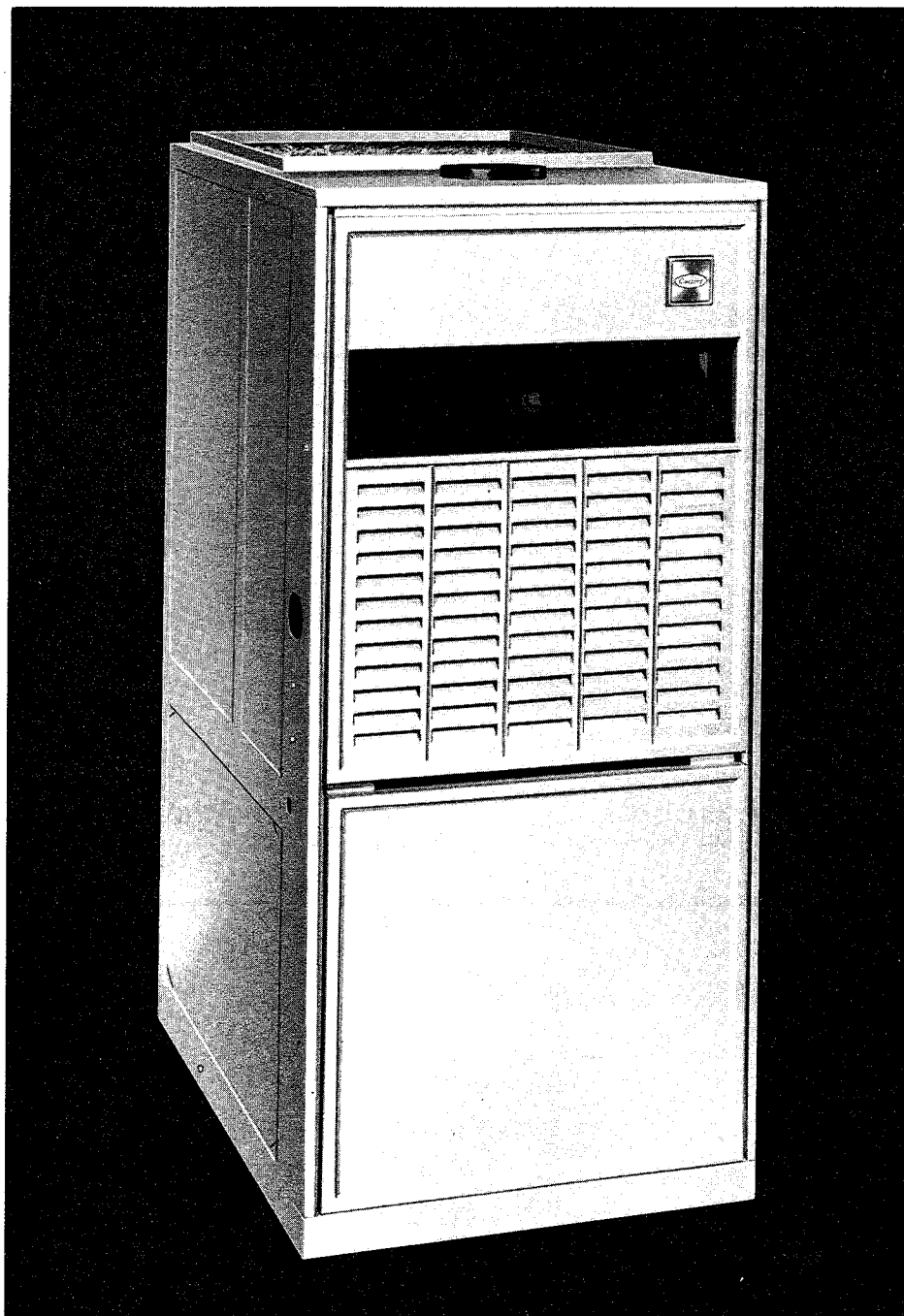




## Product Data

# 58GP,GS Upflow Natural-Draft Gas-Fired Furnace

25,000 — 200,000 Btuh Input



### Low installed cost with economical fuel usage

These natural-draft gas-fired furnaces offer not only low installed cost but fuel economy as well. The 58GP uses a continuous pilot to ignite the main burners; whereas, the 58GS uses an intermittent electronic pilot-relight ignition for improved economy. An optional ceramic coated heat exchanger is available for the 58GS. This special ceramic coating improves efficiencies and corrosion resistance.

The 46-inch height of these furnaces simplifies installation. Either model can be field-converted to use propane. These versatile furnaces offer either left or right gas and electrical connections, either side or bottom return-air entry, and adjustable blower speeds to fit most applications. Adjustment of blower speed is by means of a Molex plug on the blower housing. Just select the speed taps you need without having to remove the blower or perform some other complex procedure.

For precise and flexible blower control, the 58GP and GS Furnaces feature an easy-to-service and reliable solid-state control board. This time-operated control actuates the blower after the main burners ignite and warm up the heat exchanger, thus eliminating cold drafts. All controls are accessible from the front of the furnace for ease of maintenance or service. The washable and reusable Duralast filter saves on periodic service and replacement costs. The cabinet, doors, and other external parts are coated with an electrostatic

powder paint, then baked to a hard enamel finish for superior protection and long life.

When you own a Carrier Gas Furnace, you have the option of expanding your comfort system to include add-on air conditioning, humidifier, and electronic air cleaner. A prewired 40-VA (20-VA on heating only units) transformer, air conditioner fan relay (available on all cooling models), and multispeed blower simplifies installation of an air conditioning condensing unit and evaporator coil.

### 58GP,GS Features/Benefits

**Wrap-Around Casing** — One piece wrap-around casing construction

minimizes vibration. Low-profile design permits installation in restricted locations. Casing has a powder-coated paint finish for extra durability.

**Insulation** — Foil-faced insulation in heat exchanger section of the casing minimizes heat loss.

**Aluminized Steel Slotted-Port Burners** — Provide balanced, quiet combustion.

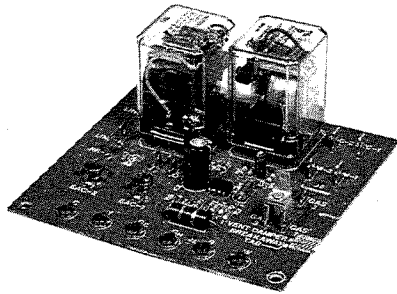
**Printed-Circuit Board** — Controls sequencing and furnace operation. Solid-state blower control actuates blower after main burners ignite, to reduce cold air blowing into rooms.

**Adjustable Blower Speed** — For precise airflow selection.

**Blower Door Switch** — Shuts off all power and fuel to furnace whenever blower door is opened.

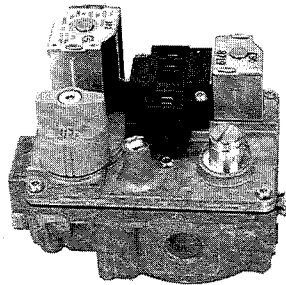
**Redundant Gas Valve** — Shuts off gas to burners if one of the valves (pilot or main gas) fails to close completely for any reason.

**PSC Motors on 4- & 5-Ton Cooling Airflows** — Provide lower operating cost for the larger size blower systems.



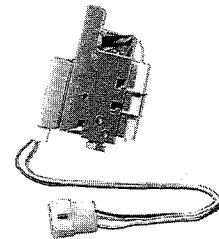
A79141

**PRINTED-CIRCUIT  
CONTROL BOARD**



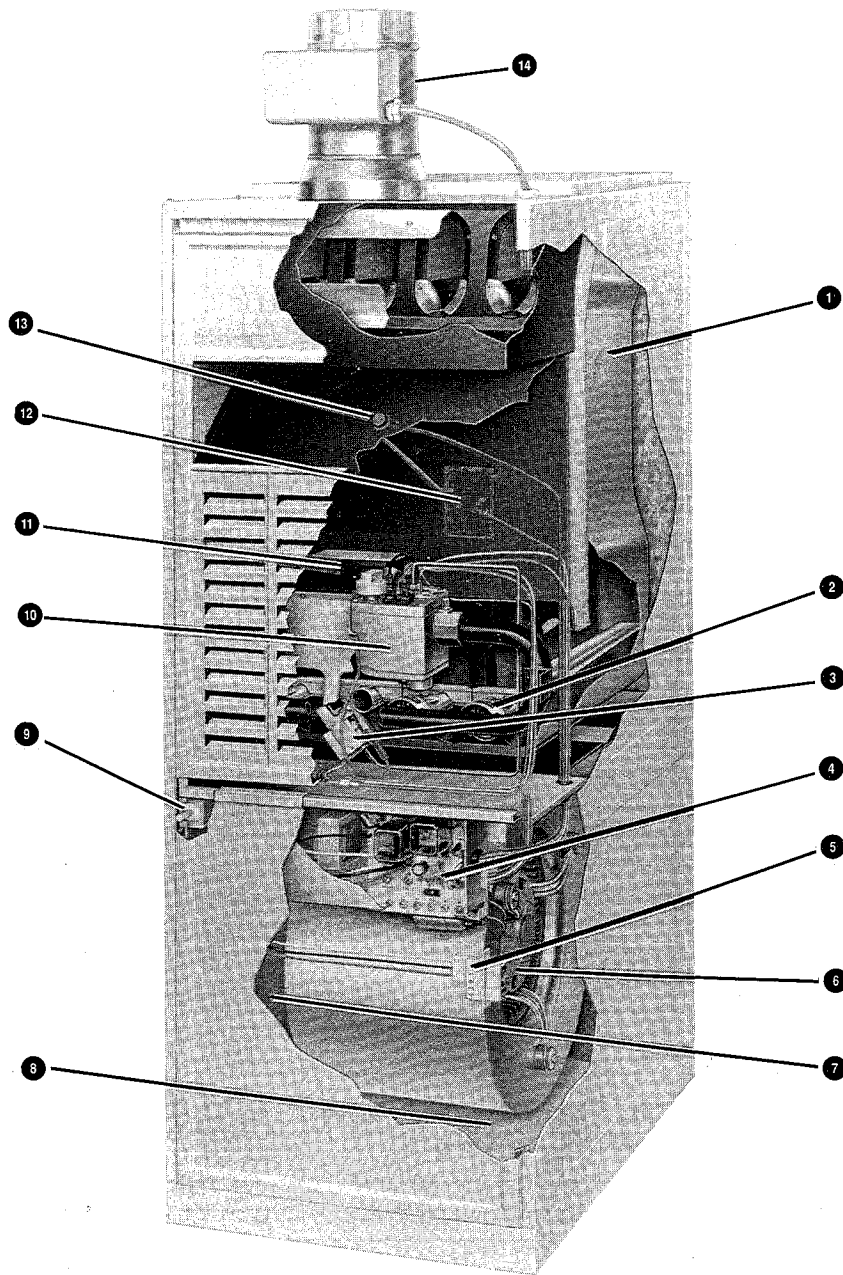
A87230

**REDUNDANT  
GAS VALVE**



A88134

**AUTOMATIC  
PILOT**



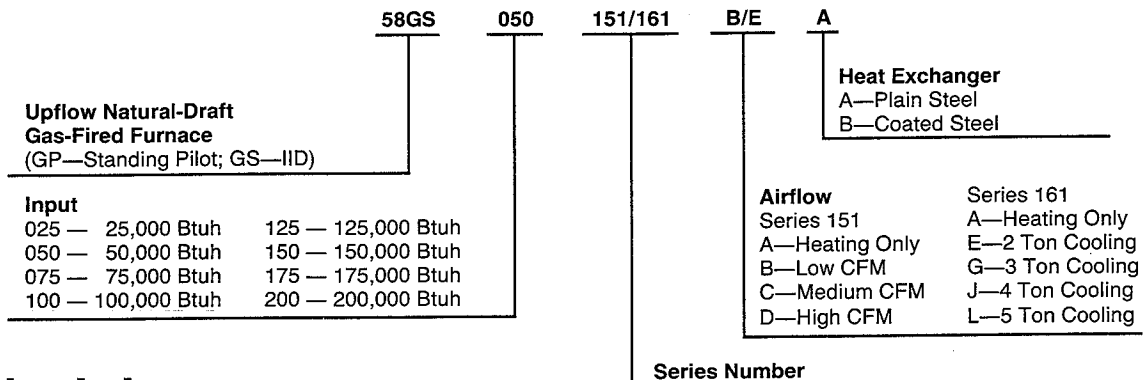
A88128

NOTE: The 58GP and GS Furnaces are factory built for use with natural gas. Either furnace can be field-converted to use propane gas with a factory-authorized and listed accessory conversion kit.

NOTE: Control location and actual controls may be different than shown above.

- |                                    |   |
|------------------------------------|---|
| 1 Heat Exchange Cell               | 8 Bottom Closure Panel  |
| 2 Burner Assembly                  | 9 Blower Door Switch  |
| 3 Pilot Assembly                   | 10 Redundant Gas Valve  |
| 4 Printed-Circuit Control Board    | 11 Igniter/Lockout Control Series 161;<br>Spark Generator Series 131 and 151<br>(Model 58GS only) |
| 5 Adjustable Blower Speed Selector | 12 Safety Limit Control   |
| 6 Direct Drive Blower Motor        | 13 Blocked Vent Shutoff System Switch   |
| 7 Air Filter (side inlet)          | 14 Vent Damper  |

# Model number nomenclature



## Physical data

FURNACE MODEL 58GP, GS††	025**	050			075			100		
	BA/EA	AA	BA/EA	CA/GA	AA	BA/EA	CA/GA	AA	BA/GA	CA/JA
OUTPUT CAPACITY MBH† GP/GS/GS‡‡	—/19/20	38/38/39			57/57/58			76/76/77		
INPUT BTUH*	25,000	50,000			75,000			100,000		
SHIPPING WEIGHT (lb)	113	119	122	127	124	125	132	145	154	165
CERTIFIED TEMP RISE RANGE (F)	15-45	40-70	40-70	35-65	55-85	55-85	45-75	65-95	60-90	45-75
CERTIFIED EXT STATIC	Heating	0.10	0.10	0.10	0.10	0.12	0.12	0.12	0.15	0.15
PRESSURE (in. wc)	Cooling	0.50	—	0.50	0.50	—	0.50	0.50	—	0.50
AIRFLOW CFM‡	Heating	750	700	855	985	660	815	965	870	1045
	Cooling	720	—	815	1170	—	800	1150	—	1155
BLOCKED VENT SHUTOFF SYSTEM SWITCH	Temperature-Actuated SPST (Manual Reset)									
SAFETY LIMIT CONTROL	Temperature-Actuated SPST (Automatic Reset)									
HEATING BLOWER CONTROL	Solid-State Time Operation									
BURNERS (Cross Port)	1	2			3			4		
GAS CONNECTION SIZE	1/2-inch NPT									
GAS VALVE (Redundant)	Manufacturer	GP—Honeywell GS—White Rodgers								
	Minimum Inlet Pressure (in. wc)	4.5								
	Maximum Inlet Pressure (in. wc)	13.6								
PILOT	Model	GP—2CH6 (Match-Lit Pilot) GS—740A (IID Controls)								

FURNACE MODEL 58GP, GS††	125				150			175	200**	
	AA	BA/GA	CA/JA	DA/LA	AA	BA/JA	CA/LA	CA/LA	CA/LA	
OUTPUT CAPACITY MBH† GP/GS/GS‡‡	94/95/95	94/95/97			114/114/114	114/114/116		133/133/136	—/152/155	
INPUT BTUH*	125,000				150,000			175,000	200,000	
SHIPPING WEIGHT (lb)	169	176	182	187	203	204	220	271	275	
CERTIFIED TEMP RISE RANGE (F)	70-100	65-95	60-90	45-75	65-95	65-95	45-75	60-90	70-100	
CERTIFIED EXT STATIC	Heating	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
PRESSURE (in. wc)	Cooling	—	0.50	0.50	0.50	—	0.50	0.50	0.50	
AIRFLOW CFM‡	Heating	1050	1155	1180	1845	1280	1600	1830	1865	
	Cooling	—	1230	1550	2110	—	1600	2110	2000	
BLOCKED VENT SHUTOFF SYSTEM SWITCH	Temperature-Actuated SPST (Manual Reset)									
SAFETY LIMIT CONTROL	Temperature-Actuated SPST (Automatic Reset)									
HEATING BLOWER CONTROL	Solid-State Time Operation									
BURNERS (Cross Port)	5				6			7	8	
GAS CONNECTION SIZE	1/2-inch NPT							3/4-inch NPT		
GAS VALVE (Redundant)	4.5									
	Minimum Inlet Pressure (in. wc)	13.6								
	Maximum Inlet Pressure (in. wc)	13.6								
PILOT	Model	GP—2CH6 (Match-Lit Pilot)							—	
		GS—740A (IID Controls)							J982	

\*Gas inputs and capacities shown are for elevations up to 2000 ft. For elevations above 2000 ft in the U.S., inputs and capacities should be reduced at the rate of 4% for each 1000 ft above sea level. For elevations in Canada from 2000 to 4500 ft, reduce inputs and capacities 10%.  
 †Determined by U.S. Government DOE and Canadian Gas Association test procedures.  
 ‡Air delivery above 1800 cfm requires that both sides or a combination of one side and bottom, or bottom only of the furnace be used for return air.

\*\*Model 58GS only.  
 ††For example: BA is Series 151; EA is Series 161.  
 ‡‡GP with plain heat exchangers/GS with plain heat exchangers/GS with coated heat exchangers.

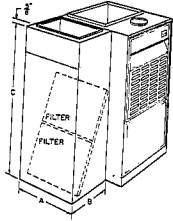
# Accessories

ITEM	ACCESSORY*
Cold Air Return Plenum	✓
Side Filter Rack	✓
Electronic Air Cleaner	✓
Humidifier	✓

\* Factory-authorized and listed, field-installed.

ITEM	ACCESSORY*
Automatic Vent Damper	✓
Gas Conversion Kits†	✓
Twinning Kit	✓
Thermostat	✓

† Propane-to-natural and natural-to-propane

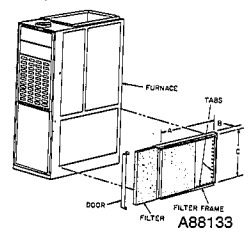


**A88132**

**RETURN-AIR PLENUM**

Custom-made return-air plenum can be mounted on either side of the furnace. Accommodates two throwaway or washable filters.

A	25 in.
B	16 in.
C	46-3/16 in.

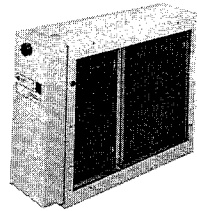


**A88133**

**SIDE FILTER RACK**

Custom made filter rack for easy connection when a return plenum already exists. Provides easy access for cleaning filter.

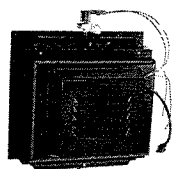
A	23-1/8 in.
B	2-3/8 in.
C	14-1/2 in.



**A89239**

**ELECTRONIC AIR CLEANER**

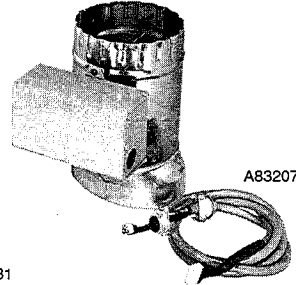
Cleans the air of smoke, dirt, and many pollutants commonly found in the air. Saves on decorating and cleaning expenses.



**A86131**

**HUMIDIFIER**

By adding moisture to winter-dry air, a Carrier humidifier can often improve comfort and keep furniture, rugs, and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.



**A83207**

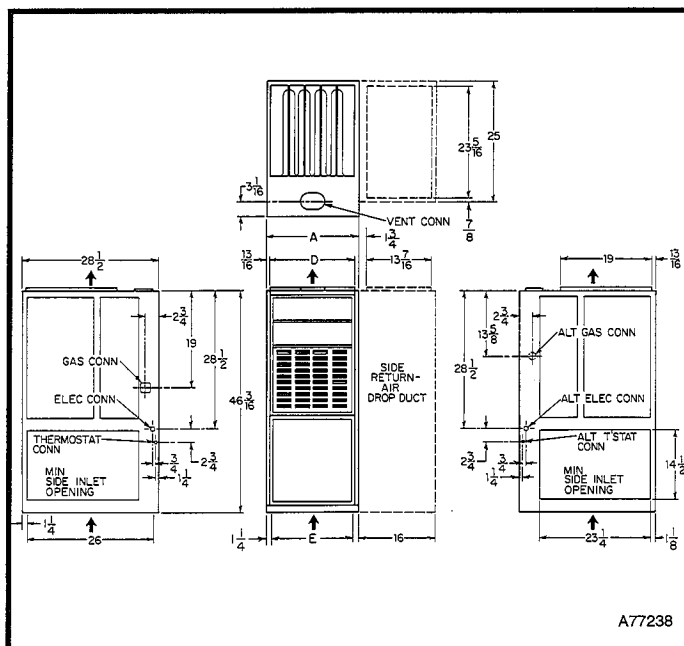
**AUTOMATIC VENT DAMPER**

The damper prevents heated air from escaping out the chimney when the furnace is not operating and installed in a heated space. When the thermostat "calls" for heat, the damper opens automatically to allow flue gas to escape up the chimney during operation.

# Dimensions

## CLEARANCES (in.)

SIZES 58GP, GS	025—075	100—200
<b>SIDES—Single Wall Vent</b>		
Type B-1 Double Wall Vent	1	1
<b>BACK</b>	0	0
<b>TOP OF PLENUM</b>	1	1
<b>VENT CONNECTOR—Single Wall</b>		
Type B-1 Double Wall Vent	6	6
<b>FRONT—Combustion Air Entry and Draft Hood Relief</b>	6	6
<b>SERVICE</b>	30	30



## DIMENSIONS (in.)

SIZE 58GP, GS	A	D	E	VENT CONNECTION	
025	BA/EA	14 <sup>3</sup> / <sub>16</sub>	12 <sup>2</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	3*
050	AA	14 <sup>3</sup> / <sub>16</sub>	12 <sup>2</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	4
	BA/EA CA/GA				
075	AA	14 <sup>3</sup> / <sub>16</sub>	12 <sup>2</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	4
	BA/EA CA/GA				
100	AA	17 <sup>1</sup> / <sub>2</sub>	15 <sup>7</sup> / <sub>8</sub>	15	5
	BA/GA CA/JA	21	19 <sup>3</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>2</sub>	
125	AA	21	19 <sup>3</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>2</sub>	5
	BA/GA CA/JA				
150	AA	24 <sup>1</sup> / <sub>2</sub>	22 <sup>7</sup> / <sub>8</sub>	22	6
	BA/JA CA/LA				
175	CA/LA	31 <sup>1</sup> / <sub>2</sub>	29 <sup>7</sup> / <sub>8</sub>	29	7
200	CA/LA	31 <sup>1</sup> / <sub>2</sub>	29 <sup>7</sup> / <sub>8</sub>	29	7

\* Four-in. collar provided for vent damper installation.

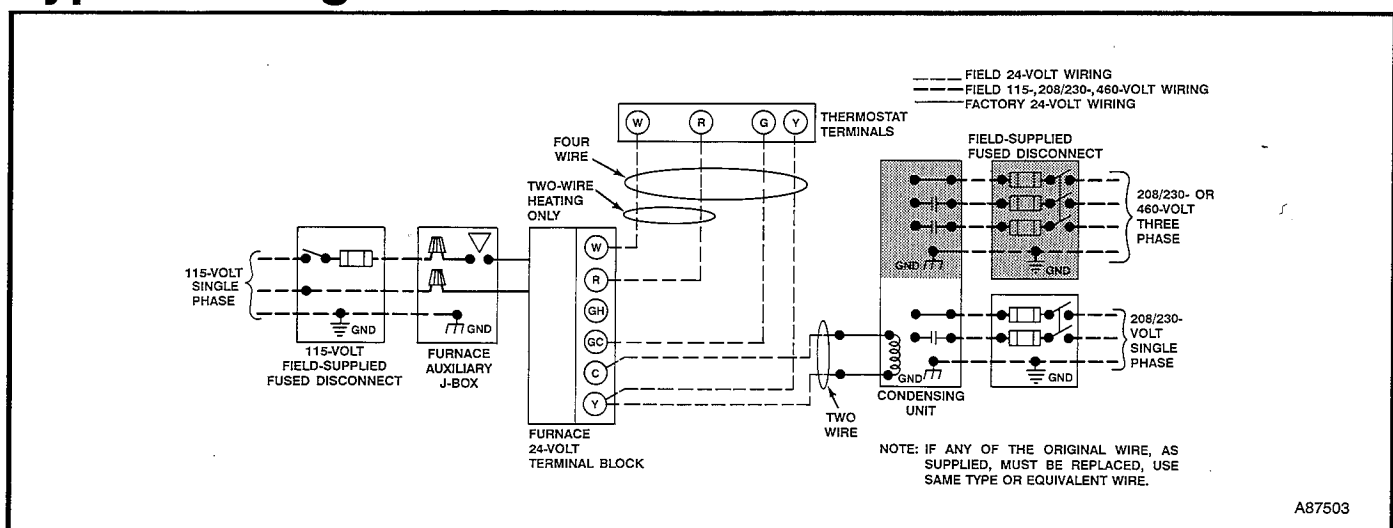


# Electrical data

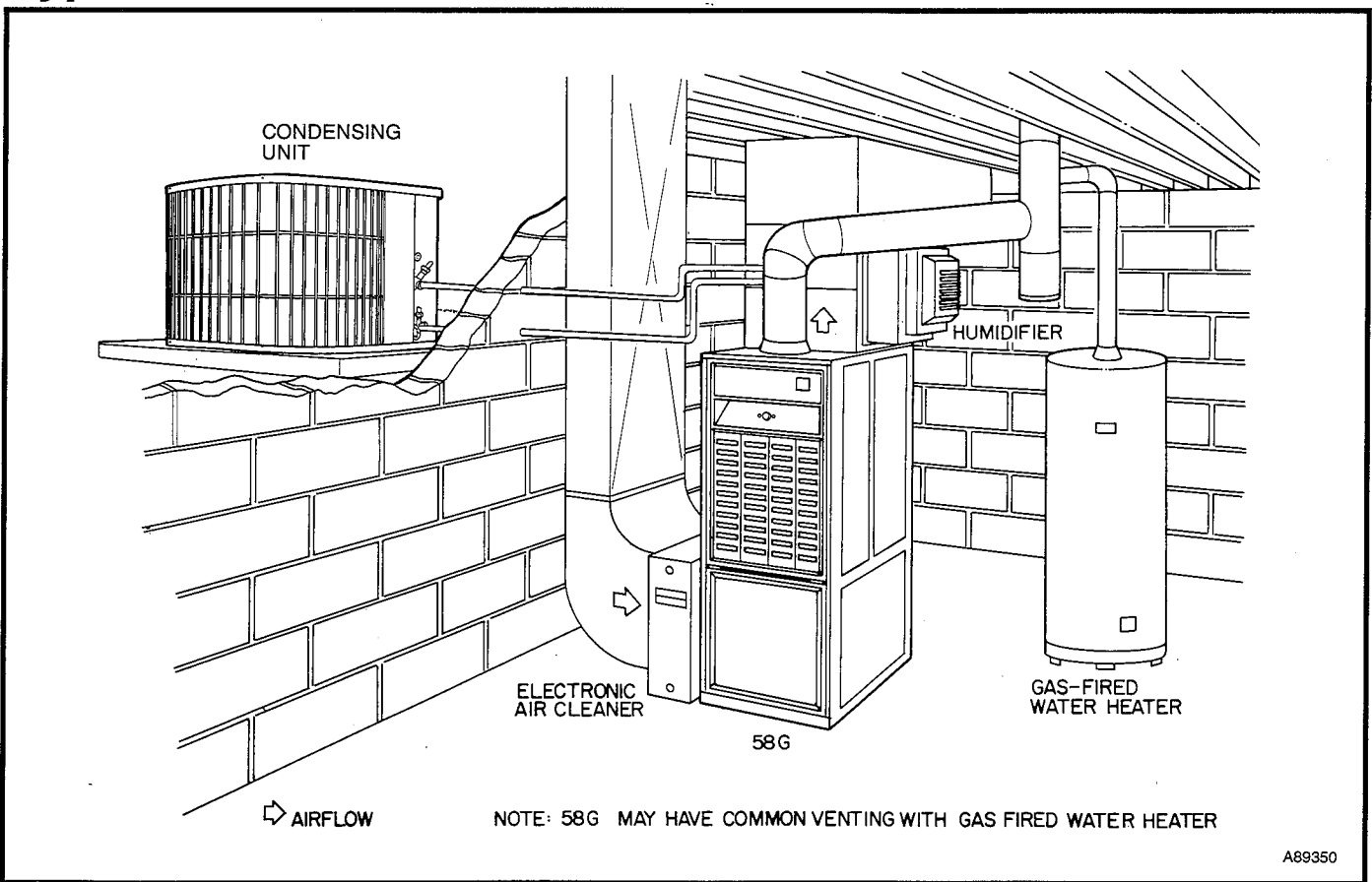
ELECTRICAL DATA		ALL SIZES
VOLTS-HERTZ-PHASE		115-60-1
MINIMUM WIRE SIZE		14 AWG
MAXIMUM FUSE SIZE		15 Amps
TRANSFORMER (24v)		40 VA*
EXTERNAL CONTROL POWER AVAILABLE	Heating Cooling	24 VA† 36 VA
AIR COND. BLOWER RELAY (Except AA and AB Models)		Standard

\*Heat/cool models; 20VA—heat only models.  
 †Heat/cool models; 4VA—heat only models.

## Typical wiring schematic



## Typical installation





Carrier Corporation • Syracuse, New York 13221

9-89

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

Book 1 4  
Tab 16a 18a

Page 8

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PC101

Form 58G-3PD

Replaces: 58G-2PD