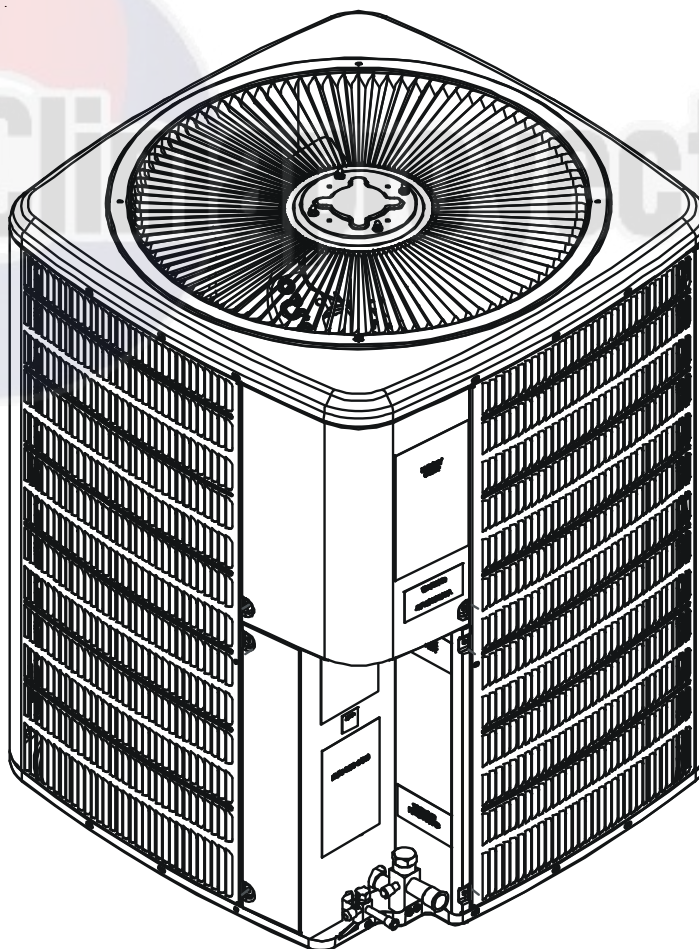


Goodman[®] TECHNICAL MANUAL

GSX 16 SEER Condensing Units

- Refer to Service Manual RS6200006 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.

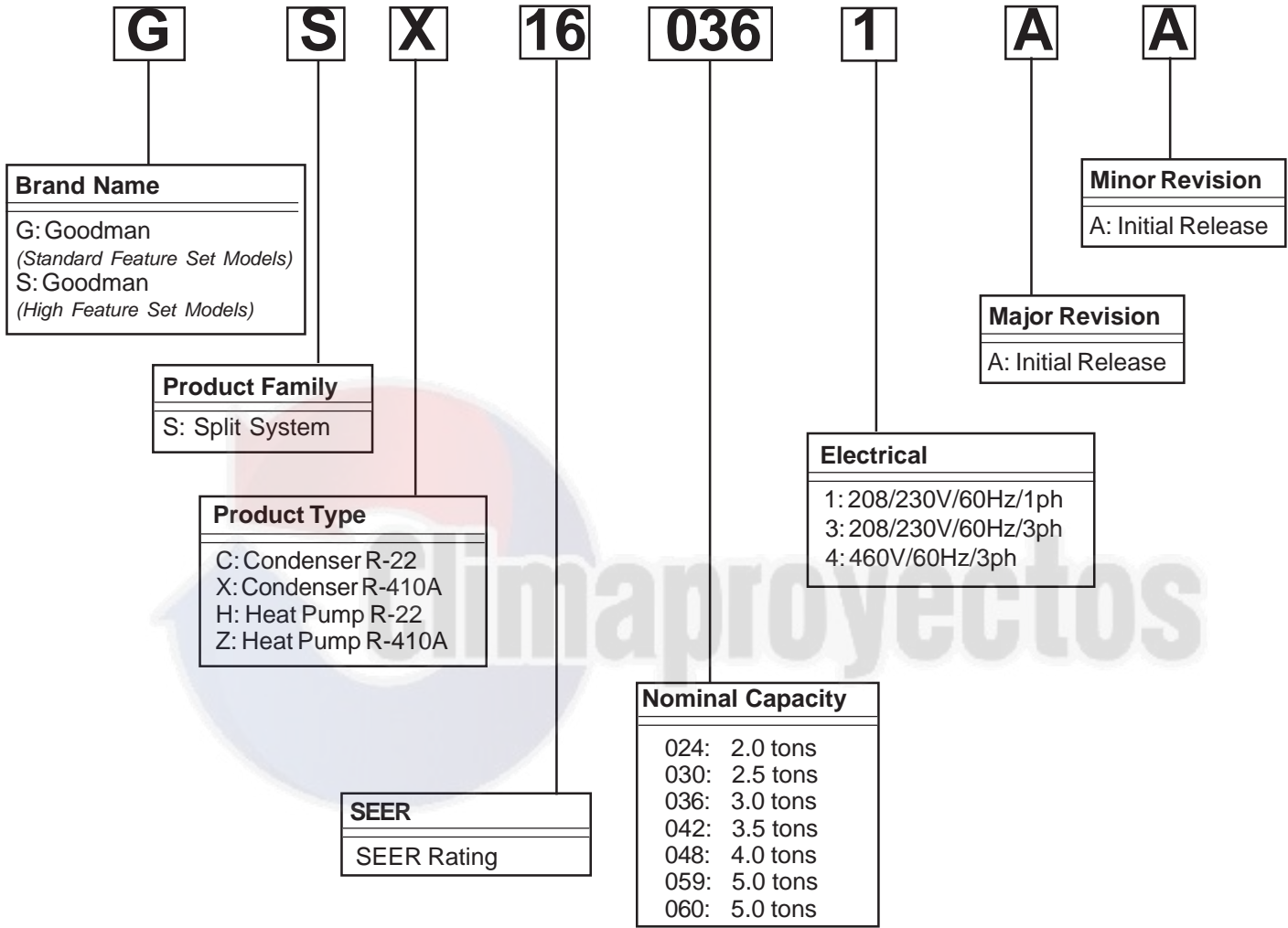


This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures or services performed by an unqualified person.

RT6114008r5
August 2014

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.



⚠ WARNING HIGH VOLTAGE! Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death. 

⚠ WARNING Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

⚠ WARNING ONLY individuals meeting (at a minimum) the requirements of an "entry level technician" as specified by the Air Conditioning, Heating, and Refrigeration Institute (AHRI) may use this information. Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.

GSX160181F*
GSX160241F*
GSX160301F*
GSX160361F*
GSX160421F*
GSX160481F*
GSX160601F*
GSX106611F*

** Indicates minor revision & is not used for order entry or inventory management*



 **WARNING**

The United States Environmental Protection Agency (“EPA”) has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.

 **WARNING**

Do not connect or use any device that is not design certified by Goodman for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.

 **WARNING**

To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

PRODUCT DESIGN

GSX16 models are available in 1.5, 2, 2.5, 3, 3.5, 4 and 5 ton sizes and use R-410A refrigerant. They are designed for 208/230 volt single phase applications.

The condenser air is pulled through the condenser coil by a direct drive propeller fan. This condenser air is then discharged out of the top of the cabinet.

These units are designed for free air discharge, so no additional resistance like duct work shall be attached.

The suction and liquid line connections on present models are of the sweat type for field piping with refrigerant type copper. Front seating valves are factory installed to accept the field run copper. The total refrigerant charge for a normal installation is factory installed in the condensing unit. GSX units are charged for the matching evaporator coil and a 15 foot refrigerant line set.

Systems should be properly sized by heat gain and loss calculations made according to methods of the Air Conditioning Contractors Association (ACCA) or equivalent. It is the contractors responsibility to ensure the system has adequate capacity to heat or cool the conditioned space.

GSX16 models use the Copeland Scroll "Ultratech" Series compressors which are specifically designed for R-410A refrigerant. There are a number of design characteristics which are different from the traditional reciprocating and/or scroll compressors.

"Ultratech" Series scroll compressors will not have a discharge thermostat, some of the early model scroll compressors required discharge thermostats.

Due to their design Scroll compressors are inherently more tolerant of small quantities of liquid refrigerant.

NOTE: Even though the compressor section of a Scroll compressor is more tolerant of liquid refrigerant, continued floodback or flooded start conditions may wash oil from the bearing surfaces causing premature bearing failure.

"Ultratech" Series scroll compressors use "POE" or polyolester oil which is **NOT** compatible with mineral oil based lubricants like 3GS. "POE" oil must be used if additional oil is required.

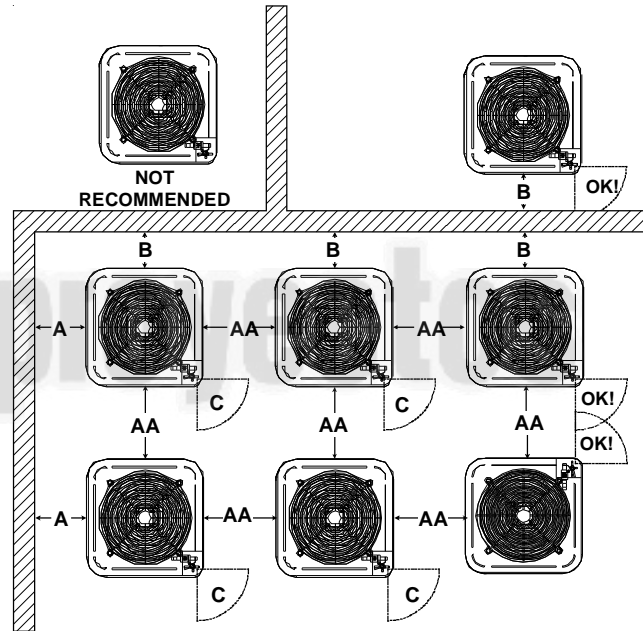
Operating pressures and amp draws may differ from standard reciprocating and/or scroll compressors. This information may be found in the "Cooling Performance Data" section.

the obstruction(s). The specified dimensions meet requirements for air circulation only. Consult all appropriate regulatory codes prior to determining final clearances.

Another important consideration in selecting a location for the unit(s) is the angle to obstructions. Either side adjacent the valves can be placed toward the structure provided the side away from the structure maintains minimum service clearance. Corner installations are strongly discouraged.

DO NOT locate the unit:

- Directly under a vent termination for a gas appliance.
- Within 3 feet of a clothes dryer vent.
- Where the refreezing of defrost water would create a hazard.
- Where water may rise into the unit.



Model Type	A	B	C	AA
Residential	10"	10"	18"	20"
Light Commercial	12"	12"	18"	24"

Model	Dimensions - W x D x H
GSX160181F*	29 x 29 x 32 1/4
GSX160241F*	29 x 29 x 32 1/4
GSX160301F*	29 x 29 x 36 1/4
GSX160361F*	29 x 29 x 38 1/4
GSX160421F*	35 1/2 x 35 1/2 x 36 1/4
GSX160481F* GSX160601F* GSX160611F*	35 1/2 x 35 1/2 x 38 1/4

⚠ WARNING

To avoid possible injury, explosion or death, practice safe handling of refrigerants.

Special consideration must be given to location of the condensing unit(s) in regard to structures, obstructions, other units, and any/all other factors that may interfere with air circulation. Where possible, the top of the unit should be completely unobstructed; however, if vertical conditions require placement beneath an obstruction **there should be a minimum of 60 inches between the top of the unit and**

CONDENSING UNIT SPECIFICATIONS

GSX160181F* - GSX160361F*

	GSX160181F*	GSX160241F*	GSX160301F*	GSX160361F*
Cooling Capacity, BTUH	18,000	24,000	30,000	36,000
Decibels	73.5	73.5	73.5	73.5
Compressor				
R.L. Amps	9.0	13.5	12.8	14.1
L.R. Amps	46.0	58.3	64.0	77.0
Condenser Fan Motor				
Horsepower	1/6	1/6	1/6	1/6
F.L. Amps	1.10	1.10	1.10	1.10
Liquid Line, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Line, Inches O.D.*	7/8"	3/4"	3/4"	7/8"
Liquid Valve Connection, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Valve Connection, Inches O.D.*	7/8"	3/4"	3/4"	3/4"
Valve Connection Type	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	78 **	78 **	91 **	94 **
Power Supply	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
Minimum Circuit Ampacity ⁽¹⁾	12.4	18.0	17.1	18.7
Maximum Overcurrent Device ⁽²⁾	20	30	30	30
Min/Max Volts	197 / 253	197 / 253	197 / 253	197 / 253
Electrical Conduit Size				
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	163	160	167	180

* Up to 24' in equivalent line length

⁽¹⁾ Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

⁽²⁾ Maximum Overcurrent Protection Device: **MUST** use Time Delay Fuse or HACR type Circuit Breaker of the same size as noted.

NOTES:

- Always check the S & R plate for electrical data on the unit being installed.
- Installer will need to supply 7/8" to 1-1/8" adapters for suction line connections (4 & 5 ton units).
- Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT, NOT THE INDOOR COIL.

**** Units produced with serial date range of 1405 and later will have the revised refrigerant charge listed in the Unit Specifications. Units produced prior to 1405 are approved for the revised charge shown in the specs.**

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

Unit specifications are subject to change without notice. **ALWAYS** refer to the unit's serial plate for the most up-to-date general and electrical information.

CONDENSING UNIT SPECIFICATIONS

GSX160421F* - GSX160611F*

	GSX160421F*	GSX160481F*	GSX160601F*	GSX160611F*
Cooling Capacity, BTUH	42,000	48,000	60,000	57,000
Decibels	75.0	75.0	75.0	75.0
Compressor				
R.L. Amps	17.9	17.9	21.4	25.0
L.R. Amps	112.0	112.0	135.0	134.0
Condenser Fan Motor				
Horsepower	1/6	1/4	1/3	1/4
F.L. Amps	1.10	1.50	2.80	1.50
Liquid Line, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Line, Inches O.D.*	7/8"	7/8"	7/8"	7/8"
Liquid Valve Connection, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Valve Connection, Inches O.D.*	3/4"	7/8"	7/8"	7/8"
Valve Connection Type	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	110 **	121 **	240 **	125 **
Power Supply	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
Minimum Circuit Ampacity ⁽¹⁾	23.9	23.9	29.6	32.8
Maximum Overcurrent Device ⁽²⁾	40	40	50	50
Min/Max Volts	197 / 253	197 / 253	197 / 253	197 / 253
Electrical Conduit Size				
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	228	241	301	314

* Up to 24' in equivalent line length

⁽¹⁾ Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

⁽²⁾ Maximum Overcurrent Protection Device: **MUST** use Time Delay Fuse or HACR type Circuit Breaker of the same size as noted.

NOTES:

- Always check the S & R plate for electrical data on the unit being installed.
- Installer will need to supply 7/8" to 1-1/8" adapters for suction line connections (4 & 5 ton units).
- Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT, NOT THE INDOOR COIL.

**** Units produced with serial date range of 1405 and later will have the revised refrigerant charge listed in the Unit Specifications. Units produced prior to 1405 are approved for the revised charge shown in the specs.**

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

Unit specifications are subject to change without notice. **ALWAYS** refer to the unit's serial plate for the most up-to-date general and electrical information.

COOLING PERFORMANCE DATA

GSX160241F*

MODEL: GSX160241F*-CA*F3636*6D*+TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION 3/42013

Table with columns for IDB*, Airflow, and sub-columns for Outdoor Ambient Temperature (85, 95, 105, 115). Rows include NetCap, ST, Delta T, System KW, OD amps, HI PR, LO PR for airflows 700, 750, and 900.

Table with columns for IDB*, Airflow, and sub-columns for Outdoor Ambient Temperature (85, 95, 105, 115). Rows include NetCap, ST, Delta T, System KW, OD amps, HI PR, LO PR for airflows 700, 750, and 900.



NOTE: Shaded area is ACCA (TVA) conditions

* Entering Indoor Dry Bulb Temperature

Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring

COOLING PERFORMANCE DATA

GSX160421F*

MODEL: GSX160421F*-CA*F4860*6D*+TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION 3/4/2013

IDB* Airflow	Outdoor Ambient Temperature																								
	65				75				85				95				105				115				
	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
1225	Net Cap	38.2	39.0	41.7	44.5	37.3	38.1	40.7	43.5	36.4	37.2	39.7	42.5	35.5	36.3	38.8	41.4	33.7	34.5	36.8	39.4	31.2	31.9	34.1	36.5
	S/T	0.88	0.82	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.94	0.77	0.57
	Delta T	25	24	21	17	25	24	21	17	25	24	21	17	26	25	21	17	25	24	21	17	24	23	20	16
	System KW	2.74	2.80	2.88	2.96	2.93	2.99	3.08	3.17	3.10	3.17	3.26	3.36	3.25	3.32	3.42	3.52	3.38	3.45	3.55	3.66	3.49	3.56	3.67	3.79
	OD amps	10.0	10.3	10.6	11.0	10.8	11.1	11.5	11.9	11.8	12.1	12.5	12.9	12.6	12.9	13.3	13.8	13.4	13.7	14.2	14.7	14.2	14.5	15.0	15.6
	HI PR	224	241	255	266	252	271	286	298	286	308	325	339	326	351	371	386	367	395	417	435	405	436	461	480
	LO PR	104	111	121	129	110	117	128	136	114	122	133	142	120	128	140	149	126	134	146	156	130	139	151	161
	Net Cap	41.4	42.3	45.2	48.3	40.4	41.3	44.1	47.1	39.4	40.3	43.1	46.0	38.5	39.3	42.0	44.9	36.5	37.3	39.9	42.7	33.9	34.6	37.0	39.5
1400	Net Cap	38.8	39.6	41.5	44.2	37.9	38.7	40.5	43.2	37.0	37.7	39.5	42.2	36.1	36.8	38.6	41.2	34.3	35.0	36.6	39.1	31.8	32.4	33.9	36.2
	S/T	0.92	0.89	0.80	0.65	0.95	0.92	0.83	0.67	0.98	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.92	0.74
	Delta T	27	26	25	22	27	27	25	22	27	27	25	22	27	27	25	22	26	26	25	22	24	24	23	20
	System KW	2.76	2.82	2.90	2.98	2.96	3.01	3.10	3.20	3.13	3.19	3.28	3.38	3.28	3.34	3.44	3.55	3.40	3.47	3.58	3.69	3.51	3.59	3.70	3.82
	OD amps	10.1	10.4	10.7	11.1	10.9	11.2	11.6	12.0	11.9	12.2	12.6	13.0	12.7	13.0	13.4	13.9	13.5	13.8	14.3	14.8	14.3	14.6	15.1	15.7
	HI PR	227	244	257	269	254	274	289	301	289	311	329	343	329	354	374	390	371	399	421	439	409	441	465	485
	LO PR	105	112	122	130	111	118	129	138	116	123	134	143	121	129	141	150	127	135	148	157	132	140	153	163
	Net Cap	42.1	42.9	44.9	47.9	41.1	41.9	43.9	46.8	40.1	40.9	42.8	45.7	39.1	39.9	41.8	44.6	37.2	37.9	39.7	42.4	34.4	35.1	36.8	39.2
1575	Net Cap	43.3	44.2	46.3	49.4	42.3	43.2	45.2	48.2	41.3	42.1	44.1	47.1	40.3	41.1	43.0	45.9	38.3	39.0	40.9	43.6	35.5	36.2	37.9	40.4
	S/T	1.00	0.96	0.87	0.70	1.00	1.00	0.90	0.73	1.00	1.00	0.92	0.75	1.00	1.00	0.95	0.77	1.00	1.00	0.99	0.80	1.00	1.00	1.00	0.81
	Delta T	25	25	23	20	25	25	24	21	24	25	24	21	24	24	24	21	22	23	24	20	21	21	22	19
	System KW	2.85	2.90	2.98	3.07	3.05	3.11	3.20	3.30	3.22	3.29	3.39	3.49	3.38	3.45	3.55	3.67	3.51	3.59	3.70	3.81	3.63	3.70	3.82	3.94
	OD amps	10.5	10.8	11.1	11.5	11.3	11.6	12.0	12.4	12.3	12.6	13.0	13.5	13.2	13.5	13.9	14.5	14.0	14.3	14.8	15.4	14.8	15.2	15.7	16.3
	HI PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	406	386	415	438	457	426	459	484	505
	LO PR	110	117	127	136	116	123	135	143	120	128	140	149	126	135	147	156	133	141	154	164	137	146	159	170
	Net Cap	45.5	46.5	49.5	52.5	44.5	45.5	48.5	51.5	43.5	44.5	47.5	50.5	42.5	43.5	46.5	49.5	40.5	41.5	44.5	47.5	38.5	39.5	42.5	45.5

* Entering Indoor Dry Bulb Temperature
 NOTE: Shaded area is AHRI Rating Conditions
 Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring

COOLING PERFORMANCE DATA

GSX160481F*

MODEL: GSX160481F*-CA*F4961*6D*+TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION

3/4/2013

Table with columns for IDB* Airflow, Outdoor Ambient Temperature (65, 75, 85, 95, 105, 115), and various performance metrics (NetCap, S/T, Delta T, System kW, OD amps, HI PR, LO PR) for airflow rates of 1400, 1500, and 1800.

Table with columns for IDB* Airflow, Outdoor Ambient Temperature (65, 75, 85, 95, 105, 115), and various performance metrics (NetCap, S/T, Delta T, System kW, OD amps, HI PR, LO PR) for airflow rates of 1400, 1500, and 1800.

* Entering Indoor Dry Bulb Temperature NOTE: Shaded area is ACCA (TVA) conditions

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PERFORMANCE DATA

GSX160[18-36]1F*

Model: GSX160181F*/CA*F3636*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 650 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	18,900	13,986	4,914	1,360
80°	18,700	13,838	4,862	1,395
85°	18,500	13,690	4,810	1,430
90°	18,250	13,505	4,745	1,465
95°	18,000	13,320	4,680	1,500
100°	17,550	12,987	4,563	1,530
105°	17,100	12,654	4,446	1,560
110°	16,450	12,173	4,277	1,580
115°	15,800	11,692	4,108	1,600

Model: GSX160241F*/CA*F3636*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 750 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	24,800	18,600	6,200	1,770
80°	24,500	18,375	6,125	1,825
85°	24,200	18,150	6,050	1,880
90°	23,900	17,925	5,975	1,925
95°	23,600	17,700	5,900	1,970
100°	23,000	17,250	5,750	2,005
105°	22,400	16,800	5,600	2,040
110°	21,600	16,200	5,400	2,110
115°	20,800	15,600	5,200	2,180

Model: GSX160301F*/CA*F3743*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1000 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	30,500	23,180	7,320	2,180
80°	30,100	22,876	7,224	2,240
85°	29,700	22,572	7,128	2,300
90°	29,350	22,306	7,044	2,360
95°	29,000	22,040	6,960	2,420
100°	28,300	21,508	6,792	2,465
105°	27,600	20,976	6,624	2,510
110°	26,550	20,178	6,372	2,550
115°	25,500	19,380	6,120	2,600

Model: GSX160361F*/CA*F4860*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1200 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	36,500	28,105	8,395	2,610
80°	36,100	27,797	8,303	2,685
85°	35,700	27,489	8,211	2,760
90°	35,250	27,143	8,108	2,830
95°	34,800	26,796	8,004	2,900
100°	33,950	26,142	7,809	2,960
105°	33,100	25,487	7,613	3,020
110°	32,900	25,333	7,567	3,070
115°	32,700	25,179	7,521	3,120

PERFORMANCE DATA

GSX160[42-61]1F*

Model: GSX160421F*/CA*F4860*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1400 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	44,100	33,516	10,584	3,150
80°	43,600	33,136	10,464	3,230
85°	43,100	32,756	10,344	3,340
90°	42,550	32,338	10,212	3,420
95°	42,000	31,920	10,080	3,500
100°	40,950	31,122	9,828	3,570
105°	39,900	30,324	9,576	3,640
110°	38,450	29,222	9,228	3,705
115°	37,000	28,120	8,880	3,760

Model: GSX160481F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1500 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	47,800	36,328	11,472	3,410
80°	47,200	35,872	11,328	3,510
85°	46,600	35,416	11,184	3,610
90°	46,050	34,998	11,052	3,690
95°	45,500	34,580	10,920	3,790
100°	44,350	33,706	10,644	3,865
105°	43,200	32,832	10,368	3,940
110°	41,600	31,616	9,984	4,005
115°	40,000	30,400	9,600	4,070

Model: GSX160601F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1625 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	56,700	43,092	13,608	3,880
80°	56,050	42,598	13,452	3,995
85°	55,400	42,104	13,296	4,110
90°	54,700	41,572	13,128	4,165
95°	54,000	41,040	12,960	4,320
100°	52,650	40,014	12,636	4,410
105°	51,300	38,988	12,312	4,500
110°	49,400	37,544	11,856	4,575
115°	47,500	36,100	11,400	4,650

Model: GSX160611F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/67F IWB @ 1550 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	59,900	41,331	18,569	4,270
80°	59,150	40,814	18,337	4,410
85°	58,400	40,296	18,104	4,550
90°	57,700	39,813	17,887	4,650
95°	57,000	39,330	17,670	4,750
100°	55,600	38,364	17,236	4,875
105°	54,200	37,398	16,802	5,000
110°	52,200	36,018	16,182	5,090
115°	50,200	34,638	15,562	5,180

PERFORMANCE TEST

All data based upon listed indoor dry bulb temperature. .00 inches external static pressure on coil of outdoor section. Indoor air cubic feet per minute (CFM) as listed in the Performance Data Sheets:

If conditions vary from this, results will change as follows:

- As indoor dry bulb temperatures increase, a slight increase will occur in indoor air temperature drop (Delta T). Low and high side pressures and power will not change.
- As indoor CFM decreases, a slight increase will occur in indoor temperature drop (Delta T). A slight decrease will occur in low and high side pressures and power.

A properly operating unit should be within plus or minus **2 degrees** of the subcooling value shown in the installation instructions.

A properly operating unit should be within plus or minus **3 degrees** of the typical (Delta T) value shown.

A properly operating unit should be within plus or minus **10 PSIG** of the **HI PR** shown.

A properly operating unit should be within plus or minus **5 PSIG** of the **LO PR** shown.

A properly operating unit should be within plus or minus **3 Amps** of the typical value shown.

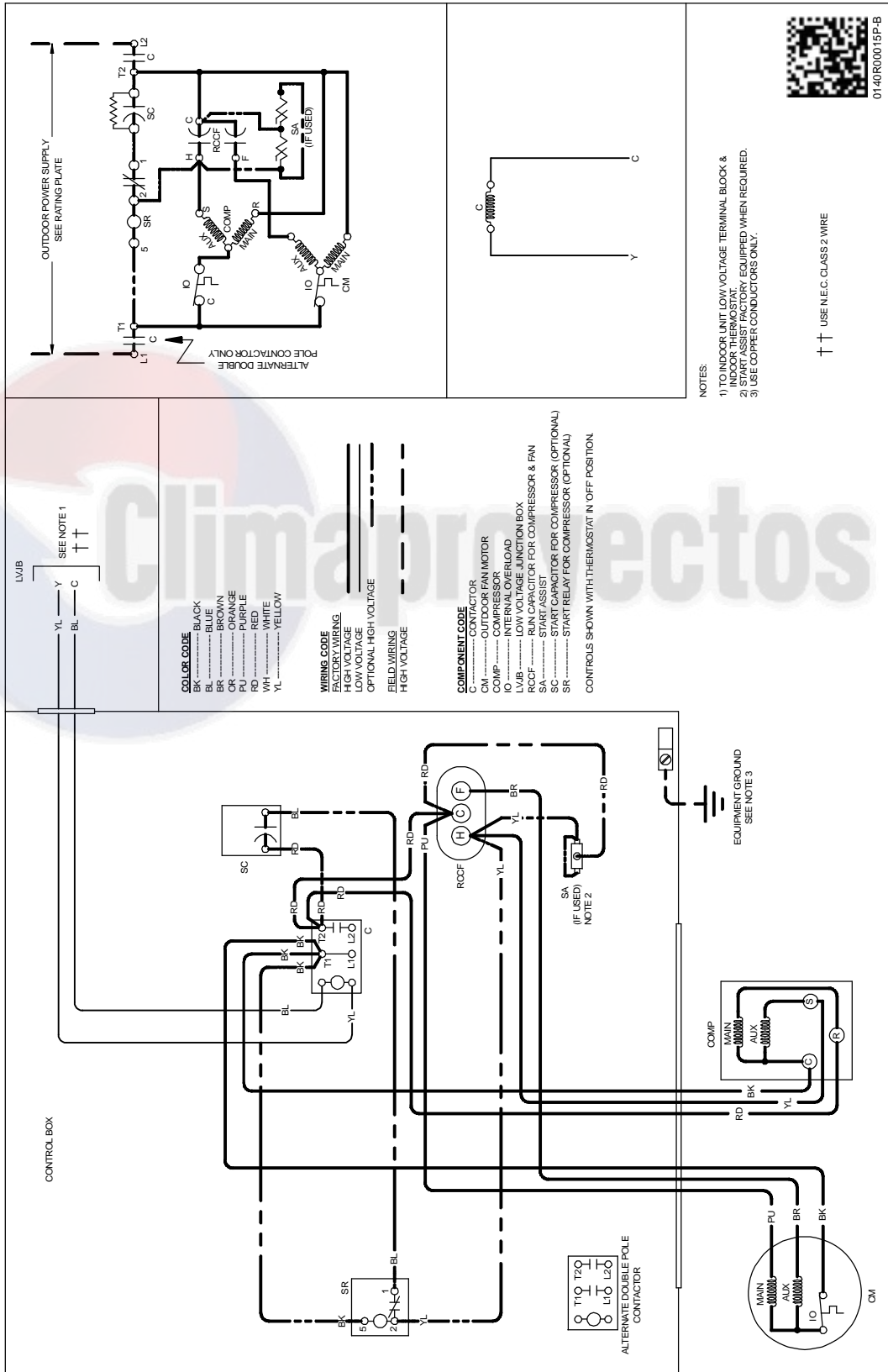
NOTE: Pressures are measures at the liquid and suction service valve ports.

WIRING DIAGRAMS

GSX160[18-48]1F*

WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

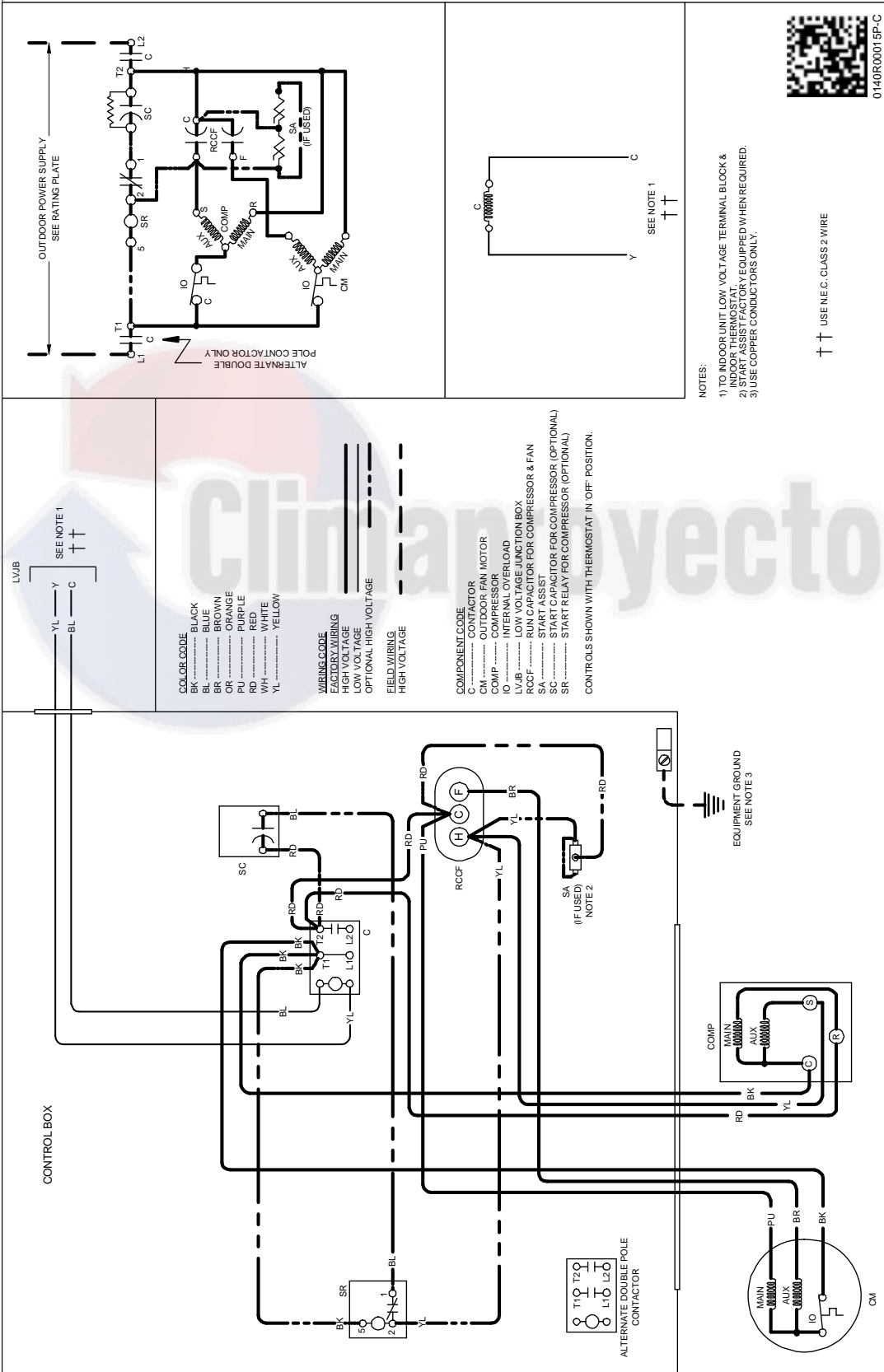


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



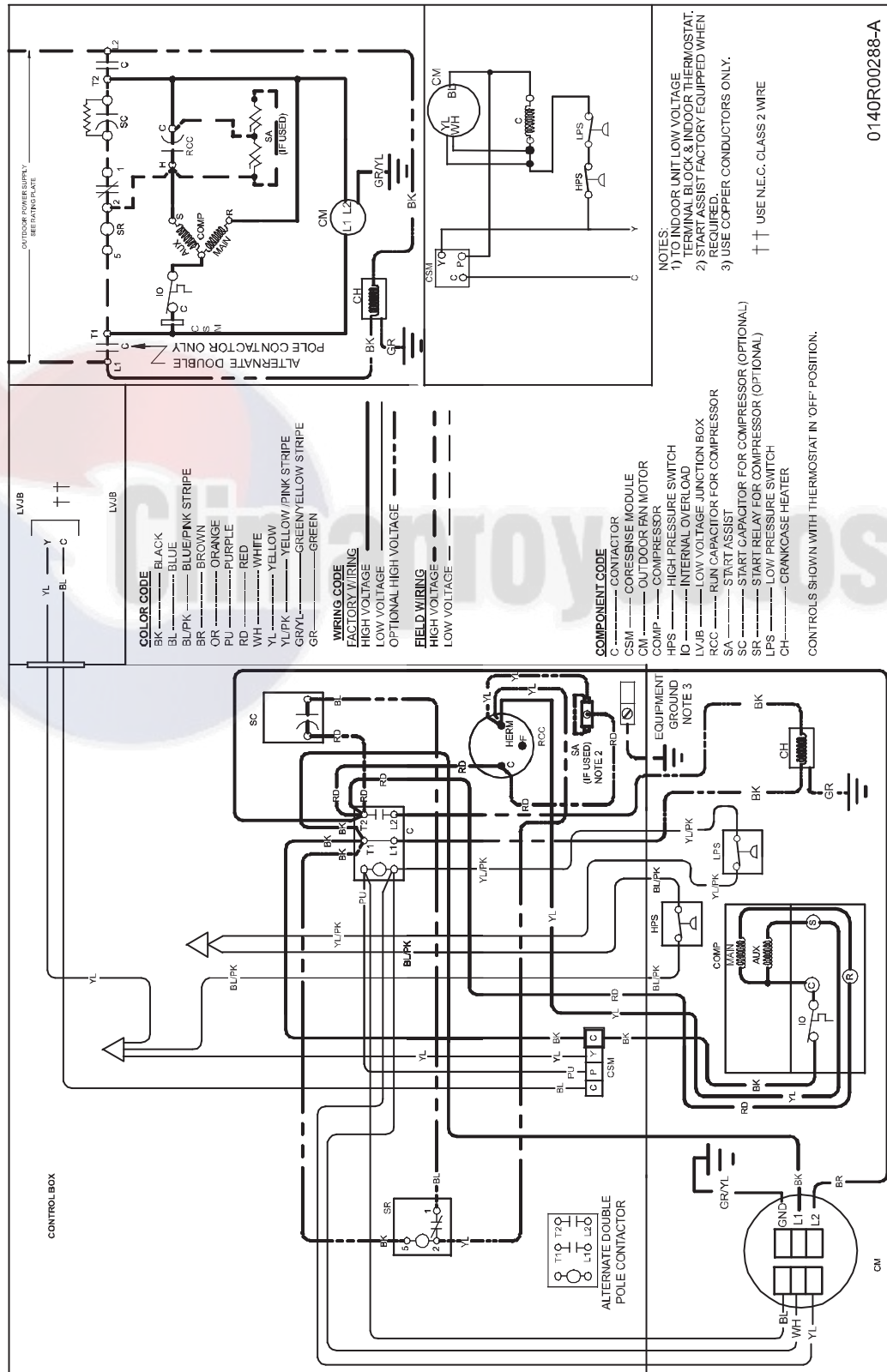
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

WIRING DIAGRAMS

GSX160601F*

WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

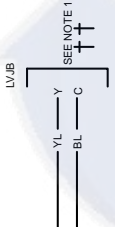
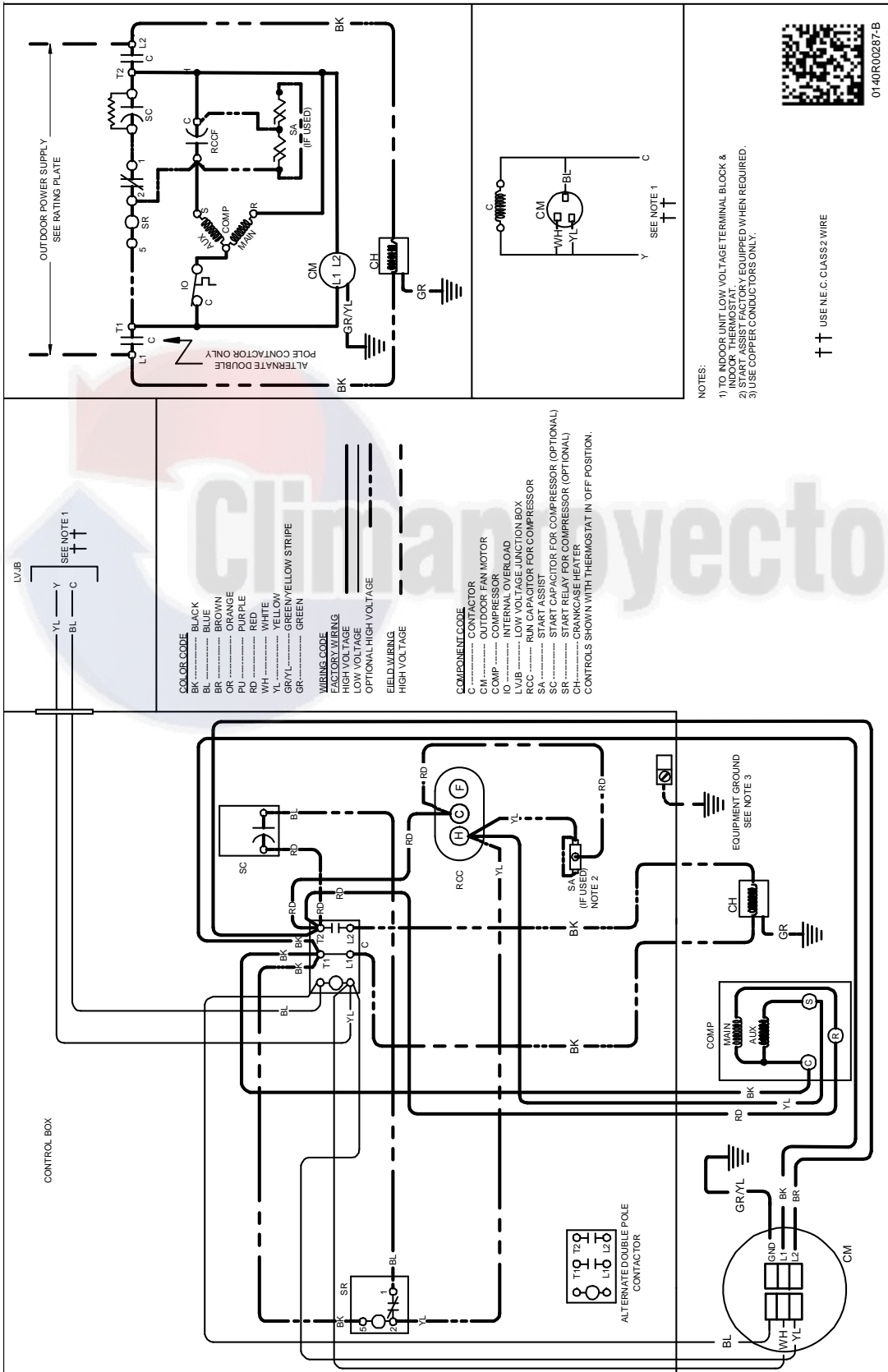


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



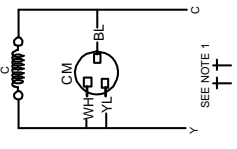
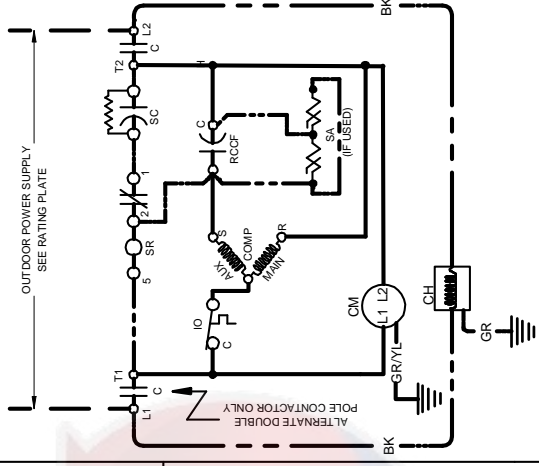
WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



- COLOR CODE**
- BK BLACK
 - BL BLUE
 - BR BROWN
 - OR ORANGE
 - PU PURPLE
 - RD RED
 - WH WHITE
 - LV LOW VOLTAGE
 - GR/YL GREEN YELLOW STRIPE
 - GR GREEN
- WIRING CODE**
- FA FACTORY WIRING
 - LV LOW VOLTAGE
 - OH OPTIONAL HIGH VOLTAGE
 - EH FIELD WIRING
 - HV HIGH VOLTAGE

- COMPONENT CODE**
- C CONTACTOR
 - CM OUTDOOR FAN MOTOR
 - COMP COMPRESSOR
 - IO INTERNAL OVERLOAD
 - LVJB LOW VOLTAGE JUNCTION BOX
 - RCC RUN CAPACITOR FOR COMPRESSOR
 - SA START ASSIST
 - SC START CAPACITOR FOR COMPRESSOR (OPTIONAL)
 - SR START ASSIST (OPTIONAL)
 - CH CHANGEOVER HEATER (OPTIONAL)
 - CM COMPRESSOR (OPTIONAL)
- CONTROLS SHOWN WITH THERMOSTAT IN OFF POSITION.



NOTES:

- 1) TO INDOOR UNIT, LOW VOLTAGE TERMINAL BLOCK & INDOOR THERMOSTAT.
- 2) START ASSIST FACTORY EQUIPPED WHEN REQUIRED.
- 3) USE COPPER CONDUCTORS ONLY.



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++ USE N.E.C. CLASS 2 WIRE

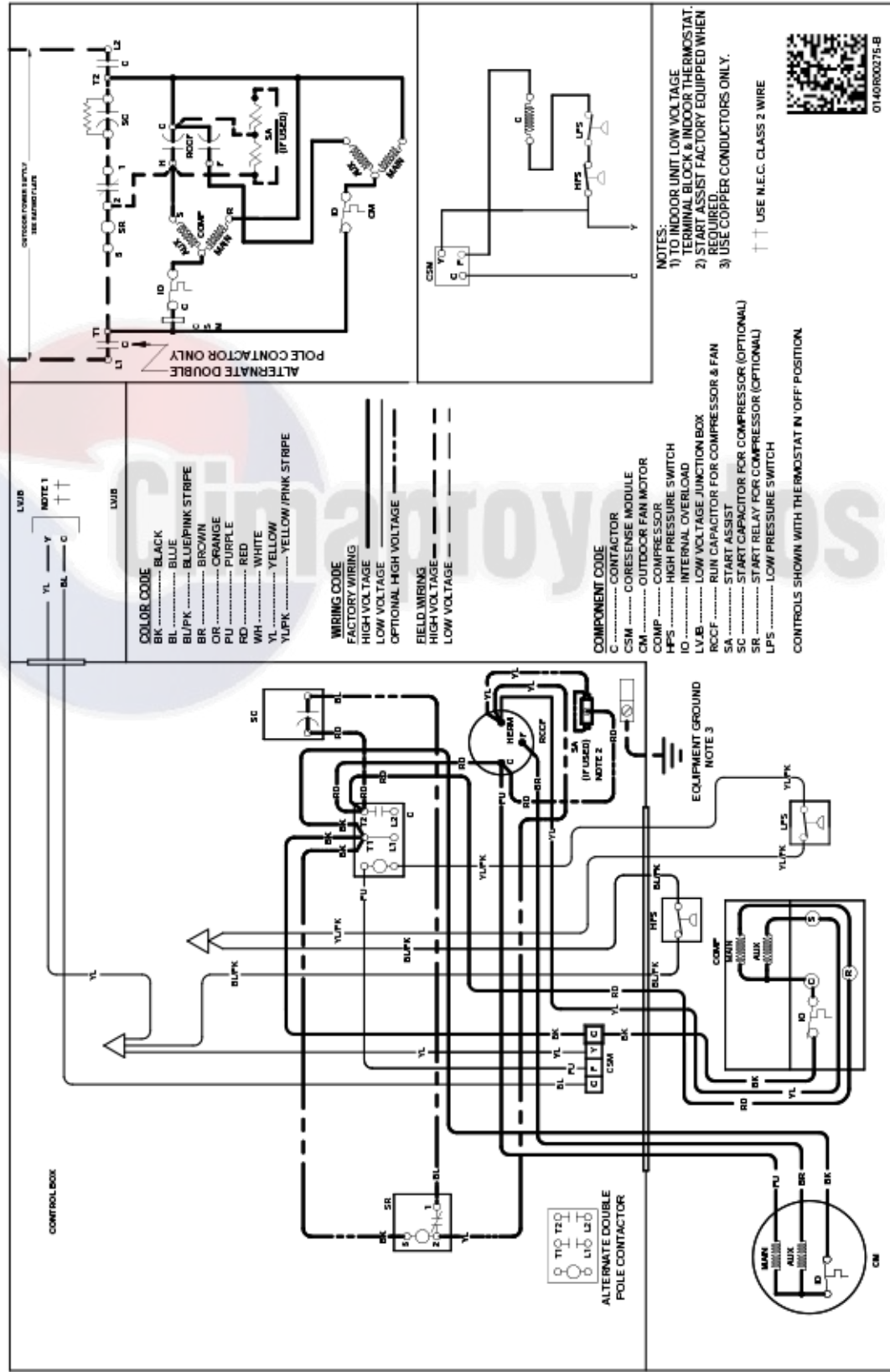
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

WIRING DIAGRAMS

GSX160611F*

WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



COLOR CODE

BK	.....	BLACK
BL	.....	BLUE
BL/PK	.....	BLUE/PINK STRIPE
BR	.....	BROWN
OR	.....	ORANGE
PU	.....	PURPLE
RD	.....	RED
WH	.....	WHITE
YL	.....	YELLOW
YL/PK	.....	YELLOW/PINK STRIPE

WIRING CODE

.....	FACTORY WIRING
.....	HIGH VOLTAGE
.....	LOW VOLTAGE
.....	OPTIONAL HIGH VOLTAGE
.....	FIELD WIRING
.....	HIGH VOLTAGE
.....	LOW VOLTAGE

COMPONENT CODE

C	.....	CONTACTOR
CSM	.....	CORESENSE MODULE
CM	.....	OUTDOOR FAN MOTOR
COMP	.....	COMPRESSOR
HPS	.....	HIGH PRESSURE SWITCH
IO	.....	INTERNAL OVERLOAD
LVLJB	.....	LOW VOLTAGE JUNCTION BOX
RCCF	.....	RUN CAPACITOR FOR COMPRESSOR & FAN
SA	.....	START ASSIST
SC	.....	START CAPACITOR FOR COMPRESSOR (OPTIONAL)
SR	.....	START RELAY FOR COMPRESSOR (OPTIONAL)
LPS	.....	LOW PRESSURE SWITCH

NOTES:

- 1) TO INDOOR UNIT LOW VOLTAGE TERMINAL BLOCK & INDOOR THERMOSTAT.
- 2) START ASSIST FACTORY EQUIPPED WHEN REQUIRED.
- 3) USE COPPER CONDUCTORS ONLY.

↑↑ USE N.E.C. CLASS 2 WIRE



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.