

RA889A Switching Relay

PRODUCT DATA



FEATURES

- High load switching capability.
- Troubleshooting LED.
- Push-to-test button.
- Replaceable transformer fuse.
- Long-life DC relay drive control technology.
- Relay for use with external 24 Vac or 24 Vdc supply, with line-voltage control, or with internal 24V transformer supply.
- One model replaces many Honeywell models. (See Table 1 Replacement Cross Reference.)

APPLICATION

The RA889A Switching Relay provides intermediate switching of line- and low-voltage devices from a line- or low-voltage controller and is typically applied in hydronic heating systems.

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The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not exactly match the listed specifications. Also, this product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.

ORDERING INFORMATION

The image contains three technical drawings of the M17512 enclosure, showing front, top, and side views with dimensions in inches and millimeters.

Front View:

- Overall width: 4-7/16 (118)
- Overall height: 2-1/8 (54)
- Mounting hole diameter: 7/8 (22)
- Keyhole type mounting hole: 3/16 (5) diameter
- Mounting hole diameter: 3/8 (10)

Top View:

- Overall width: 3-11/16 (94)
- Overall height: 6-1/4 (159)
- Mounting hole diameter: 7/32 (6)
- Keyhole type mounting hole: 5-3/8 (137)
- Mounting hole diameter: 5/16 (8)

Side View:

- Overall width: 1-1/16 (27)
- Overall height: 3-1/2 (89)
- Knockout for 1/2 (13) conduit: 1-1/4 (32)
- Mounting hole diameter: 2-3/16 (56)

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Cross Reference: The RA889A replaces many Honeywell models. See Table 1 for additional cross reference information.

Replacement Parts:
32002190-001 Replacement Relay.
Relay Fuse: 1A automotive fuse.

Thermostat Compatibility: All Honeywell electromechanical and most electromechanical 2- or 3-wire. Select thermostats with 0.12A heating anticipator setting to match the electrical rating of the switching relay.

Table 1. RA889A Replacement Cross Reference.

Manu- facturer	Model	Connections										Comments
		Input Line Voltage		Power Relay			Low Voltage Relay		Thermostat			
Honeywell	RA889A	L1	L2	COM	N.O.	N.C.	X1	X2	W(T)	R(T)	C	—
Honeywell	RA89A ^a	1	2	3	4	—	—	—	T	T	—	—
	R182A ^a	1	2	7	8	—	B	R	See Fig. 6 thermostat connections			Jumper L1 to COM and between X1 and R(T) in RA889A.
	R182B	1	2	8	6	7	B	R				Requires jumper between X1 and R(T).
	R182C ^b	1	2	8	6	7	B	R				
	R482B	1	2	8	6	7	—	—	Jumper R(T) to W(T).			Line voltage switched inputs go to L1 and L2. See Fig. 7B.
	R482C ^b	1	2	8	6	7	—	—				
	R482J ^b	1	2	6	8	7	—	—				Line voltage inputs go to L1 and L2. See Fig. 7B.
	R882A ^a	—	—	8	7	—	—	—	W	—	B	—
	R882B	—	—	8	6	7	—	—	W	—	B	
	R882C ^b	—	—	8	6	7	—	—	W	—	B	
R882J ^b	—	—	6	8	7	—	—	1	—	2		

^a RA889A has one set of COM/N.O. relay contacts. Use R8845U if two sets are required.

^b RA89A has lower output load rating. Check load requirements.

INSTALLATION

When Installing this Product . . .

1. Read these instructions carefully. Failure to follow them 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 operation as provided in these instructions.
5. Follow local codes for installation and application.



WARNING

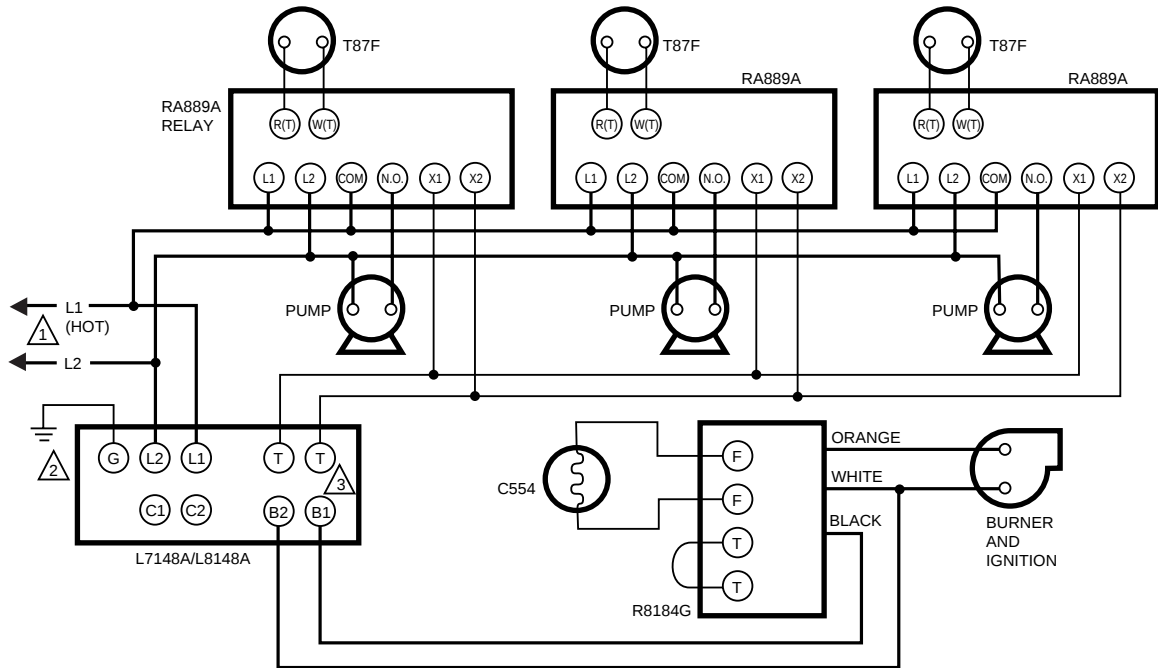
Electrical Shock Hazard.
Power supply can cause severe injury or death.
Transformer core not bonded.
Disconnect power supply before wiring.

MOUNTING

In replacement applications, mount the new relay in the same location as the old relay. For new installations, locate the relay vertically on a solid wall or partition as close as possible to the device to be controlled. Select a location that is easily accessible for installation and service.

NOTE: To reduce the possible transformer hum and relay noise that is sometimes amplified by mounting surfaces such as sheet metal, plasterboard, and similar materials, place rubber or felt washers between the case and the mounting surface.

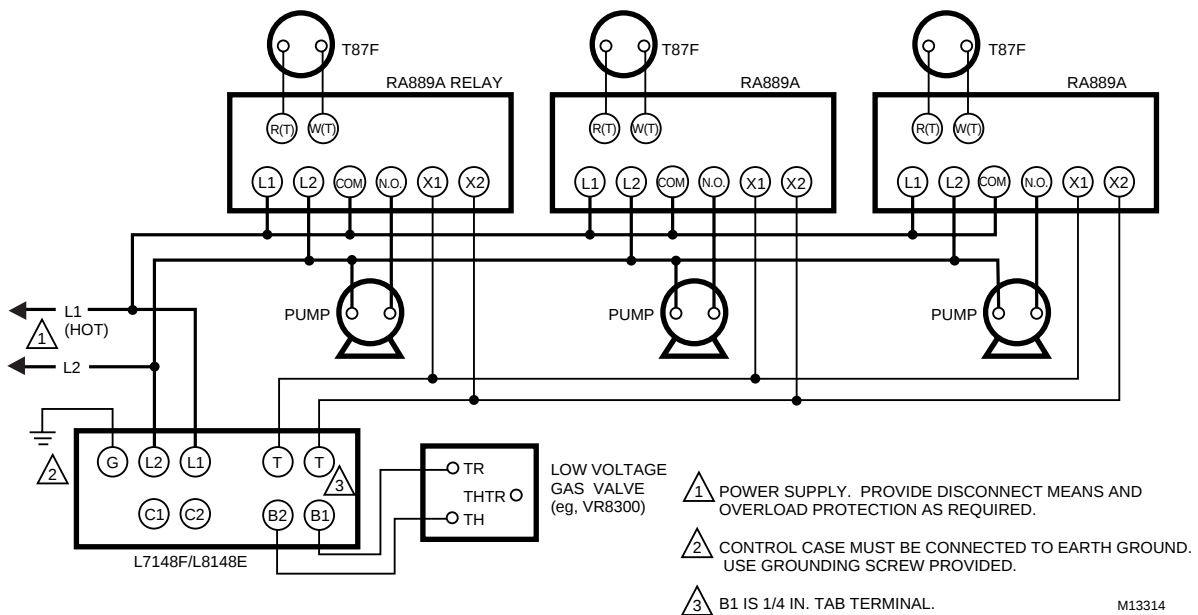
1. Position the relay and mark the mounting holes. See Fig. 1.
2. Start a screw in the upper right corner for the keyhole type mounting hole. Screw it down within about 1/8 in. (3 mm) of the surface.
3. Hang the relay on the screw, position the case, and start the bottom screw.
4. Tighten both screws.



- 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- 2 CONTROL CASE MUST BE CONNECTED TO EARTH GROUND. USE GROUNDING SCREW PROVIDED.
- 3 B1 IS 1/4 IN. TAB TERMINAL.

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Fig. 3. RA889A hookup for L7148A/L8148A in an oil-fired, tankless hot water, zoned, pump system.



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Fig. 4. RA889A hookup for L7148F/L8148E in a gas-fired, 24V, zoned, pump system.

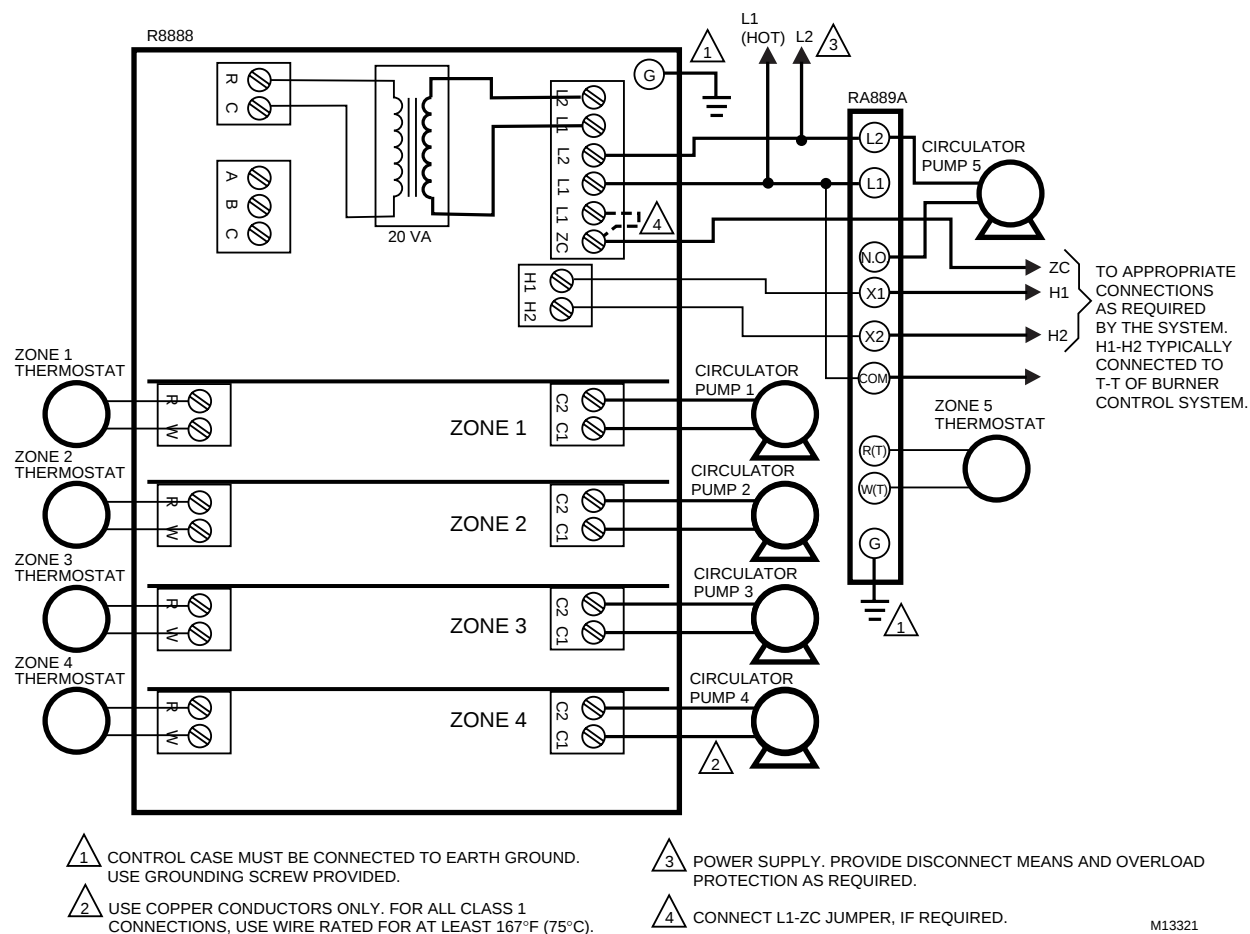


Fig. 5. R8888 zone expansion using RA889A Switching Relays.

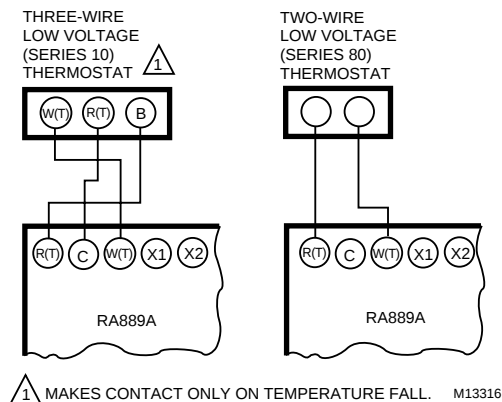
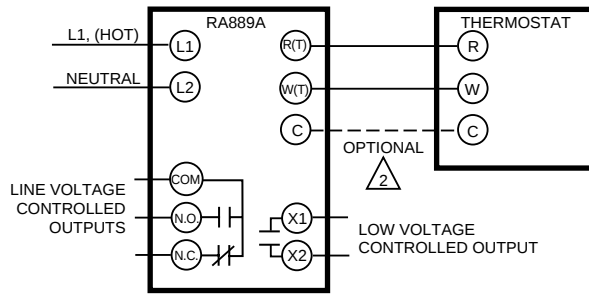
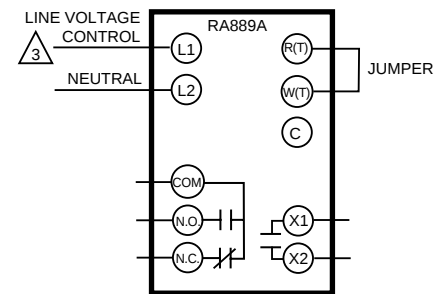


Fig. 6. RA889A thermostat connections.

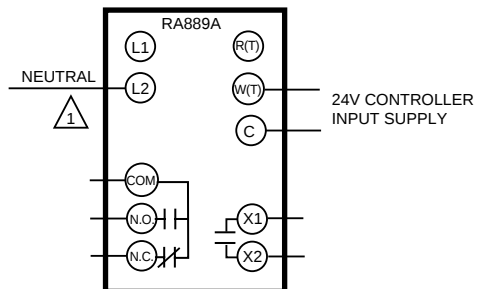
A. FOR 24V THERMOSTAT CONTROL



B. FOR LINE VOLTAGE CONTROL



C. FOR EXTERNAL SEPARATE LOW VOLTAGE POWER SOURCE



1 REQUIRED FOR OUTPUT LED OPERATION.

2 FOR SERIES 10 OR OTHER HARDWIRED ELECTRONIC 3-WIRE THERMOSTATS.

3 **WARNING!** ELECTROCUTION HAZARD. POWER SUPPLY CAN CAUSE SEVERE INJURY OR DEATH. DISCONNECT POWER BEFORE WIRING OR SERVICING L1. POWERED RELAYS MUST BE WIRED AS DRY CONTACTS.

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Fig. 7. RA889A control options.

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