FURNACE CONTROL BOARD



Replaces: Carrier CES0110074-01

SPECIFICATIONS

ENVIRONMENT

· Ambient Temperature

Operating: -40°F to 176°FStorage: -40°F to 185°F

• Humidity: 5% to 95% R.H. (non-condensing) @ +55°F

• Vibration: 13.8Hz @ 0.2 Gs for one hour in each orthogonal axis

ELECTRICAL

· Voltage Range: Line (98-132 VAC) @ 60Hz

• Cool Blower: 20A, 2 HP, 240 VAC

• Heat: 10A, 240 VAC

• Inducer Motor: 4A FLA, 8A LRA @ 120 VAC

TIMING

• Inducer Pre-Purge Time: 1 second

· Heat Blower On Delay: 45 seconds

· Heat Blower Off Delays: 120 or 180 sec.

Cool Blower On Delay: 1 seconds
Cool Blower Off Delay: 1 seconds

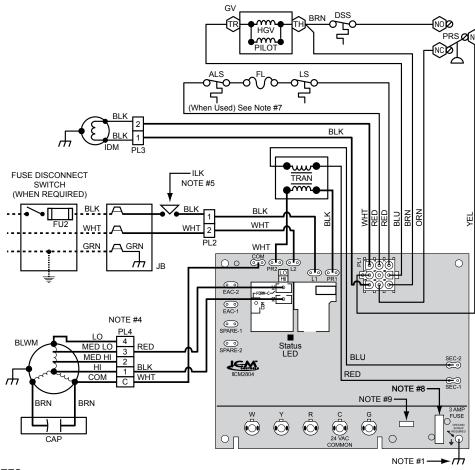
FAULT CODES

LED 1	FAULT CONDITION
On solid	No fault
1 blink	Gas valve stuck open
2 blinks	Pressure switch open
3 blinks	Limit switch open
4 blinks	Gas valve shorted

CES0110074-00 and CES0110074-01 Differences:

This board functions identically as the CES0110074-00 and the CES0110074-01. It is a form, fit and functional replacement of the CES0110074-01. When replacing the CES0110074-00 some quick connectors have to be changed or added. EAC-1 and EAC-2 must have 1/4" connectors. COM, SEC-1 and SEC-2 must have 3/16" connectors.

WIRING DIAGRAM



NOTES:

- 1. Internally connected to equipment ground through mounting screw.
- 2. If any of the original equipment wire is replaced, use wire rated for 105°C.
- 3. Blower motor (BLWM) & inducer motor (IDM) contain auto-reset thermal overload switch.
- 4. Blower motor factory speed selections (PL4) are for average conditions. See installation instructions for details on optimum speed selections.
- 5. Use only copper wire between the disconnect switch and the furnace junction box (JB).
- 6. Symbols are electrical representations only
- 7. Auxiliary limit switch (ALS) used on down flow models only.
- 8. The transformer 24 VAC winding is protected by a 3 AMP automotive blade-type fuse on the control board. A 24 VAC short to ground during installation checkout, operation, service or maintenance could cause the fuse to open. Do not replace the 3 AMP fuse with any other size fuse.
- 9. Blower motor (BLWM) adjustable off-relay. Factory set, 120 seconds, cut resistor, 180 seconds.

LEGEND:

ALS = Auxilary limit switch (over temp), SPST (N.C.), manual reset

BLWM = Blower motor

CAP = Capacitor

DSS = Draft safeguard switch, SPST (N.C.), manual reset

EAC-1 = Electronic air cleaner connection (115 VAC)

EAC-2 = Electronic air cleaner connection (common)

FU1 = Fuse, 3 AMP. automotive blade type

FU2 = Fuse, field installed

FL = Fusible link

GV = Gas valve (redundant)

IDM = Inducer draft motor

ILK = Blower door interlock switch, SPST (N.O.)

JB = Junction box

LS = Limit switch (over temp), SPST (N.C.), auto reset

PL1 = 9-circuit connector (PCB1)

PL2 = 2-circuit connector (L1, L2)

PL3 = 2-circuit connector (IDM)

PL4 = 5-circuit plug connector (BLWM)

PRS = Pressure switch SPDT

TRAN = Transformer (115V AC/24V AC)

Junction

Unmarked terminal

Terminal factory connector

Marked terminal

Factory wiring (120 VAC)

— Factory wiring (24 VAC)

----- Field wiring (120 VAC)

Field wiring screw terminal

Field ground

Equipment ground

...— Field splice