# Troubleshooting Procedure for HMI HOYME Motorized AUTOMATIC FLUE DAMPER - SERIES 'HAC - F' for GAS and OIL Burning Appliances

### TROUBLESHOOTING PROCEDURE:

A. Condition: Damper does not open or fully open when the stat asks for heat.

## Cause: This indicates

- 1) Signal is not getting through from the stat to the damper.
- 2) Mechanical friction with motor, motor gears or rotor spring.
- 3) Broken damper return spring.

### Procedure:

- 1a) Check in-line fuse (if used) between stat wire and damper black wire #1.
- 1b) Remove cover and with a jumper wire join terminals 1 & 5. If damper opens, a faulty stat is suspected.
- 1c) Turn Test/Run Switch to the 'Test' position and jumper terminals 1 & 2. If appliance does not fire, a faulty stat or stat circuit is confirmed.
- **2a)** If the damper has not been activated for a period of time, (e.g. summer months) the motor gears, being under continual pressure, might stick. If condition continues, replace motor.
- 2b) Motor gears wear with age causing increased friction which prevents the damper from opening freely. Replace motor.
- **2c)** Broken spring in the motor rotor. Remove broken spring with long nose pliers. The damper will continue to operate normally without the broken rotor spring.
- 3) Remove damper spring plate and replace with a new spring and plate.
- B. Condition: Damper does not close after appliance completes its firing cycle.

# Cause: Indicates

- 1) Test/Run switch is not in the 'run' position
- 2) A faulty relay
- 3) No power supply
- 4) A Faulty motor.

### Procedure:

- 1) Check Test/Run switch to be in the up 'RUN' position.
- 2) Remove control body cover and use a jumper between terminals 3 & 4. If damper closes, a faulty relay is indicated.
- 3) Check power supply to terminals 3 & 5.
- 4) Connect power supply to terminals 4 & 5. No response indicates a faulty motor.
- C. Condition: Damper opens on stat signal but appliance does not fire.

# Cause: This indicates:

- 1) Appliance circuit faulty.
- 2) A faulty end switch.

### Procedure:

- 1) The Flue Damper is interlocked with the heating appliance control system. This feature is by-passed by switching the TEST/RUN switch down to 'TEST' and putting a jumper to terminals 1 and 2. If heating appliance does not fire, a faulty heating safety circuit is suspected.
- 2) If appliance fires, a faulty end switch is suspected.

<u>Note:</u> The TEST/RUN Switch is used for trouble shooting. It can also be left in the DOWN 'TEST' position during the summer months which will leave the damper continually open. This will leave the damper motor in neutral to extend the life of the motor.

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