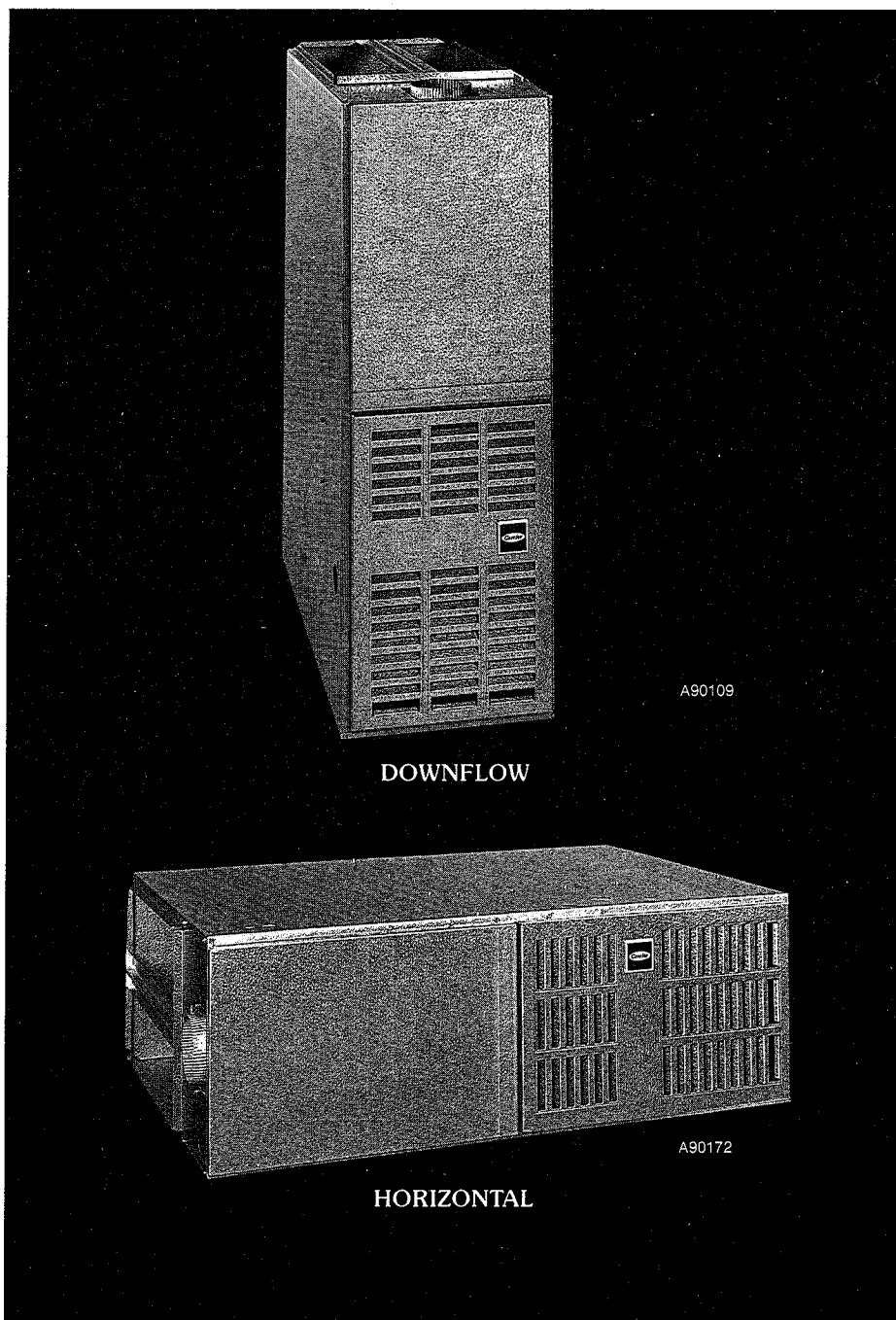


Product Data

58RAV Mid-Efficiency Downflow/Horizontal Induced-Combustion Gas Furnace

Heating Capacities:
35,000 — 110,000 Btuh



DOWNFLOW

A90109

HORIZONTAL

A90172

80% AFUE At Budget Price

Carrier is the first manufacturer to provide an 80% AFUE gas furnace for the budget conscious consumer and builder. The 58RAV offers the same high quality you demand from Carrier, but with a few less features.

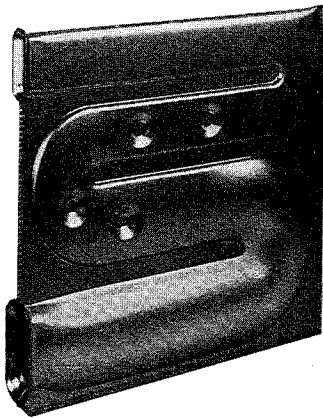
The cabinet is constructed from a specially selected galvanized embossed steel with a clear coating. This material provides the same protection from humidity and rust as our other cabinets.

The 58RAV offers a hot surface ignition system which provides a superior and more reliable ignition than older spark relight systems.

The heat exchangers are constructed of aluminized steel, and covered by a 10 year heat exchanger Limited Warranty. This is Carrier's patented Super-S heat exchanger that improves heat transfer and enables downsizing of this furnace to only 40 in. tall.

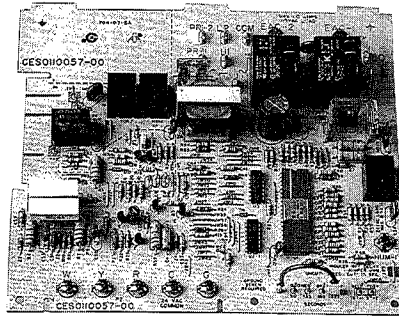
To improve the sound level, we have incorporated a soft mount inducer assembly and a slow opening gas valve.

The control board is the brains of this induced-combustion gas furnace. It offers a unique self-test feature that checks all the major functions of the furnace within 1 minute. The control board also features a 3-amp fuse that protects the transformer and control board.



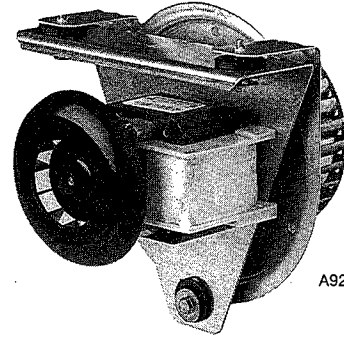
A89217

HEAT EXCHANGER



A92073

PRINTED-CIRCUIT
BOARD



A92074

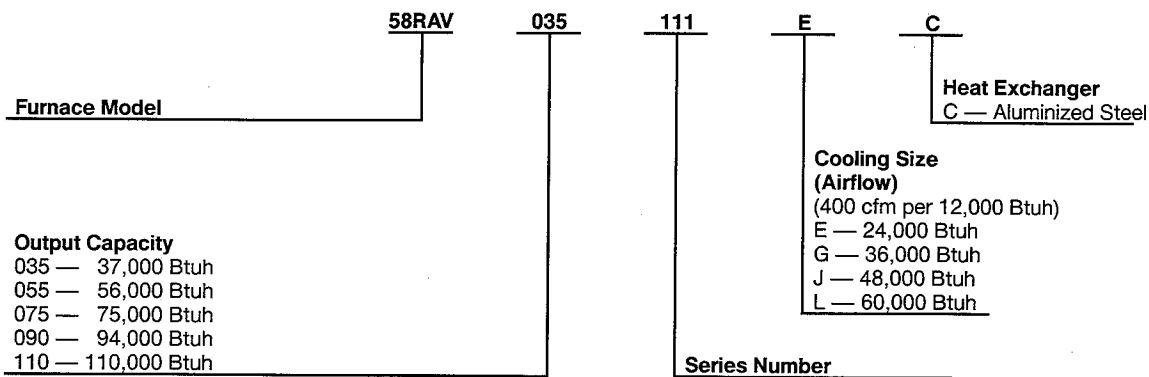
INDUCER BLOWER



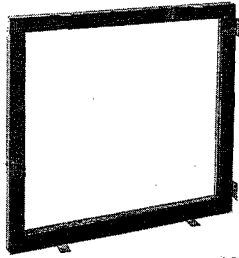
MEETS DOE RESIDENTIAL CONSERVATION SERVICES
PROGRAM STANDARDS.

Before purchasing this appliance, read important
energy cost and efficiency information available
from your retailer.

Model number nomenclature



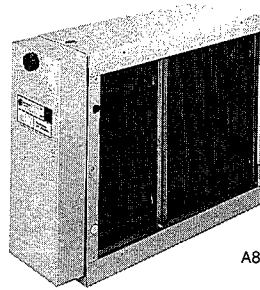
Carrier accessories*



A88202

DOWNFLOW SUBBASE

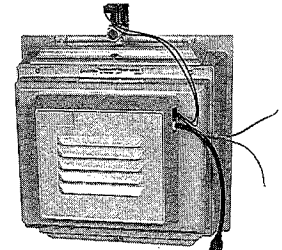
One base fits all furnace sizes. The base is designed to be installed between the furnace or coil box and a combustible floor. It is A.G.A. design certified for use with Carrier 58RAV furnaces.



A89239

MODEL 31KAX ELECTRONIC AIR CLEANER

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



A89459

MODEL 49FH HUMIDIFIER

By adding moisture to winter-dry air, a Carrier humidifier can often improve the 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.

MODEL 58RAV	035-EC & GC	055-EC & GC	075-GC & JC	090-JC & LC	110-LC
ELECTRONIC AIR CLEANER			Model 31KAX		
HUMIDIFIER			Model 49FH		
THERMOSTAT			See Master Price Pages		
DOWNFLOW SUBBASE			KGASB0101ALL		
DUCT-FLANGE KIT			KGARF0101ALL		
GAS CONVERSION KIT — NATURAL-TO-PROPANE			KGANP1701HSI		
PROPANE-TO-NATURAL			KGAPN1501HSI		

*Factory-authorized and field-installed. Gas conversion kits are A.G.A. recognized.

Physical data

FURNACE MODEL 58RAV		035		055		075		090		110
		EC	GC	EC	GC	GC	JC	JC	LC	LC
OUTPUT CAPACITY†	Nonweatherized ICS‡	37,000	37,000	56,000	56,000	75,000	75,000	94,000	94,000	110,000
INPUT BTUH*		46,000	46,000	69,000	69,000	92,000	92,000	115,000	115,000	135,000
SHIPPING WEIGHT (lb)		118	121	135	139	146	146	163	171	182
CERTIFIED TEMP RISE RANGE (°F)		30—60	20—50	50—80	30—60	45—75	30—60	50—80	35—65	45—75
CERTIFIED EXT STATIC PRESSURE	Heating	0.10	0.10	0.12	0.12	0.15	0.15	0.20	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
AIRFLOW CFM	Heating	720	1170	660	1200	1155	1350	1400	1735	1690
	Cooling	895	1215	930	1300	1395	1580	1595	1950	2055
SECONDARY LIMIT CONTROL		Manual Reset								
LIMIT CONTROL		SPST								
HEATING BLOWER CONTROL		Solid-State Time Operation								
BURNERS (Monoport)		2		3		4		5		6
GAS CONNECTION SIZE		1/2-in. NPT								
GAS VALVE (Redundant) Manufacturer		White-Rodgers								
Minimum Inlet Pressure (in. wc)		4.5 (natural gas)								
Maximum Inlet Pressure (in. wc)		13.6								
MAIN BURNER IGNITOR		Hot-Surface								

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level.

† Tentative capacity in accordance with U.S. Government DOE test procedures.

‡ ICS — Isolated Combustion System.

Dimensions

CLEARANCES (in.)

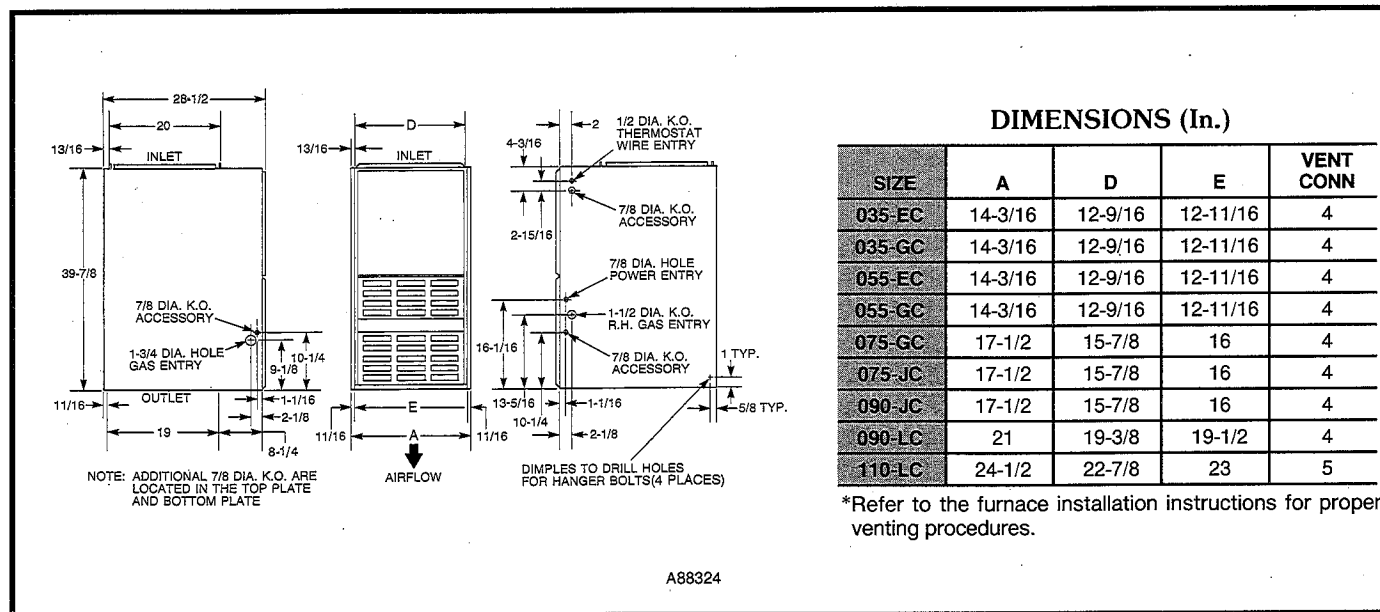
SIZES	035 AND 055	075 THROUGH 110
DOWNFLOW		
Sides — Single-Wall Vent	1	0
Type B-1 Double-Wall Vent	0	0
Back	0	0
Top	1	1
Front — Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Vent — Single-Wall	6	6
Type B-1 Double-Wall	1	1

NOTES:

1. Provide 30-in. front clearance for servicing. An open door in front of the furnace can meet this requirement.
2. A minimum clearance of 3 in. must be provided in front of the furnace for combustion air and proper operation.

SIZES	035 AND 055	075 THROUGH 110
HORIZONTAL (In Alcove/Attic)		
Sides*	1	0
Back	0	0
Top — Single-Wall	1	1
Type B-1 Double-Wall	1	1
Front	18	18
Vent — Single-Wall	6	6
Type B-1 Double-Wall	1	1
HORIZONTAL (In Closet)		
Sides*	1	1
Back	3	3
Top — Single-Wall Vent	2	2
Type B-1 Double-Wall Vent	2	2
Front — Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Vent — Single-Wall	6	6
Type B-1 Double-Wall	1	1

*Indicates supply or return sides when furnace is in the horizontal position.



DIMENSIONS (In.)

SIZE	A	D	E	VENT CONN
035-EC	14-3/16	12-9/16	12-11/16	4
035-GC	14-3/16	12-9/16	12-11/16	4
055-EC	14-3/16	12-9/16	12-11/16	4
055-GC	14-3/16	12-9/16	12-11/16	4
075-GC	17-1/2	15-7/8	16	4
075-JC	17-1/2	15-7/8	16	4
090-JC	17-1/2	15-7/8	16	4
090-LC	21	19-3/8	19-1/2	4
110-LC	24-1/2	22-7/8	23	5

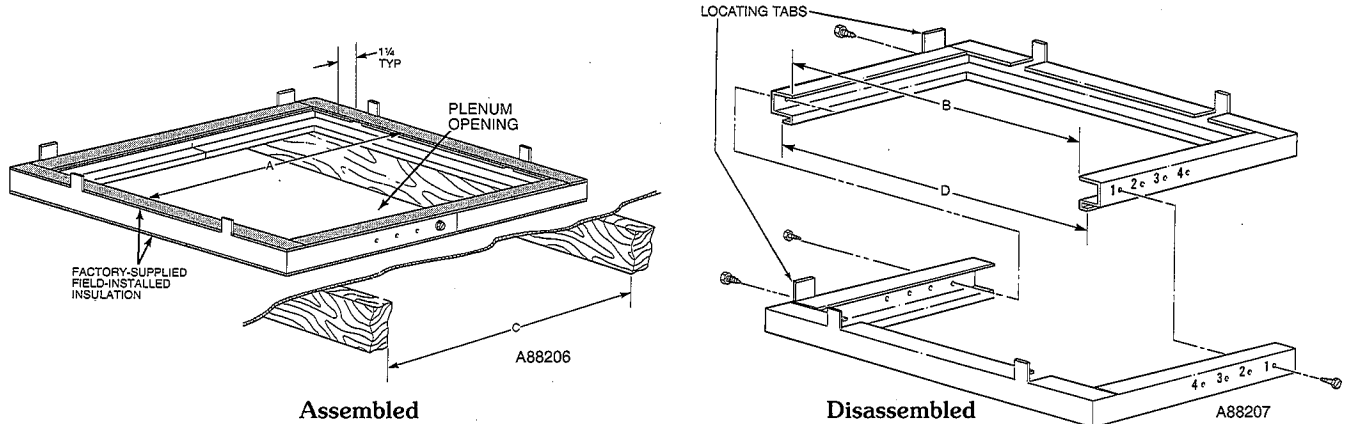
*Refer to the furnace installation instructions for proper venting procedures.

Accessory downflow subbase

DIMENSIONAL DATA

FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
14-3/16	11-13/16	19	13-7/16	20-3/8	4
17-1/2	15-1/8	19	16-3/4	20-3/8	3
21	18-5/8	19	20-1/4	20-3/8	2
24-1/2	22-1/8	19	23-3/4	20-3/8	1

*The plenum should be constructed 1/4 in. smaller in width and depth than the plenum dimensions shown above.



AIR DELIVERY (cfm)

FURNACE SIZE	SPEED	EXTERNAL STATIC PRESSURE (in. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
035-EC	High	1100	1050	1000	950	895	840	760	650
	Med-High	860	820	790	760	710	655	580	480
	Med-Low	720	685	650	615	560	505	440	360
035-GC	High	—	1400	1355	1300	1215	1130	1050	960
	Med-High	—	1295	1255	1190	1115	1045	975	890
	Med-Low	1170	1150	1115	1060	1005	950	880	800
	Low	1020	1010	980	945	985	850	785	715
055-EC	High	—	—	1010	975	930	885	825	745
	Med-High	—	815	800	765	725	685	620	550
	Med-Low	—	660	645	620	590	545	480	415
055-GC	High	—	1490	1425	1365	1300	1240	1175	1100
	Med-High	—	1345	1300	1255	1200	1140	1075	1000
	Med-Low	1200	1180	1140	1100	1060	1015	960	895
	Low	1020	1000	985	950	915	880	835	780
075-GC	High	—	1575	1515	1455	1395	1325	1230	1120
	Med-High	—	1380	1340	1285	1230	1165	1095	1005
	Med-Low	1165	1145	1130	1090	1055	1005	940	870
	Low	965	955	940	910	885	840	785	705
075-JC	High	1855	1765	1710	1665	1580	1570	1410	1310
	Med-High	1595	1570	1530	1485	1410	1355	1280	1200
	Med-Low	1355	1345	1305	1270	1220	1170	1110	1025
	Low	1170	1170	1140	1110	1075	1025	965	890
090-JC	High	1930	1850	1770	1685	1595	1505	1405	1305
	Med-High	1685	1630	1580	1525	1445	1370	1285	1195
	Med-Low	1425	1400	1370	1325	1280	1225	1155	1070
	Low	1250	1240	1210	1170	1150	1095	1035	950
090-LC	High	2235	2185	2110	2030	1950	1835	1700	1540
	Med-High	1995	1970	1915	1845	1765	1680	1545	1415
	Med-Low	1735	1735	1675	1625	1565	1480	1370	1265
	Low	1510	1500	1485	1455	1400	1320	1230	1130
110-LC	High	—	2250	2190	2130	2055	1960	1875	1760
	Med-High	—	2000	1960	1910	1850	1785	1710	1615
	Med-Low	1700	1690	1670	1650	1610	1560	1490	1435
	Low	1480	1480	1480	1460	1430	1380	1320	1255

— Indicates unstable operating conditions.

Performance data

FURNACE MODEL 58RAV	035-EC	035-GC	055-EC	055-GC	075-GC	075-JC	090-JC	090-LC	110-LC
DIRECT-DRIVE MOTOR Hp (PSC)	1/5	1/3	1/5	1/3	1/3	1/2	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	2.9	5.8	2.9	5.8	5.8	7.9	7.9	11.1	11.1
RPM (Nominal)—SPEEDS	1075—3	1075—4	1075—3	1075—4	1075—4	1075—4	1075—4	1075—4	1075—4
BLOWER WHEEL DIAMETER x WIDTH (in.)	10 x 6	10 x 6	10 x 6	10 x 6	10 x 7	10 x 8	10 x 8	11 x 10	11 x 10
FILTER SIZE (in.)—(WASHABLE)	(2) 16 x 20 x 1								

PSC — Permanent Split Capacitor

ENERGY EFFICIENCY

FURNACE MODEL 58RAV		035		055		075		090		110
		EC	GC	EC	GC	GC	JC	JC	LC	LC
CAPACITY BTUH*	Nonweatherized ICS†	37,000	37,000	56,000	56,000	75,000	75,000	94,000	94,000	110,000
AFUE %*	Nonweatherized ICS†	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0

* Tentative capacity and AFUE in accordance with U.S. Government DOE test procedures.

† ICS — Isolated Combustion System

Electrical data

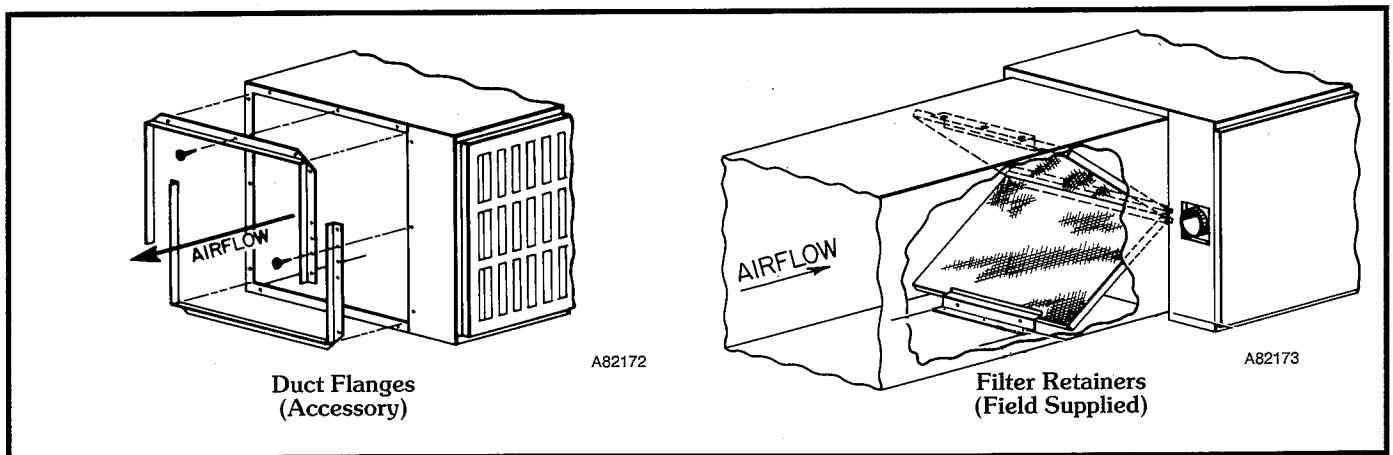
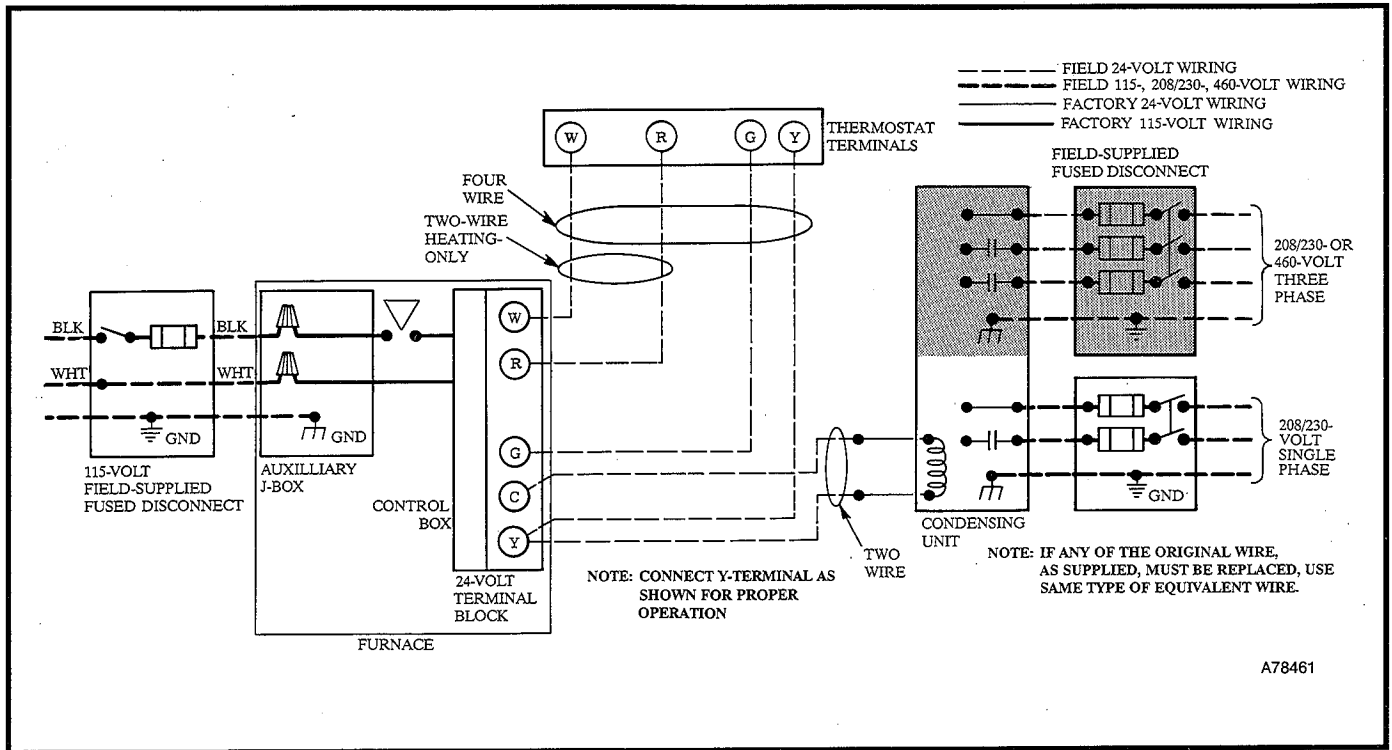
FURNACE MODEL 58RAV		035-EC	035-GC	055-EC	055-GC	075-GC	075-JC	090-JC	090-LC	110-LC
UNIT VOLTS—HERTZ—PHASE		115—60—1								
MINIMUM WIRE SIZE		14	14	14	14	14	14	14	12	12
MAXIMUM WIRE LENGTH* (Ft.)		42	34	42	33	30	28	28	33	31
MAXIMUM UNIT AMPS		6.6	8.1	6.7	8.4	9.2	10.2	10.1	13.3	14.3
OPERATING VOLTAGE RANGE† (Min—Max)		104—127								
MAXIMUM FUSE SIZE OR HACR-TYPE CKT BRK‡ (Amps)		15	15	15	15	15	15	15	20	20
TRANSFORMER (24v)		40 VA								
EXTERNAL CONTROL POWER AVAILABLE—	Heating	12 VA								
	Cooling	35 VA								
AIR CONDITIONING BLOWER RELAY		Standard								

* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

† Permissible limits of the voltage range at which the unit will operate satisfactorily.

‡ Time-delay fuse is recommended.

Typical wiring schematic



Typical installation

