

Patriot Equipment

Operation and Troubleshooting Guide Rowe Electronics



WIRELESS REMOTE INSTRUCTIONS WIRELESS REPROGRAMMING INSTRUCTIONS

WARNING!!!!

THE OPERATOR SHOULD NOT ATTEMPT TO REPAIR ANY RADIO CONTROLLER. IF ANY PRODUCT PERFORMANCE OR SAFETY CONCERNS ARE OBSERVED, THE EQUIPMENT SHOULD IMMEDIATELY BE TAKEN OUT OF SERVICE. DAMAGED AND INOPERABLE RADIO CONTROLLER EQUIPMENT SHOULD BE RETURNED TO PATRIOT EQUIPMENT FOR EVALUATION AND REPAIR. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN DAMAGE TO EQUIPMENT.

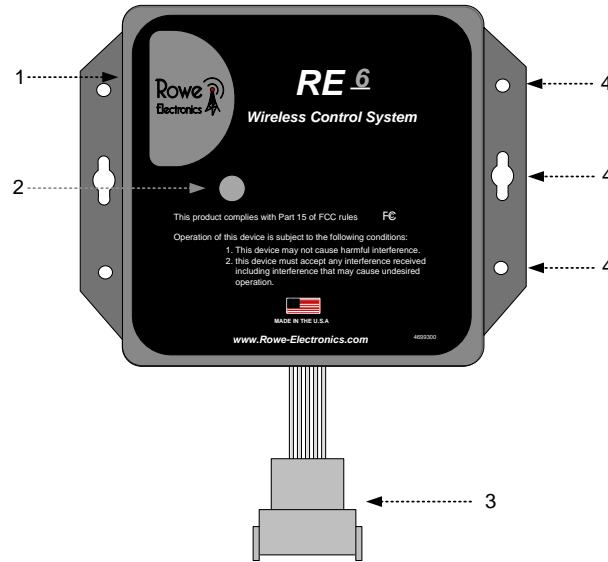
Transmitter switches should never be mechanically blocked ON or OFF. When not in use, the operator should turn the transmitter OFF. A secure storage space should be provided for the transmitter unit, and the transmitter unit should always be placed there when not in use.



NOTE: If your Patriot Seed Tender does not have the electric start option, the electric start on button and electric start off button on the remote transmitter will have no function.

Overview:

The RE6 wireless control is designed to provide highly dependable, consistent wireless performance. Aside from battery replacement, the units are practically maintenance free and built with quality components for durability and reliability.



Receiver

1. Magnetic sensor learn area (side of box)
2. Power and status indicator light
3. Connector for wire harness
4. Mounting holes

Safety:

Ensure that the transmitter is not left unsupervised while the receiver is powered on.

Caution:

Tampering with or using the product in a fashion other than intended can result in product malfunctions leading to injuries or death. Misuse or evidence of tampering will void the warranty.

Power Management/Restrictions:

The RE6 may be used to directly control power to applications. The systems have a maximum current rating which needs to be observed. Individual outputs are rated at 2.5A each. The maximum, combined simultaneous output limit is RE6 7.5Amps. Exceeding the limit will result in damage to the unit. For applications requiring higher output amperages, the RF systems may be used in conjunction with relays.

Rx/Tx Communication/Learning:

When purchased, the communication between the transmitter(s) and the receiver unit will already be established. If communication is lost or additional transmitters are added, the learn procedure is completed by holding the bottom of the key fob transmitter on the “learn” area. The

indicator light on the receiver will turn solid red indicating it is ready to pair with the transmitter. Once the light is red, press a button on the transmitter and watch for the receiver indicator light to flash green indicating a successful pairing.

Power Supply:

An adequate power supply is essential for proper performance. The receiver draws a small amount of current when it is in stand-by mode and can discharge the battery over time. Always disconnect the RF unit when charging the battery or performing any electrical work. The receivers have an internal thermal fuse that will, in most cases, shut the unit down if it encounters overvoltage situations, but there are some conditions that it cannot protect against. If the thermal fuse does activate, the unit will shut down. Once the unit cools, the RF system will reset and function normally. Should the unit shut down in such a manner, inspect the electrical system that is powering the RF unit

Mounting:

Mount the unit with the electrical plug pointing down in an area that offers as much protection as possible and away from direct sources of high heat, moisture, vibration, and electromagnetic energy. Proper mounting and placement will ensure the best and long lasting performance.

Wiring:

The wire harness is specific to the wireless controller. It has a 7.5 amp fuse incorporated into the power lead going to the receiver. **DO NOT REPLACE WITH A HIGHER AMPERAGE FUSE – USE 7.5 AMP FUSE ONLY.** The wire harness should be inspected regularly for any damage.

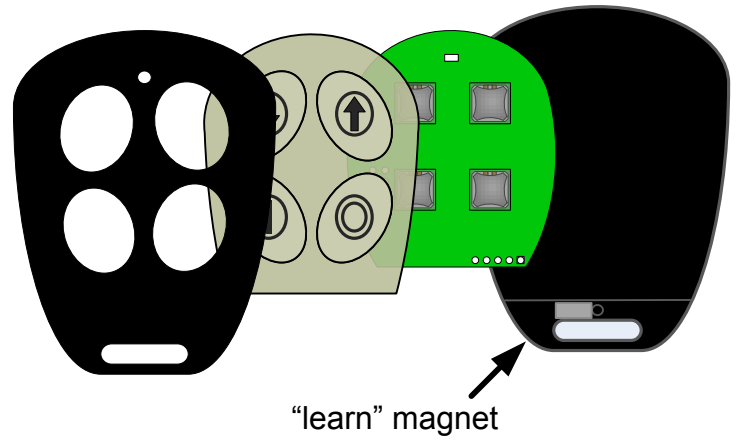
Operation:

Once the unit is powered up by turning on the toggle switch, you are ready to operate. On both the receiver and transmitter unit there is an L.E.D. indicator. On power up, the receiver unit will flash four times. This indicates that the unit is getting power, and that it is ready to operate. The RE6 unit has a line of sight range of 100' feet. Keep in mind that battery condition, receiver mounting location, and multiple obstructions can reduce the effective range.

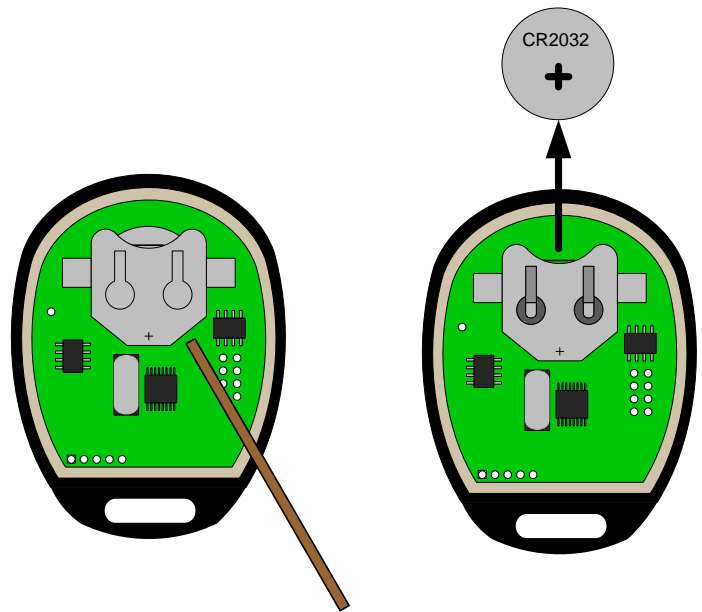
Battery Replacement:

The battery (#CR2032) in the key fob remotes should be changed annually prior to each operational season. If the transmitter battery voltage has dropped below 2.85 volts, the battery should be replaced. If inconsistent performance or reduced range is observed, the remote battery should be changed. The battery can be changed by removing the small screw on the back of the unit and splitting the transmitter case. Once opened, slide the battery out of its holder, and replace. To prevent damage, do not use screwdrivers or other metal tools inside of the transmitter case. Upon reassembly, apply silicone around the keypad edge and make certain that it is properly seated in the sealing channel and the two case halves are mated correctly. This will prevent water ingress.

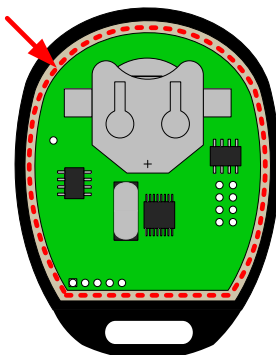
Remove the small screw on the backside of the case and carefully pry open the two halves of the case. There are four parts that fit together; front side case, membrane, PCB, and backside case. Be careful not to pull out the “learn” magnet.



The front side of the case, membrane and PCB will likely stay together. Use a non-metal object to push the battery out as shown. Using a metal object will damage the board. Insert a new battery carefully with the positive face up.



Add small bead of silicone around the rubber membrane edge before assembling the two halves of the case



Troubleshooting:

The majority of trouble shooting issues can be traced back to a power supply (battery) deficiency.

1. replace the remote battery
2. check the main power source for 12.4V
3. check the power and ground wire connections
4. check the fuse in the power wire

If you still are experiencing difficulties, a troubleshooting sheet can be found on our website www.rowe-electronics.com

For further technical assistance, please call Rowe Electronics; 1-866-820-7693

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Rowe Electronics and Patriot Equipment Seed Tenders

Pull Start Engines

The Rowe controller will not start a pull start engine from the key fob due to the pull start engine having no electric start installed.

Electric Start Engines

The electric start engines that Patriot Equipment uses on the seed tenders will also have a pull start for a backup in the event the electric start will not operate. Due to the electric start, the Rowe key fob can be used to start the engine.

To start the engine with the Rowe key fob, perform the following:

1. Rotate the key switch that is mounted to the engine to the "on" position.



2. Turn the leg switch (located on the leg of the seed tender) to the "on" position.



3. Choke the engine as needed.

4. Depress the electric start on/start button on the key fob
5. The engine should begin to turn over and start
6. The key fob can be used to speed up and slow down the engine

To turn the engine off:

1. Depress the electric start off button on the Rowe key fob (the motor should stop)
Hold the button until the engine shuts down.
2. Locate the key switch on the engine and rotate the key switch to off



Scale Operation

The Rowe system integrates with the scale to enable the user to dispense a predetermined amount of seed. To enable the automated dispensing, the toggle switch located next to the scale needs to be placed in the "auto" position. The "manual" position is for non-automated operation of the seed tender. Please refer to scale manual on the procedure to program the amount of weight of seed to dispense. Once programmed, the Rowe system will slow the engine down (stopping seed dispensing) when the predetermined amount of seed has been dispensed.



MINDEN MACHINE – Dual Function System Operational Parameters (PN: RE3-MMDM)

This system has a dual momentary configuration; the two outputs (White and Gray wires) are controlled through operation of the remote. The control button configuration on the MINDEN MACHINE RE3-MMDM is as follows:

The wiring harness has four wires coming out of the RF receiver unit. The plug pin-out and wire colors are as follows:

Pin 1 – Yellow - Power Lead (+12V IN)

Pin 5 – White – Output (+12V – momentary - while button 1 is depressed)

Pin 7 – Black – Ground Lead (connect to ground)

Pin 8 – Gray – Output (+12V – momentary - while button 1 is depressed)