

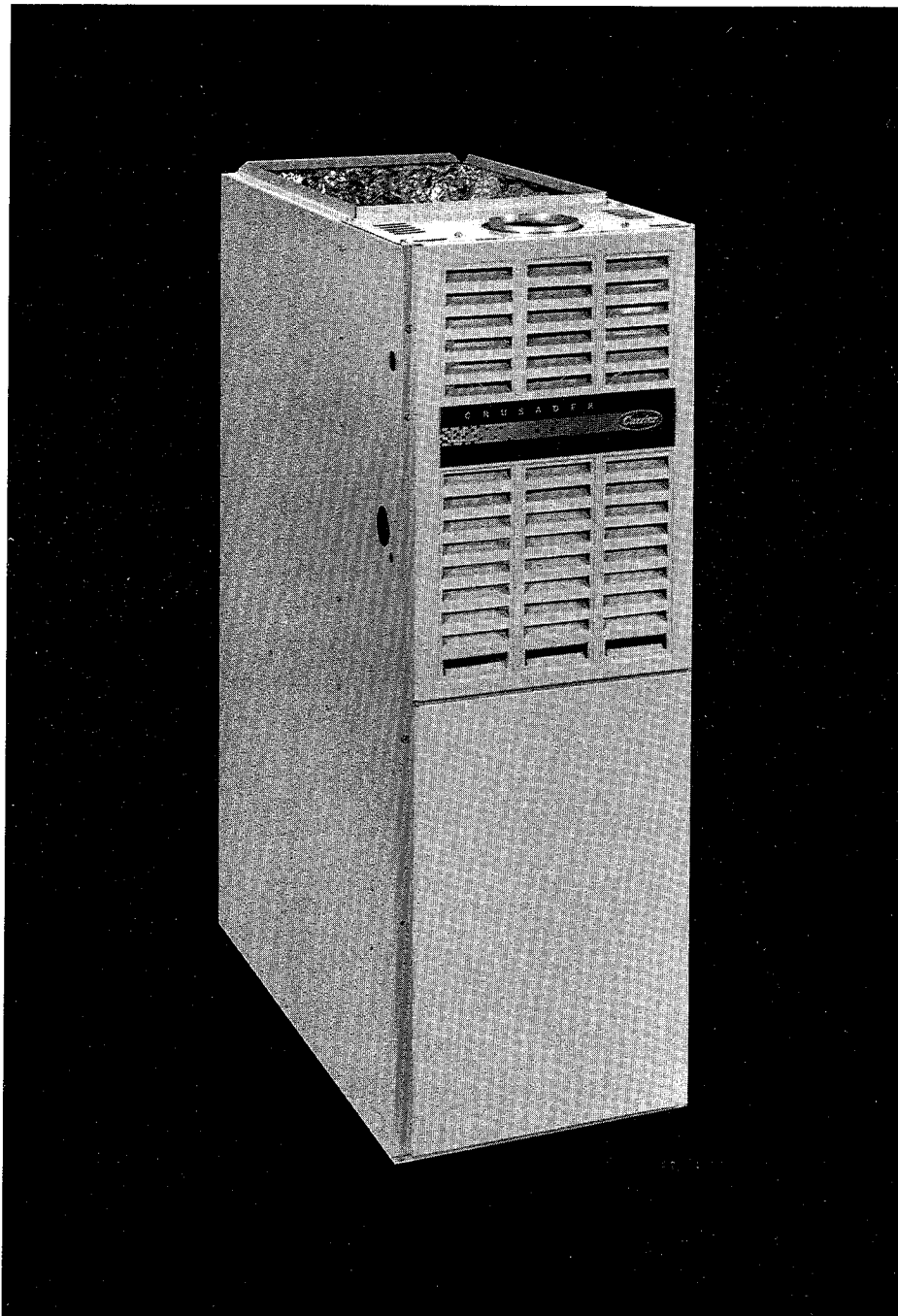


Product Data

Mid-Efficiency Induced-Combustion Upflow Furnace 58SSC

Heating Capacities:
40,000—130,000 Btuh

COPY



Advanced Technology for Mid-Efficiency Gas Furnaces

Carrier leads the industry with our new Crusader gas furnace. This furnace is built with the most advanced manufacturing equipment, processes, and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features. The 58SSC Upflow Furnace is the newest addition to Carrier's list of product leadership in the gas furnace business.

These induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well — delivering an Annual Fuel Utilization Efficiency (AFUE) rating of →80.0%. The Carrier Crusader utilizes a pilotless, silicon carbide ignition system to save energy and increase reliability. This ignition system does not have a pilot flame to waste gas, nor a pilot orifice to become clogged.

Our engineers used the patented S-shaped, four-pass heat exchanger to make the Carrier Crusader the first mid-efficiency furnace that is only 40 ins. tall. The Super-S heat exchanger provides better heat transfer while enabling us to make a more compact furnace. This provides more room in closet, utility room, and short basement installations —especially with today's taller high-efficiency coils. The Carrier Crusader will fit where other furnaces will not — accomplishing it with a durable, aluminized-steel heat exchanger guaranteed by a 20-year Limited Warranty.

The superior attention to cabinet detail is obvious. The Carrier

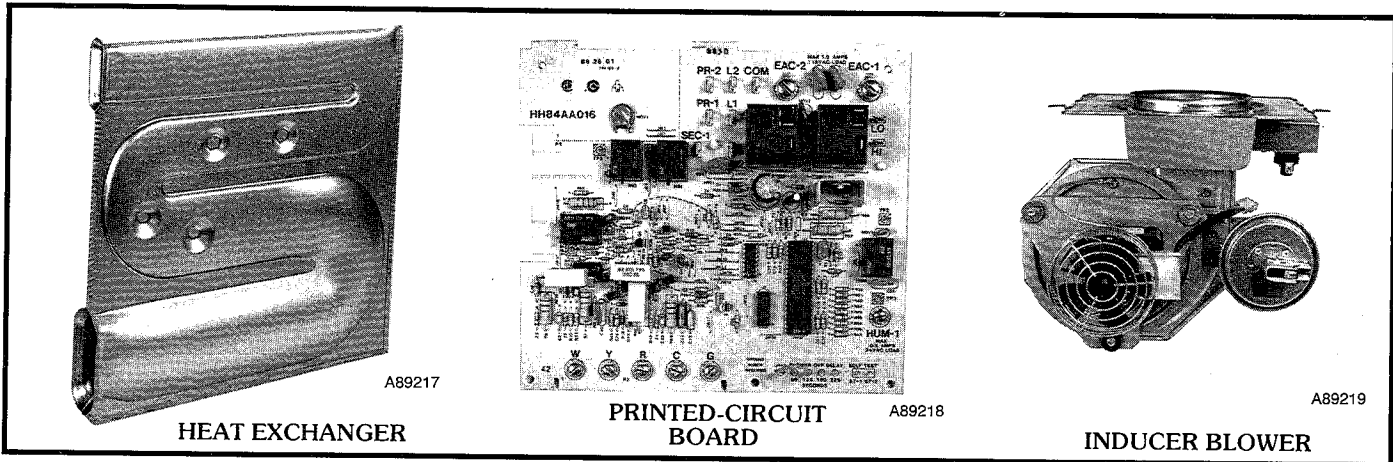
Crusader features one-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the Crusader furnace. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting; then the cabinet is constructed of prepainted steel — the same high-quality finish found on refrigerators and dishwashers.

Perhaps the most advanced feature of the Carrier Crusader is the microprocessor control center. The simplified electronics in this control

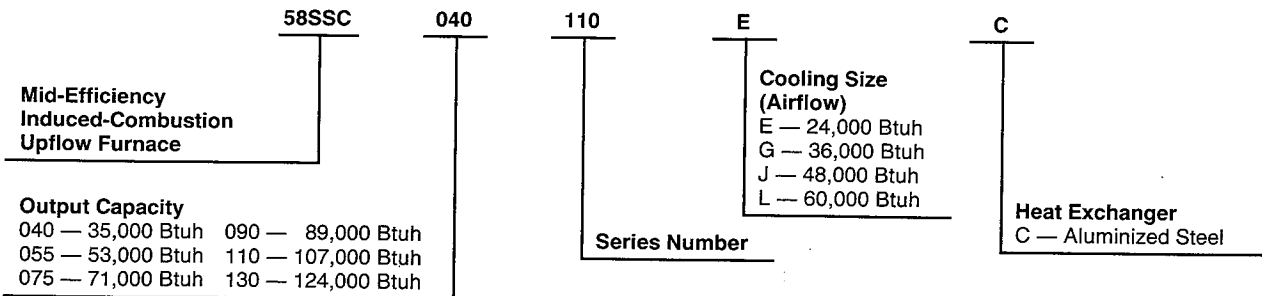
board provide high reliability while performing many of the functions of older, electro-mechanical devices in other furnaces. Advanced features of the board show true leadership in furnace technology. The control board provides blower delay at start up and shut down, while monitoring furnace operations and functions. In the unlikely event of a service call, in less than a minute the technician can use the self-test feature to determine if a major component has failed. The control board will check itself, then the inducer, silicon carbide ignition,

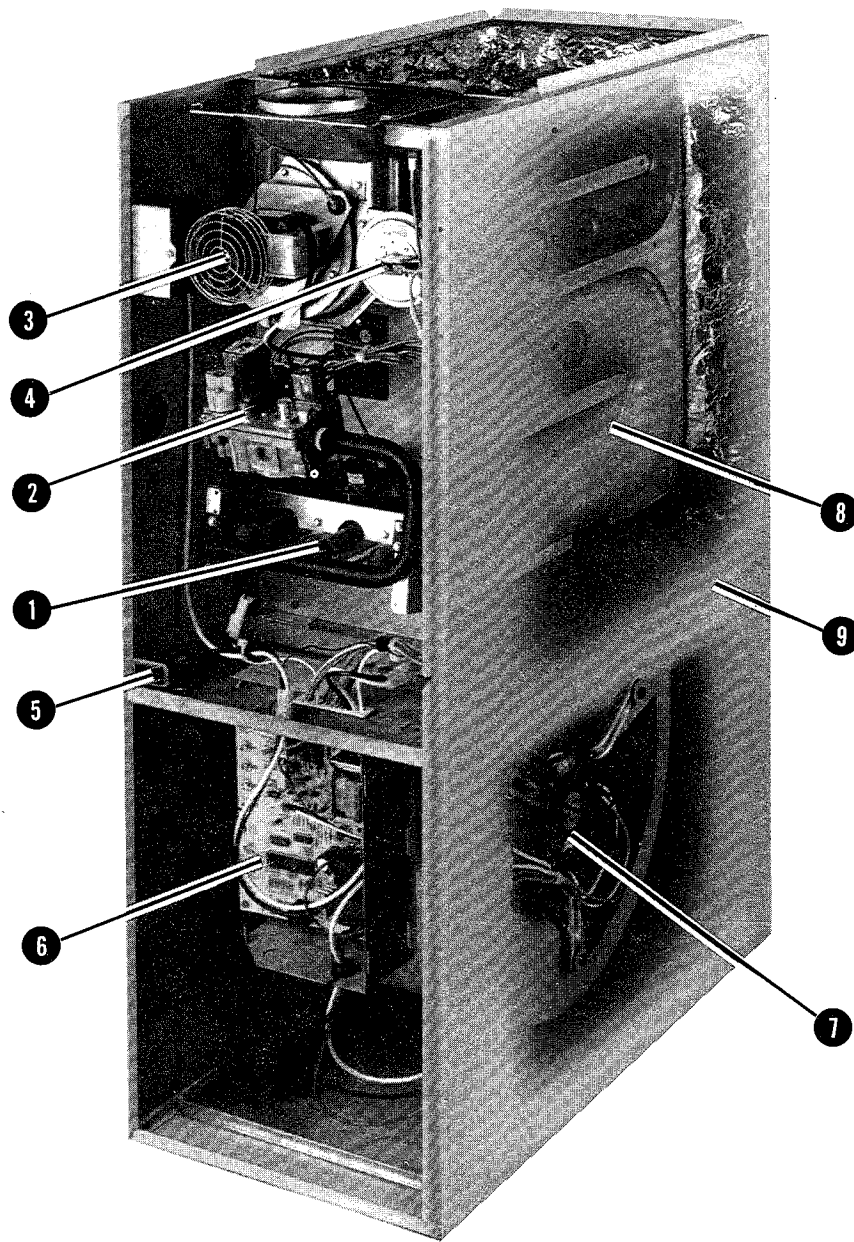
low- and high-speed blower, and the humidifier connections.

Best of all, the Carrier Crusader is made to be easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, Molex blower speed selector, cased or uncased cooling coils; low-voltage, humidifier, and electronic air cleaner terminal connections are among other features.



Model number nomenclature



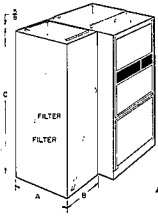


NOTE: The 58SSC Furnaces are for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.

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

- | | | | |
|---|---------------------------|---|-------------------------|
| 1 | Burner Assembly | 6 | Control Box |
| 2 | Gas Control Valve | 7 | Blower and Blower Motor |
| 3 | Inducer Assembly | 8 | Heat Exchanger |
| 4 | Pressure Switch | 9 | Wrap-Around Casing |
| 5 | Blower Door Safety Switch | | |

→ Carrier Accessories*

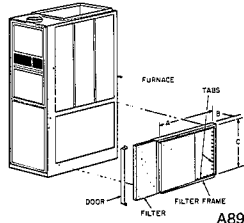


A89080

RETURN-AIR PLENUM

Custom-made return-air plenum can be mounted on either side of the furnace. Includes washable filters.

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

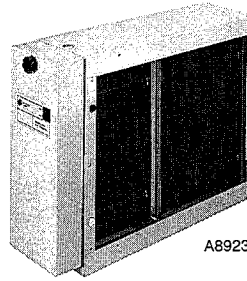


A89081

SIDE FILTER RACK

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

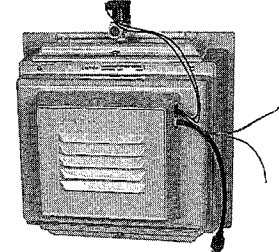
A	23-1/8 in.
B	2-3/8 in.
C	14-1/2 in.



A89239

MODEL 31KAX ELECTRONIC AIR CLEANER

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



A89459

MODEL 49FH 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.

MODEL 58SSC	040-EC & GC	050-EC & GC	075-GC & JC	090-GC, JC, & LC	110-JC & LC	130-LC
ELECTRONIC AIR CLEANER	Model 31KAX					
HUMIDIFIER	Model 49FH					
THERMOSTAT	See Master Price Page 99TZ					
RETURN-AIR PLENUM (With Washable Filters)	58SSC900---071					
SIDE FILTER RACK (Deluxe)	58GA-900---011					
SIDE FILTER RACK (With Washable Filters)	58SSC900---081					
TWINNING KIT	58SSC900---011					
GAS CONVERSION KIT — NATURAL-TO-PROPANE	58DHC900---011					
PROPANE-TO-NATURAL	58DHC900---021					

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

→ Physical data

FURNACE MODEL 58SSC	040		055		075		090			110		130
	EC	GC	EC	GC	GC	JC	GC	JC	LC	JC	LC	LC
OUTPUT CAPACITY BTUH† Nonweatherized ICS**	35,000	35,000	53,000	53,000	71,000	71,000	89,000	89,000	89,000	107,000	107,000	124,000
INPUT BTUH*	44,000	44,000	66,000	66,000	88,000	88,000	110,000	110,000	110,000	132,000	132,000	154,000
SHIPPING WEIGHT (lb)	122	124	132	134	150	154	160	166	184	178	194	204
CERTIFIED TEMP RISE RANGE (F)	25-55	20-50	45-75	30-60	45-75	35-65	55-85	45-75	35-65	45-75	40-70	55-85
CERTIFIED EXT STATIC PRESSURE (in. wc)	Heating	0.10	0.10	0.12	0.12	0.15	0.15	0.20	0.20	0.20	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
AIRFLOW CFM‡	Heating	855	1070	830	1175	1150	1445	1175	1415	1720	1645	1695
	Cooling	930	1270	950	1300	1335	1740	1210	1575	2210	1620	1905
LIMIT CONTROL	SPST											
HEATING BLOWER CONTROL	Solid-State Time Operation											
BURNERS (Monoport)	2	2	3	3	4	4	5	5	5	6	6	7
GAS CONNECTION SIZE	1/2-in. NPT											
GAS VALVE (Redundant) Manufacturer	White-Rodgers											
Minimum Inlet Pressure (in. wc)	4.5-in. wc (natural gas)											
Maximum Inlet Pressure (in. wc)	13.6-in. wc (natural gas)											
IGNITION DEVICE	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.

†Capacity and AFUE in accordance with U.S. Government DOE test procedures. California Seasonal Efficiencies based on California-specified 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. A filter is required for each return-air supply.

**ICS — Isolated Combustion System.

→ Dimensions

CLEARANCES (in.)

Size	040 & 055	075 thru 130
Sides—Single-Wall Vent	1	0
Type B-1, Double-Wall Vent	0	0
Back	0	0
Top of Plenum	1	1
Vent Connector—Single-Wall	6	6
Type B-1, Double-Wall	1	1
Front* Single-Wall	6	6
Type B-1, Double-Wall Vent	3	3
Service	30	30

*The 3-in. front clearance is needed for combustion-air and ventilation-air entry.

NOTE: 2 ADDITIONAL 7/8 DIA. KNOCKOUTS ARE LOCATED IN THE TOP PLATE

A88367

DIMENSIONS (in ins.)

Size	A	D	E	Vent Connection
040EC	14-3/16	12-9/16	11-11/16	4
040GC	14-3/16	12-9/16	11-11/16	4
055EC	14-3/16	12-9/16	11-11/16	4
055GC	14-3/16	12-9/16	11-11/16	4
075GC	17-1/2	15-7/8	15	4
075JC	21	19-3/8	18-1/2	4
090GC	17-1/2	15-7/8	15	4
090JC	21	19-3/8	18-1/2	4
090LC	24-1/2	22-7/8	22	4
110JC	21	19-3/8	18-1/2	5
110LC	24-1/2	22-7/8	22	5
130LC	24-1/2	22-7/8	22	5

NOTES:

1. A factory-supplied panel covers the back side of the accessory return-air plenum that extends above the furnace.
2. Refer to the furnace installation instructions for proper venting procedures.

Performance data

FURNACE MODEL 58SSC	040		055		075		090			110		130
	EC	GC	EC	GC	GC	JC	GC	JC	LC	JC	LC	LC
DIRECT-DRIVE MOTOR Hp (PSC)	1/5	1/3	1/5	1/3	1/3	1/2	1/3	1/2	3/4	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	3.4	5.8	3.4	5.8	5.8	7.9	5.8	7.9	11.1	7.9	11.1	11.1
RPM (Nominal) — SPEEDS	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4
BLOWER WHEEL DIAMETER — WIDTHS (in.)	10 x 6	10 x 6	10 x 6	10 x 6	10 x 7	10 x 8	10 x 7	10 x 8	11 x 10	10 x 8	11 x 10	11 x 10
WASHABLE 16 x 25 x 1-in. FILTER(s) — No.	1	1	1	1	1	—	1	—	2	—	2	2
WASHABLE 20 x 25 x 1-in. FILTER(s) — No.	—	—	—	—	—	1	—	1	—	1	—	—

PSC — Permanent Split Capacitor

→ EFFICIENCY

FURNACE MODEL 58SSC	040		055		075		090			110		130
	EC	GC	EC	GC	GC	JC	GC	JC	LC	JC	LC	LC
CAPACITY*	Nonweatherized ICS†											
	35,000	35,000	53,000	53,000	71,000	71,000	89,000	89,000	89,000	107,000	107,000	124,000
AFUE %*	Nonweatherized ICS†											
	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
CALIFORNIA SEASONAL EFFICIENCIES (CSE)	73.8	73.1	75.7	74.7	75.6	75.0	76.6	76.2	74.3	76.0	74.7	75.8

*Capacity and AFUE in accordance with U.S. Government DOE test procedures. California Seasonal Efficiencies based on California-specified procedures.

†ICS — Isolated Combustion System.

AIR DELIVERY – Cfm* (With Filter)

FURNACE SIZE	SPEED	EXTERNAL STATIC PRESSURE (in. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
040-EC	High	1075	1050	1025	975	930	855	780	630
	Med-High	855	830	810	785	745	675	580	480
	Med-Low	710	695	670	635	610	550	485	400
	Low	610	590	565	535	485	425	375	310
040-GC	High	—	1485	1410	1350	1270	1180	1080	970
	Med-High	—	1375	1315	1240	1165	1095	1000	905
	Med-Low	1250	1205	1165	1120	1060	985	905	805
	Low	1070	1035	1010	970	930	875	805	720
055-EC	High	—	1055	1030	995	950	900	830	750
	Med-High	—	830	810	790	750	720	665	580
	Med-Low	700	680	660	635	605	555	505	445
	Low	600	575	550	520	475	450	400	340
055-GC	High	—	1485	1430	1365	1300	1220	1140	1045
	Med-High	—	1355	1305	1260	1200	1135	1055	960
	Med-Low	1175	1170	1140	1110	1055	1005	950	860
	Low	1020	1015	995	970	930	885	825	745
075-GC	High	1585	1540	1470	1410	1335	1220	1110	980
	Med-High	1355	1325	1280	1230	1175	1090	1015	910
	Med-Low	1150	1125	1105	1085	1035	965	895	786
	Low	960	950	935	910	880	815	715	580
075-JC	High	2010	1950	1875	1810	1740	1660	1550	1455
	Med-High	1675	1660	1625	1600	1545	1490	1395	1295
	Med-Low	1445	1430	1415	1400	1370	1325	1265	1170
	Low	1260	1260	1260	1250	1210	1180	1115	1030
090-GC	High	1490	1435	1370	1300	1210	1135	1020	880
	Med-High	1375	1325	1265	1195	1125	1055	945	810
	Med-Low	1205	1175	1130	1075	1025	925	830	675
	Low	1045	1020	1000	960	905	820	700	565
090-JC	High	1880	1815	1745	1690	1575	1500	1400	1265
	Med-High	1660	1615	1570	1505	1435	1355	1260	1170
	Med-Low	1455	1410	1375	1350	1290	1235	1145	985
	Low	1265	1265	1240	1210	1180	1110	995	855
090-LC	High	2475	2405	2330	2265	2210	2130	2040	1945
	Med-High	2055	2025	2000	1965	1930	1865	1795	1720
	Med-Low	1725	1720	1705	1685	1665	1630	1585	1525
	Low	1500	1515	1510	1500	1480	1460	1415	1370
110-JC	High	1900	1845	1780	1705	1620	1530	1445	1320
	Med-High	1695	1645	1580	1520	1460	1385	1280	1155
	Med-Low	1460	1415	1375	1340	1290	1205	1110	—
	Low	1275	1260	1245	1230	1180	1135	—	—
110-LC	High	—	2210	2130	2055	1980	1895	1795	1680
	Med-High	2015	1975	1925	1880	1805	1735	1655	1555
	Med-Low	1730	1710	1670	1635	1590	1535	1470	1385
	Low	1525	1520	1495	1450	1410	1375	1315	1245
130-LC	High	—	2145	2060	1975	1905	1800	1680	1565
	Med-High	—	1950	1885	1815	1710	1645	1545	1435
	Med-Low	1730	1695	1660	1600	1540	1465	1400	1305
	Low	1520	1500	1460	1410	1360	1310	1245	1155

*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. A filter is required for each return-air supply.

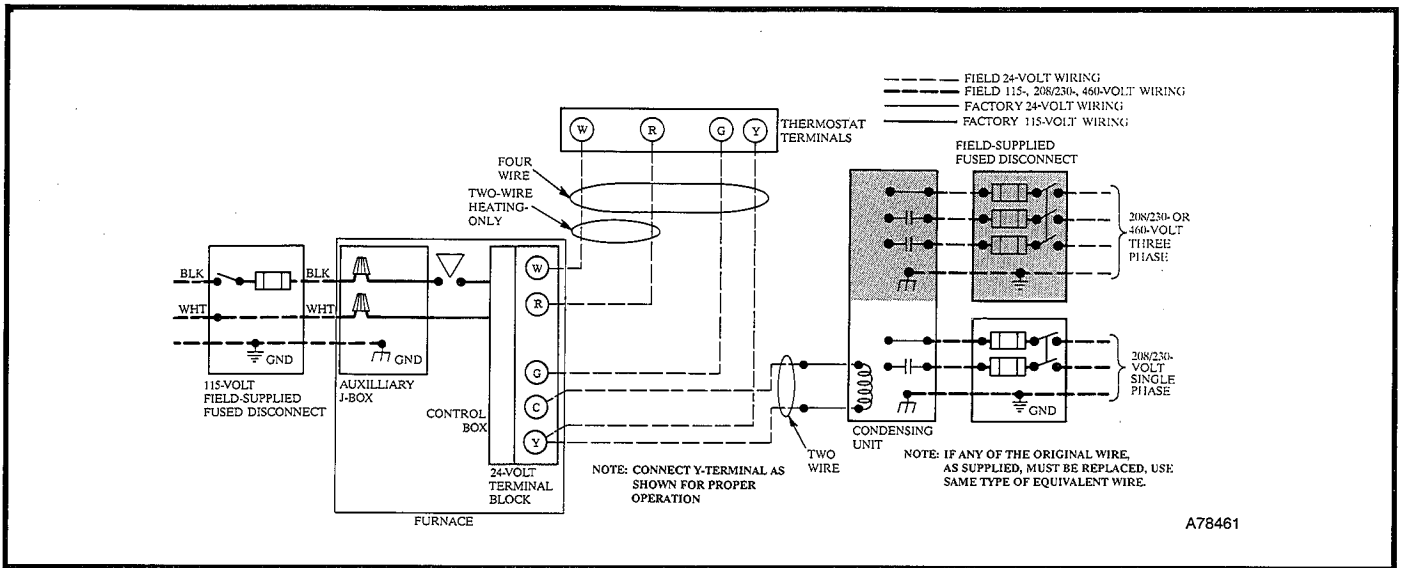
—Indicates unstable operating conditions.

MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

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



→ Typical wiring schematic



Electrical data

FURNACE MODEL 58SSC	040-EC	040-GC	055-EC	055-GC	075-GC	075-JC	090-GC	090-JC	090-LC	110-JC	110-LC	130-LC
UNIT VOLTS — HERTZ — PHASE	115—60—1											
MINIMUM WIRE SIZE	14	14	14	14	14	14	14	14	12	14	12	12
MAXIMUM WIRE LENGTH ⁴ (Ft.)	53	43	50	41	40	35	45	37	40	36	43	41
MAXIMUM UNIT AMPS	6.7	8.3	7.1	8.7	9.0	10.4	7.9	9.6	14.4	10.0	13.3	14.0
OPERATING VOLTAGE RANGE [†] (Min — Max)	104-127											
MAXIMUM FUSE SIZE OR HACR-TYPE CKT BKR [‡] (Amps)	15	15	15	15	15	15	15	15	20	15	20	20
TRANSFORMER (24v)	40VA											
EXTERNAL CONTROL POWER AVAILABLE —	Heating											
	Cooling											
AIR CONDITIONING BLOWER RELAY	Standard											

*Length shown is as measured one 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 installations

