



WHITE-RODGERS

11A79-2

**Direct Immersion
Hot Water Control
INSTALLATION INSTRUCTIONS**

Operator: Save these instructions for future use!

**FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY
BEFORE INSTALLING OR OPERATING THIS CONTROL COULD CAUSE
PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

DESCRIPTION

This control is designed for use on hot water heating systems.

It has a coiled element that is immersed directly into the boiler water. This feature gives an unusual speed of response to rapid changes of water temperature thereby preventing thermal lag.

This control has single-pole, double-throw switch action, offering terminals that have open-on-rise switch action as well as close-on-rise switch action. It may be used as a high limit control, low limit control, circulator control, or as a combination low limit and circulator control.

PRECAUTIONS

THIS CONTROL MUST BE INSTALLED BY A QUALIFIED INSTALLER.

Do not exceed the specification ratings.

All wiring must conform to local and national electrical codes and ordinances.

This control is a precision instrument, and should be handled carefully. Rough handling or distorting components could cause the control to malfunction.

This control has been accurately calibrated at the factory. Any attempt to calibrate this control will void the White-Rodgers warranty.

⚠ CAUTION

To prevent electrical shock and/or equipment damage, disconnect electric power to system at main fuse or circuit breaker box until installation is complete.

⚠ CAUTION

Shut off main gas to heating system until installation is complete.

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

Following installation or replacement, follow appliance manufacturer's recommended installation and/or service instructions to insure proper operation.

⚠ WARNING

Do not use on circuits exceeding specified voltage. Higher voltage will damage control and could cause shock or fire hazard.

INSTALLATION

If the boiler manufacturer recommends a control location, follow such recommendations. If none is offered, the following information gives suggested locations.

For high limit service, the control should be located in the hottest part of the boiler. This is usually at the top of the boiler. A high limit control should **not** be located in the section of the boiler that contains the heat exchanger that supplies domestic hot water.

For low limit or operating service, the control should be located so that it responds to the temperature of the section of the boiler that heats domestic hot water.

When used as a circulator control, it may be located near the boiler outlet or riser.

When used as a combination low limit and circulator control, it should be located the same as suggested for low limit service.

When tightening the control into the boiler, care should be taken to apply all leverage to the hexagonal nut only to avoid damage to the diaphragm or control mechanism.



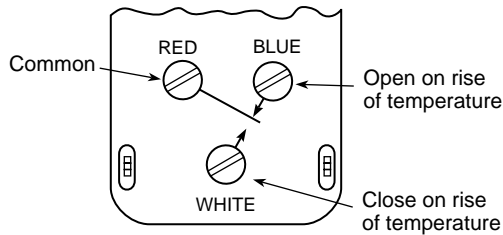
WHITE-RODGERS DIVISION
EMERSON ELECTRIC CO.
9797 REAVIS ROAD
ST. LOUIS, MISSOURI 63123-5398

Printed in U.S.A.

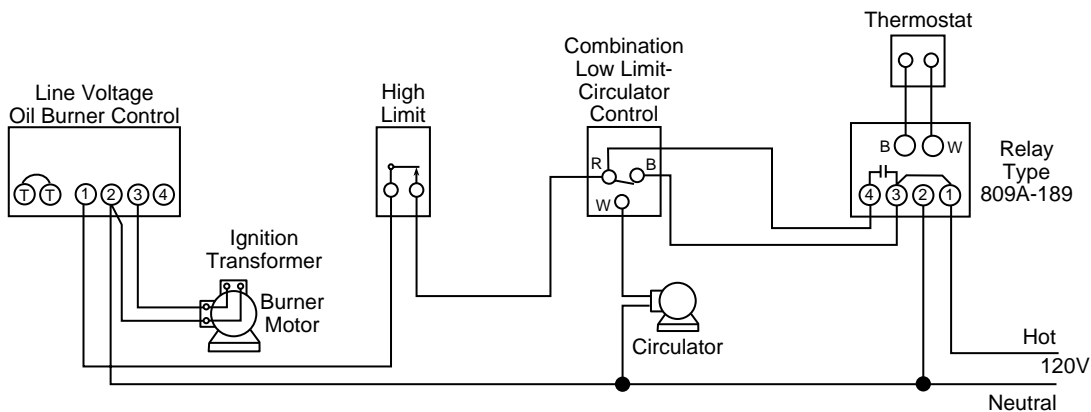
PART NO. 37-1022B
Replaces 37-1022-A
9520

NOTE

All wiring should be done according to local and national electrical codes.



If the boiler or burner manufacturer recommends a wiring diagram, then follow such recommendations. If none are offered, the instruction sheet for the primary control (gas valve or oil burner control) may offer some suggested circuits.



The low limit side of the low limit/circulator control maintains domestic hot water temperature all year around. When the room thermostat calls for heat, the burner and

This control has a single-pole, double-throw snap action switch. The top left-hand terminal (red) is the common terminal. The top right-hand terminal (blue) has open-on-rise switch action. The bottom center terminal (white) has close-on-rise switch action.

Limit Control: When used as either a high limit control or a low limit control, use the open-on-rise terminals (red and blue).

Circulator Control: When used as a circulator control, use the close-on-rise terminals (red and white).

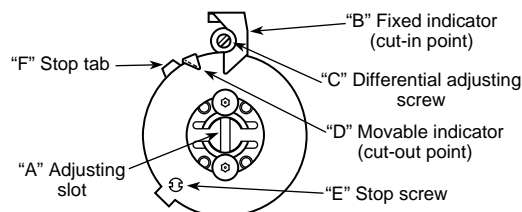
Combination Low Limit and Circulator Control: For this application, all three terminals are used.

The following wiring diagram shows a typical circuit for an oil-fired system with domestic hot water without storage tank.

circulator operate. If boiler water temperature drops too low, the circulator will stop until the temperature rises in boiler.

SETTING THE CONTROL

1. Use a screwdriver in the adjusting slot (A) on the front of the control to turn the dial so the fixed indicator (B) points to the lowest temperature of the cycle.
2. Turn the differential adjusting screw (C) until the movable indicator (D) points to the highest temperature of the cycle.



The movable indicator points to the temperature at which the contacts open on **high limit** and **low limit applications**. On circulator applications, the movable indicator points to the temperature at which the circulator will start.

On combination low limit and circulator applications, the movable indicator points to the temperature at which the low limit will stop the burner and permit the circulator to run.

CONTROLS WITH ADJUSTABLE STOPS

1. Loosen stop screw (E) with enclosed wrench.
2. Set dial to original equipment manufacturer's specification.
3. Without moving the dial, move stop tab (F) against indicator.
4. Re-tighten stop screw (E).

CAUTION

Setting stop higher than control being replaced could cause personal injury and/or property damage.