

# INSTALLATION GUIDE FOR HARGROVE VENTED GAS LOGS VARIABLE FLAME (MH-CMT-PO-RC) COOL MOUNT

Installation and service must be provided by a qualified installer, service agency or the gas supplier.

## FOR YOUR SAFETY WHAT TO DO IF YOU SMELL GAS

1. Open windows.
2. Extinguish all open flames.
3. Do not try to light any appliance.
4. Do not touch any electrical switch; do not use the phone in your building.
5. Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
6. If you cannot reach your gas supplier, call the fire department.

## WARNING

To avoid a potential fire hazard, do not disassemble or attempt to repair the safety gas valve. Disassembly, reassembly or internal adjustment could cause the valve to malfunction, resulting in property damage, personal injury, or death. If the control valve does not operate properly following the installation or service, replace the unit.

## FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR FLAMMABLE VAPORS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

## CAUTIONS

1. This valve should be installed only by a qualified service technician trained in gas safety equipment.
2. Turn off the gas supply before installing the valve.
3. All piping must meet applicable local codes and ordinances and the National Fuel Gas Code (ANSI Z223.1/NFPA NO.54)
4. All wiring must meet the applicable electrical codes and ordinances.
5. Assure that the complete system is operating according to the manufacturer's instructions after installing the Parts Only Kit.
6. Prior to installation, verify conformance with the log unit's installation instructions.
7. Assure that all the piping is free of any foreign matter.

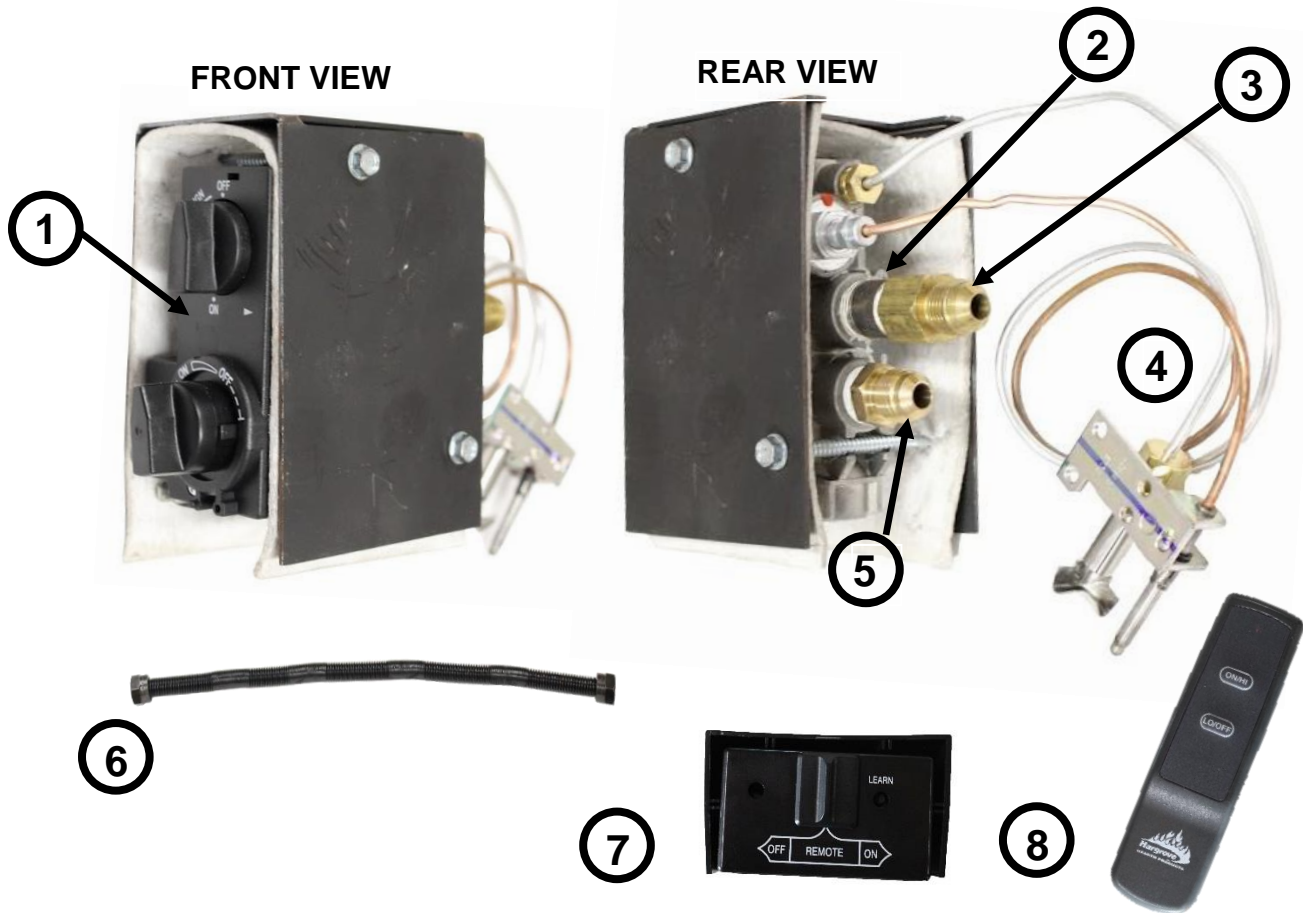
*INSTALLING A HARGROVE SAFETY GAS VALVE IN A LOCATION OTHER THAN SPECIFIED IN THIS MANUAL WILL VOID THE WARRANTY EXCEPT WHEN THE SAFETY GAS VALVE IS INSTALLED OUTSIDE THE FIREBOX IN A SAFE AND PROPER INSTALLATION AND ACCESS IS PROVIDED FOR MAINTENANCE AND REPAIR OF THE SYSTEM. A QUALIFIED INSTALLER MUST MAKE INSTALLATION AND ADJUSTMENTS.*

## FOR YOUR SAFETY

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may occur resulting in property damage, personal injury, or loss of life.



## PARTS LIST



<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	GV-34	MAXITROL VARIABLE FLAME VALVE
2	N-6X1.5	3/8" X 1.5" PIPE NIPPLE
3	46-6-6	3/8" FIP X 3/8" FL BRASS FITTING
4	RSTPB-18	PILOT ASSEMBLY
5	48-6	3/8" MIP X 3/8" FL BRASS FITTING
6	FCNW-18	NON-WHISTLING GAS FLEX CONNECTOR
7	RC-S6V-MX	REMOTE RECEIVER
8	SEE ABOVE	REMOTE TRANSMITTER

## GAS VALVE LOCATION

The cool mount setup provides flexibility in the location of the gas valve. It can be oriented vertically or horizontally and is made to be located as far away from the burner as possible.

**NOTE:** To conceal the valve place up against the refractory brick panels, and for even better effect, paint all the fireplace panels black.



VERTICAL



HORIZONTAL

## GAS CONNECTION

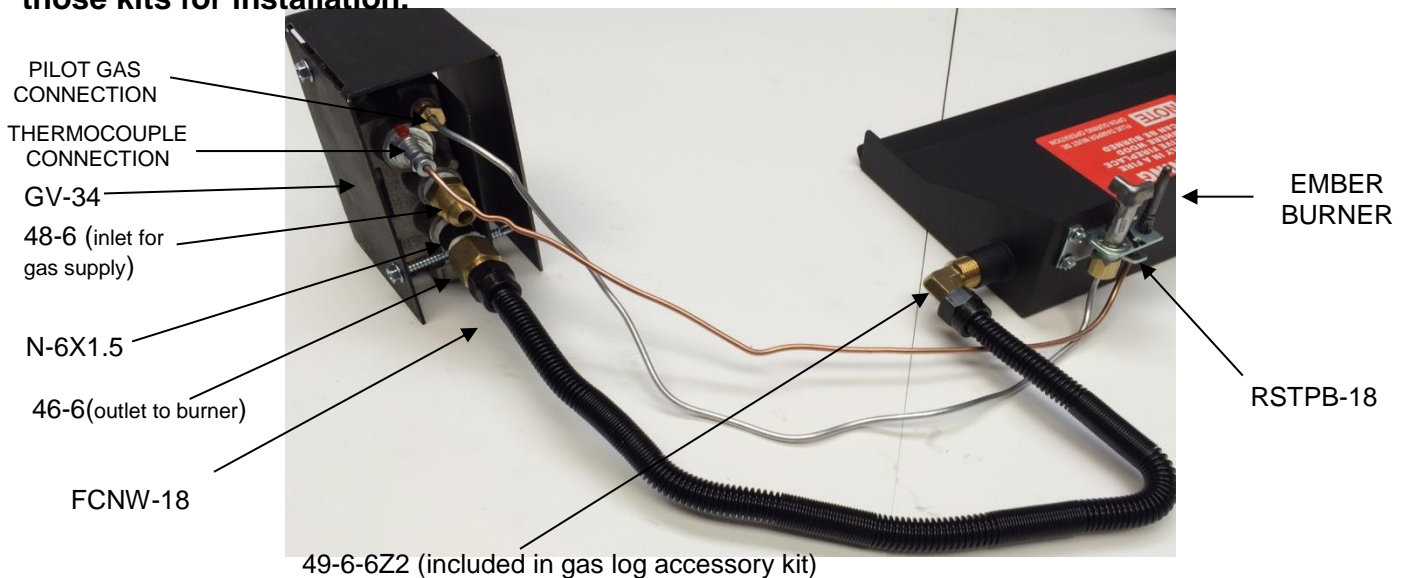
**Check that the gas is turned off.** Any remote kits should be installed on the burner at this point, refer to instructions with kit for that installation.

The gas supply line should be ½" inside diameter (ID) up to 30 feet and ¾" for longer distance.

Use one of the non-whistling flex connectors provided in the accessory kit to connect the gas valve to the burner pan and install the pilot on the back of the burner pan using the 2 supplied screws. Use the other non-whistling flex connector to connect the gas valve to the gas supply.

**Turn the gas supply on and check connection for leaks using a soapy solution.**

**NOTE- at this point install and program any remote kits, refer to the instructions provided with those kits for installation.**



## LIGHTING THE PILOT

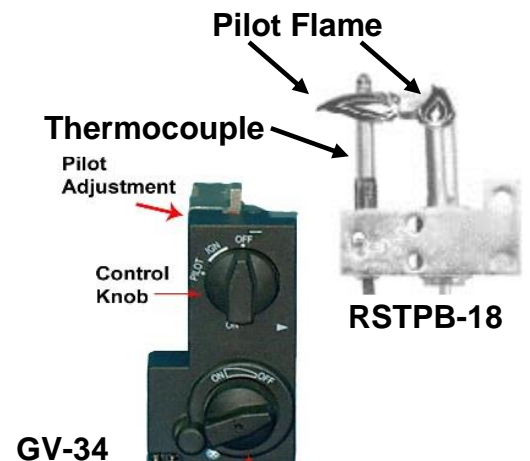
**Read the lighting instruction plate attached to the gas valve or located at the end of these instructions.**

Push in gas control knob slightly and turn clockwise until the knob will not turn any longer. This is the "OFF" position. The word off should be at the 12 o'clock position on the control knob.

Slightly push in on pilot knob and turn valve to the "PILOT" position. Push the knob in all the way and hold in. Immediately light the pilot. *(The pilot is located on the back right corner of the burner pan)* Continue to hold the knob for at least 30 seconds after the pilot is lit. Release the knob and the pilot should remain lit.

Turn the burner to the "ON", the pilot flame should ignite the main burner within 4 seconds.

**Carefully check the connections for leaks using a soapy solution.**



**IMPORTANT:** These controls are factory preset and will not normally require additional adjustment of the pilot flame. If field adjustment of the pilot flame is required, adjust using the pilot adjustment screw. The 90 degree pilot should produce 2 flames about 1-1 ½" in 2 directions. One flame should come towards the front of the firebox to ignite the burner and the other, wrapping around the thermocouple to ensure proper valve operation.

# REMOTE ATTACHMENT

## WIRING INSTRUCTION

1. Connect the Black 18 gage stranded wire with the 1/4" female terminal from the receiver to the 1/4" male terminal on the valve servomotor.
2. Connect the Black 18 gage stranded wire with the 7/32" female terminal from the receiver to the 7/32" male terminal on the valve servomotor.
3. After receiver wires are connected to the valve servo motor terminals make sure the receiver shield is located over the receiver and then locate the receiver in an area that will not exceed the 120° F.
4. Always mount the receiver to side of the valve kit away from the fire.

**WARNING:** DO NOT CONNECT REMOTE RECEIVER DIRECTLY TO 110-120VAC POWER. THIS WILL BURN OUT THE RECEIVER. FOLLOW INSTRUCTIONS FROM MANUFACTURER OF GAS VALVE FOR CORRECT WIRING PROCEDURES. IMPROPER INSTALLATION OF ELECTRIC COMPONENTS CAN CAUSE DAMAGE TO GAS VALVE AND REMOTE RECEIVER.

## TRANSMITTER

The transmitter has ON/HI and LO/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 to verify that a signal is being 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.



## RECEIVER

- With the slide switch in the REMOTE position, the system will only operate if the remote receiver receives commands from the transmitter. Upon initial use or after an extended period of no use, the ON/HI button may have to be pressed for up to three seconds before activating servomotor. If the system does not respond to the transmitter on initial use, see LEARNING TRANSMITTER TO RECEIVER section.
- With the slide in the OFF position, the system is off.
- Move slide switch to ON position for manual operation. Manual ON will move the servo motor to ON/HI position and stop motor after five seconds. Manual OFF will move the servo motor to LO/OFF position and stop after five seconds.
- 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. Placing the slide switch in the OFF position also functions as a safety "lock out" by both turning the system OFF and rendering the transmitter inoperative.



**IMPORTANT:** Keep receiver in a cool location. Battery life is also significantly shortened if batteries are exposed to high temperatures. Make sure the remote receiver switch is in the OFF position. For best results it is recommended that 18 gauge stranded wires should be used to make connections and no longer than 20-feet.

## REMOTE ATTACHMENT

### LEARNING TRANSMITTER TO RECEIVER

**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. The remote receiver houses the microprocessor that responds to commands from the transmitter to control system operation.

Each transmitter uses a unique security code. It will be necessary to press the LEARN button on the receiver to accept the transmitter security code upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. In order for the receiver to accept the transmitter security code, be sure the slide button on the receiver is in the REMOTE position; the receiver will not LEARN if the slide switch is in the ON or OFF position. The LEARN button is located on the front face of the receiver; inside the small hole labeled LEARN. Using a small screwdriver or end of a paperclip gently press the black LEARN button inside the hole and release the button. When you release the LEARN button the receiver will emit a "beep". After the receiver emits the beep press any button on the transmitter and release. The receiver will emit several beeps indicating that the transmitter's code has been accepted into the receiver. 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.

## FOR YOUR SAFETY READ BEFORE LIGHTING

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot, which must be lit by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

### WHAT TO DO IF YOU SMELL GAS:

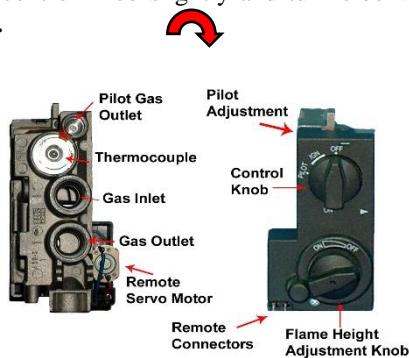
1. Do not try to light any appliance.
2. Do not touch any electric switch; do not use any phone in your building.
3. Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
4. If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it. Call a qualified service technician.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control, which has been underwater.

## LIGHTING INSTRUCTIONS FOR ROTARY VALVE

1. STOP! Read the safety information above on this label.
2. Push in control knob slightly and turn clockwise to "OFF".



**NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.**

3. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to next step.

4. Find pilot – follow metal tube from the gas control behind the burner pan.



5. Turn knob on gas control counter-clockwise to "PILOT".
6. Push in control knob all the way and hold in. Immediately light the pilot with a match. Continue to hold the control knob in for about one minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 3 – 7.
  - \* If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
  - \* If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
7. Turn gas control knob counter-clockwise to "ON".
8. Turn flame height adjustment knob counter-clockwise to desired flame height or to fully "ON".

## TO TURN OFF GAS TO APPLIANCE

1. Turn knob clockwise from "ON" position to the "PILOT" position. Push in the gas control knob slightly and turn clockwise to "OFF". Do not force knob.

# HARGROVE MANUFACTURING CORPORATION

## SAFETY PILOT CONTROL TROUBLE SHOOTING GUIDE

### POSSIBLE CAUSES:

### CORRECTIVE ACTIONS

#### 1) Nature of Trouble: Pilot light won't light.

- |                     |  |
|---------------------|--|
| 1a) Gas supply off. | 1a) Turn gas supply on.  |
| 1b) Air in line.    | 1b) Bleed gas through ember burner until all the air is out of the line. Bleeding through the pilot burner is not effective. |
| 1c) Kink in line.   | 1c) Straighten the tubing and assure there are no cracks in the tubing, or replace the tubing.                               |

#### 2) Nature of Trouble: Pilot light won't stay lit after releasing knob.

- |   |  |
|---|--|
| 2a) Line from thermocouple is not making good contact with valve.                         | 2a) Tighten fitting that connects thermocouple line to the pilot control valve.  |
| 2b) Pilot light flame is too strong and blows itself out.                                 | 2b) Adjust the flame on the pilot burner in accordance with the pilot control instructions, or replace the pilot orifice with a larger orifice.  |
| 2c) Pilot light flame is too low and does not transmit enough electricity to pilot valve. | 2c) Adjust the flame on the pilot burner in accordance with the pilot control instructions, or replace the pilot orifice with a larger one.  |
| 2d) Pilot light flame hits thermocouple too close to cold junction.                       | 2d) A cold junction is located on the lower 1/3 of the thermocouple. The pilot light flame must hit only the top 1/4 of the thermocouple or the cold junction will overheat and shut the system off. |
| 2e) Bad thermocouple.   | 2e) Replace the thermocouple. This is unlikely on a new set as all thermocouples have been factory tested before shipping.   |

#### 3) Nature of Trouble: Pilot light goes out after being lit.

- |   |  |
|---|--|
| 3a) Down drafts blowing out flame.  | 3a) Correct chimney down draft problems.   |
| 3b) Pilot light flame is too strong and blows itself out.                                 | 3b) Adjust the flame on the pilot burner in accordance with the pilot control instructions, or replace the pilot orifice with a larger orifice.  |
| 3c) Pilot light flame is too low and does not transmit enough electricity to pilot valve. | 3c) Adjust the flame on the pilot burner in accordance with the pilot control instructions, or replace the pilot orifice with a larger one.  |
| 3d) Pilot light flame hits thermocouple too close to cold junction.                       | 3d) A cold junction is located on the lower 1/3 of the thermocouple. The pilot light flame must hit only the top 1/4 of the thermocouple or the cold junction will over heat and shut the system down. |

#### 4) Nature of Trouble: Pilot light is noisy.

- |                                      |   |
|--------------------------------------|---|
| 4a) Pilot light flame is too strong. | 4a) Adjust the flame on the pilot burner in accordance with the pilot control instructions, or replace the pilot orifice with a larger orifice. |
|--------------------------------------|---|

**5) Nature of Trouble: Pilot light goes out when ember burner is turned on.**

5a) Ember burner robs gas from line feeding the pilot light.

5a) Turn gas to ember burner on slower.

5a) Replace orifice adapter to ember burner with an orifice adapter with a smaller opening. NOTE: This will reduce the amount of flame on logs.

**6) Nature of Trouble: Delayed ignition of ember burner. (Gas should ignite in 4 seconds.)**

6a) Gas is not getting to pilot light quick enough.

6a) Clear passageway through sand to allow easier and quicker access for gas from ember burner to pilot light.

6b) Incorrect locations or direction of pilot light.

6b) Assure pilot light directs flame over ember burner pan as well as properly hitting the thermocouple.

**7) Nature of Trouble: System shuts down after burning 0-5 minutes. Cold junction on thermocouple has overheated.**

7a) Immediate over heating of the cold junction on the thermocouple.

7a) Assure thermocouple and pilot burner assembly are mounted on the back side of the ember burner pan per safety pilot control instructions. Assure the assembly is free from contact with silica sand or other materials.

7a) Check for leaks resulting in improper flame hitting the thermocouple.

**8) Nature of Trouble: System shuts down after burning more than 5 minutes. Cold junction on thermocouple has overheated.**

8a) Front log positioned over thermocouple reflecting flame and heat onto thermocouple.

8a) If front log is laying flat, position the log on its edge such that the flat side is facing the back of the fireplace.

8b) Thermocouple knocked out of position or interfered with by grate.

8b) Reassemble thermocouple in its assembly and move the grate so that it will not interfere with thermocouple.

8c) Heating of thermocouple copper tubing via flame, contact with ember burner pan, grate or other materials.

8c) Assure copper tubing is not touching any materials and is routed approximately one inch off the fireplace floor and has a minimum of 1/2" air space surrounding the tubing.

8d) The firebox retains too much heat.

8d) If your fireplace has glass doors they must remain fully open. Make sure the damper is completely open during burning. Do not install safety pilot controls in stoves.

8e) Down drafts blowing flame on thermocouple.

8e) Correct down draft problems.

**9) Nature of Trouble: Pilot valve will not shut gas off.**

9a) Pilot valve has overheated possibly components and/or seals.

9a) Shield from heat, or move valve out of firebox. Assure not gaskets or seals have been damaged and causing leaks. Turn off gas at a secondary shut off. Correct reason for overheating and replace valve.