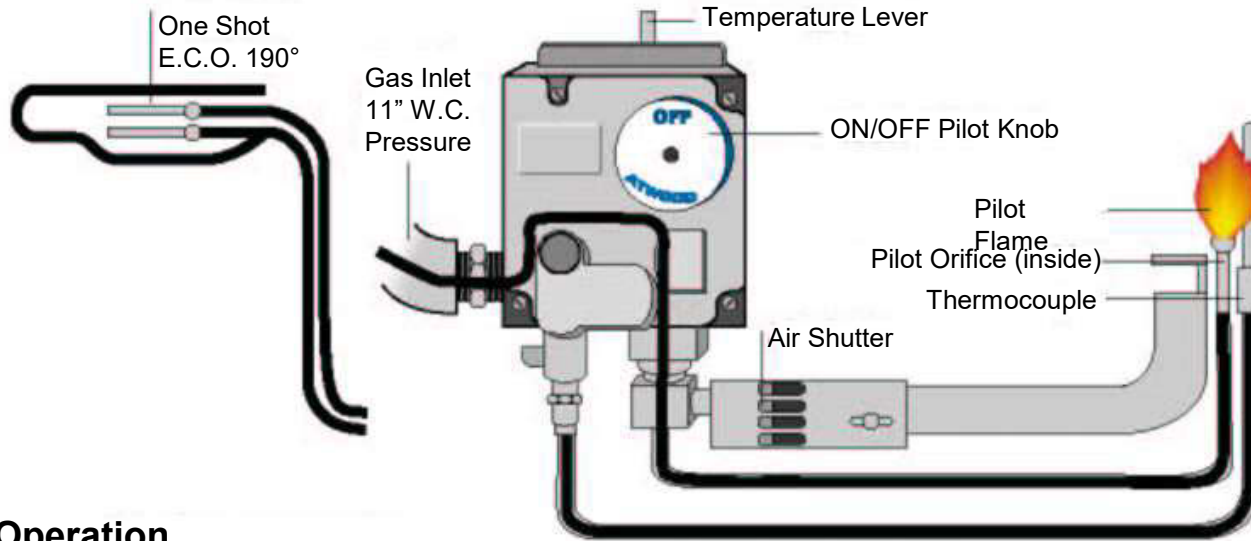


# Pilot Model



# Pilot Sequence of Operation



## Pilot Operation

- **Gas Operation**
- **Gas Control**
- **Pilot Orifice**

Meters gas to heat thermocouple. Flame should be high enough to engulf the thermocouple.
- **Thermocouple**

Generates millivoltage to the gas control's magnet assembly.
- **Magnet**

When it receives 12 millivolts or more it allows gas to flow freely to pilot without holding pilot knob.
- **E.C.O.**

Passes millivolts through the gas control and back to thermocouple. Trips permanently open if water temperature exceeds 190° F.

## Main Burner Operation

- **Gas Control**

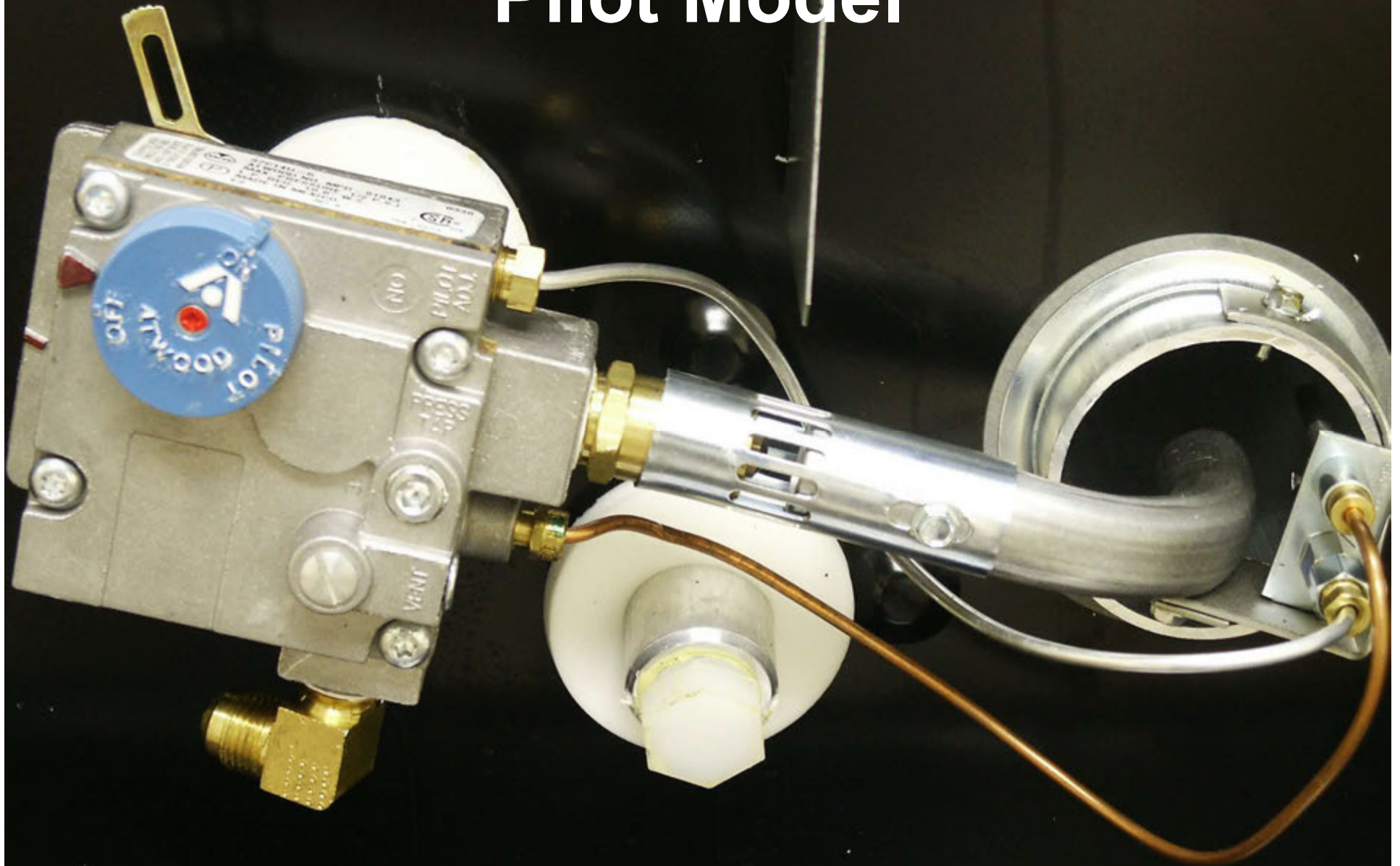
Supplies gas to main burner when control knob is set to "ON" position and the temperature lever is set to desired temperature after pilot is lit.
- **Main Burner Orifice**

Meters gas through the burner tube.
- **Main Burner**

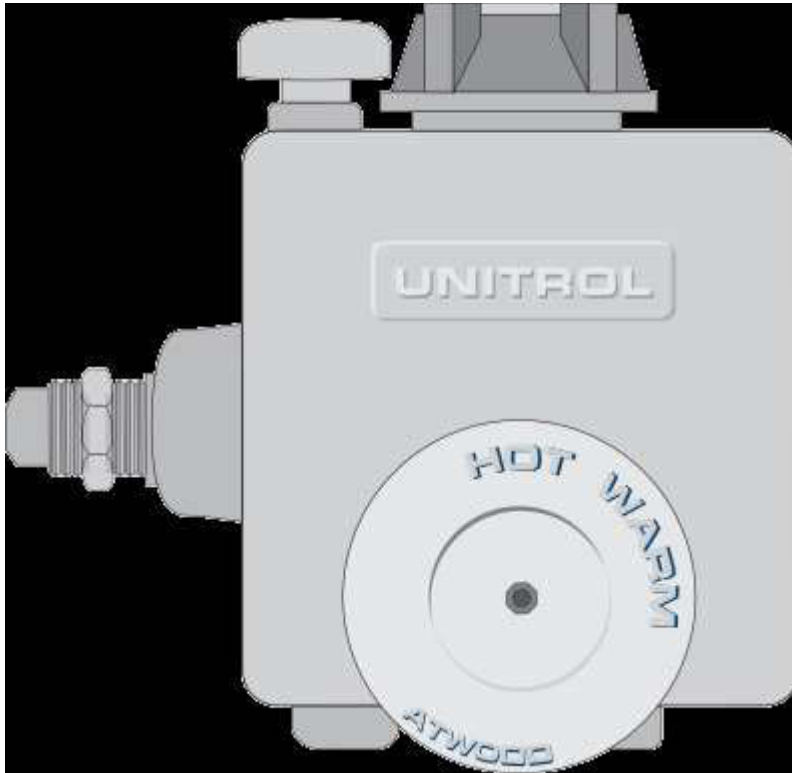
Pilot ignites gas when it reaches end of this tube. Flame height adjusted by sliding air shutter. Ideal setting is ¼ way open (.20). Flame should be primarily blue with trace of yellow.
- **Temperature Knob**

Setting of knob determines burner cycle and water temp. Temp range is 70-140°F.

# Pilot Model

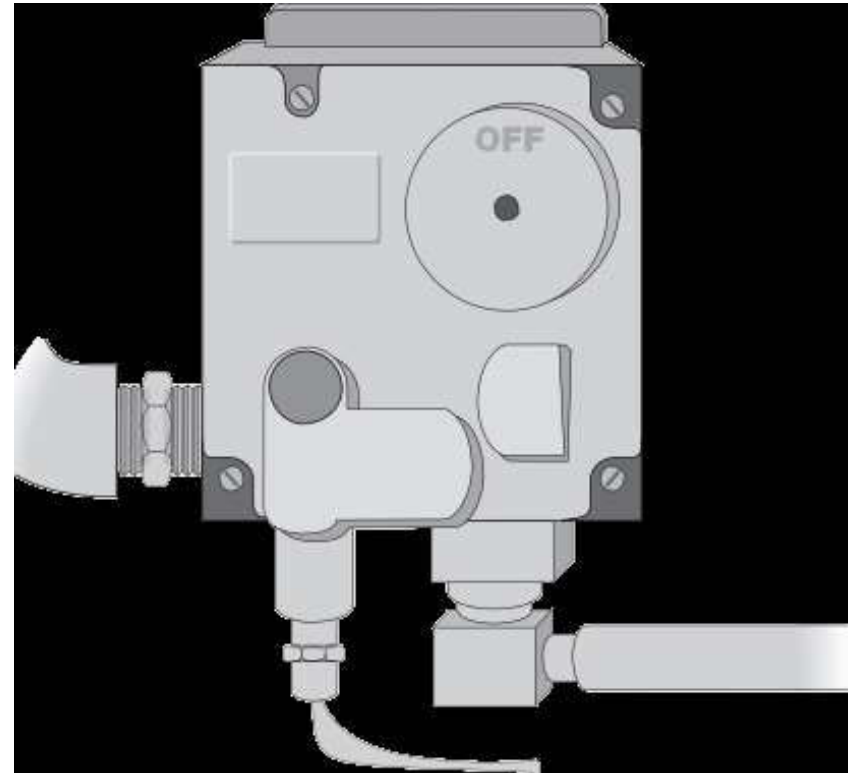


# New Pilot Valve 91602



## ROBERTSHAW "UNITROL"

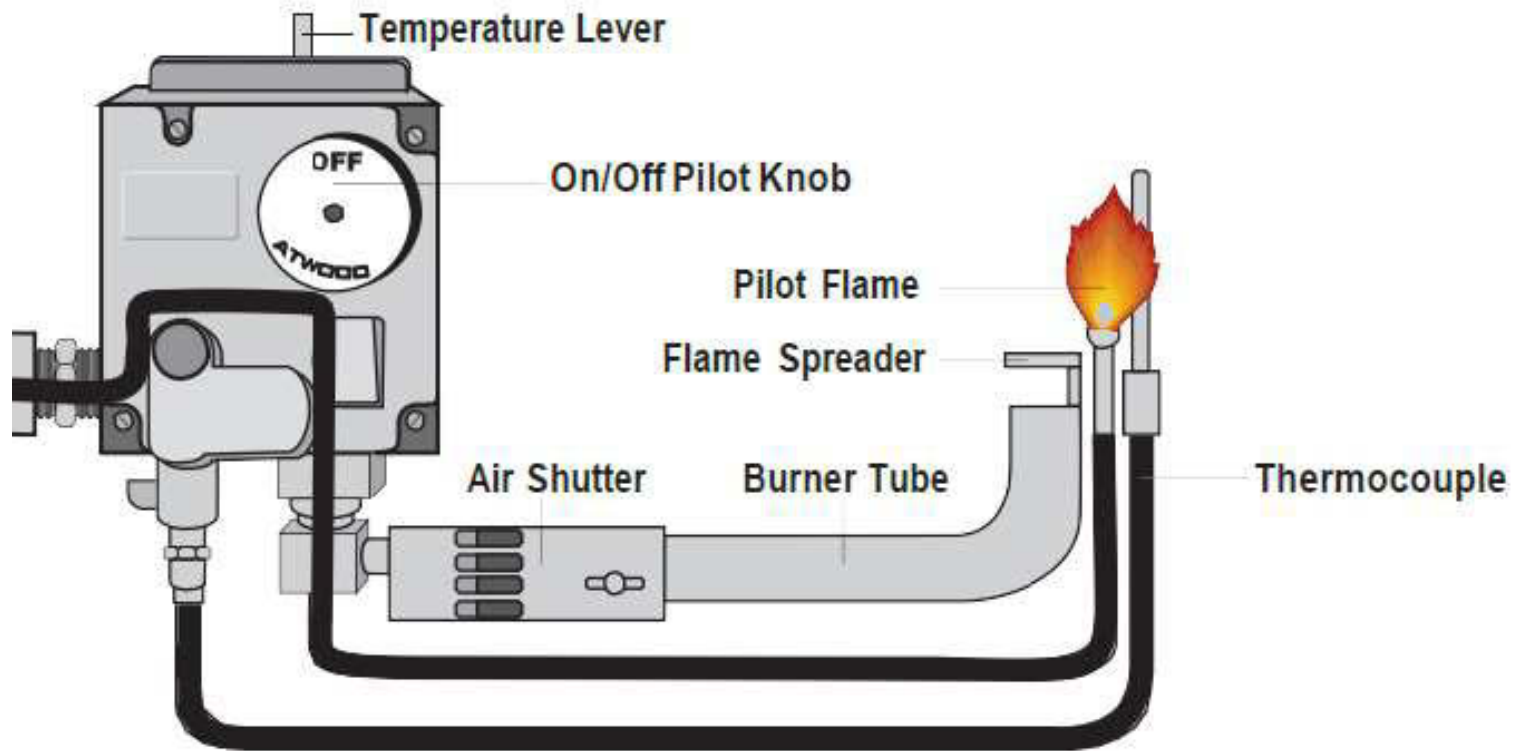
- 3/8" Inverted inlet 3/8" N.P.T. outlet  
**(no longer available)**
- 3/8" N.P.T. inlet 3/8" N.P.T. outlet



## WHITE RODGERS (JADE, ITT)

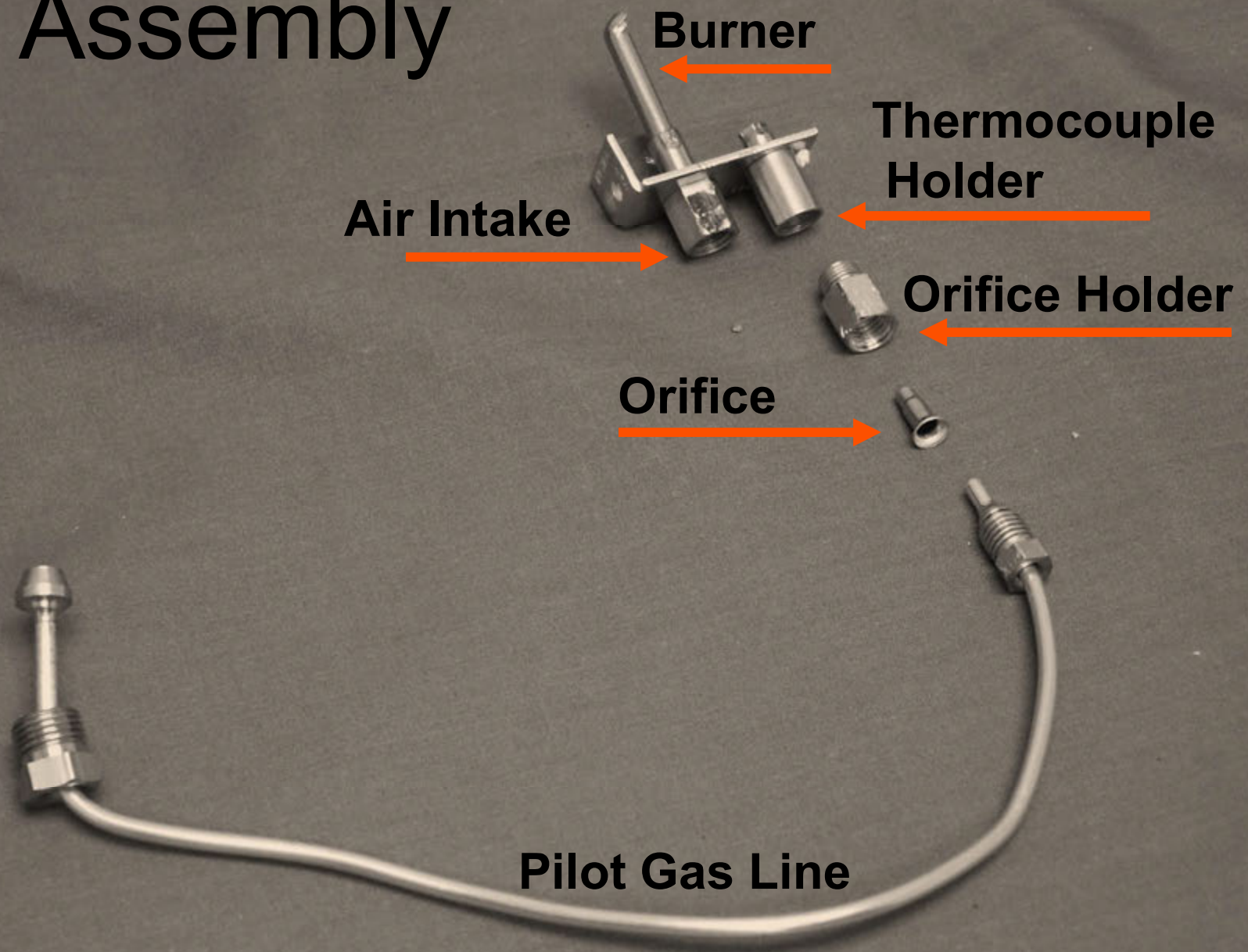
- 3/8" N.P.T. outlet  
**(no longer available)**
- 1/4" N.P.T. inlet 3/8" N.P.T. outlet  
(replaces all Robertshaw and Jade controls)

# Thermostat adjustment 70 to 140 F



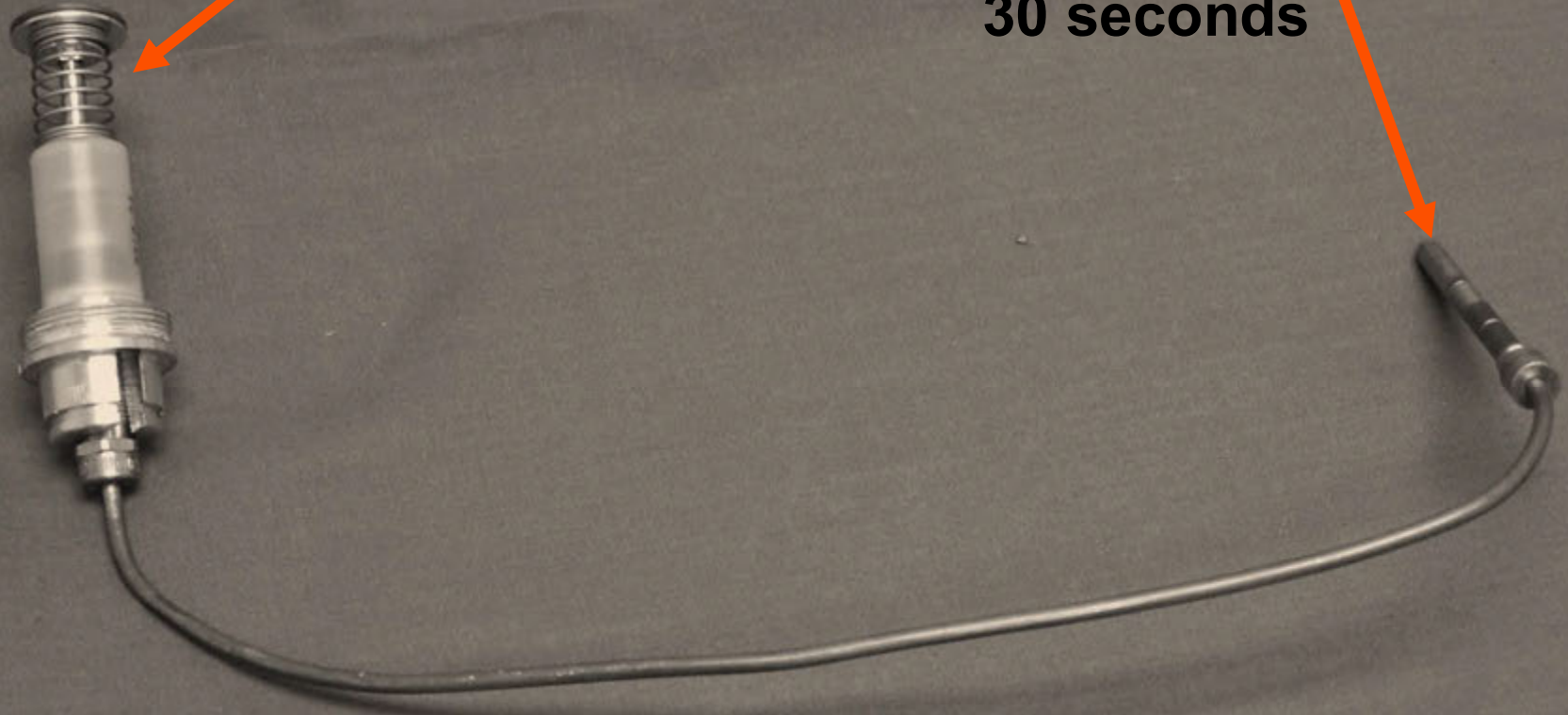


# Pilot Assembly



**Depress the  
plunger**

**Apply heat to  
thermocouple for  
approx.  
30 seconds**





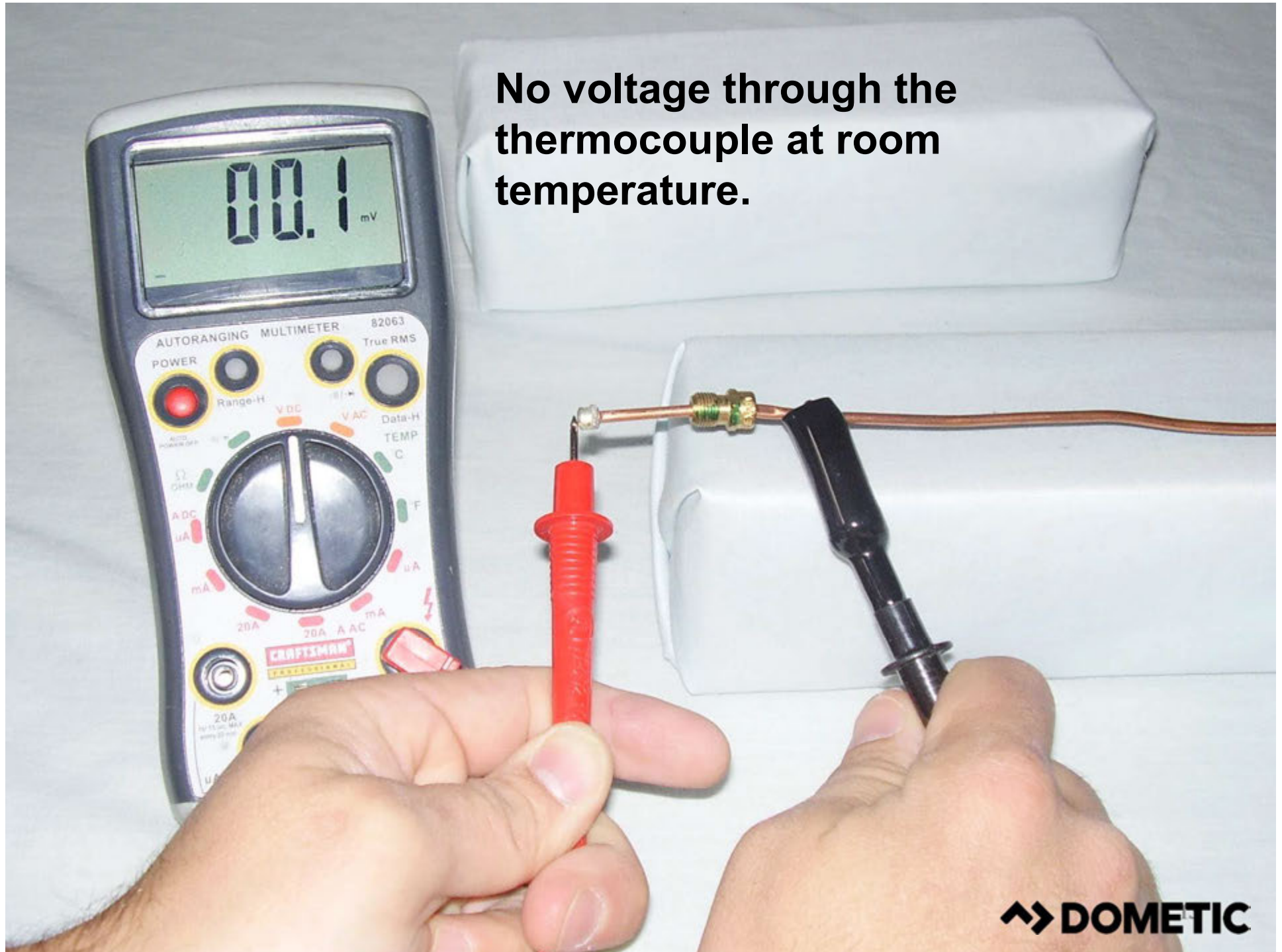
**Plunger stays in after heating the thermocouple or it's bad.**



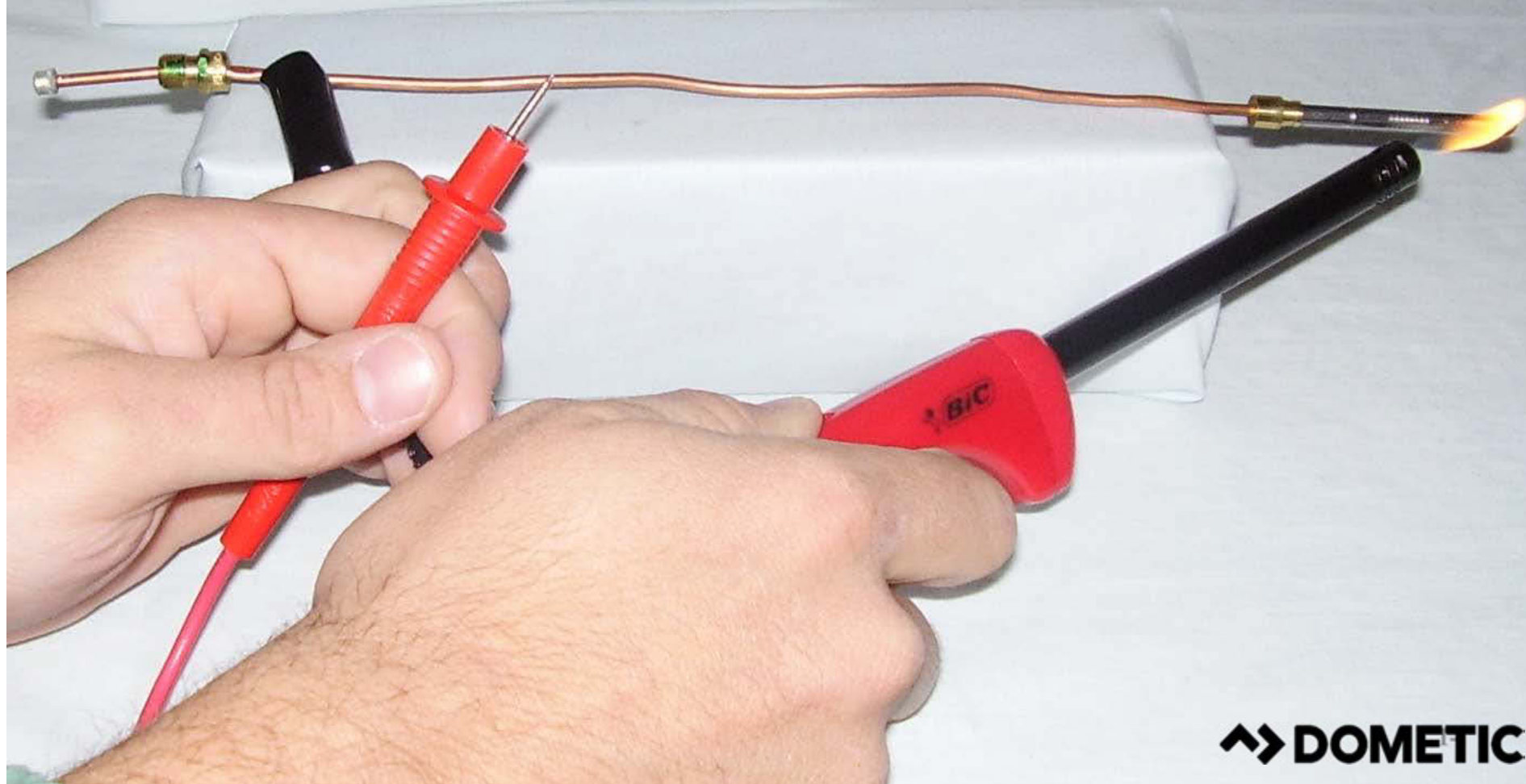
Connected to bottom  
of Robert Shaw Valve.  
Can be removed and  
used as testing tool.



**No voltage through the thermocouple at room temperature.**



**Apply heat for approximately 30 seconds.**

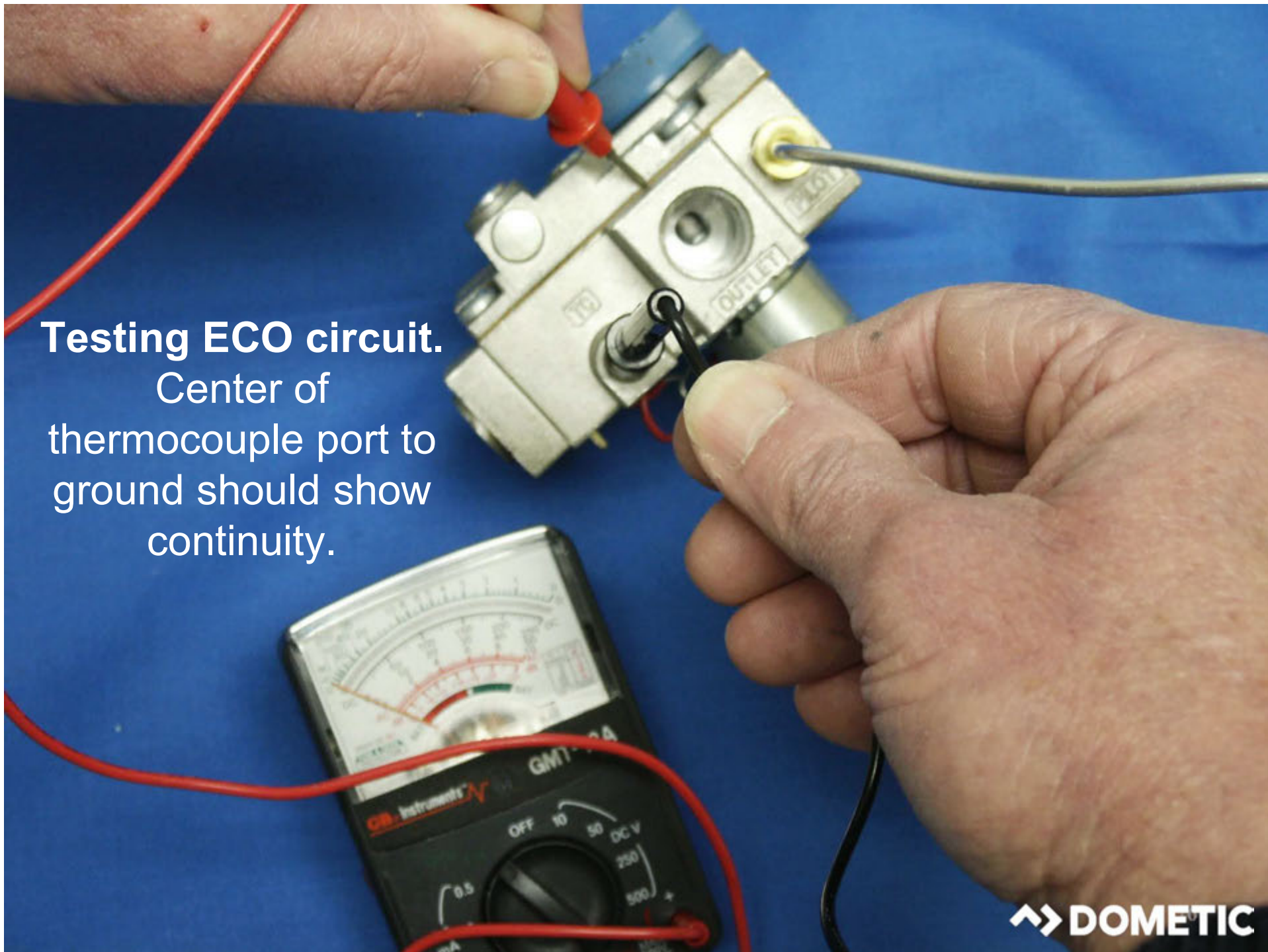




**You should have around  
16 to 21 MV's.**

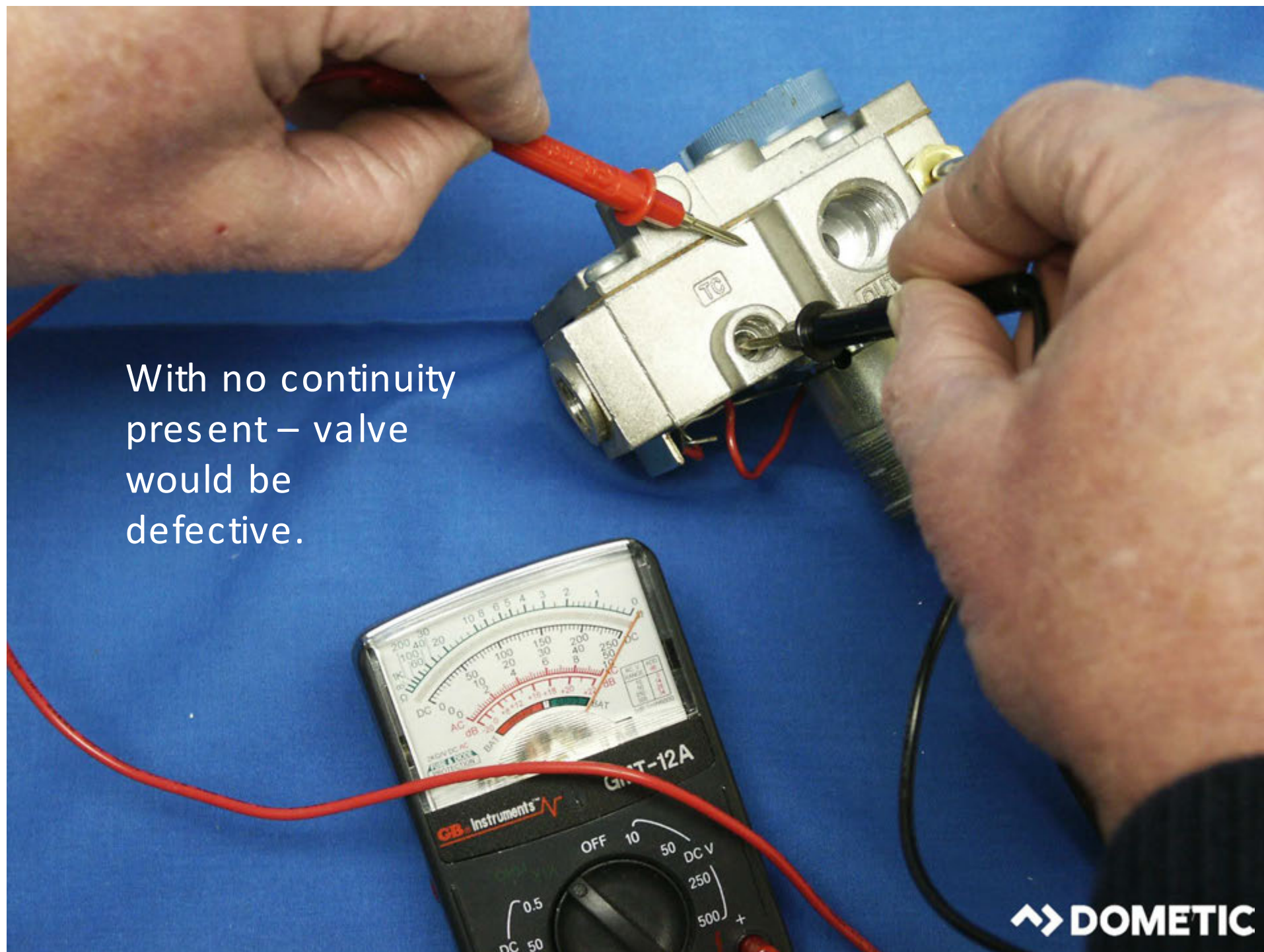


**Testing ECO circuit.**  
Center of  
thermocouple port to  
ground should show  
continuity.





With no continuity present – valve would be defective.



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You can find more RV service manuals here:

[www.myrvworks.com/manuals](http://www.myrvworks.com/manuals)

Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!



DARREN KOEPP - OWNER, MY RV WORKS, INC.

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