

LENNOX G-24

MODEL NUMBER: G-24 80 MGF Multi-position - "Diplomat"

BTU SIZES: 45,000 BTU to 120,000 BTU

ACCESSIBILITY CLEARANCE

Service clearances of 24"

CLEARANCE FROM COMBUSTIBLE MATERIAL

See appliance rating plate.

When unit is installed on a combustible floor, an additive base ordered separately must be installed between the furnace and the floor.

Appliance shall not be installed directly on carpeting, tile, or other combustible flooring except wood.

COLD AIR RETURN AIR DUCTS

Sealed to the furnace casing and terminating outside of space containing the furnace. When side air return air is used, bottom must be sealed using panel provided.

GARAGE

Approved. Must meet requirements of UMC and the Good Practice Book.

GENERAL

Must be electrically grounded.

Must not be used as a construction furnace.

Do not install furnace in a contaminated or corrosive environment.

Unit must be level.

HIGH ALTITUDE INSTALLATIONS

Deration	4% for each 1,000 ft. above sea level.
Orifice	Standard - change
Regulator Pressure	3.5" manifold pressure .3±
Pressure Switch	Normally open - closes proving combustion blower operation.

MOBILE HOME

Not approved.

VENTING MATERIAL AND REQUIREMENTS

Vent Pipe	Type C Type B-1
Vent Fittings	Type C Type B-1

A vent connector adaptor supplied with the furnace must be installed between draft blower flue outlet and the vent connector, must be secured with 2 sheet metal screws. An 18" minimum metal vent pipe must be used after connection to the vent adapter.

Vertical chimney must extend at least 5 feet.

Use aluminum tape to seal plastic to metal joint.

Condensate tee and drain must be installed within the first 5 feet of venting. When venting horizontally through a combustible wall, a wall thimble is required.

VENT CLEARANCE FROM COMBUSTIBLE MATERIAL

Type "C"
Type "B-1"

VENTING PROCEDURE

All vent connector and horizontal venting joints must be sealed with pressure sensitive tape or silicone rubber sealant.

Use GAMA tables.

Single wall vent must be insulated when over 15 feet long or installed in an unconditioned space.

Can be common vented when using metal vent.

When venting with high temperature plastic - it must be dedicated venting (must be "3") - Ultra vent and Plexco vent okay.

Vertical vent termination must be in a listed cap and 12" above maximum snow level.

Horizontal vent termination must be a minimum of 4' below, 4' horizontally, or 1' above any door, window, gravity air inlet, or gas or electric meter and 4' horizontally from any soffit or under eave vent. Do not terminate above walkways, planters, or patios. Must be at least 6' from an outside corner, 10' from forced air inlet.

MISCELLANEOUS INFORMATION/NOTES

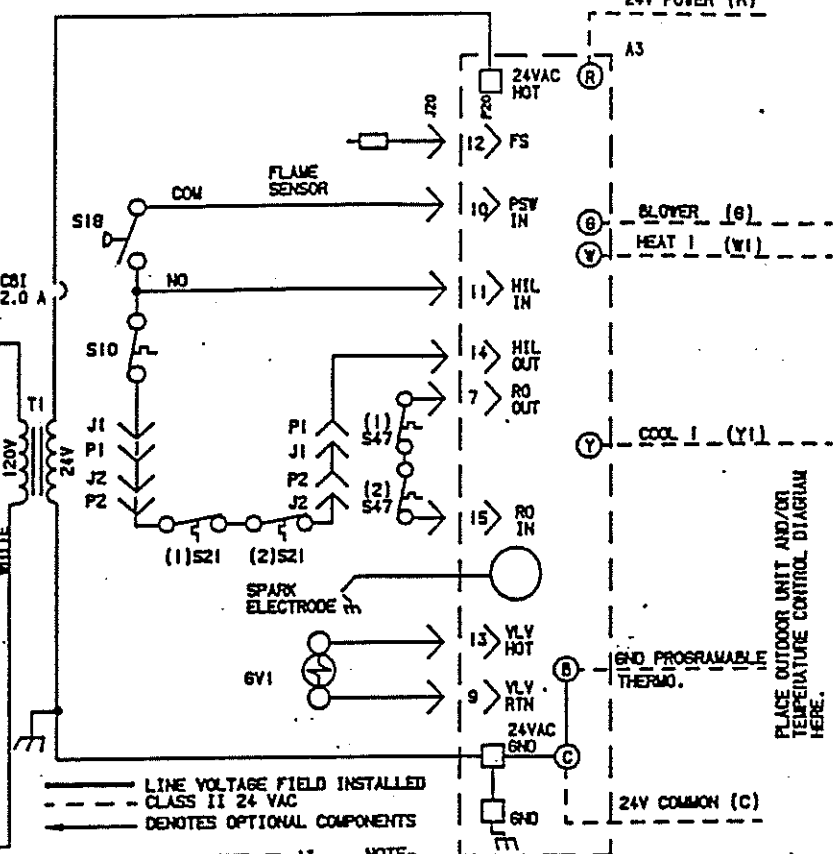
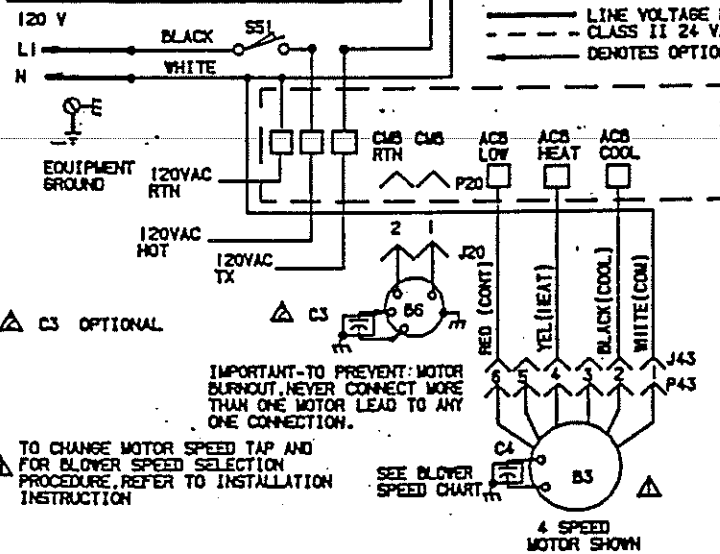
Shipped as an upflow, can be easily converted to a counter flow or horizontal application.

No accessories that are required to be attached to the venting system to reduce heat loss and improve efficiencies have not been tested for use with this system.

TYPICAL G24M WIRING DIAGRAM

KEY	DESCRIPTION
CS	CONTROL, COMMON IGNITION
B3	MOTOR BLOWER
B6	MOTOR COMBUSTION AIR BLOWER
C3	CAPACITOR COMB AIR BLOWER
C4	CAPACITOR MOTOR BLOWER
CS1	CIRCUIT BREAKER
6V1	VALVE GAS
J1	JACK SECONDARY LIMIT
J2	JACK SECONDARY LIMIT
J20	JACK GAS
J43	JACK BLOWER MOTOR
P1	JACK SECONDARY LIMIT
P2	JACK SECONDARY LIMIT
P20	PLUG GAS
P43	PLUG BLOWER MOTOR
S10	LIMIT PRIMARY GAS
S18	SWITCH COMB AIR BLWR PROVE
(1)S21	LIMIT SECONDARY
(2)S21	LIMIT SECONDARY
(1)S47	SWITCH FLAME ROLLOUT
(2)S47	SWITCH FLAME ROLLOUT
SS1	SWITCH DOOR INTERLOCK
T1	TRANSFORMER CONTROL

UNIT	BLOWER SPEED CHART			MOTOR SPEEDS AVAILABLE	
	FACTORY CONNECTED SPEED TAP	COOL	HEAT/CONT		
02	2	4	5	4	
03	2	4	5	4	
04	2	3	5	5	
05	2	5	6	5	
BLOWER SPEED SELECTION					
HI					
SPEED TAP	2	3	4	5	6
	2	3	4	5	6



NOTE- IF ANY WIRE IN THIS APPLIANCE IS REPLACED, IT MUST BE REPLACED WITH WIRE OF LIKE SIZE, RATING AND INSULATION THICKNESS.

WARNING- ELECTRIC SHOCK HAZARD, CAN CAUSE INJURY OR DEATH. UNIT MUST BE GROUNDED IN ACCORDANCE WITH NATIONAL AND LOCAL CODES.

SET THERMOSTAT HEAT ANTICIPATION FOR G24M SERIES UNITS.... .7

LENNOX <small>Industries Inc</small> WIRING DIAGRAM		6/93
HEATING UNITS-GAS DSI		
G24M2-45/60/75-2		
G24M3-60/75-2		
G24M4-75-2		
G24M3/4-100/120-2		
G24M4/5-100/120/140-2		
SECTION A	120/60/1	
Supersedes Form No.	New Form No.	
	529, 826W	

©1993 Lennox Industries Inc. L1116a CON

FIGURE 31

HEATING SEQUENCE OF OPERATION

NORMAL HEATING MODE

ABNORMAL HEATING MODE

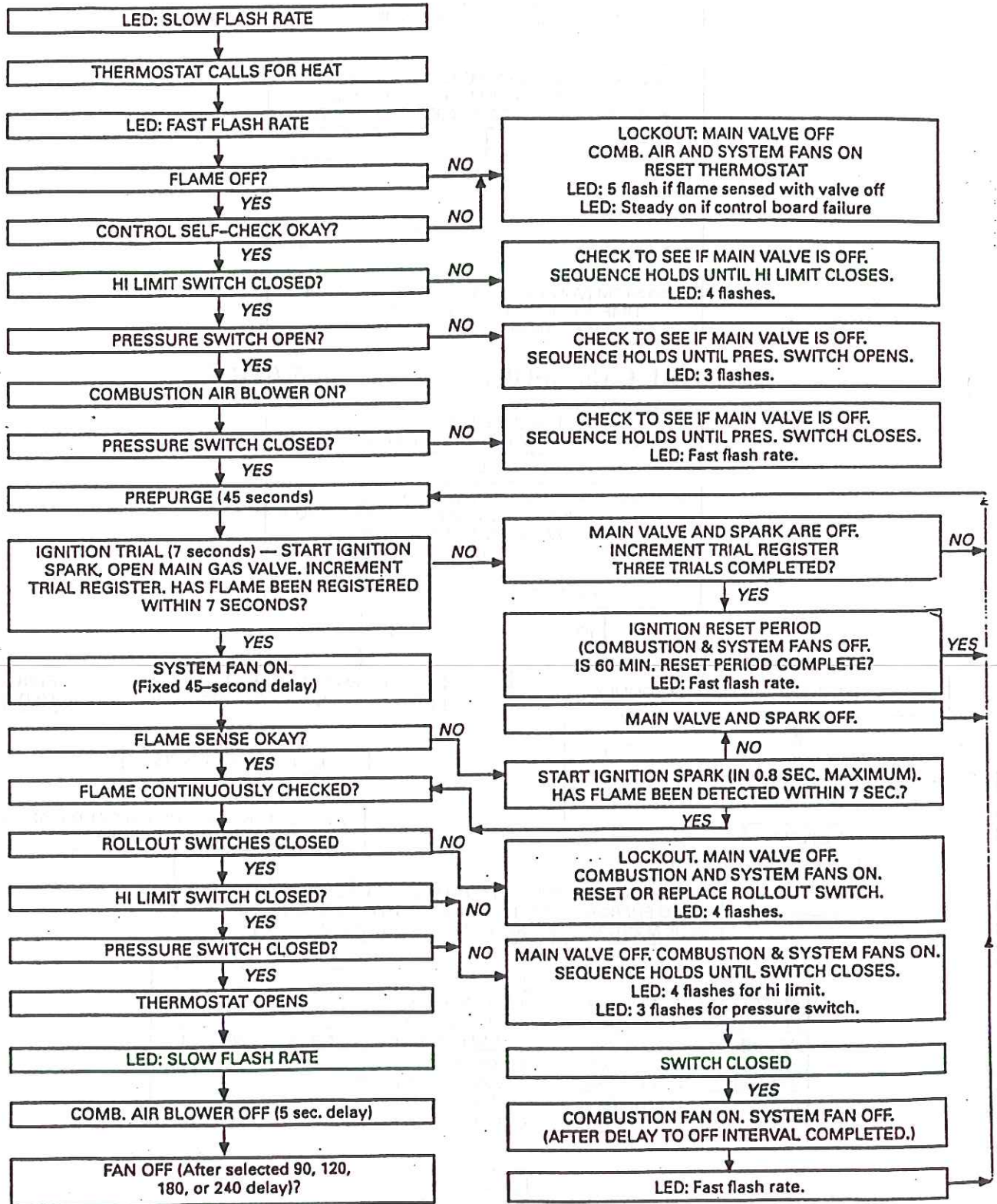
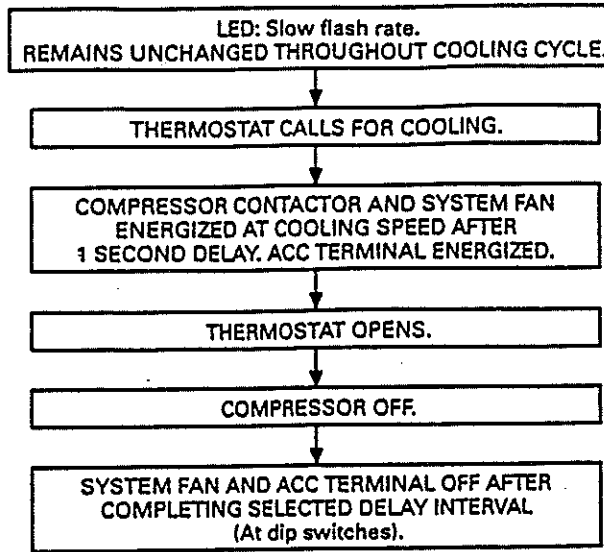
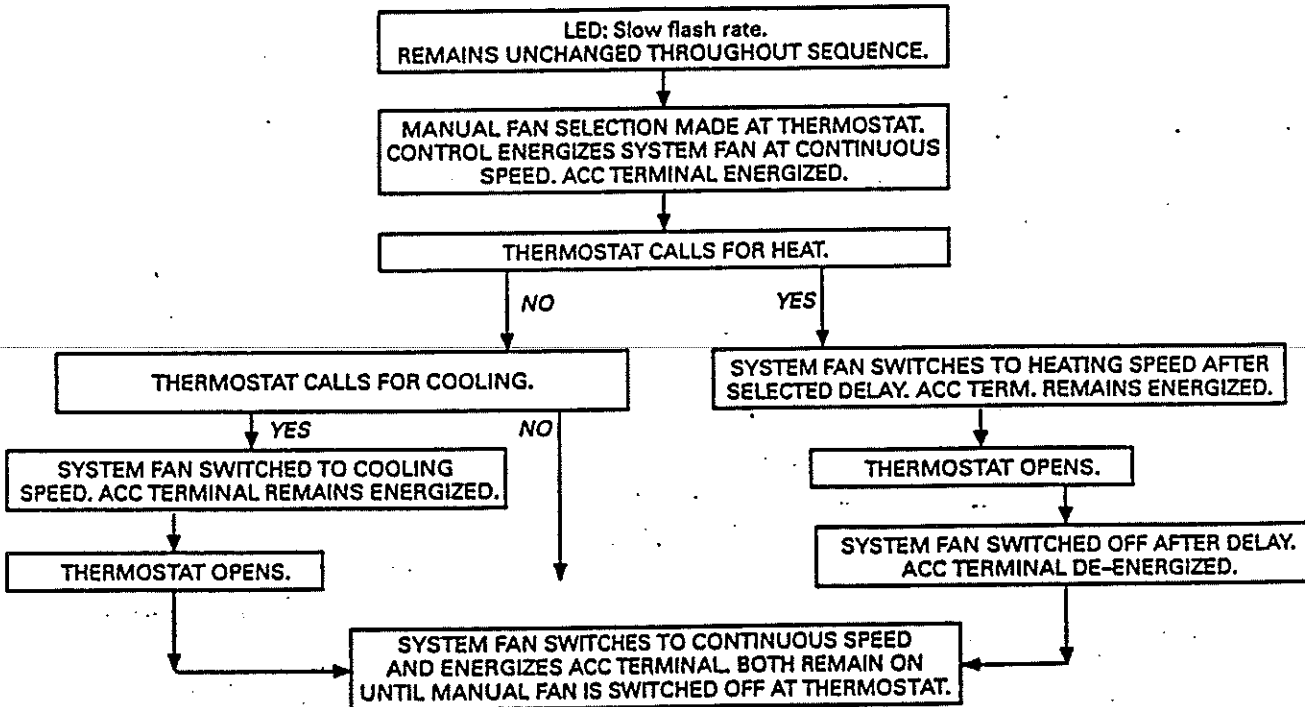


FIGURE 38

COOLING SEQUENCE OF OPERATION



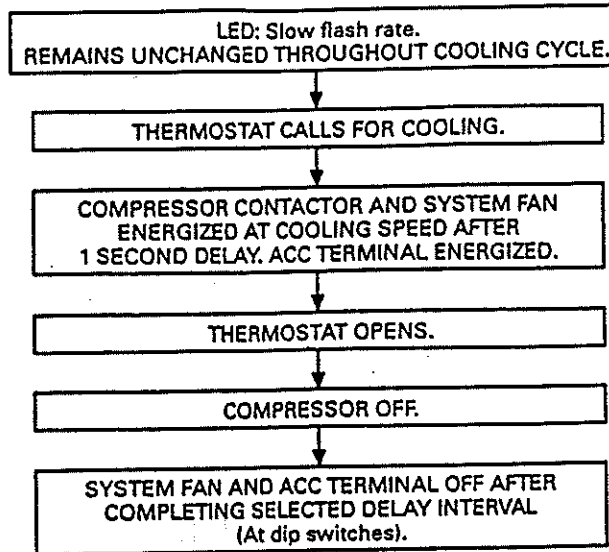
MANUAL FAN SEQUENCE OF OPERATION



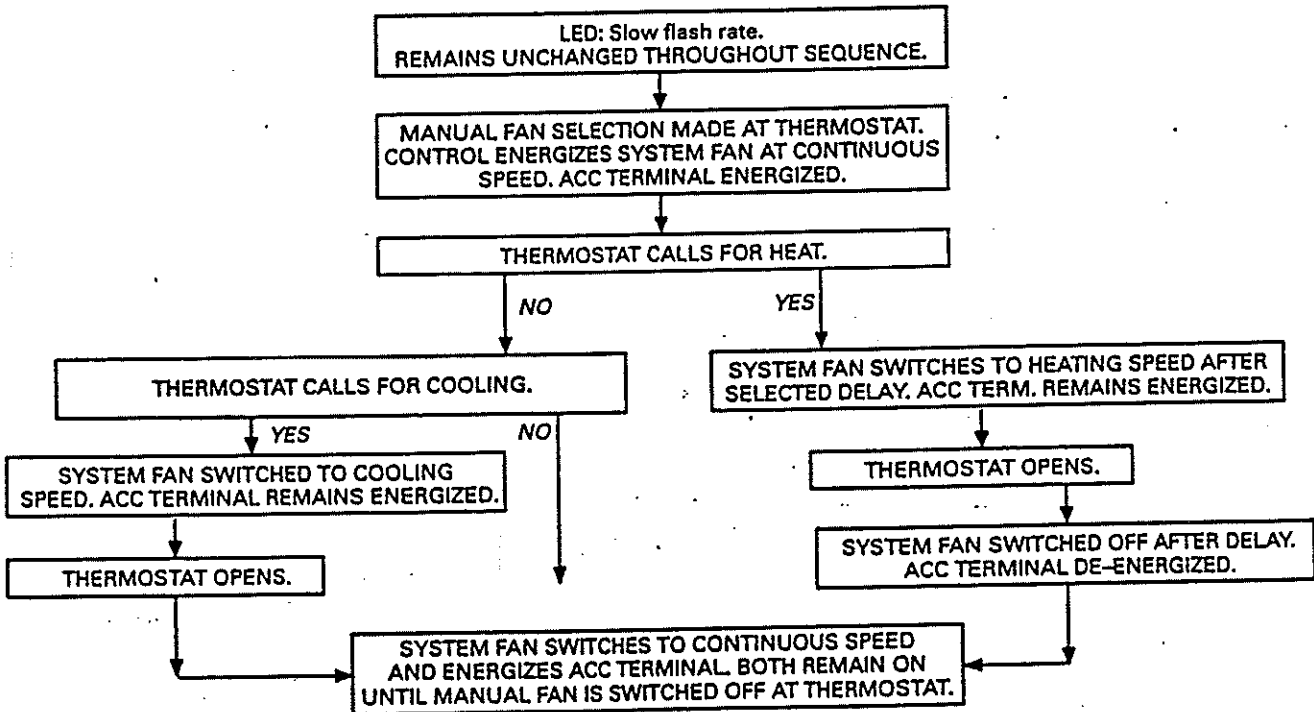
LED CODES	
SLOW FLASH	NORMAL OPERATION. NO CALL FOR HEAT.
FAST FLASH	NORMAL OPERATION. CALL FOR HEAT.
2 FLASH	SYSTEM LOCKOUT. FAILURE TO DETECT OR SUSTAIN FLAME.
3 FLASH	PRESSURE SWITCH OPEN OR CLOSED.
4 FLASH	HIGH LIMIT OR ROLLOUT SWITCH OPEN.
5 FLASH	FLAME SENSED AND GAS VALVE NOT ENERGIZED.
STEADY ON	CONTROL BOARD FAILURE.

FIGURE 39

COOLING SEQUENCE OF OPERATION



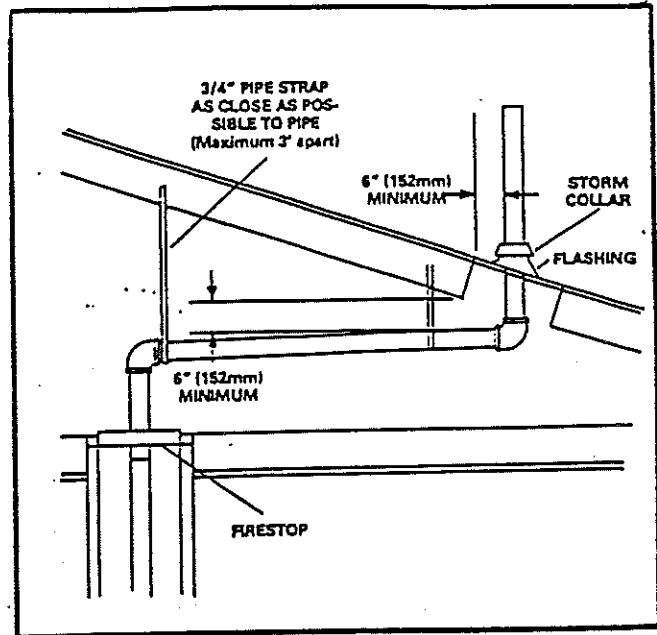
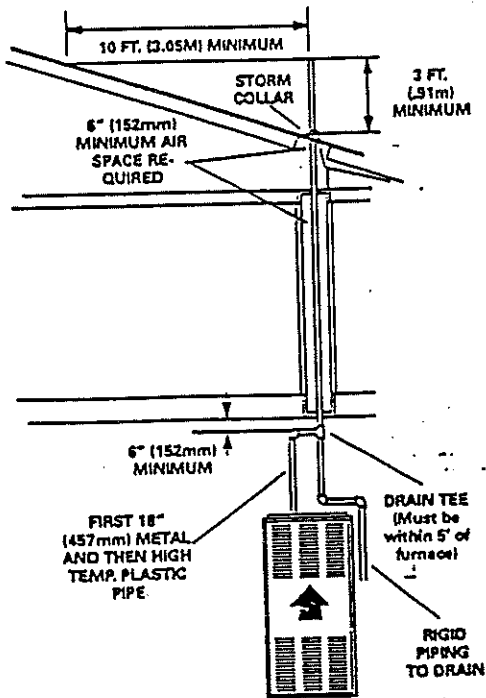
MANUAL FAN SEQUENCE OF OPERATION



LED CODES	
SLOW FLASH	NORMAL OPERATION. NO CALL FOR HEAT.
FAST FLASH	NORMAL OPERATION. CALL FOR HEAT.
2 FLASH	SYSTEM LOCKOUT. FAILURE TO DETECT OR SUSTAIN FLAME.
3 FLASH	PRESSURE SWITCH OPEN OR CLOSED.
4 FLASH	HIGH LIMIT OR ROLLOUT SWITCH OPEN.
5 FLASH	FLAME SENSED AND GAS VALVE NOT ENERGIZED.
STEADY ON	CONTROL BOARD FAILURE.

FIGURE 39

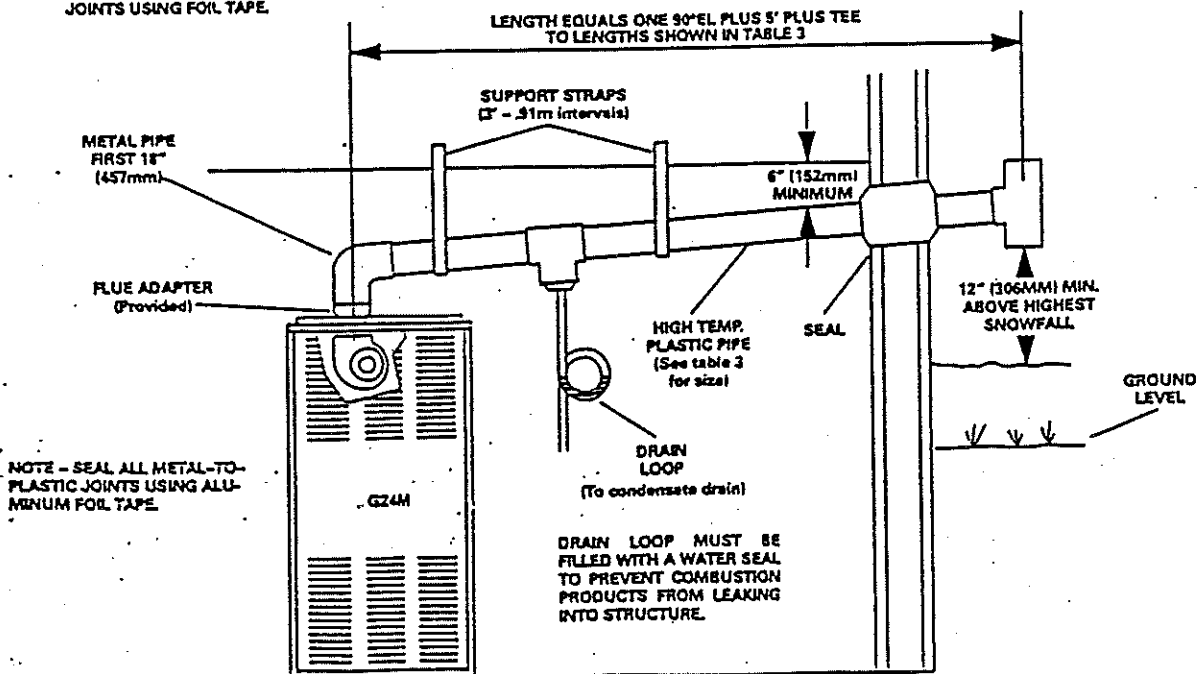
VERTICAL VENTING USING HIGH TEMPERATURE PLASTIC PIPE



HORIZONTAL VENTING USING HIGH TEMPERATURE PLASTIC VENT PIPE

SEAL METAL-TO-PLASTIC JOINTS USING FOIL TAPE.

ONE 90° ELBOW EQUALS 5 FT. (1.5M) OF PIPE LENGTH.



**LENNOX** Industries Inc.

CORPORATE OFFICES

HEATING AND AIR CONDITIONING
ESTABLISHED 1895P.O. BOX 799900
DALLAS, TEXAS 75379-9900
PHONE: 214-497-5000
FAX: 214-497-5259

March 28, 1994

Dear Lennox Dealer:

Current unresolved issues concerning safety and reliability of plastic vent pipe have come to our attention through recent announcements in the province of Ontario, Canada.

Effective immediately, and until all issues are resolved, do not sidewall vent any Lennox mid-efficiency natural gas or propane furnace, unit heater or boiler. This notice applies to any metal vent material and any plastic vent products sold under the trade names of Plexvent, Ultravent or Sel-vent. This would include all G23, G24M, 80MGF, LF24, CXEB and CMWB units approved for horizontal vent. All information included in installation instructions is superseded by this bulletin.

We would recommend that the above products be vented through a vertical vent in accordance with the latest vent sizing tables.

As a part of this notification, any previous certification for installation of plastic vent pipe provided by Lennox Industries is hereby withdrawn.

When all issues have been satisfactorily resolved, recertification by the vent pipe manufacturers will be required for use of this product in the horizontal vent application.

All questions concerning integrity of current installations using plastic vent pipe should be forwarded to the vent pipe manufacturer.

Yours truly,

LENNOX INDUSTRIES INC.

