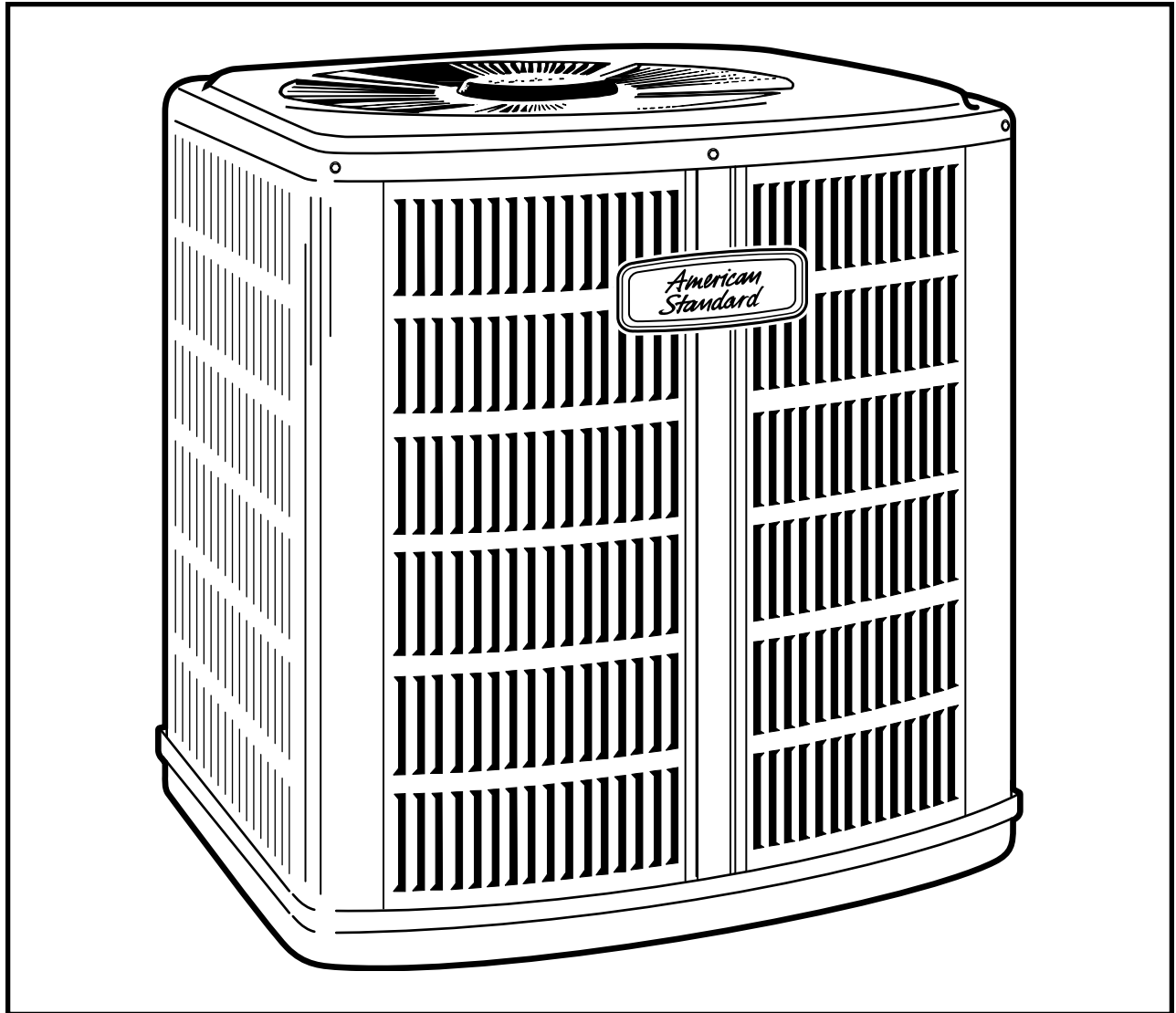


*American
Standard*

SPLIT SYSTEM AIR CONDITIONER
1½ — 5 TON



ALLEGIANCE® 15
MODELS 4A7A5018-060A

Features and Benefits

- **Duration™** compressor
- Efficiency up to 16.00 SEER and 9.0 HSPF
- All aluminum **Spine Fin™** coil
- **Easy-Sess™** service access and refrigerant connections with full coil protection
- **DuraBase™** base, fast complete drain, weather proof
- **Comfort “R”™** mode approved
- Low sound with advanced fan system and compressor sound insulator
- Warm gray cabinet with anthracite gray grill and cap
- Glossy corrosion resistant finish
- Corrosion resistant fasteners
- Seacoast shield
- High pressure switch
- 018, 024, 030 and 060 ship with Start Kit
- Liquid line filter drier
- Internal compressor high/low pressure and temperature protection
- R-410A refrigerant
- Low ambient cooling to 55°F as shipped
- Low ambient cooling to 30°F with AY28X084
- Electronic demand defrost control with diagnostics
- S.E.E.T. design testing
- 100% line run test
- **10 Year limited warranty on compressor, coil, and 5 years on parts (Residential Use)**
- **Extended warranties available**

Contents

Manufacturing Control

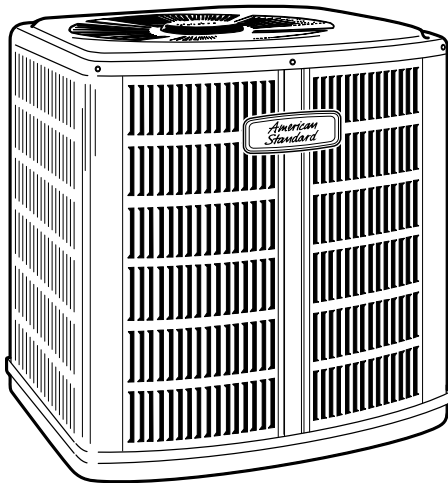
American Standard's exclusive control over the design and manufacturing of all major components is unique in the industry. This approach assures us total control over both the quality and reliability of these components. It also allows us to custom match components to deliver the best in split system performance.

Designing the Details

Careful attention was given to designing the details — from control wiring to the access panels. American Standard units feature time-saving color-coded wiring and removable panels which allow complete access to all major components and controls. All outdoor units feature external high and low pressure gauge ports for easy diagnosing and servicing of the unit.

UL Listed

American Standard meets or exceeds all nationally recognized agency safety and design standards. Each condensing unit is UL designed, approved, and labeled in accordance to UL Standards, 1995, including approval for use in Canada. Each unit is rated in accordance with ARI Standard 210/240 and 270.

**Features and Benefits** 2**General Data** 4**Product Specifications** 4**A-weighted Sound Power Level [dB(A)]** 4**Accessory Description and Usage** 5**ARI Standard Capacity Rating Conditions** 5**Model Nomenclature** 6**Typical Wiring** 7**Dimensional Data** 10**Mechanical Specifications** 11

**DATA SUBJECT
TO CHANGE
WITHOUT NOTICE**

PRODUCT DATA

American Standard Inc., Tyler, TX 75711-9010

General Data

Product Specifications

Model No. ①	4A7A5018A1	4A7A5024A1	4A7A5030A1	4A7A5036A1
Electrical Data V/Ph/Hz ②	200/230/1/60	200/230/1/60	200/230/1/60	208/230/1/60
Min Cir Ampacity	11	14	17	22
Max Fuse Size (Amps)	15	20	25	35
Compressor	DURATION™	DURATION™	DURATION™	DURATION™ - SCROLL
RL Amps - LR Amps	6.2 - 38.6	8.6 - 57.8	11.1 - 63	15.4 - 83
Outdoor Fan FL Amps	2.8	2.8	2.8	2.8
Fan HP	1/3	1/3	1/3	1/3
Fan Dia (inches)	27.6	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	6/09-LB/OZ	6/10-LB/OZ	6/10-LB/OZ	7/11-LB/OZ
Line Size - (in.) O.D. Gas ③	1/2	5/8	3/4	3/4
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	10°	10°	10°	9°
Dimensions H x W x D (Crated)	38.4 x 35.1 x 38.7	38.4 x 35.1 x 38.7	38.4 x 35.1 x 38.7	46.4 x 35.1 x 38.7
Weight - Shipping	240	243	245	269
Weight - Net	207	210	212	233
Start Components	YES	YES	YES	NO
Sound Enclosure	YES	YES	YES	YES
Compressor Sump Heat	NO	NO	NO	NO
Optional Accessories: ④				
Evaporator Defrost Control	AY28X079	AY28X079	AY28X079	AY28X079
Crankcase Heater Kit	BAYCCHT300	BAYCCHT300	BAYCCHT300	BAYCCHT301
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Snow Leg - Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg - 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003	BAYLEGS003
Start Kit				BAYKSKT260
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Extreme Condition Mounting Kit	BAYECMT001	BAYECMT001	BAYECMT001	BAYECMT001
Refrigerant Lineset ⑤	TAYREFLN850	TAYREFLN950	TAYREFLN7*	TAYREFLN7*
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101

① Certified in accordance with the Air-Source Unitary Heat Pump equipment certification program which is based on ARI Standard 210/240.

② Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

③ Standard line lengths - 60' Standard lift - 60' Suction and Liquid line.

For Greater lengths and lifts refer to refrigerant piping software Pub# 32-3312-01. (*denotes latest revision)

④ For accessory description and usage, see page 5.

⑤ * = 15, 20, 25, 30, 40 and 50 foot lineset available.

A-weighted Sound Power Level [dB(A)]

MODEL	SOUND POWER LEVEL [dB(A)]	A-WEIGHTED FULL OCTAVE SOUND POWER LEVEL dB - [dB(A)]							
		63	125	250	500	1000	2000	4000	8000
4A7A5018A1	73	51	58	65.3	68.2	64.5	66.4	59	51.6
4A7A5024A1	74	51.5	59.6	64.3	71.5	70.5	64.8	58.6	52.8
4A7A5030A1	73	54.8	62.8	64.1	68.2	67.1	65.7	60.1	54.1
4A7A5036A1	72	53.7	58.9	62.1	66.8	66.8	61.2	58.8	45.4
4A7A5042A1	73	52	55.7	57.8	67.2	69.2	65	59.5	48.3
4A7A5048A1	73	52.1	55.9	68.3	67.1	65.4	62.2	58.6	48.8
4A7A5060A1	74	52.4	54.9	62.1	66.5	71.4	67.2	60.9	49.6

Note: Tested in accordance with ARI Standard 270.95. (Not listed with ARI)

General Data

Product Specifications

Model No. ①	4A7A5042A1	4A7A5048A1	4A7A5060A1
Electrical Data V/Ph/Hz ②	208/230/1/60	208/230/1/60	208/230/1/60
Min Cir Ampacity	28	30	36
Max Fuse Size (Amps)	45	50	60
Compressor	DURATION™ - SCROLL	DURATION™ - SCROLL	DURATION™ - SCROLL
RL Amps - LR Amps	19.9 - 109	21.8 - 117	26.4 - 134
Outdoor Fan FL Amps	2.8	2.8	2.8
Fan HP	1/3	1/3	1/3
Fan Dia (inches)	27.6	27.6	27.6
Coil	Spine Fin™	Spine Fin™	Spine Fin™
Refrigerant R-410A	7/00-LB/OZ	11/00-LB/OZ	11/00-LB/OZ
Line Size - (in.) O.D. Gas ③	3/4	7/8	1 1/8
Line Size - (in.) O.D. Liquid ③	3/8	3/8	3/8
Charge Spec. Subcooling	9°	9°	9°
Dimensions H x W x D (Crated)	46.4 x 35.1 x 38.7	51 x 35.1 x 38.7	51 x 35.1 x 38.7
Weight - Shipping	272	318	320
Weight - Net	236	282	284
Start Components	NO	NO	YES
Sound Enclosure	YES	YES	YES
Compressor Sump Heat	NO	NO	NO
Optional Accessories: ④			
Evaporator Defrost Control	AY28X079	AY28X079	AY28X079
Crankcase Heater Kit	BAYCCHT301	BAYCCHT301	BAYCCHT301
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Snow Leg - Base & Cap 4" High	BAYLEGS002	BAYLEGS002	BAYLEGS002
Snow Leg - 4" Extension	BAYLEGS003	BAYLEGS003	BAYLEGS003
Start Kit	BAYKSKT260	BAYKSKT260	
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001
Extreme Condition Mounting Kit	BAYECMT001	BAYECMT001	BAYECMT001
Refrigerant Lineset ⑤	TAYREFLN7*	TAYREFLN3*	TAYREFLN4*
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101

Accessory Description and Usage

Anti-Short Cycle Timer — Solid state timing device that prevents compressor recycling until 5 minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.

Evaporator Defrost Control — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.

Rubber Isolators — 5 large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.

Hard Start Kit — Start capacitor and relay to assist compressor motor startup. Use in areas with marginal power supply, on long linesets, low ambient conditions, etc.

Extreme Condition Mount Kit — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

ARI Standard Capacity Rating Conditions

ARI STANDARD 210/240 RATING CONDITIONS —

- (A) Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- (B) High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (C) Low Temperature Heating 17°F DB, 15°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
- (D) Rated indoor airflow for heating is the same as for cooling.

ARI STANDARD 270 RATING CONDITIONS — (Noise rating numbers are determined with the unit in cooling operation.) Standard Noise Rating number is at 95°F outdoor air.



ARI Standard
210/240 UHP

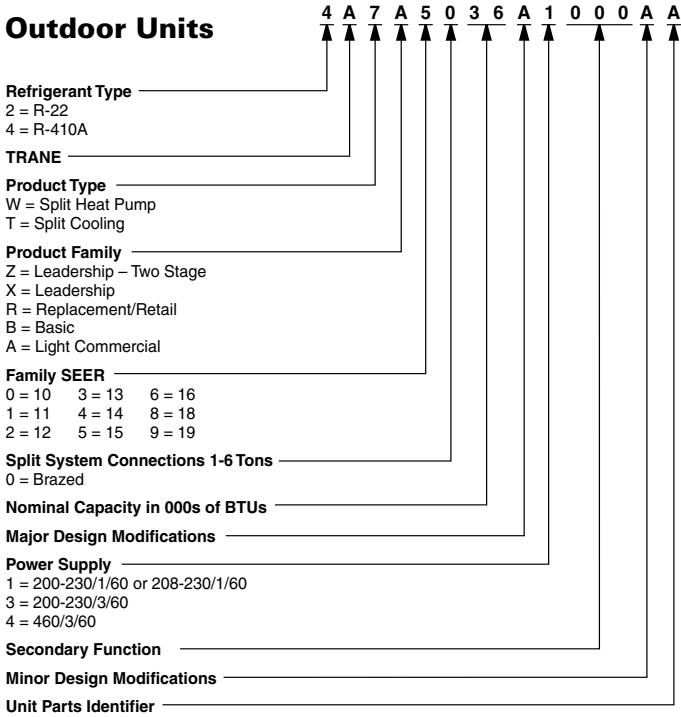


PRODUCT DATA

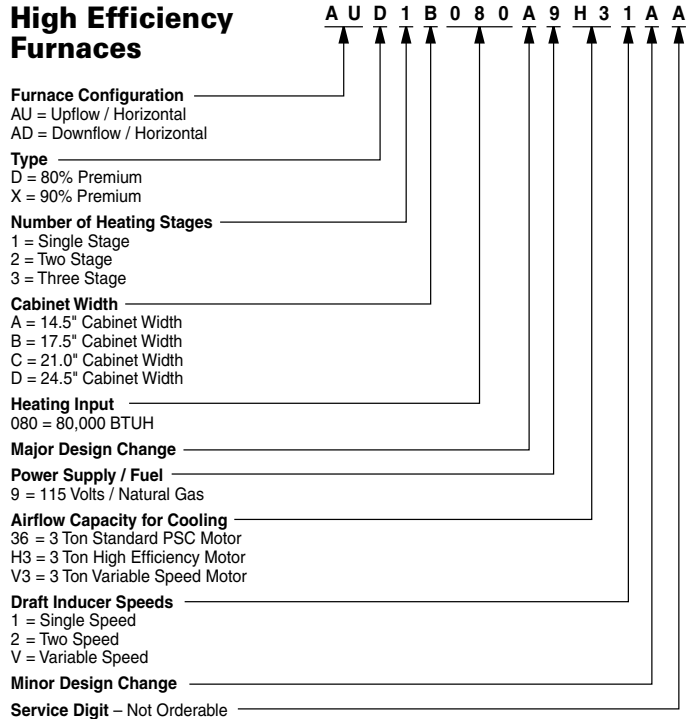
American Standard Inc., Tyler, TX 75711-9010

Model Nomenclature

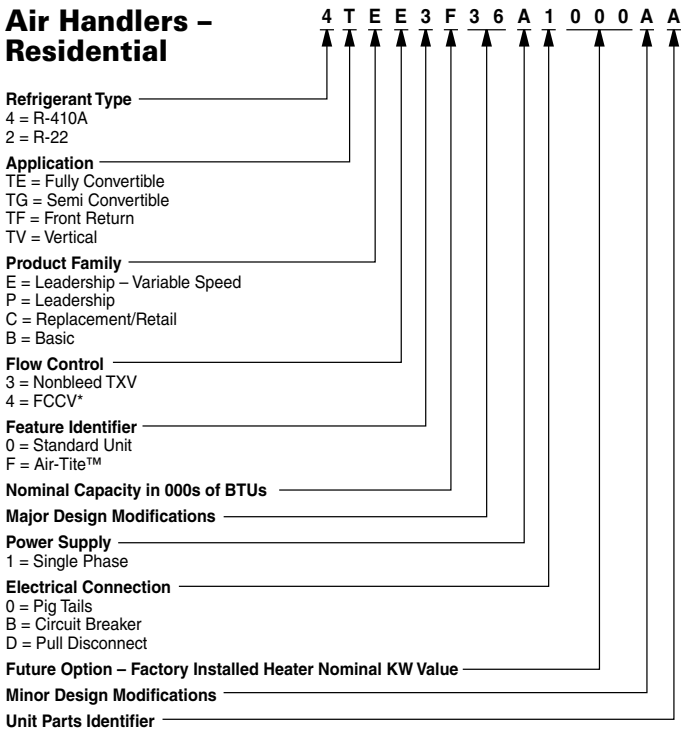
Outdoor Units



High Efficiency Furnaces



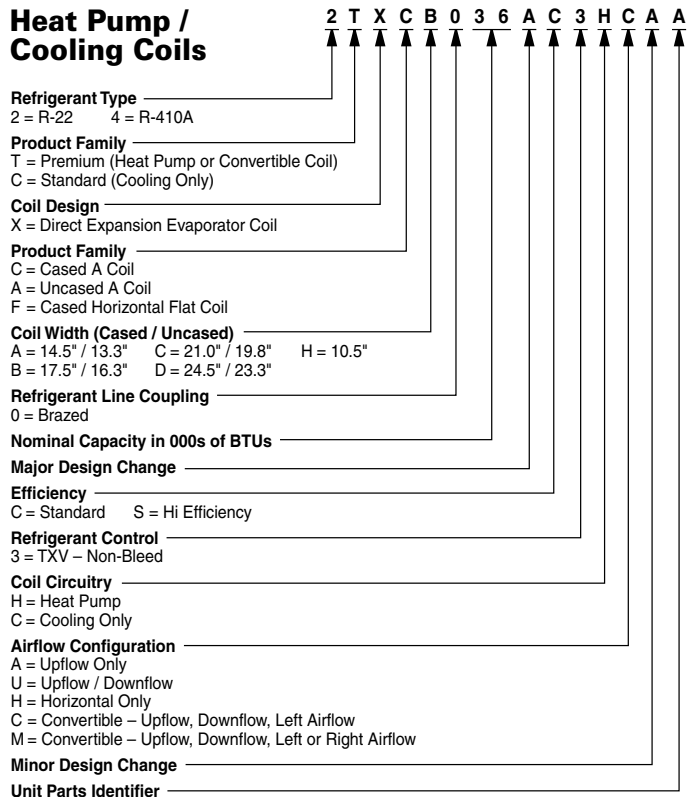
Air Handlers – Residential



NOTE: There will be a phase-in of new model numbers for new air handlers over next 2 years.

*Shipped with R-22 FCCV

Heat Pump / Cooling Coils

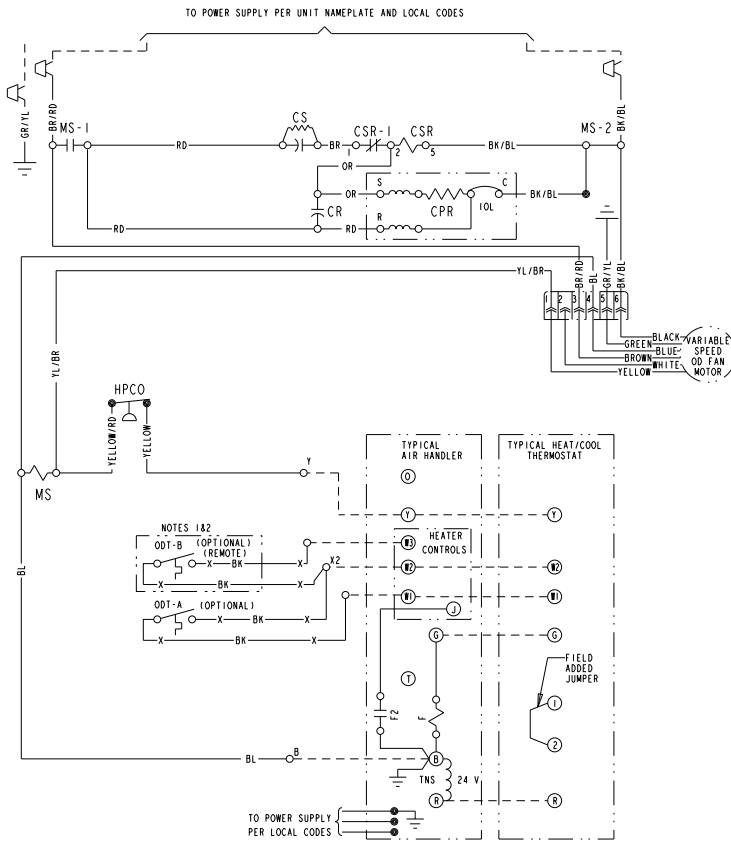


Typical Wiring

SCHEMATIC DIAGRAMS

(SEE LEGEND)

4A7A5018,024,030A



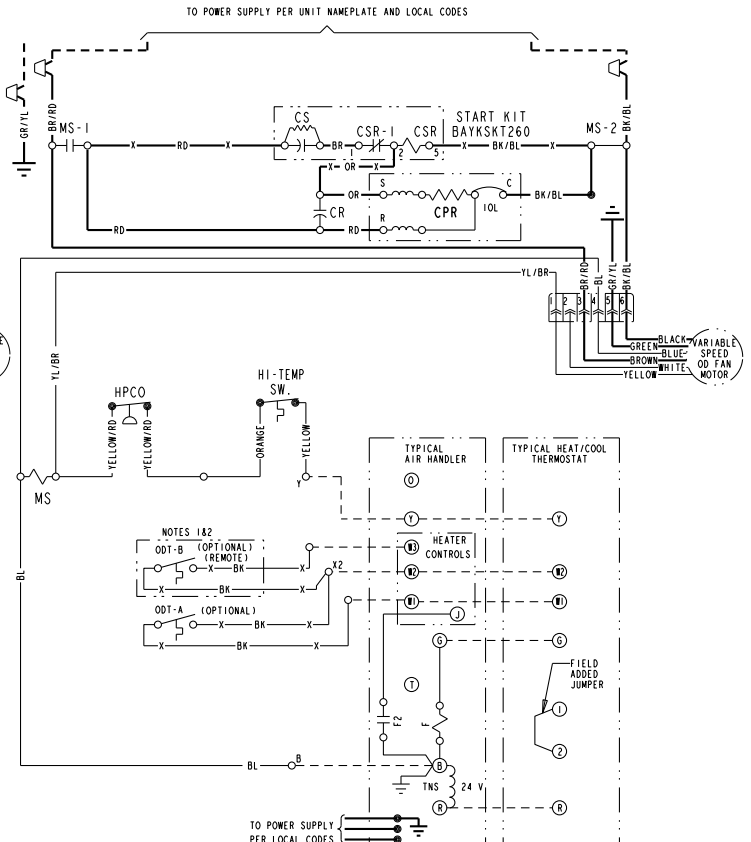
NOTES:

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

<p>⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!</p>	<p>⚠ CAUTION USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!</p>
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FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE.

4A7A5036A



NOTES:

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V.) FIELD WIRING MUST BE 18 AWG MIN.

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FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE.

PRODUCT DATA

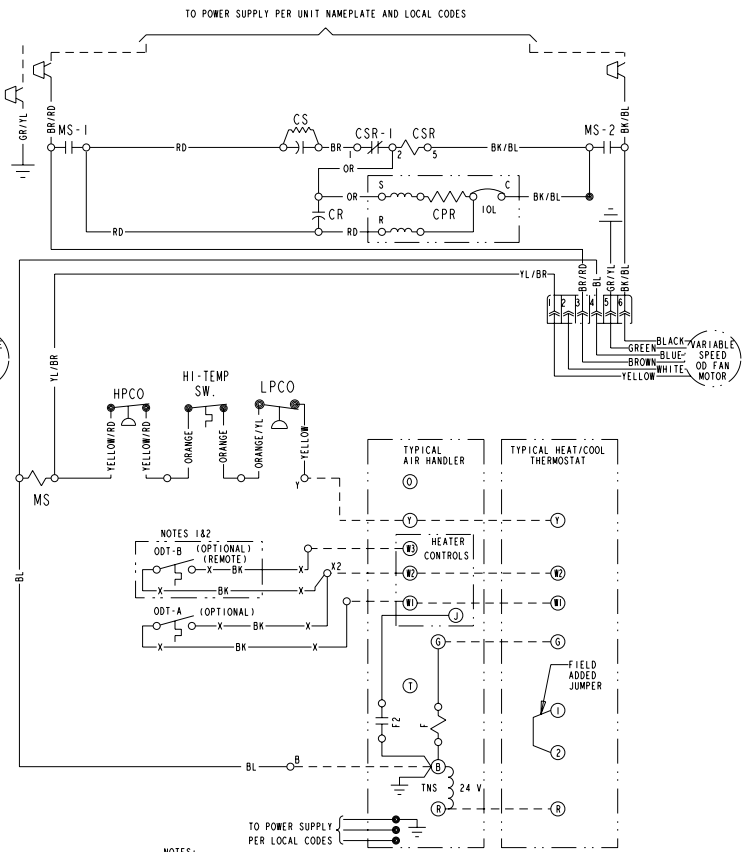
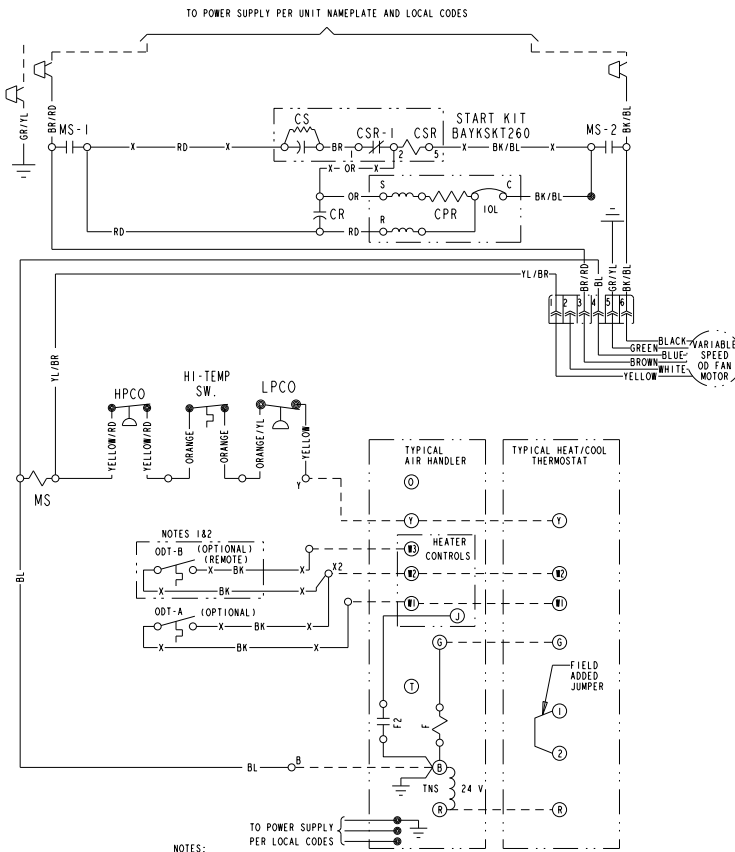
American Standard Inc., Tyler, TX 75711-9010

Typical Wiring

SCHEMATIC DIAGRAMS (SEE LEGEND)

4A7A5042, 48A

4A7A5060A



<p>⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!</p>	<p>⚠ CAUTION USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!</p>
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FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE.

<p>⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH!</p>	<p>⚠ CAUTION USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT!</p>
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
FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND.
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE.






















Typical Wiring

SCHEMATIC DIAGRAMS

LEGEND

	COLOR OF WIRE				
BK/BL	BLACK WIRE WITH BLUE MARKER				
	COLOR OF MARKER				
BK	BLACK	OR	ORANGE	YL	YELLOW
BL	BLUE	RD	RED	GR	GREEN
BR	BROWN	WH	WHITE	PR	PURPLE

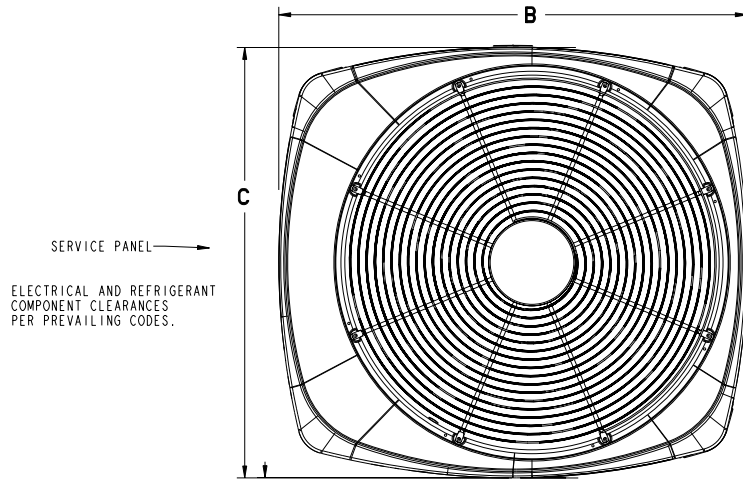
SYMBOLS

	24 V.	}	FACTORY WIRING
	LINE V.		
	24 V.	}	FIELD WIRING
	LINE V.		
	FIELD INSTALLED FACTORY WIRING		
	GROUND		
	JUNCTION		
	WIRE NUT OR CONNECTOR		
	COIL		
	CAPACITOR		
	RELAY CONTACT (N.O.)		
	RELAY CONTACT (N.C.)		
	THERMISTOR		
	INTERNAL OVERLOAD PROTECTOR		
	PRESSURE ACTUATED SWITCH		
	TEMP. ACTUATED SWITCH		
	POL. PLUG FEMALE HOUSING (MALE TERM.)		
	POL. PLUG MALE HOUSING (FEMALE TERM.)		
	RESISTOR OR HEATING ELEMENT		
	MOTOR WINDING		
	TERMINAL		

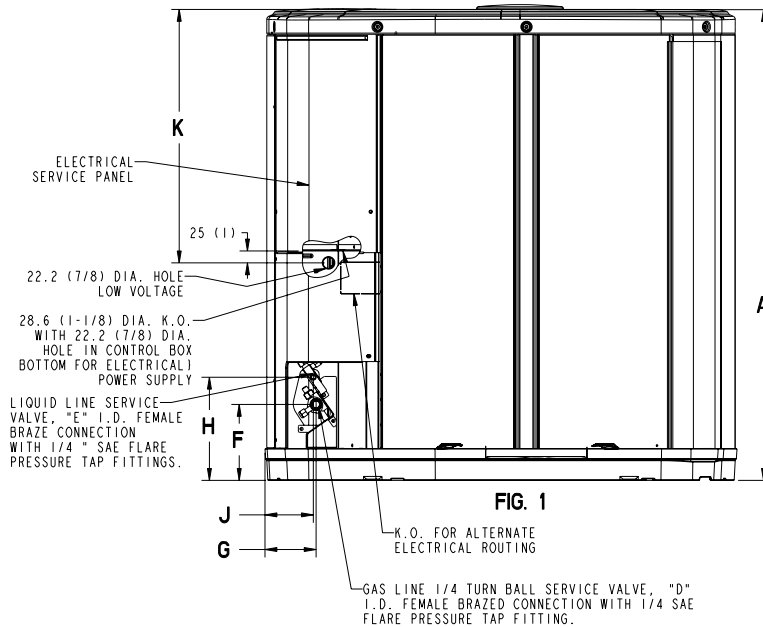
CA	COOLING ANTICIPATOR	LPCO	LOW PRESSURE CUTOFF SW.
CBS	COIL BOTTOM SENSOR	MS	COMPRESSOR MOTOR CONTACTOR
CF	FAN CAPACITOR	ODA	OUTDOOR ANTICIPATOR
CN	WIRE CONNECTOR	OFT	OUTDOOR FAN THERMOSTAT
CPR	COMPRESSOR	ODS	OUTDOOR TEMPERATURE SENSOR
CR	RUN CAPACITOR	ODT	OUTDOOR THERMOSTAT
CS	STARTING CAPACITOR	RHS	RESISTANCE HEAT SWITCH
CSR	CAPACITOR SWITCHING RELAY	SC	SWITCHOVER VALVE SOLENOID
DFC	DEFROST CONTROL	SM	SYSTEM "ON-OFF" SWITCH
F	INDOOR FAN RELAY	TDL	DISCHARGE LINE THERMOSTAT
HA	HEATING ANTICIPATOR	TNS	TRANSFORMER
HPCO	HIGH PRESSURE CUTOFF SW.	TS	HEATING-COOLING THERMOSTAT
IOL	INTERNAL OVERLOAD PROTECTOR	TSH	HEATING THERMOSTAT

Dimensional Data

4A7A5 OUTLINE DRAWING NOTE: ALL DIMENSIONS ARE IN MM (INCHES).



TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST 1524 (5 FEET) ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT, AND SHOULD BE AT LEAST 305 (12") FROM WALL AND ALL SURROUNDING SHRUBBERY ON TWO SIDES. OTHER TWO SIDES UNRESTRICTED.



MODELS	BASE	FIG.	A	B	C	D	E	F	G	H	J	K
4A7A5018A	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	1/2	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5024A	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	5/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5030A	4	1	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5036A	4	1	1045 (41-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5042A	4	1	1045 (41-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5048A	4	1	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4A7A5060A	4	1	1147 (45--1/8)	946 (37-1/4)	870 (34-1/4)	1-1/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)

From Dwg. 21D152862 Rev. 20

Mechanical Specifications

General

These models shall be fully charged from the factory for matched indoor section and up to 15 feet of piping. This unit must be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be matched with a wide selection of air handlers and furnace coils that are ARI certified. The unit shall be UL listed. Exterior must be designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish on all louvered panels. Corrosion and weather-proof CMBP-G30 DuraBase™ base.

Refrigerant Controls

Refrigeration system controls include condenser fan and compressor contactor. High and low pressure controls are inherent to the compressor. Unit also has high pressure switch. Another standard feature is the liquid line drier.

Compressor

The Duration™ compressor features internal over temperature and pressure protector, dipped hermetic motor and sump heater. Other features include: roto lock suction and discharge refrigerant connections, centrifugal oil pump, and low vibration and noise. The Duration™ compressor features a 10-year limited warranty.

Condenser Coil

The Spine Fin™ coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is seamless aluminum glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch.

Low Ambient Cooling

As shipped, this unit has a cooling capability to 55°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

Accessories**Thermostats —**

Heat/cooling (manual and automatic changeover). Sub-base to match thermostat and locking thermostat cover.

Evaporator Defrost Control —

See Low Ambient Cooling.

Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.

Technical Literature - Printed in U.S.A.

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