTER & SLAVE UNITS

## PRODUCT FEATURES

Allstar 831E Commercial Receivers are designed to work with most commercial door operators. The 831E is connected to the commercial operator in the same manner as a 3-button station and provides open, close and stop functions via radio control. The receiver is powered from the operator's 24 VAC transformer. The antenna is removable and may be moved (using coaxial cable) to a new location for better RF reception. When receivers have to be installed in close proximity to each other (such as Fire Stations), master/slave units may be used to reduce the potential for receiver cross-talk.

## IMPORTANT INSTALLATION NOTES



**TO REDUCE THE RISK OF SEVERE INJURY OR DEATH:  
READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS!**

- ALLSTAR 831E RECEIVERS ARE INTENDED FOR USE WITH COMMERCIAL DOOR OPERATORS ONLY. DO NOT USE FOR ANY OTHER PURPOSE. DO NOT MODIFY IN ANY MANNER.
- CHECK LOCAL BUILDING AND ELECTRICAL CODES FOR MANDATORY INSTALLATION AND WIRING REQUIREMENTS.
- CONNECT POWER CORDS ONLY TO A PROPERLY GROUNDED OUTLET. IF PERMANENT WIRING IS REQUIRED BY CODES, DISCONNECT POWER AT FUSE BOX OR CIRCUIT BREAKER BEFORE ATTEMPTING ANY WIRING CONNECTIONS.
- DO NOT WEAR RINGS, WATCHES OR LOOSE CLOTHING WHILE INSTALLING OR SERVICING GARAGE DOOR OPENERS. WEAR SAFETY GOGGLES OR OTHER PROTECTIVE EYEWEAR.
- AN UNBALANCED DOOR OR ONE THAT STICKS OR BINDS MAY CAUSE INJURY OR DEATH. ENSURE DOOR IS PROPERLY BALANCED AND ELIMINATE ANY STICKING OR BINDING.
- YOUR GARAGE DOOR IS A LARGE MOVING OBJECT. THE SPRINGS, PULLEYS, CABLES AND MOUNTING HARDWARE UTILIZED TO BALANCE ITS OPERATION ARE UNDER EXTREME TENSION AT ALL TIMES AND CAN CAUSE SERIOUS PERSONAL INJURY, EVEN DEATH, IF DISTURBED. ONLY A QUALIFIED SERVICE PERSON SHOULD MOVE, LOOSEN OR ADJUST DOOR SPRINGS OR HARDWARE.
- LOCATE CONTROL PUSHBUTTONS WITHIN SIGHT OF THE DOOR AND AWAY FROM THE MOVING PARTS OF THE DOOR. INSTALL ENTRAPMENT WARNING LABEL NEXT TO THE CONTROL PUSHBUTTON IN A PROMINENT LOCATION.
- REMOVE ALL ROPES AND REMOVE OR MAKE INOPERATIVE ALL LOCKS CONNECTED TO THE GARAGE DOOR.
- THE IMPORTANT SAFEGUARDS AND INSTRUCTIONS IN THIS MANUAL CANNOT COVER ALL POSSIBLE CONDITIONS AND SITUATIONS. IT MUST BE UNDERSTOOD THAT COMMON SENSE AND CAUTION MUST BE EXERCISED BY THE PERSON(S) INSTALLING, MAINTAINING AND OPERATING THIS EQUIPMENT.

**INSTALLER: Leave this manual with your customer upon completion of the installation.**



# 831E COMMERCIAL RECEIVER WIRING INSTRUCTIONS



## WARNING

**IMPROPER WIRING COULD CAUSE ELECTROCUTION OR DAMAGE TO CIRCUITRY. FOLLOW LOCAL BUILDING AND ELECTRICAL CODES.**



## WARNING

**TO PREVENT ELECTROCUTION DISCONNECT POWER AT FUSE BOX AND DOOR OPENER BEFORE WIRING PERMANENTLY.**

The 831E receiver functions as a 3-button station. Three sets of isolated contacts are provided; normally open contacts for the OPEN PUSHBUTTON (orange wires); normally open contacts for the CLOSE PUSHBUTTON (black wires); normally closed contacts for the STOP PUSHBUTTON (gray wires). Refer to Figure 1. For special STOP circuit applications, normally open contacts are available from the factory.

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### WALL PUSHBUTTON STATION

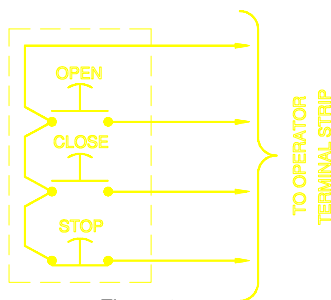


Figure 2

Typical 4-wire 3-button stations are wired as shown in Figure 2. Number 18 gauge wire or heavier must be used for wiring the control stations and the 831E receiver to the door operator. Smaller gauge wire may cause operational problems, especially when multiple 3-button stations are used. For typical installations the 831E receiver is mounted near the door operator, away from any high voltage conduits or steel support beams. For wiring, follow the steps below and refer to Figure 3.

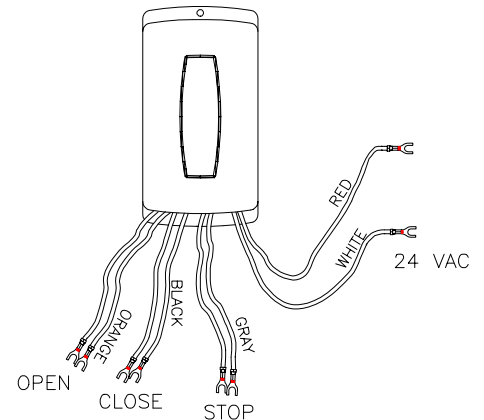


Figure 1

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1. In the door operator control panel, locate the wire connecting the door operator to the 3-button station COMMON. Note its location and remove.
2. Connect one of the gray wires from the 831E to the wire just removed from the pushbutton COMMON.
3. Connect the following wires from the 831E to the operator 3-button COMMON (as shown at right):  
ONE ORANGE (OPEN)  
ONE BLACK (CLOSE)  
ONE GRAY (STOP)
4. Connect the remaining 831E black wire to the CLOSE pushbutton terminal in the door operator control panel.
5. Connect the remaining 831E orange wire to the OPEN pushbutton terminal in the door operator control panel.
6. Finish the wiring by connecting 24 VAC to the red and white wires of the 831E receiver.

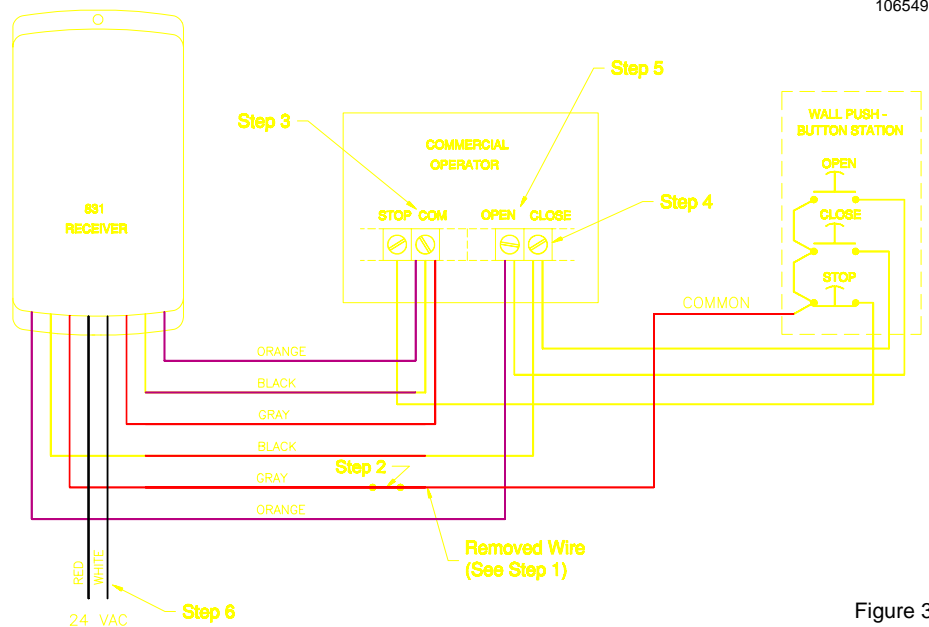


Figure 3

**BEFORE APPLYING POWER, CHECK ALL CONNECTIONS AND INSTALL THE ANTENNA.**



## WARNING

**DO NOT USE RADIO CONTROLS ON COMMERCIAL DOOR OPERATORS UNLESS PROPER ENTRAPMENT PROTECTION DEVICES ARE INSTALLED. CONSULT THE MANUFACTURER OF YOUR OPERATOR FOR MORE DETAILS.**

# COMMERCIAL RECEIVER & TRANSMITTER CODING INSTRUCTIONS

The 831E receiver may be used with many different Allstar transmitters. The information below indicates how to set the coding switches in the various transmitters and the 831E receiver.

## IF YOU ARE USING A 8831 OCS-ECONOMY OR 831 STANDARD TRANSMITTER:

Exactly match all 8 code switches in the transmitter and receiver. The code switches may be set in any random pattern of +, - and 0.

## IF YOU ARE USING A 8831C OCS-ECONOMY OR 733 STANDARD TRANSMITTER:

These transmitters are used to control up to 3 different doors. This is accomplished by setting the selector switch on the transmitter to either A, B & C and setting the #6 coding switch in the 831E receiver.

TRANSMITTER A-B-C Selector Switch Position	RECEIVER Coding Switch #6
A	+
B	0
C	-

Start coding by exactly matching all 8 code switches in the transmitter and the receivers. The code switches may be set in any random pattern of +, 0 and - positions. Next, in receiver A, set code switch #6 to the + position; In receiver B set code switch # 6 to the 0 position; In receiver C set code switch # 6 to the - position. The table to the right shows the switch positions.

## IF YOU ARE USING A 639 STANDARD TRANSMITTER:

This transmitter is used to control up to 9 different doors. This is accomplished by setting the selector switch on the transmitter to either 1, 2, 3, 4, 5, 6, 7, 8 or 9 and setting the #7 and #8 coding switches in the 831E receiver.

Start coding by exactly matching all 8 code switches in the transmitter and receivers. The code switches may be set in any random pattern of +, 0 and - positions. Next, in receiver 1, set code switch #7 to + and code switch #8 +; In receiver 2, set code switch #7 to + and code switch #8 to 0. Continue setting the codes in the 831E receivers as shown in the table.

TRANSMITTER 1 - 9 Selector Switch Position	831 RECEIVER Code Switch #7	831 RECEIVER Code Switch #8
1	+	+
2	+	0
3	+	-
4	0	+
5	0	0
6	0	-
7	-	+
8	-	0
9	-	-

## IF YOU ARE USING A 53S STANDARD TRANSMITTER:

This transmitter is used to control up to 27 different doors. This is accomplished by setting the selector switches to either A, B or C and either 1, 2, 3, 4, 5, 6, 7, 8 or 9 and setting the #6, #7 and #8 coding switches in the 831E receiver.

Start coding by exactly matching all 8 code switches in the transmitter and receiver. Next, in receiver A1, set code switch #6 to +, set

# MASTER/SLAVE WIRING INSTRUCTIONS

Master/Slave systems are recommended for installations in which receivers must be mounted less than ten feet apart. When two or more receivers are mounted close together there is a potential for receiver cross-talk. Cross-talk will cause one or more of the receivers to function poorly (or not at all). In Master/Slave systems, the Master receiver accepts the transmitted signal and passes it to the Slave receivers through a pair of wires connecting the receivers. The RF section of the Slave receivers are disabled to prevent cross-talk. Up to 15 Slave receivers may be connected to a Master receiver. Master/Slave units are specially ordered from the Factory.

The individual receivers are wired according to the instructions on page 2. In addition, the Data and Data Common wires must be connected as follows (refer to Figure 4):

- Connect the YELLOW wire (data) from the Master receiver to the YELLOW wire from the Slave receiver(s).
- Connect the WHITE wire (common) from the Master receiver to the WHITE wire from the Slave receiver(s).

The coded switches in the individual receivers are set in the same manner as described above.

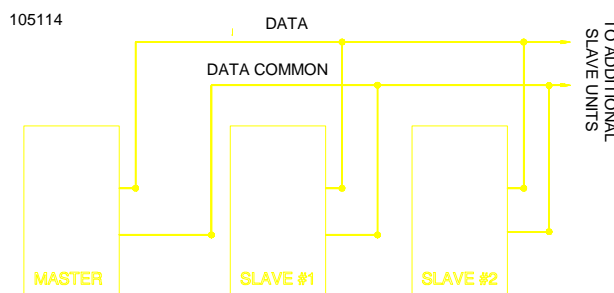


Figure 4



**WARNING**

**DISCONNECT POWER AT FUSE BOX AND DOOR OPENER BEFORE WIRING PERMANENTLY TO PREVENT ELECTROCUTION.**



## TROUBLESHOOTING NOTES

If you experience problems with the 831E Receiver, try some of the suggestions listed below before calling the Factory Technicians.

### **RECEIVER APPEARS DEAD; THERE IS NO RESPONSE WHEN TRANSMITTER BUTTONS ARE PUSHED.**

- Check the power connections to the receiver.
- There must be at least 20 VAC at the receiver power connections. (If a 24V system).
- Review the code switch settings.
- Any mismatch will prevent the receiver from working.
- Try a different code switch setting.
- Check the antenna installation.
- Wait one minute for the receiver to "warm-up".
- Check battery in transmitter.

### **RECEIVER "CLICKS" WHEN ANY TRANSMITTER BUTTON IS PUSHED, BUT NOTHING ELSE HAPPENS.**

- Check the wire & connections in the STOP circuit. Refer to Figure 3.
- Check the OPEN & CLOSE connections.
- The wire gage may be too small for the number of wall stations used.
- Check the power to the door operator.
- Check the door operator's control voltage.

### **SHORT DISTANCE OR INTERMITTENT OPERATION.**

- Relocate the antenna with a coaxial cable.
- Metal objects too close to receiver, move to a better location.
- External interference (such as radio towers).

- Change to a different frequency.
- Stuck transmitter in building.
- Change code switches from factory settings.
- Check battery in transmitter.

### **ONE RECEIVER WORKS BUT THE OTHER IS DEAD.**

- Relocate the antennas.
- Receivers too close together (cross-talking); move to different locations.
- Use a Master/Slave system.
- Master/Slave wires not connected properly. Refer to Figure 4.
- Check code switch settings.

### **SOME THINGS TO REMEMBER:**

- Range is dependent on the installation, type of building, type of door and the location of the transmitter. When these conditions change so will the distance.
- Any transmitter can interfere with operation. These include cell phones, cordless phones, wireless systems and CB and mobile transmitters. Other sources of interference include computer equipment, industrial equipment, electric motors, fluorescent lights, etc. The list is endless.
- Do not lengthen or shorten the receiver antenna. It is set to an optimal length based on the frequency of operation.
- If the antenna is blocked or shielded (such as a car traveling through a tunnel) the distance will decrease.
- Always change the Factory set codes.



### **Manufacturer's Limited Warranty**

Allstar warrants its radio controls to be free from defect in material and workmanship for a period of one (1) year from the date of purchase. To obtain service, contact your dealer.

To obtain service under this warranty the buyer must obtain authorization instructions for the return of any goods from Allstar before returning the goods. The goods must be returned with complete identification, with copy of proof-of-purchase, freight prepaid and in accordance with Allstar's instructions or they will not be accepted. In no event will Allstar be responsible for goods returned without proper authorization or identification.

Goods returned to Allstar for warranty repair within the warranty period, which upon receipt by Allstar are confirmed to be defective and covered by this limited warranty, will be repaired or replaced at Allstar's sole option, at no cost and returned pre-paid. Defective parts will be repaired or replaced with new or factory rebuilt parts at Allstar's sole option.

This limited warranty does not cover non-defect damage, damage caused by unreasonable use, damage caused by improper installation or care, vandalism or lightning, fire or excessive heat, flood or other acts of God (including, but not limited to misuse, abuse or alterations, failure to provide reasonable and necessary maintenance), labor charges for dismantling or reinstalling a repaired or replaced unit, or replacement batteries.

These warranties are in lieu of all other warranties, either expressed or implied. All implied warranties of merchantability and/or fitness for a particular purpose are hereby disclaimed and excluded. Under no circumstances shall Allstar be liable for consequential, incidental or special damages arising in connection with the use or inability to use this product. In no event shall Allstar's liability for breach of warranty, breach of contract, negligence or strict liability exceed the cost of the product covered hereby. No person is authorized to assume for Allstar any other liability in connection with the sale of this product.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state. Warranty effective after May 15th, 1997.

For Information: