



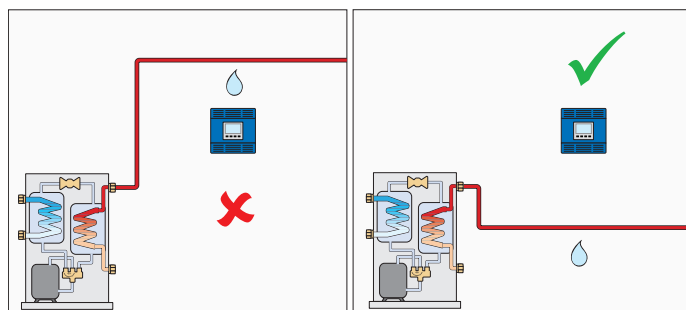
Alternative
Energy

Q 406

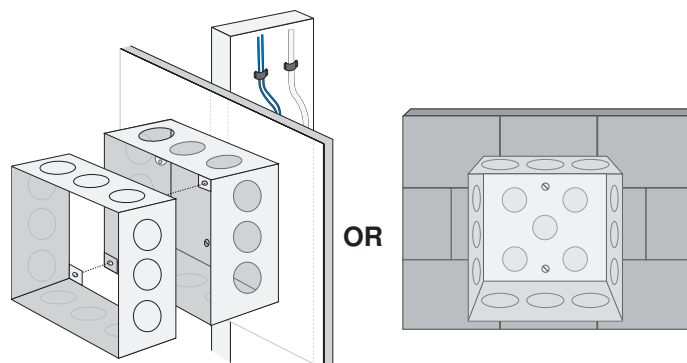
12/11

Replaces: New

1. Location



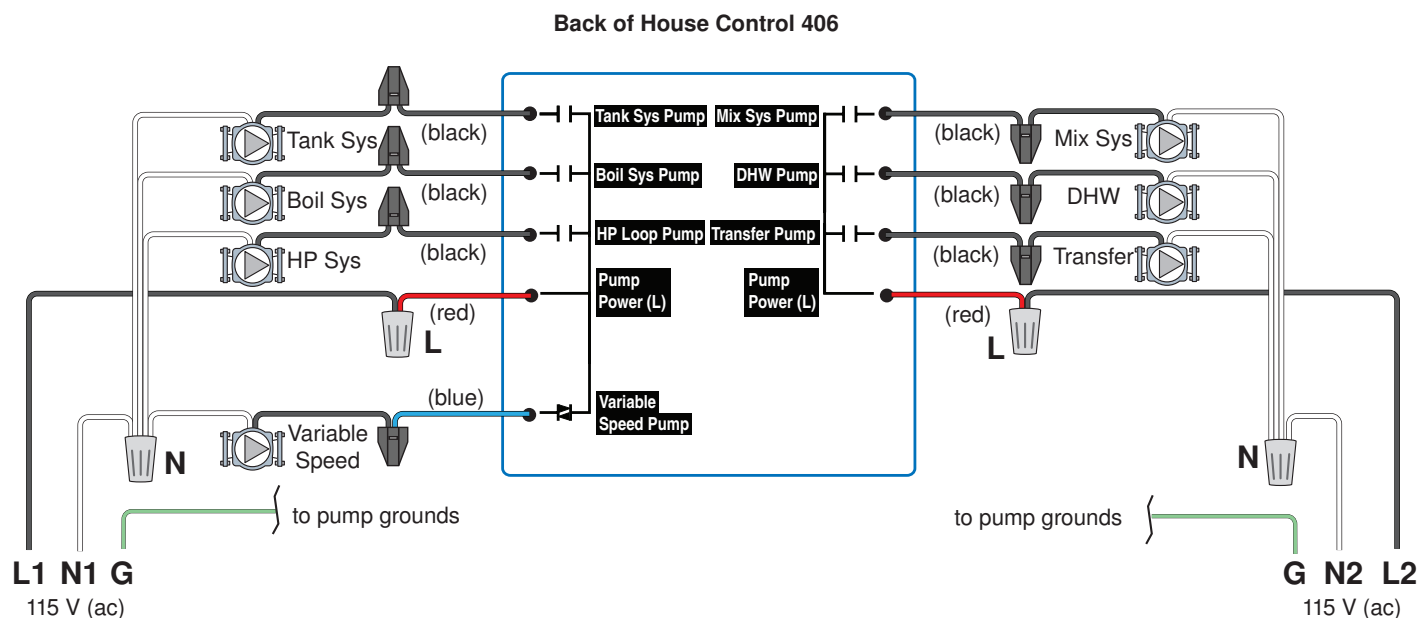
2. Install Junction Box & Extension Ring



3. Size Transformer

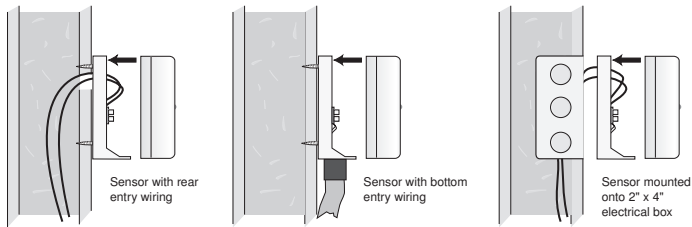
Zone	1	2	3	4		
Thermostat Load						
Zone Valve Load						
Total Zone Load	+	+	+	+	Control Load (VA)	Transformer must exceed: _____ VA
					2	

4. Line Voltage Wiring

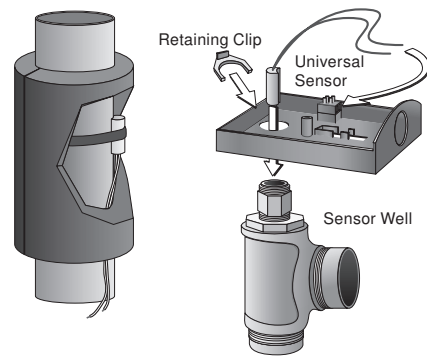


5. Install Sensors

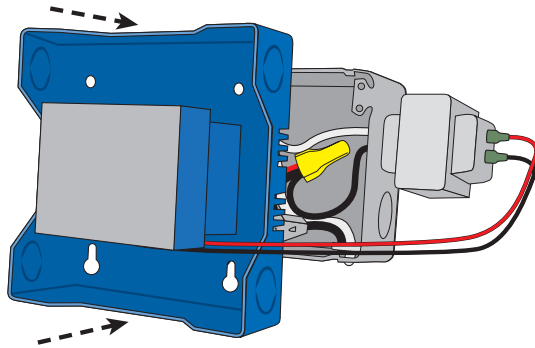
Outdoor Sensors



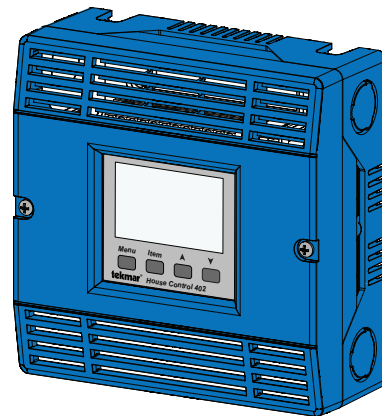
Pipe Sensors



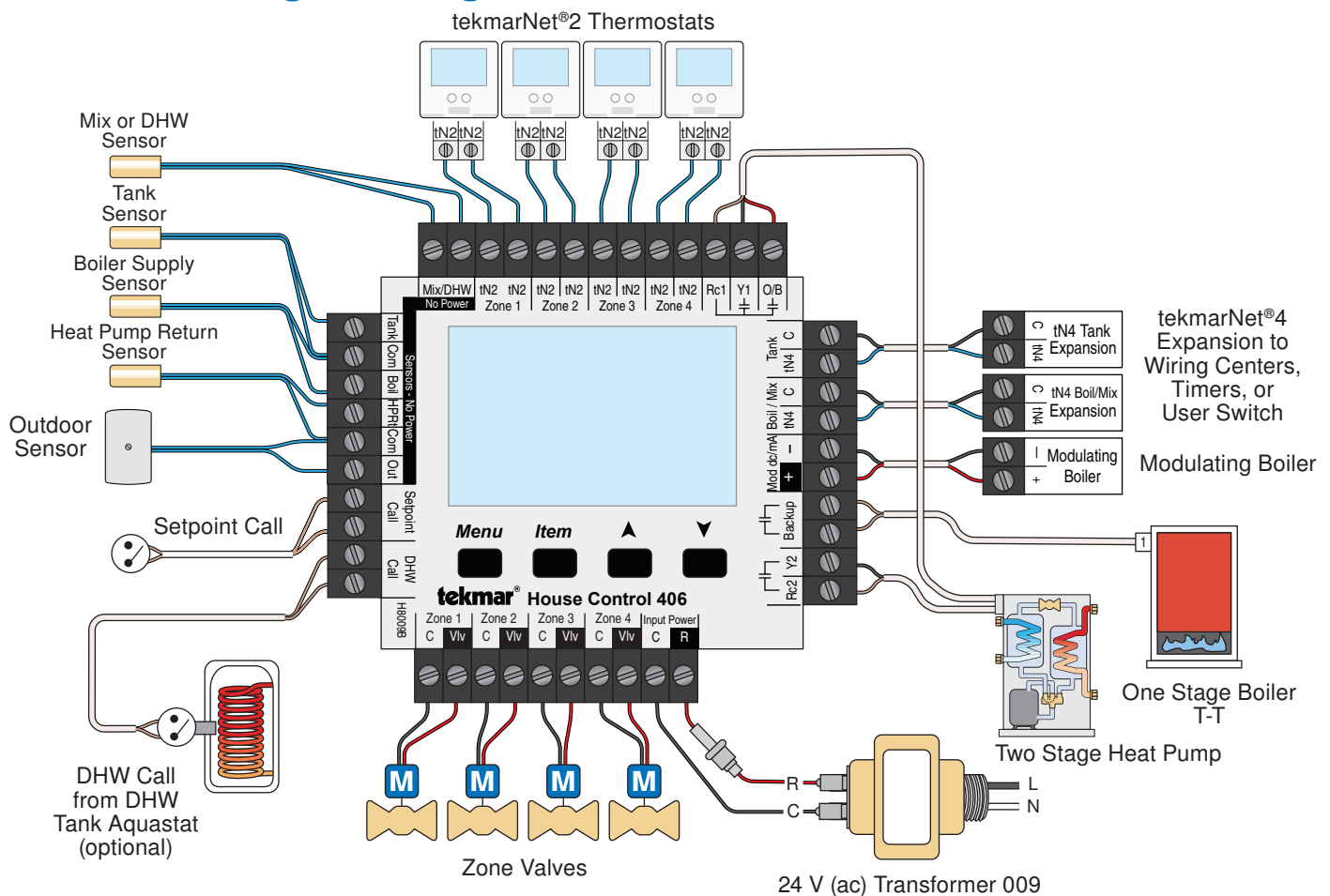
6. Install Enclosure



7. Install Cover

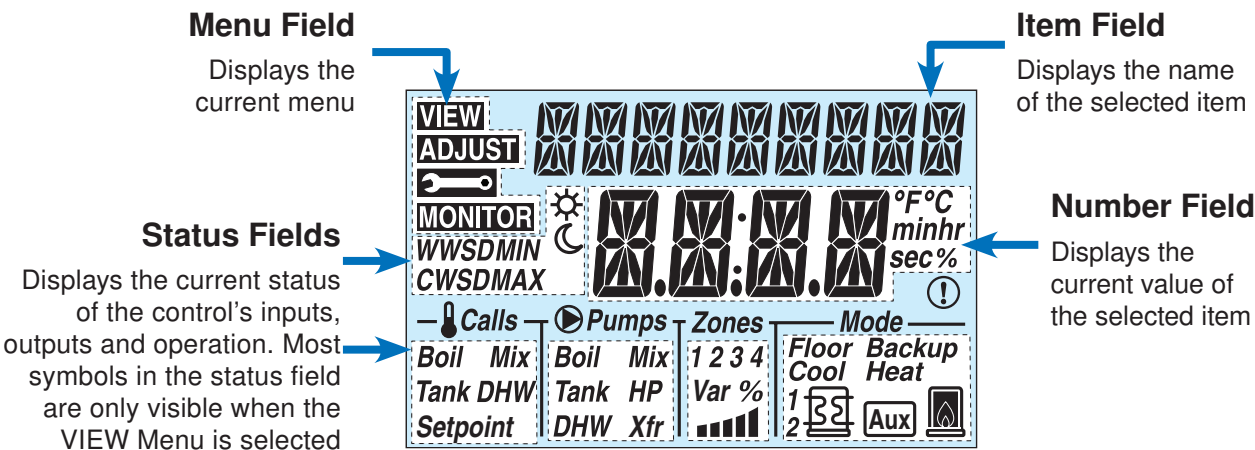


8. Low Voltage Wiring



9. User Interface

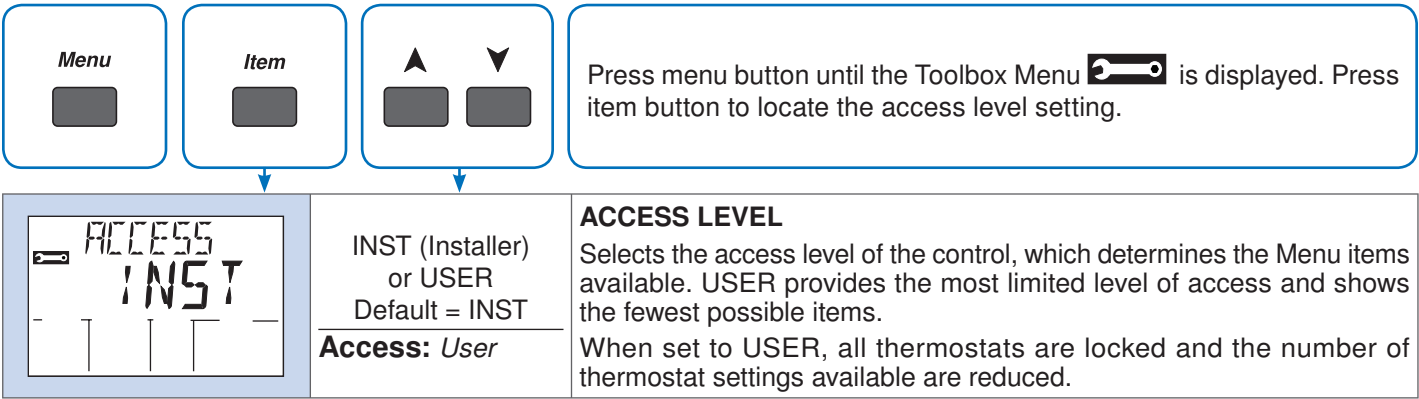
Display



Symbols

	CALLS Displays any call for heat the control is receiving.		HEAT PUMP Heat pump stage 1 or 2 is operating.
	PUMPS Displays any pump currently operating.		AUXILIARY An auxiliary backup heat source is currently operating using the backup relay.
	ZONES Displays if an on-board zone is operating.		BOILER Indicates that the boiler is operating (flashing flame indicates boiler is igniting).
	VARIABLE SPEED PUMP OUTPUT Displays percent output of the variable speed pump.		FLOOR Radiant floor cooling is currently active.
	WWSD / CWSD The system is currently in Warm Weather Shut Down or Cold Weather Shut Down.		BACKUP Backup heat source is required to assist in heating the tank sensor to its target.
	MIN / MAX Heat pump is prevented from operating due to high or low return water temperature.		COOL / HEAT The heat pump is operating in either cool or heat mode (flashing indicates switchover).

10. Access Level



11. Settings

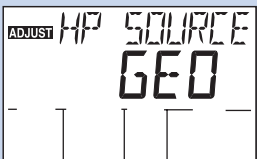
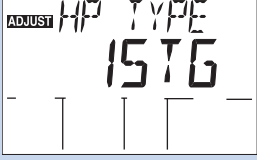
Menu


Item





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

Item Field	Range	Description
	AUTO, COOL, HEAT, BKUP, OFF Default = AUTO Access: User Set to:	MODE SECTION C AUTO - Automatic heat pump switchover between heating and cooling. Boiler or backup heat is brought on automatically as needed for DHW/Setpoint loads and space heating. COOL - Heat pump only operates in cooling mode. Backup heat only operates for DHW/Setpoint loads. HEAT - Heat pump only operates in heating mode. Boiler or backup heat is brought on automatically as needed for DHW/Setpoint loads and space heating. BKUP - Heat pump is disabled. Boiler or backup heat is brought on automatically as needed for DHW/Setpoint loads and space heating. OFF - Heat pump is disabled. Boiler or backup heat is disabled.
	T, T+M, T+B, T+MB Default = T Access: Installer Set to:	WATER TEMPERATURE SECTION B T - Only a tank loop is configured. T + B - Tank and boiler loops are configured. T + M - Tank and mix loops are configured. T + MB - Tank, mix, and boiler loops are configured.
	TANK, BOIL, MIX Default = TANK Access: Installer Set to:	ZONES 1-4 SECTION B Selects which water temperature the on-board tN2 zones are associated with. TANK - links the tN2 zones to the tank loop. BOIL - links the tN2 zones to the boiler loop. MIX - links the tN2 zones to the mixing loop. Note: This item is only available when either mix or boil water temperatures have been selected.
	GEO, AIR Default = GEO Access: Installer Set to:	HEAT PUMP SOURCE SECTION E Select whether the heat pump is an air-source (AIR) or water-source (GEO) heat pump.
	1STG, 2STG, ROT Default = 1STG Access: Installer Set to:	HEAT PUMP TYPE SECTION E 1STG - operates a single stage heat pump. 2STG - operates a two-stage heat pump. ROT - operates two heat pumps and rotates them every 48 hours difference in run time.
	NONE, AUX, XFER, VAR Default = NONE Access: Installer Set to:	BACKUP SECTION B NONE - No backup heat source is available. AUX - An auxiliary heat source (electric or instantaneous water heater) is either inside or in-line with the storage tank. XFER - A boiler is the backup heat source. Backup heat is transferred from the boiler loop to the heat pump loop with the transfer pump. VAR - A boiler is the backup heat source. Backup heat is transferred from the boiler loop to the tank loop with the variable speed pump. Note: If boil and mix water temperatures are configured, this item is automatically set to XFER and is no longer displayed.

