

Installation Instructions for **HMI** HOYME RADP-0241-10A  
C/W Duplex Split Receptacle- (one side Live and one side Controlled).  
24Vac Controlled Voltage Switches 24Vac and/or 120Vac Circuits

**INSTALLATION OF THIS ADAPTOR SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION**

**RADP-0241-10A**



4" x 5" x 2 1/2"  
101 x 127 x 64 mm

This Interface Adaptor comes with a Relay **24Vac Coil SPDT** to develop a **10A** contact capacity and a Relay **24Vac Coil DPDT** to develop multiple contact points together with a split **Duplex Receptacle**. The split Receptacle provides a controlled plus a continuous 120Vac power supply outlet. The two 24Vac Coils are connected in parallel and therefore act as one relay. This Adaptor allows for a 24Vac circuit such as a furnace safety control circuit or a 24Vac damper with end switch to control a 120Vac PLUG-IN fan for ventilation, zone control or fresh air control.

**Fitness of this Adaptor/Damper combination to satisfy air supply requirements for fuel fired appliances during operation of the interconnected exhaust fan(s) shall be investigated by the enforcing authorities.**

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Air intake duct installation shall be in accordance with: In Canada - CAN/CSA B149 & B139; In the USA -ANSI NFPA 2006, ANSI Z223. 1 and/or local codes including local codes relating to ventilation air duct installation.

**I.D.: RADP-0241-10A Includes two relays** with 24Vac coils in parallel and acting as one relay:  
c/w - Relay SPDT: Coil-24Vac. Points-120V-10A;  
c/w - Relay DPDT: Coil-24Vac. Points- 24V-05A  
1 Split Receptacle

If connecting to a heating appliance, use one Adaptor only for each appliance.

- Line voltage leads, connected to the Adaptor shall be suitably cabled, fastened and enclosed in suitable raceways.
- Refer to local and applicable codes.
- Always conduct a thorough check-out after Installation is complete.
- Affix appropriate labels and follow Instructions and warnings on each label.

**NOTE; THE FOLLOWING HOOK-UP PROCEDURES ARE SUGGESTIONS AND DO NOT LIMIT THE USES OF THIS ADAPTOR. Follow Applicable Codes.**

1. Turn off electrical power supply to both the appliance and the power supply for Adaptor.
2. CONNECT LINE VOLTAGE LEADS TO THE SPLIT RECEPTACLE (LIVE SIDE ONLY) with the line (WHITE) wire to the shiny screw and the line live wire to the darker screw. (DO NOT CONNECT LINE VOLTAGE TO THE CONTROLLED SIDE OF THE RECEPTACLE.)

**Suggestions for the use of RADP-0241-10A:**

**1. Operating a Plug-In Booster Fan to run during furnace firing:**

- a) Connect ADP #1 to furnace 'W'.
- b) Connect ADP #3 to furnace 'C' or to ground.
- c) Turn on the power for the furnace and set the thermostat to ask for heat. The Controlled side of the Adaptor becomes active causing the plug-in fan to run.

**2. Using A MOTORIZED DAMPER(S) to operate during furnace firing:**

- a) Follow procedure a) and b) in instruction #1.
- b) Connect ADP #2 to R on the furnace.
- c) Connect one damper wire to the furnace 'C' or to ground. Connect the other damper wire to ADP #4 if using a Power Close (PC) damper OR connect to ADP #5 if using a Power Open (PO) damper.

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- d) Turn on the 120Vac power to the Furnace.  
NOTE: At this time, a Power Close Damper will close or a Power Open Damper will remain closed.
- e) Turn the thermostat to ask for heat and the motorized damper will open.

### 3. Combine #1 & #2.

- a) This accommodates a plug-in booster fan and motorized damper to operate simultaneously while the furnace is firing.

### 4. TO EXHAUST AIR FROM A BATHROOM use a Motorized Damper with an End Switch activated by a controlled 24Vac transformer for each bathroom to simultaneously activate a plug-in type central exhaust fan, a furnace fan and a fresh air inlet damper.

**Required:** One Adaptor, One Central Plug-in Exhaust Fan and One Fresh Air Inlet Damper.

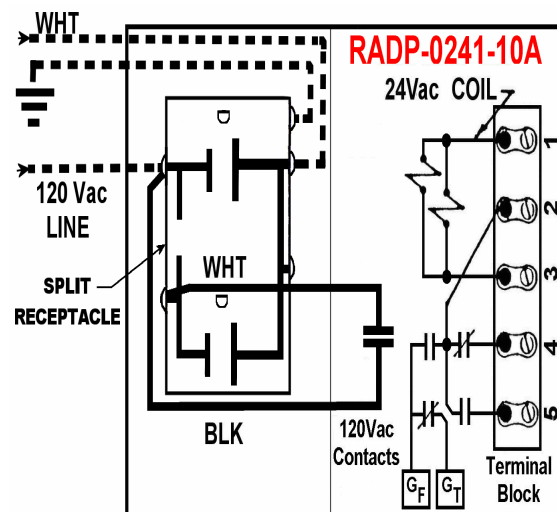
#### **Required for each Bathroom:**

One 24Vac Transformer and One Exhaust Damper with End Switch.

- a) Turn off power supply to both sources being connected to this Adaptor/Damper combination.
- b) Connect line voltage leads to the LIVE side of the Receptacle. Follow applicable Codes.
- c) Use a 24Vac transformer for each bathroom to operate its own 24Vac Damper with an end switch.

- d) Connect one side of the Damper End Switch(s) to **R** of the furnace and the other side of the End Switch(s) to **#1** of the Adaptor.
- e) Connect **#3** of the Adaptor to **C** or a ground screw on the Furnace.
- f) Jumper **#1 & #2** of the Adaptor and connect 'Gf' of the Adaptor to 'G' of the Furnace.  
NOTE: If a Heat/Cool thermostat is used, remove wire connected to 'G' of the furnace and connect thermostat 'G' wire to 'Gt' of the Adaptor.
- g) If system is equipped with a fresh air supply duct, control this air by using a Power Open Damper and connect to terminal **#5** of the Adaptor and to 'C' or to a ground screw on the furnace.

### SCHEMATIC WIRE DIAGRAM OF ADAPTOR RADP- 0241-10A



Note: This marking is also on the cover of the Adaptor unit.

**HMI** HOYME Manufacturing Inc.