

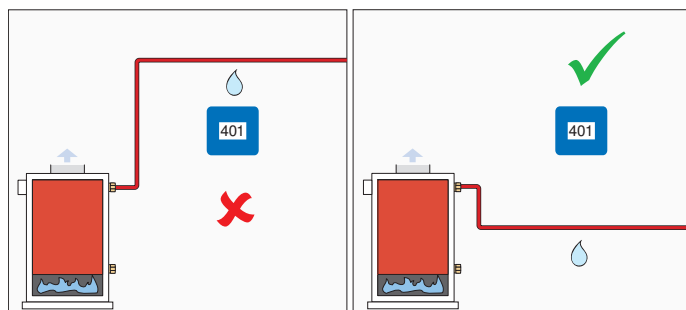


Q 401

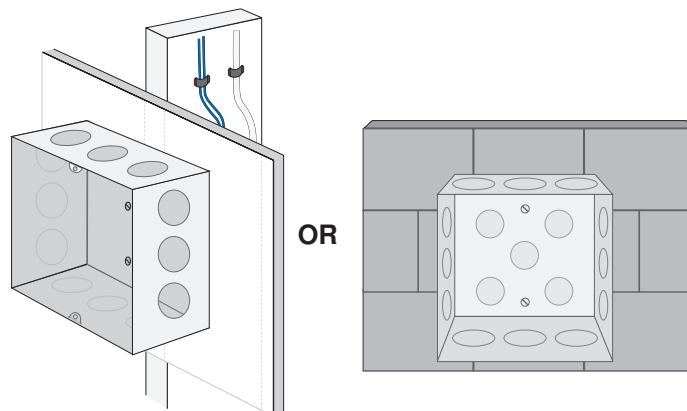
09/10

HVAC Systems Replaces: 06/09

1. Location

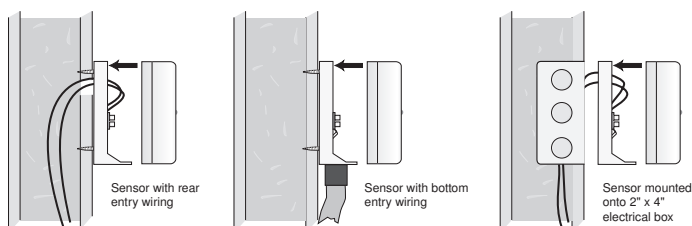


2. Install Junction Box

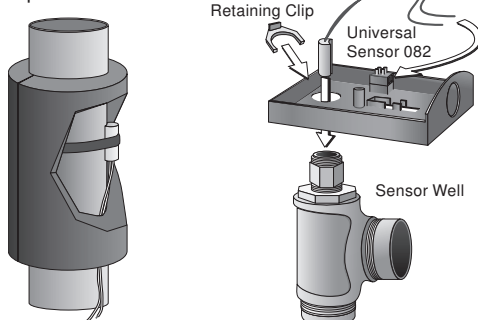


3. Install Sensors

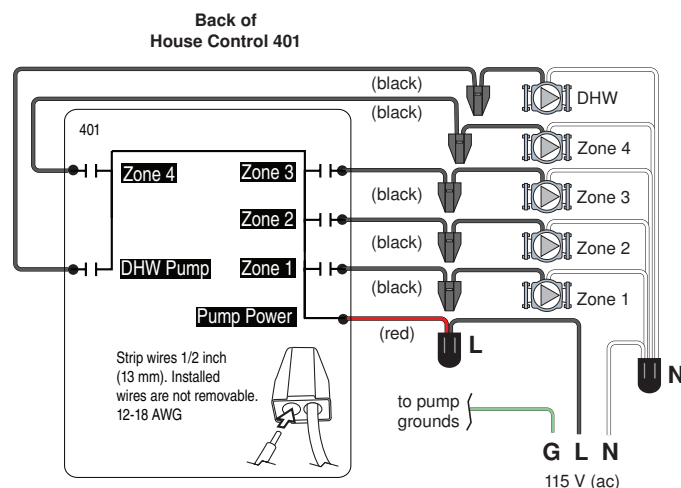
Outdoor Sensors



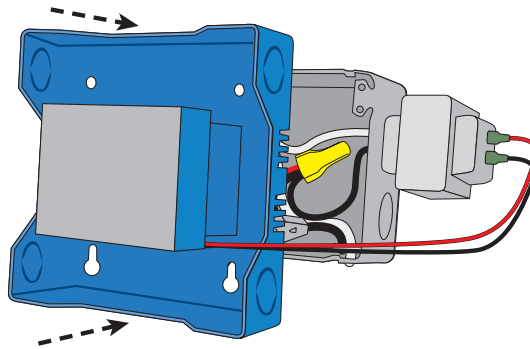
Pipe Sensors



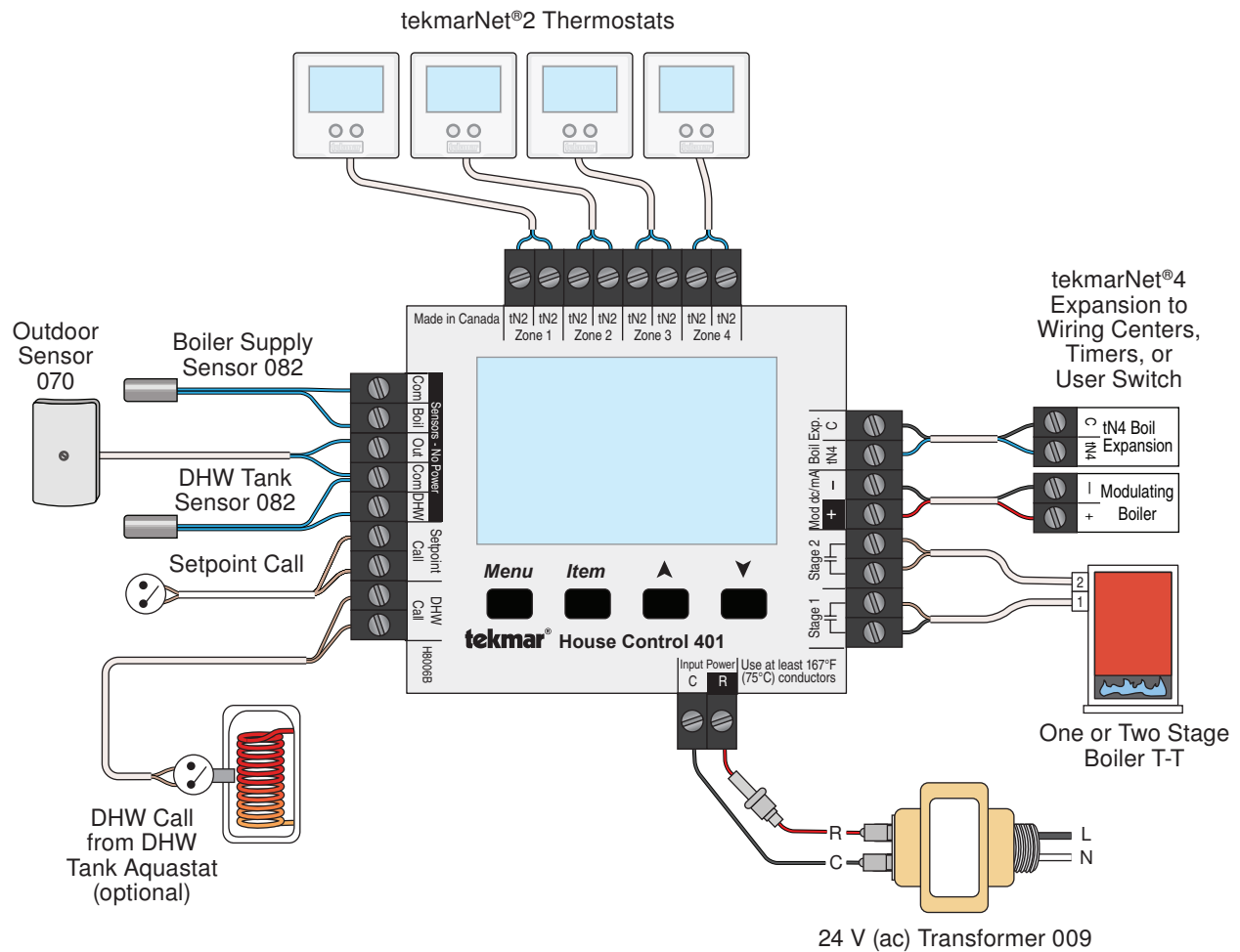
4. Line Voltage Wiring



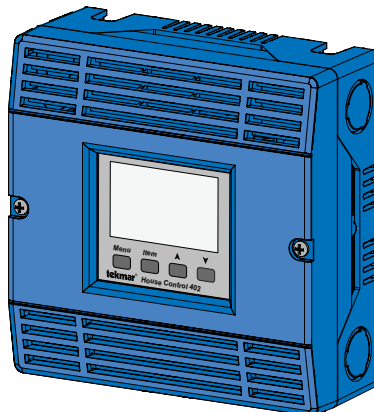
5. Install Enclosure



6. Low Voltage Wiring

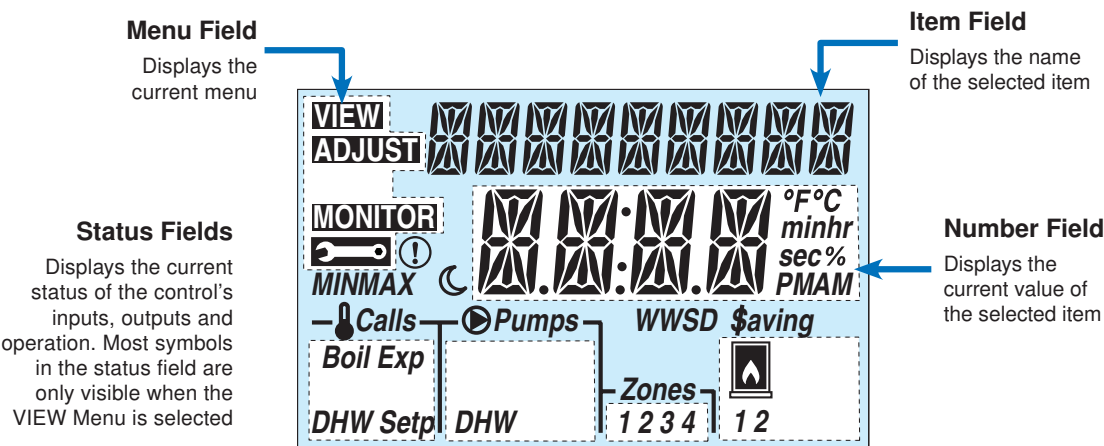


7. Install Cover



8. User Interface

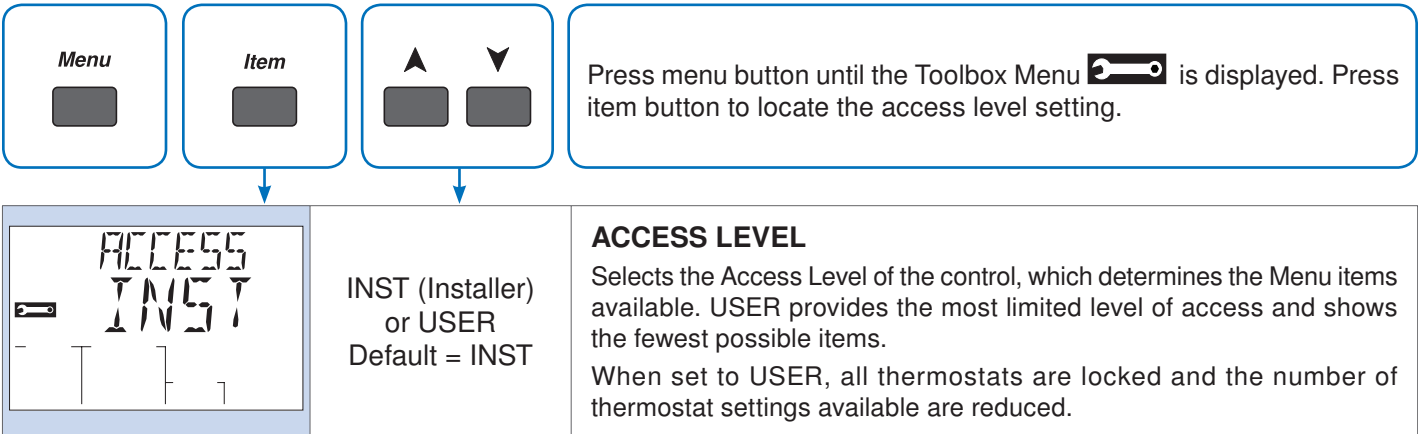
Display



Symbols

	CALLS Displays any call for heat the control is receiving.		WWSD Displays when the system is in Warm Weather Shut Down.
	PUMPS Displays any pump currently operating.		°F°C minhr sec% °F, °C, %, HOURS, MINUTES, SECOND Units of measurement for current number.
	ZONES Displays if an on-board zone is operating.		UNOCCUPIED Indicates that a User Switch or Timer has put the system into UnOccupied.
	WARNING Displays if an error exists on the system.		BOILER Indicates that the boiler should be heating.
	ENERGY SAVING INDICATOR Displays when the system is saving energy. See the Saving Indicator section.		MIN / MAX Displays when an operating temperature reaches a minimum or maximum value.

9. Access Level



10. Critical Settings

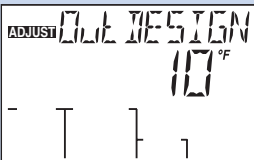
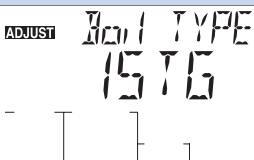
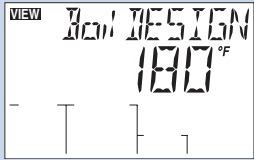
Menu


Item





Press menu button until the Adjust Menu is displayed. Press item button to locate the desired setting.

Item Field	Range	Access	Description	Set to
	-60 to 45°F (-51.0 to 7.0°C) Default = 10°F (-12.0°C)	Installer	OUTDOOR DESIGN Typically set to the temperature of the coldest day of the year. The outdoor air temperature used in the boiler heating curve is used to determine the boiler target temperature.	
	EMS2, EMS1, 4-20 0-10, 2STG, 1STG Default = 1STG	Installer	BOILER TYPE The type of boiler connected to the control. 1STG = single one-stage on-off boiler 2STG = single two-stage on-off boiler 0-10 = 0-10 V (dc) modulating boiler 4-20 = 4-20 mA modulating boiler EMS1 = tekmar boiler staging controls EMS2 = Viessmann modulating boilers with OpenTherm	
	70 to 200°F (21.0 to 93.5°C) Default = 180°F (82.0°C)	Installer	BOILER DESIGN The supply water temperature required for the boiler zones to heat the building on the typical coldest day of the year. Recommendations: High mass radiant floor = 120°F (50°C) Low mass radiant floor = 140°F (60°C) Fancoil or air handling unit = 190°F (90°C) Copper fin-tube convactor = 180°F (80°C) Radiators = 160°F (70°C) Low profile baseboard = 150°F (65°C)	