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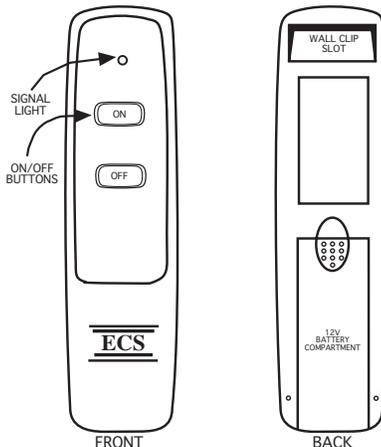
INSTALLATION AND OPERATING INSTRUCTIONS

IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE

INTRODUCTION

This ECS's remote control system was developed to provide safe, reliable, and user-friendly remote control system for gas heating appliances. The system can be operated manually from the transmitter. The system operates on one of 255 security codes that are programmed into the transmitter at the factory.

TRANSMITTER



The transmitter operates on a 12V battery (included) made specifically for remote controls and electronic lighters. Install the 12V battery supplied with the unit into the battery compartment.

It is recommended that ALKALINE batteries always be used for longer battery life and maximum operational performance.

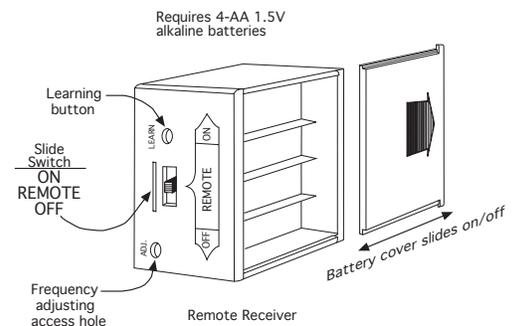
The transmitter has ON and OFF functions that are activated by pressing either button on the face of the transmitter. When a button on the transmitter is pressed, a signal light on the transmitter illuminates briefly to verify that a signal has been sent. Upon initial use, there may be a delay of three seconds before the remote receiver will respond to the transmitter. This is part of the system's design. If the signal light does not illuminate, check the position of the transmitter's battery.

REMOTE RECEIVER

The remote receiver operates on 4 AA-size 1.5V batteries. It is recommended that ALKALINE batteries be used for longer battery life and maximum microprocessor performance. **IMPORTANT:** New or fully charged batteries are essential for proper operation of the remote receiver.

The remote receiver houses the microprocessor that responds to commands from the transmitter to control system operation. The remote receiver has a 3-position slide switch for selecting the MODE of operation: ON/REMOTE/OFF

- With the slide switch in the ON position (toward the LEARN button), the system will remain on until the slide switch is placed in the OFF or REMOTE position.
- With the slide switch in the REMOTE position (centered), the system will only operate if the remote receiver receives commands **from the transmitter**.
- With the slide switch in the OFF position (away from the LEARN button), the system is off.
- **It is suggested that the slide switch be placed in the off position if you will be away from your home for an extended period of time. If the remote receiver is mounted out of children's reach, placing the slide switch in the OFF position also functions as a safety "lock-out" by both turning the system off and rendering the remote receiver inoperative.**



INSTALLATION INSTRUCTIONS

WARNING

This remote control system must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modifications of the ECS remote control or any of its components will void the warrant and may be pose a fire hazard.

Do not connect any gas valve or electronic module directly to 110-120VAC power. Consult gas appliance manufacturer's instructions and wiring schematics for proper placement of all wires. All electronic modules are to be wired to manufacturer's specifications.

The following wiring diagrams are for illustration purpose only. Follow instructions from manufacturer of gas valve and/or electronic module for correct wiring procedures. Improper installation of electric components can cause damage to electronic module, gas valve and remote receiver.

INSTALLATION

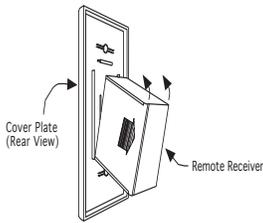
The remote receiver can be either wall-mounted in a standard plastic switch box or placed on or near the fireplace hearth. Preferably, the remote receiver should be wall-mounted in a plastic switch box, as this will protect its electronic components from both the heat produced by the gas appliance and potential damage or abuse that can occur if it is left exposed on the hearth. **PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT.** Like any piece of electronic equipment, the remote receiver should be kept away from temperatures exceeding 130° F inside the receiver case. Battery life is also significantly shortened if batteries are exposed to high temperatures.

Make sure the remote receiver switch is in the OFF position. It is recommended that 18 gauge solid or stranded wires (not included) be used to make connections between the terminal wiring block on the millivolt gas valve or electronic module and the wire terminals on the remote receiver. For the best results, use 18 gauge solid or stranded wire, with no splices and measuring no longer than 20 ft.

WALL MOUNTING

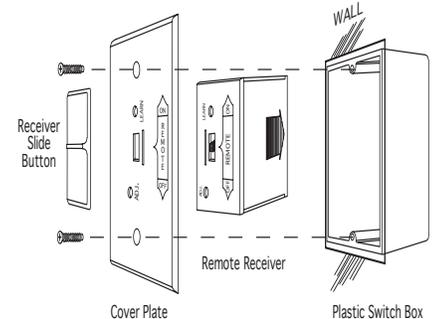
Install 4 AA-size 1.5 ALKALINE batteries in the remote receiver. For best performance, remote receiver batteries should be factory fresh when installed. Very little battery power is required to operate the remote receiver, but the electronics are tuned to operate best when battery output is greater than 5.3 volts. Four new AA batteries should provide an output voltage of 6.0 to 6.2 volts. **Be sure batteries are installed with the (+) and (-) ends facing the correct direction.**

To attach Cover Plate to Receiver box



Position the receiver as shown in diagram to the left with lower tab on cover plate inserted into groove of receiver (Make sure ADJ hole and LEARN hole on cover plate properly aligns with remote receiver) Pull Receiver up and snap into top tab of cover plate.

Position the cover plate so the word ON is facing up; then, install the remote receiver into the plastic switch box using the two long screws provided. Push the White Button over the receiver slide switch only after making sure the remote receiver has LEARNED the transmitter's security code (see MATCHING SECURITY CODES). NOTE: White Button covers both ADJ and Learn holes when properly installed.

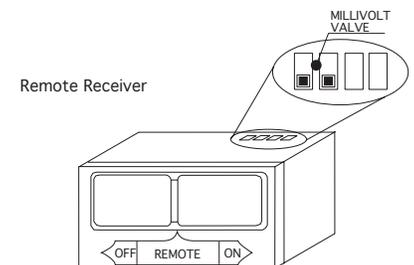


NOTE: The remote receiver will only respond to the transmitter when the 3-position slide button on the remote receiver is in the REMOTE position. If the system does not respond to the battery transmitter on initial use, see MATCHING SECURITY CODES, and recheck battery positions in the remote receiver.

HEARTH MOUNT

The remote receiver can be placed on the fireplace hearth or under the fireplace, behind the control access panel. Position where the ambient temperature inside the receiver case does not exceed 130° F.

NOTE: Black Slide Button is used for Hearth Mount applications.

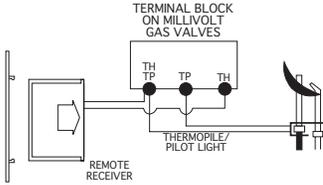


WIRING INSTRUCTIONS

A qualified electrician or a gas technician who is familiar with the gas appliance and gas valves that will be operated by this remote should install the remote control system. Incorrect wiring connections **WILL** cause damage to the gas valve or electronic module operating the gas appliance and may also damage the remote receiver.

WIRING MILLIVOLT VALVES

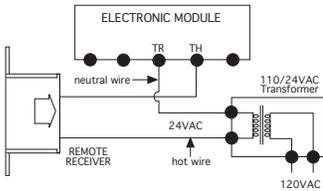
The remote receiver is connected to the millivolt valve using the TH (thermostat) terminals on the terminal block on the millivolt gas valve. Connect 18 gauge solid or stranded wires from the remote receiver to the gas valve.



Operation of the remote receiver is similar to that of a thermostat in that both turn the gas valve on and off based on input signals. A thermostat's input signals are different temperatures. The remote receiver's input signals come from the transmitter.

Connect each of the two wires leading from the TH terminals on the millivolt gas valve to either of the two wire terminals on the remote receiver. Normally it does not matter which wires go to which terminal.

WIRING ELECTRONIC SPARK IGNITIONS



The remote control receiver can be connected, in series, to a 24VAC transformer to the TR (transformer) terminal on the ELECTRONIC MODULE. Connect the hot wire from the 24VAC transformer to either of the wire terminals on the remote receiver. Connect another wire (not included) between the other receiver wire terminal and the TH (thermostat) terminal on the ELECTRONIC MODULE.

SYSTEM CHECK

MILLIVOLT VALVES

Light your gas appliance following the lighting instructions that came with the appliance. Confirm that the pilot flame is on; it must be in operation for the main gas valve to operate.

- Slide the 3-position button on the remote receiver to the ON position. The main gas flame (i.e., the fire) should ignite.
- Slide the button to OFF. The flame should extinguish (the pilot flame will remain on).
- Slide the button to REMOTE (the center position), then press the ON button on the transmitter to change the system to ON. The main gas flame should ignite.

ELECTRONIC IGNITION SYSTEMS

- Slide the 3-position button on the remote receiver to the ON position. The spark electrode should begin sparking to ignite the pilot (the pilot may ignite after only one spark). After the pilot flame is lit, the main gas valve should open and the main gas flame should ignite.
- Slide the button to OFF. The main gas flame and pilot flame should BOTH extinguish.
- Slide the button to REMOTE (the center position), then press the ON button on the transmitter to change the system to ON. The spark electrode should begin sparking to ignite the pilot. After the pilot is lit, the main gas valve should open and the main gas flame should ignite.

GENERAL INFORMATION

MATCHING SECURITY CODES

Each transmitter can use one of 255 unique security codes. It may be necessary to program the remote receiver to LEARN the security code of the transmitter upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. When matching security codes, be sure slide button on the receiver is in the REMOTE position; the code will NOT "LEARN" if the slide switch is in the ON or OFF position. Program the remote receiver to LEARN a new security code by pushing in the LEARN button on the top of the remote receiver and then pressing the MODE button on the transmitter. A change in the beeping pattern, at the receiver, indicates the transmitter's code has been programmed into the receiver. When an existing receiver is matched to a new transmitter, the new security code will override the old one.

The microprocessor that controls the security code matching procedure is controlled by a timing function. If you are unsuccessful in matching the security code on the first attempt, wait 1-2 minutes before trying again – this delay allows the microprocessor to reset its timer circuitry – and try up to two or three more times.

BATTERY LIFE

Life expectancy of the alkaline batteries in the transmitter should be at least 12 months. Check and replace all batteries annually. When the transmitter no longer operates the remote receiver from a distance it did previously (i.e., the transmitter's range has decreased) or the remote receiver does not function at all, the batteries should be checked. It is important that the remote receiver batteries are fully charged and provides continuous output voltage of at least 5.3 volts. The length of the wire between the remote receiver and gas valve directly affects the operating performance of the remote system. The longer the wire, the more battery power is required to deliver signals between the remote receiver and the gas valve. Recommended length is no longer than 20 feet. The transmitter should operate with as little as 5.0 volts battery power.

TROUBLE SHOOTING

If you encounter problems with your fireplace system, the problem may be with the fireplace itself or it could be with the ECS remote. Review the fireplace manufacturer's operation manual to make sure all connections are properly made. Then check the operation of the ECS remote in the following manner:

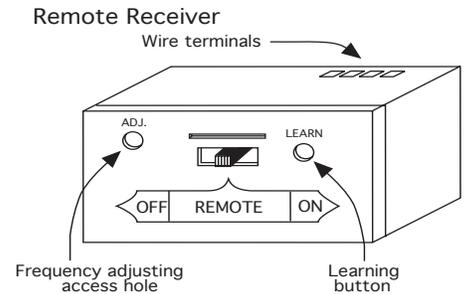
- Make sure the batteries are correctly installed in the RECEIVER. One reversed battery will keep receiver from operating properly.
- Check battery in Transmitter to make sure contacts are touching (+) and (-) ends of battery. Bend metal contacts in for tighter fit.
- Be sure RECEIVER and Transmitter are within 20'-25' operating range.
- Keep RECEIVER from temperatures exceeding 130° F. Battery life shortened when ambient temperatures are above 130° F.
- If RECEIVER is installed in tightly enclosed metal surround, the operating distance will be shortened.

RECEIVER ADJUSTMENT – RECOMMENDED ADJUSTMENT

NOTE: The slide button, White or Black, covers the ADJ access hole when installed.

- A. To adjust at the receiver, use a small slotted screwdriver. Turn the adjustment screw counter-clockwise about 5 degrees or a maximum of 1/8 turn. This should correct the distance problem.
- B. If that does not correct the problem, return adjustment screw to original position and then turn adjustment screw clockwise.

This adjustment is like tuning your radio. If you keep turning the adjustment screw, in either direction, you will go past the proper setting (tuning).



SPECIFICATIONS

BATTERIES: Transmitter 12V (A23)

Remote Receiver 6V –4ea. AA 1.5 Alkaline

Operating Frequency: 303.875MHZ

FCC ID No.'s: transmitter –K9L1002TX; receiver – K9L3001RX

Canadian ISC ID No.'s: transmitter –2439 102 728; receiver – 2439 102 728A

FCC REQUIREMENTS

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Limited Warranty

This REMOTE CONTROL SYSTEM is warranted for 12 months from the date of purchase or installation to the original purchaser to be free from defects in materials and workmanship. Damage to the SYSTEM caused by accident, misuse, abuse, or installation error whether performed by a contractor, service company, or owner, is not covered by this warranty. Seller will not be responsible for labor charges and/or damage incurred in installation, repair, replacement or for incidental or consequential damages. Batteries and any damage caused by them are not covered by this warranty. Some states, provinces, and nations do not allow exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives you specific legal rights. You may have other rights that vary by state, province or nation.

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REMOTE ON/OFF RECEIVER INSTALLATION INSTRUCTIONS

16660
EFFECTIVE DATE JUNE 2004

INSTRUCTIONS MUST BE LEFT WITH THE OWNER FOR FUTURE REFERENCE AFTER INSTALLATION.

Attention: Velcro loop and hook are not necessary for all installations.

Remote ON/OFF Receiver - Cast Iron Series

Use the following steps to attach the **remote receiver** to the cast iron stoves:

1. Attach, from left to right, the slide-on cover plate onto the remote receiver. **ON** will be to the top and **OFF** will be to the bottom on the slide-on cover plate.
2. Push the receiver slide button onto the receiver slide switch. Reverse installation of the slide button if it is off center.
3. Attach velcro loop on the left side of the valve cover support.
4. Attach velcro hook onto remote receiver. The word **TOP** on the remote receiver should be to the top when installed onto valve cover support.
5. Attach velcro hook on remote receiver onto velcro loop on valve cover support.

Remote ON/OFF Receiver - Direct Vent Fireplaces and Vent-Free Fireplaces

Use the following steps to place the **remote receiver** in the bottom of the inner casing assembly, adjacent to the gas valve.

1. The remote receiver **can not** be placed behind the gas valve.
2. When facing the appliance, the remote receiver must be placed to the **right** of the gas valve.

Remote ON/OFF Receiver - Vent-Free Log Sets (Millivolt System)

Use the following steps to place the **remote receiver** adjacent to the gas valve.

1. The remote receiver **can not** be placed behind the gas valve and burner assembly.
2. When facing the appliance, the remote receiver can be placed to the **right** of the gas valve and burner assembly or under burner pan left of gas valve.

Remote ON/OFF Receiver - DV-210 and DV-215

Attention: Do not install **remote receiver** inside furnace.

Use the following steps to attach **remote receiver**.

1. Attach remote receiver at bottom of either side on outer casing.
2. If furnace is installed high enough above floor, attach remote receiver on the underside of furnace.

Remote ON/OFF Receiver - DV-25 and DV-35

Attention: Do not install **remote receiver** inside furnace.

Use the following step to attach **remote receiver**.

1. Attach remote receiver to the underside of the furnace, adjacent to the right of piezo ignitor.

Remote ON/OFF Receiver - DVC-35, DV-55, FAW-40 and FAW-55

Use the following step to attach **remote receiver**.

1. Attach remote receiver in the interior, bottom of furnace, adjacent to gas valve.

Remote ON/OFF Receiver - GWT-25, GWT-35 and GWT-50

Use the following step to attach **remote receiver**.

1. Attach remote receiver to wall sill or floor plate.

Remote ON/OFF Receiver - DV-20E, DV-40E and DV-55E

Use the following step to attach **remote receiver**.

1. Attach remote receiver in the interior of the furnace, adjacent to the right of pressure switch.