DANGER!

Only trained personnel should install or service heating equipment. When working with heating equipment, be sure to read and understand all precautions in the documentation, on labels, and on tags that accompany the equipment. Failure to follow all safety guidelines may result in damage to equipment, severe personal injury or death.

CAUTION!

Failure to turn off gas and electric supplies can result in explosion, fire, personal injury or death.

ESD PREPARATION

1. Disconnect all power to the furnace. Do not touch the control or the wiring prior to discharging your body's electrostatic charge to ground.
2. To ground yourself, touch your hand and tools to a clean, metal (unpainted) furnace surface near the control board.
3. Service the furnace after touching the chassis. Your body will recharge with static electricity as you shuffle your feet or move around, and you must reground yourself.
4. Reground yourself if you touch ungrounded items.
5. Before handling a new control, reground yourself; this will protect the control. Store used and new controls in separate containers before touching ungrounded objects.
6. ESD damage can also be prevented by using an ESD service kit.

INSTALLATION

Carefully remove all wiring from the OEM board and remove OEM Board from furnace.

Install the ICM 288 board and reinstall wires as per original installation.

⁂ **IMPORTANT:** *There are some Furnace models which performed flame sense differently. Please read the information below before testing the furnace!*

1. **Units without a separate flame sensor** will require purchase of a Rheem Flame sensor Kit to be wired to pin 7 of the 9 pin harness of the furnace.
2. **Units with a separate flame sensor which is NOT routed through the 9 pin harness** will require removal of flame sensor wire from existing connection and rewiring it to pin 7 of the 9 pin harness of the furnace.
3. Units which have a separate flame sensor routed to pin 7 of the 9 pin harness do not require rework.

SPECIFICATIONS

ELECTRICAL RATINGS

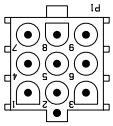
- **Voltage Range:** Line (98 to 132 VAC) @60HZ
- **Ignitor:** 5A, 120 VAC
- **Fan blower:** 10A, 2 HP, 240 VAC
- **Cool blower:** 10A, 2 HP, 240 VAC
- **Heat blower:** 5A, ½ HP, 250 VAC
- **Inducer blower:** 4A, 120 VAC
- **Gas Valve:** 1A, 24 VAC
- **Humidifier motor:** 10A, 120 VAC

TIMING

- **Prepurge Heat:** 60 seconds
- **Prepurge Cool:** 1 second
- **Postpurge Heat:** 90-180 seconds
- **Postpurge Cool:** 40 seconds
- **Trial for Ignition:** 10 seconds

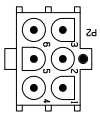
PIN CONNECTIONS

P1



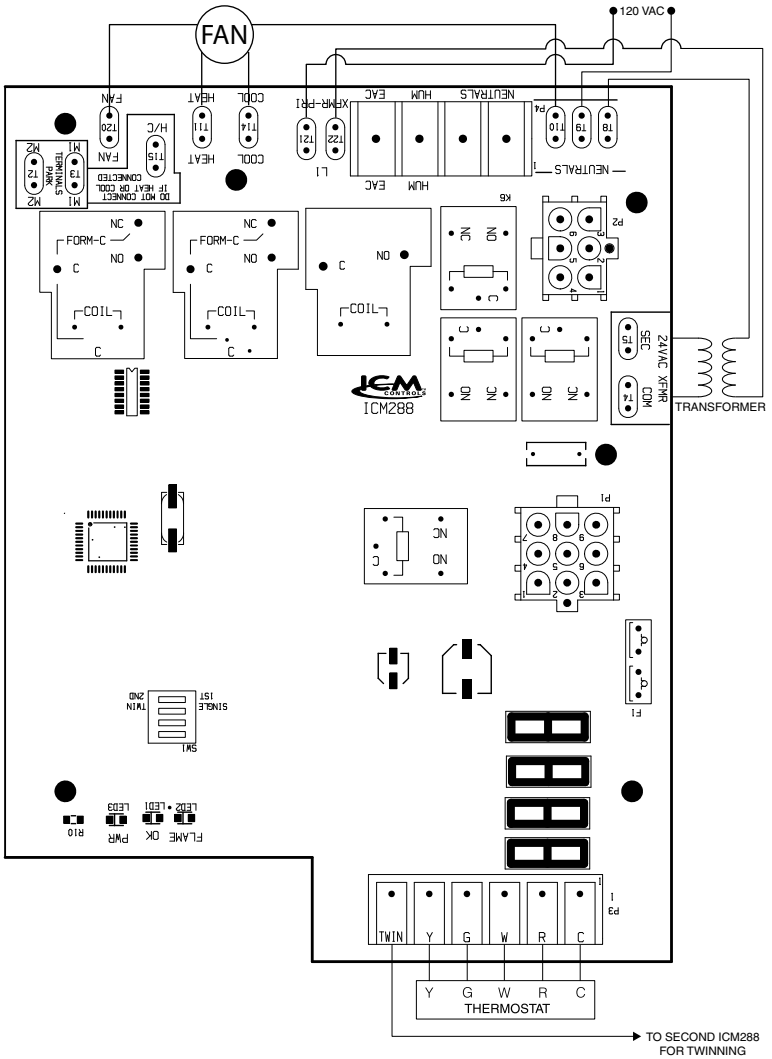
1 – N/C
2 – 24 VAC Common
3 – Limit switch
4 – Gas valve
5 – Pressure switch OUT
6 – Pressure switch IN
7 – Flame sensor
8 – Limit switch IN
9 – 24 VAC Common

P2



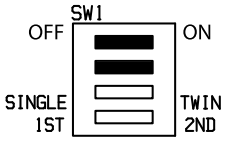
1 – HSI
2 – N/C
3 – 120 VAC Neutral
4 – Inducer
5 – N/C
6 – 120 VAC Neutral

WIRING DIAGRAM



DIP SWITCH SETTINGS

• SW1 SWITCHES 1 & 2



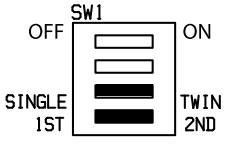
BLOWER TIMING		
OFF Time	**SWITCH 1**	**SWITCH 2**
90	OFF	ON
120	OFF	OFF
160	ON	OFF
180	ON	ON

The HEAT speed air blower off time delay is selectable for 90 seconds, 120 seconds, 160 seconds or 180 seconds using top two positions of SW1.

The COOL speed air blower off time is fixed for 40 seconds.

The G (Fan) mode, the Fan blower off time is fixed for 1 second.

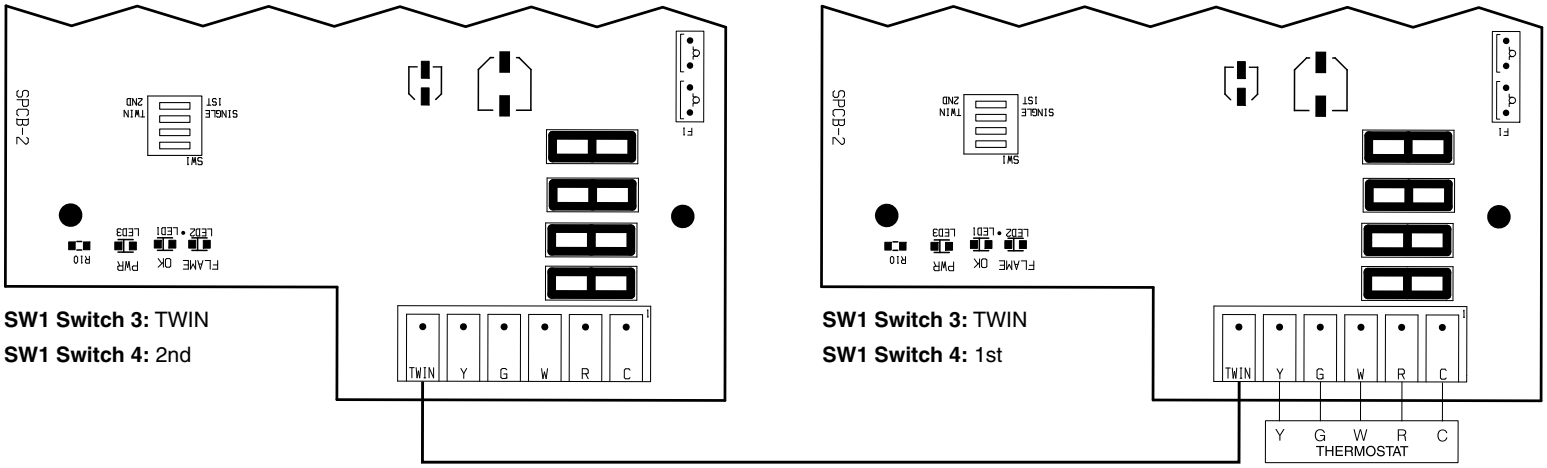
• SW1 SWITCHES 3 & 4



SW1 Switch 3: Single or TWIN systems

SW1 Switch 4: Select 1st or 2nd stage

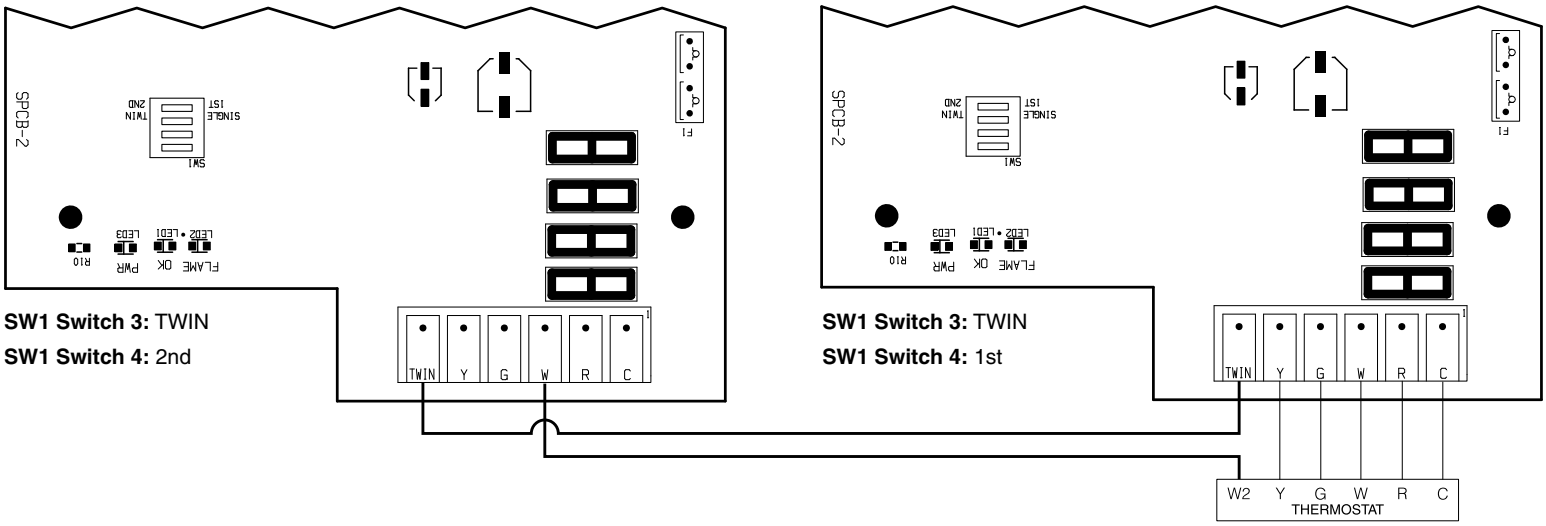
TWINNING WIRING DIAGRAM – Single Stage Thermostat



SW1 Switch 3: TWIN
SW1 Switch 4: 2nd

SW1 Switch 3: TWIN
SW1 Switch 4: 1st

TWINNING WIRING DIAGRAM – Two Stage Thermostat



SW1 Switch 3: TWIN
SW1 Switch 4: 2nd

SW1 Switch 3: TWIN
SW1 Switch 4: 1st

The control has built-in self-diagnostic capability. If a system problem occurs, a blinking LED shows a fault code.

FAULT CODES		
LEDS	**Flashes**	**Fault condition**
GREEN	ON Steady	Normal operation
	1 Flash	Ignition failure (5 trials)
	2 Flashes	Pressure switch stuck open
	3 Flashes	Limit switches open
	4 Flashes	Pressure switch stuck closed
	5 Flashes	Twinning problem
	6 Flashes	Brownout voltage
	7 Flashes	Hot & Neutral reversed or no ground connected
	Continuous	Gas valve relay shorted
	1 Flash every 2 sec.	Flame fault
YELLOW	Continuous	Low flame or no flame
	ON	Flame present