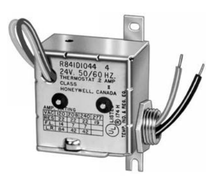
Honeywell Home

R841C, D, E, F and G Electric Heating Relays

PRODUCT DATA

R841C



R841D

R841E

APPLICATION

The R841 Electric Heating Relays are for use with two wire, low voltage thermostats to provide control of electric heating equipment.

FEATURES

- **Quiet, reliable operation.**
- **Suitable for controlling all 24Vac 2 wire heating only thermostats.**
- **Versatile mounting.**
- **R841C models include the enclosure and an integral transformer.**
- **R841D models have an enclosure but are without transformer.**
- **R841E models contain two switches, have an enclosure and an integral transformer.**
- **R841F models are without enclosure, with integral transformer.**
- **R84 1 G models are without enclosure and transformer.**
- **Conduit bushing for easy mounting (on C and D models).**
- **Compact size allows mounting in difficult to access locations.**
- **Rated for baseboard loads up to 6 kW.**
- **C.S.A. and U.L. approved.**

Contents

95C-10090B-04

SPECIFICATIONS

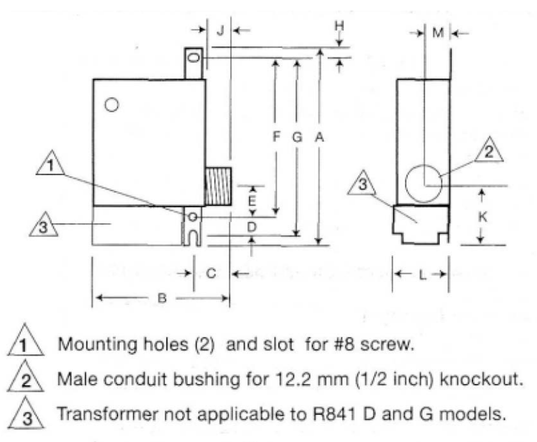
Table 1. Models.

RE41 Family	Integral Transformer	Enclosure with conduit bushing	120/240/277 Vac 50/60 Hz	24 Vac 50/60 Hz	Dual Load
R841C	•	•	•		
R841D		•		•	
R841E	•	•	•		•
R841F	•		•		
R841G				•	

Operating Range: -30 to 65°C (-20 to 150°F)
CSA Certified, UL Listed, File No. E47434 Guide XAPX

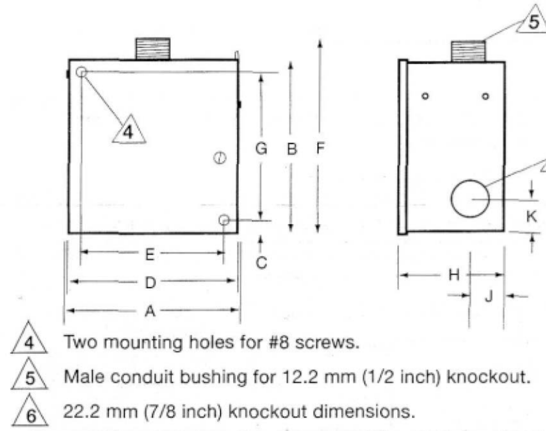
Table 2. Device Ratings (Models C, D, E, F, G)

Volts (50-60 Hz)	120	208	240	277	347	600
Resistive	22	22	22	19	18	10
Full Load Amps	14	8	7	5	5	3
Locked Rotor Amps	84	42	42	36	29	17



Key	A	B	C	D	E	F	G	H	J	K	L	M
mm (nom.)	95	65	20	10	20	75	85	5	10	35	40	15
Inches	3-1/4	2-3/8	3/4	15/32	3/4	2-29/32	3-3/8	1/4	7/16	1-15/32	1-1/2	5/8

Fig. 1. R841C,D nominal dimensions in millimeters. (inches).



Key	A	B	C	D	E	F	G	H	J	K
mm (nom.)	100	105	10	98	80	120	85	85	20	20
Inches	3-15/16	4-1/8	3/8	3-7/8	3-1/8	4-13/16	3-3/8	3-1/2	7/16	13/16

Fig. 2. R841E nominal dimensions in mm (inches).

Operation

On a call for heat, the thermostat energizes the low voltage resistance heater in the R841, which drives an ambient compensated bimetal to operate a SPST MicroSwitch™ snap switch. From a cold start (and with 24Vac applied and within the ambient temperature range), the R841 switch contacts make between 40-80 seconds after a call for heat. The R841 switch contacts break up to 90 seconds after a call for heat ends.

Installation and Wiring

When Installing This Product

1. Read these instructions carefully. Failure to follow the instructions provided could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product

Run wiring to mounted relay and connect according to system selected.

IMPORTANT:
All wiring must agree with applicable codes in such matters as wire size, insulation, and enclosure.

⚠ CAUTION

1. Disconnect power supply before installing to prevent electrical shock hazard.
2. Installer must be a trained, experienced service technician.
3. All wiring must comply with national and local electrical codes, ordinances, and regulations.
4. Provide disconnect means and overload protection as required.
5. Do not install where excessive humidity combined with temperature change can result in water condensation on the unit.
6. Do not surround the R841 with insulation which could elevate the internal temperature above 65°C (150°F).

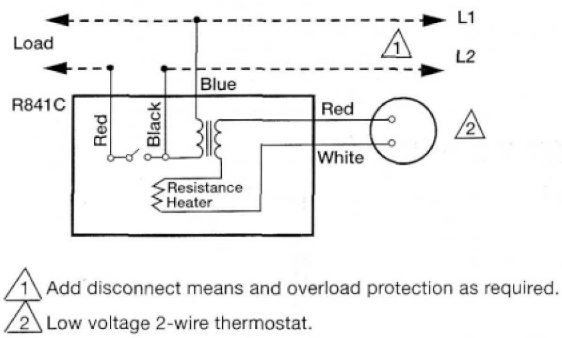


Fig. 3. R841C, F internal schematic and wiring diagram.

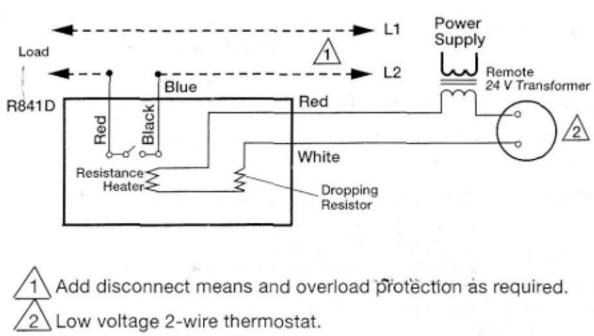


Fig. 4. R841D and G internal schematics and connection diagram.

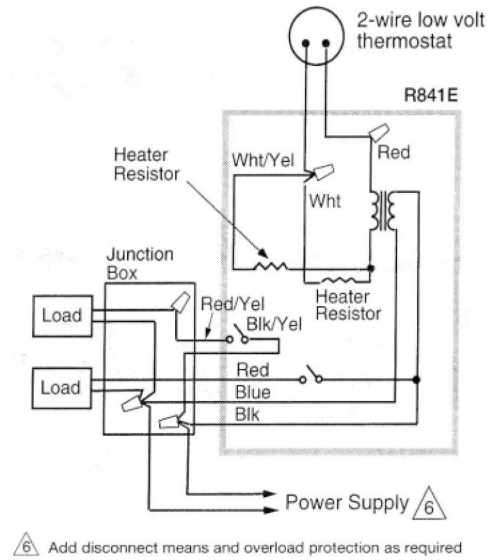


Fig. 5. R841E Internal Schematic and connection diagram.

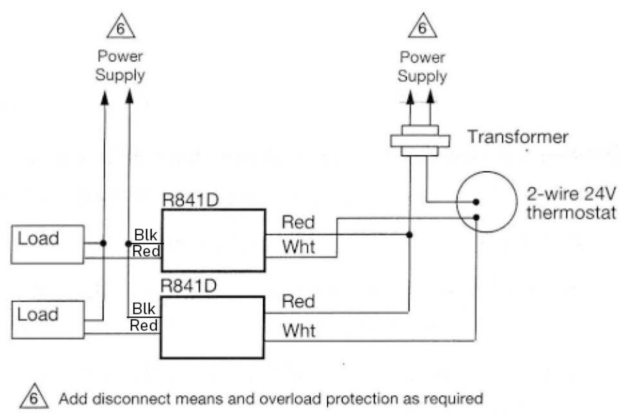


Fig. 6. Connections showing 2 R841D used with one transformer and thermostat. If mechanical thermostat is used, set thermostat anticipator at 0.4 A.

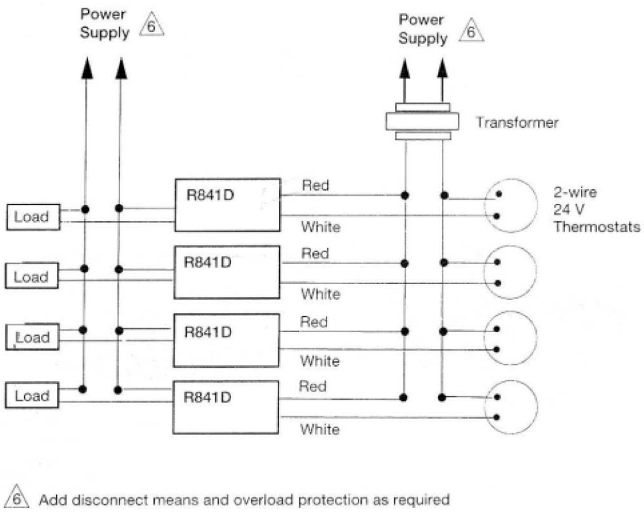
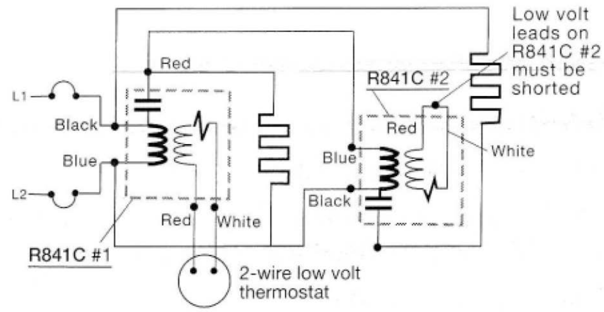


Fig. 7. Connections for 4 R841D relays and thermostats used with one transformer. If mechanical thermostats are used, set thermostat anticipators at 0.2 A.



Notes
1) *Both* R841 loads must be fed from the same branch circuit.
2) R841 #1 switches power only to its own load, and transformer of R841 #2.
3) *Neither* L1 nor L2 may be identified (neutral) conductor . This circuit useful only for 208, 240 single phase, 480 and 600 V supplies. It may not be used on 120, 240 three-phase/4 wire, 277 or 347 V supplies.
4) R841 #2 will stage on and of f after #1, according to its time delay

Fig. 8. Controlling 2-R841C self-powered electric heat relays from one thermostat.

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www.resideo.com
Resideo Technologies, Inc.
1985 Douglas Drive North, Golden Valley, MN 55422
1-800-468-1502
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