

Combination Heating/Cooling Units

INDEX

| MODEL | VOLTS/PH | LABEL DIAGRAM | |
|--------------------------------|----------|---------------|------------|
| | | Fig. | Dwg No. |
| 48DL,DM006300 48DL,DM006310 | 230/1 | 1 | 48DL504344 |
| 48DL,DM006400 48DL,DM006410 | 208/3 | 2 | 48DL504354 |
| 48DL,DM006500 48DL,DM006510 | 230/3 | | |
| 48DL,DM006600 48DL,DM006610 | 460/3 | 3 | 48DL504364 |

NOTES

1. Fan motors are thermally protected.
2. Terminations in low-voltage connection box suitable for connection of NEC Class 2 control circuit wiring at 24 volts.
3. Wire units in accordance with local codes
4. When original factory wiring must be replaced, use the same type of wire or equivalent
5. Use copper or copper-clad conductors only

CONTROL CENTERS*

| No. 1 | No. 2 | No. 3 |
|---|--|--|
| HH07AT074 Thermostat and HH93AZ0761 Subbase | HH01AD042 Thermostat and HH93AZ042 Subbase | HH01AD040 Thermostat and HH93AZ040 Subbase |

*Control Centers shown on Label Diagrams

†Automatic Changeover Subbase

HH93AZ080 is suitable for use if manual changeover is desired

LEGEND

| | |
|--------------|--|
| C | — Contactor |
| CC | — Cooling Compensator |
| Compr | — Compressor |
| GV | — Gas Valve |
| HA | — Heat Anticipator |
| IC | — Ignition Control |
| IFM | — Indoor Fan Motor |
| IFMC | — Indoor Fan Motor Capacitor |
| IFR | — Indoor Fan Relay |
| LS | — Limit Switch |
| OFM | — Outdoor Fan Motor |
| OFMC | — Outdoor Fan Motor Capacitor |
| QT | — Quad Terminal |
| RC | — Run Capacitor |
| RS | — Roll-Out Switch |
| SC | — Start Capacitor |
| SR | — Start Relay |
| TC | — Thermostat Cooling |
| TDR | — Time Delay Relay |
| TH | — Thermostat Heating |
| Trans | — Transformer |
| | To indicate common potential only, not to represent wire |
| | Field Power Wires |
| | Field Control Wires |
| | Field Ground Wires |
| | Field Splice |
| | Junction |
| | Component Connections (marked) |
| | Component Connections (unmarked) |
| | Thermostat Connections |

INITIAL START-UP SEQUENCE

Start-Up Sequence, Natural and LP Gas Units With Intermittent Spark Ignition of Pilot, indoor (evaporator) fan motor time delay relay and Essex SX242 gas valve. (See Caution above)

MANUAL SEQUENCE

1. With power off turn manual gas valve knob to ON position
2. Set thermostat selector switch at HEAT position and set thermostat dial a few degrees above room temperature.
3. Turn power on.

AUTOMATIC SEQUENCE

1. Pilot valve opens, spark ignition and indoor fan time delay relay energize.
2. Gas flows to pilot and ignites Pilot flame sensing probe permits energizing of the main gas valve. Gas flows to main burner and ignites
3. Time delay relay starts indoor fan motor in 30 – 45 seconds.
4. When thermostat setting is satisfied, main gas valve and pilot gas valve close and flames are extinguished
5. Indoor fan motor stops in 1- to 1-1/2 minutes

CAUTION: Do not use matches to light pilot on intermittent pilot units due to possible electrical shock hazard.

GENERAL OPERATING SEQUENCES

These sequences apply to both natural and LP gas units in normal operation after initial start-up

Operating Sequence-Heating

NATURAL GAS AND LP UNITS WITH INTERMITTENT PILOT

- 1 Thermostat selector switch at HEAT or AUTO. Thermostat dial set above room temperature.
- 2 Pilot gas valve opens. Gas flows to pilot and ignites. Pilot flame setting probe causes main gas valve to open. Gas flows to main burner and ignites.
- 3 TDR starts indoor fan motor in 30 - 45 seconds.
- 4 When thermostat is satisfied both pilot gas and main gas valves close. Pilot and main burner flames are extinguished.

- 5 TDR stops indoor fan motor in 1- to 1-1/2 minutes.
- 6 Pilot is on only when thermostat calls for heating.

Operating Sequence - Cooling

- 1 Unit energized. Thermostat selector switch at COOL or AUTO. Thermostat dial set below room temperature.
- 2 Indoor and outdoor fans and compressor start.
3. When thermostat setting is satisfied, fans and compressor stop.

Automatic Operation - Power and gas on. Room thermostat (control center) set at AUTO. Fan switch (on control center) set at AUTO.

Unit performs as described in the operating sequences above on call for heating or cooling. Automatic changeover type thermostat is required.

Continuous Fan Operation - With power supplied to unit and fan switch at ON position, indoor fan remains on at all times.

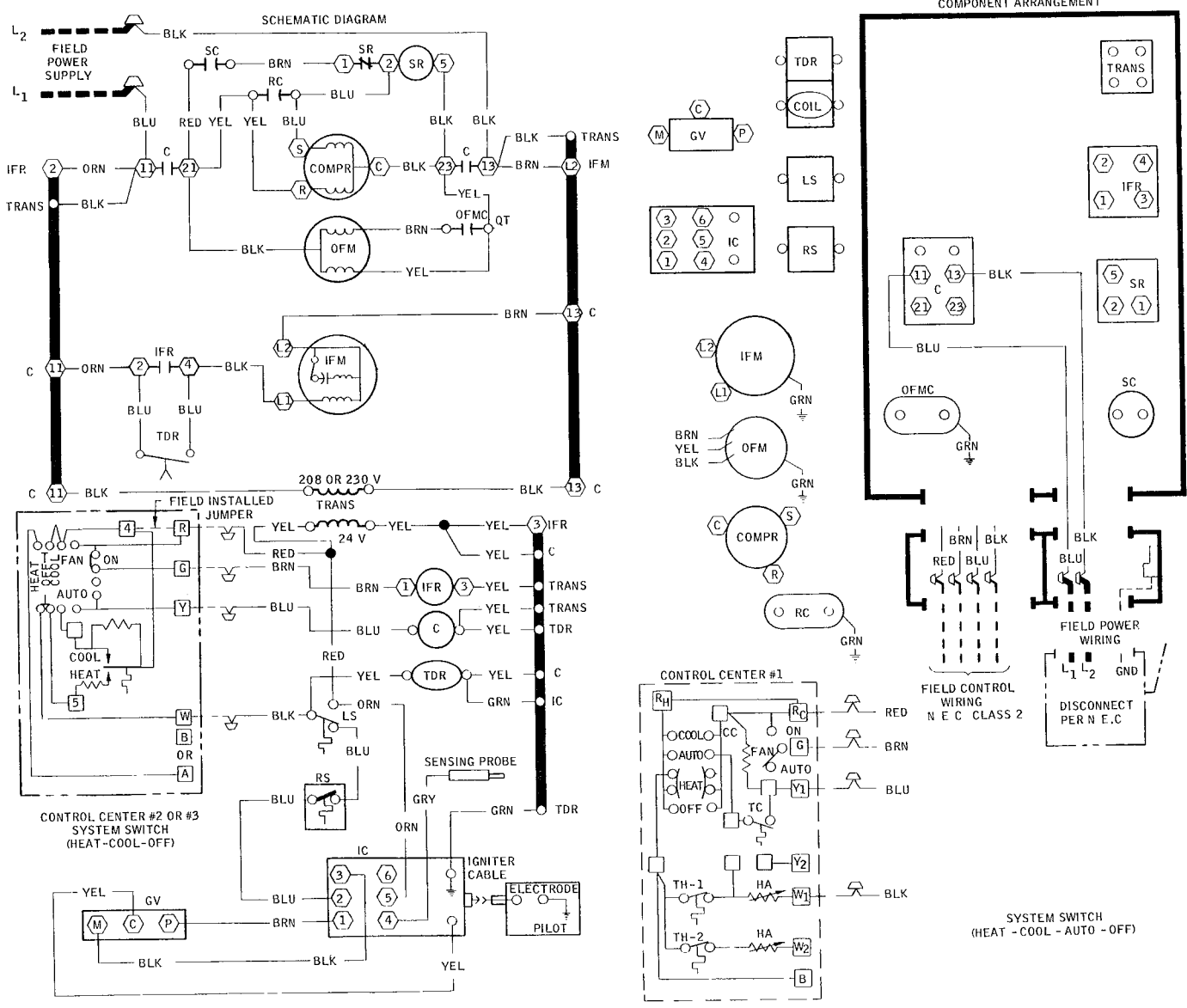


Fig. 1 - Label Diagram, 48DL,DM006; 230-1-60

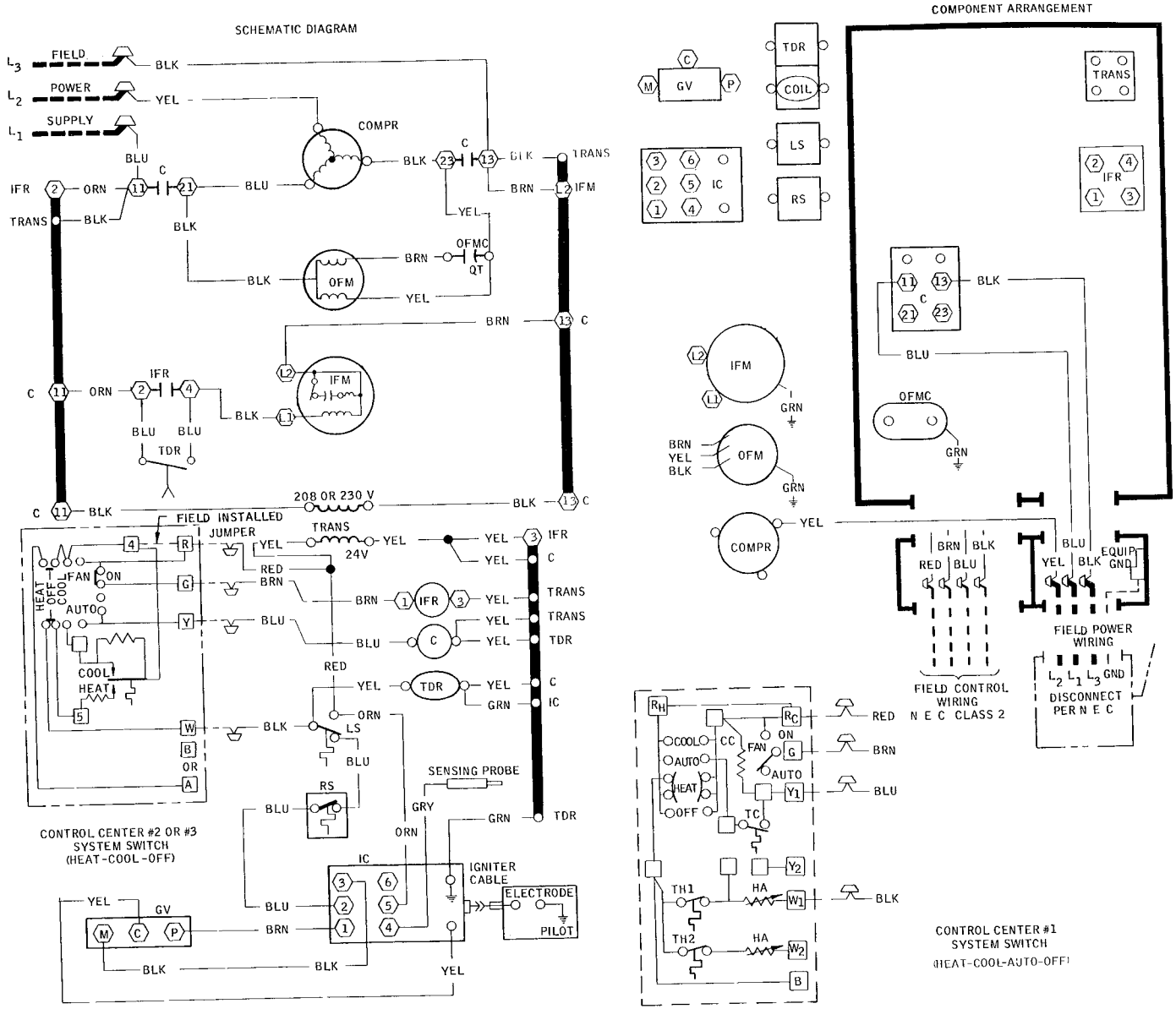


Fig. 2 – Label Diagram, 48DL,DM006; 208/230-3-60

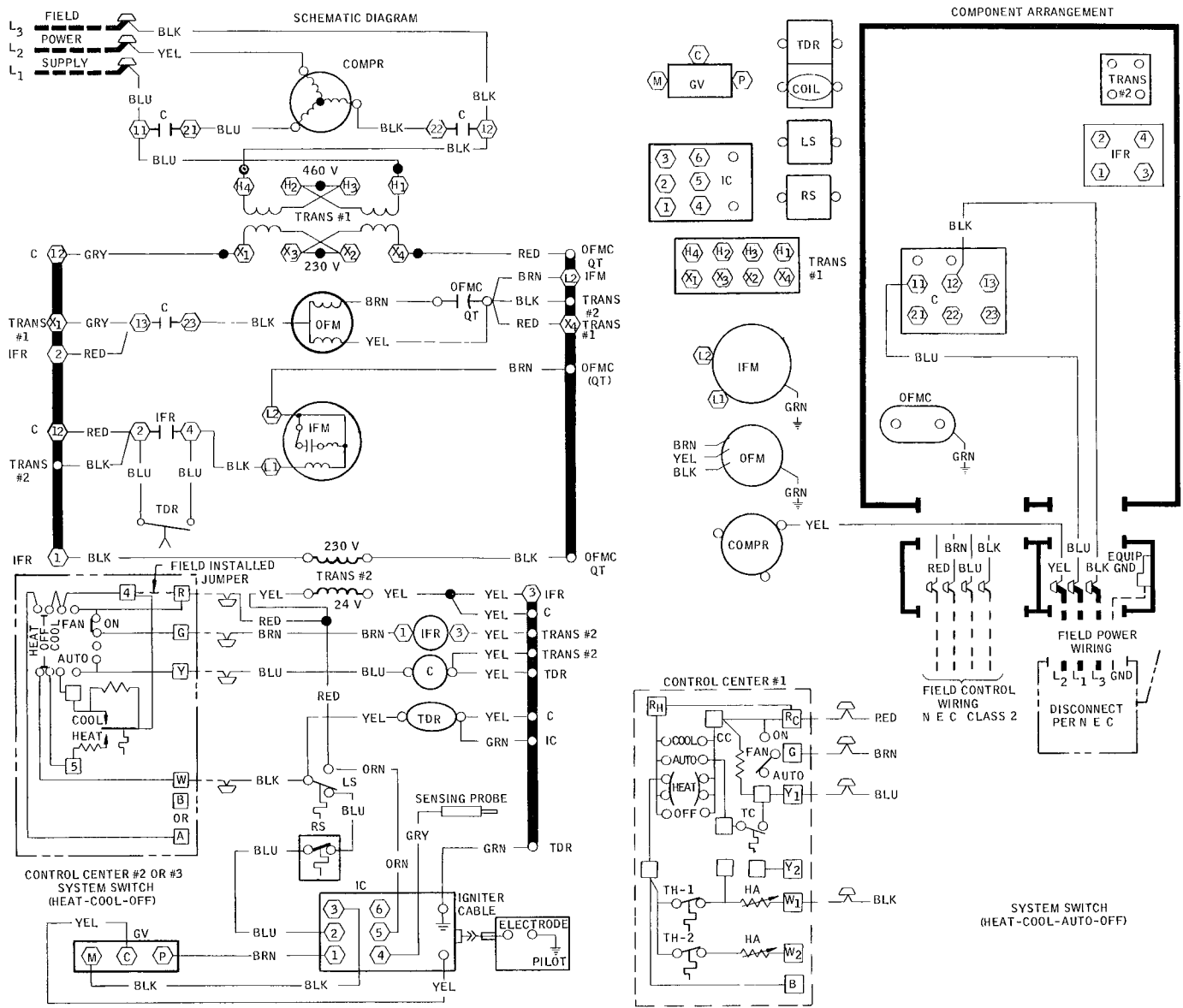


Fig. 3 – Label Diagram, 48DL,DM006; 460-3-60

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations

Tab 6

Form 48DL-1W New

Printed in U S A

8-77

PC 111

Catalog No 534-844

| | | |
|------|----|----|
| Book | 1 | 4 |
| Tab | 1a | 6a |