

QUICK REFERENCE DATA

*SA1BD4M1 Series Split System Air Conditioner for Manufactured Housing

13 SEER

| MODEL NUMBER: *SA1BD4M1SN | | 18K | 24K | 30K | 36K | 42K | 48K | 60K | |
|--|------------------------|--------------------|---------------|------|----------|------|-------|------------|-------|
| ELECTRICAL DATA | Volts-Cycles Phase (1) | 208 / 230 - 60 - 1 | | | | | | | |
| | Total Amps | 9.7 | 13.5 | 14.8 | 18.0 | 19.4 | 23.2 | 27.8 | |
| | Delay Fuse Max. (2) | 20 | 25 | 30 | 35 | 40 | 50 | 60 | |
| | Min. Circuit Ampacity | 12.0 | 16.7 | 18.3 | 22.2 | 23.9 | 28.7 | 34.4 | |
| COMPONENT DATA | Coil | Area | 8.3 | 8.3 | 10.0 | 10.0 | 15.3 | 15.3 | 17.9 |
| | | Rows-FPI | 1-18 | | | | | | |
| | | Tube Dia. | Micro-Channel | | | | | | |
| | Fan Motor | Type | PSC | | | | | | |
| | | Amps | 0.35 | 0.7 | 0.7 | 1.4 | 1.5 | 1.5 | 1.5 |
| | | HP | 0.05 | 0.1 | 0.1 | 0.25 | 0.25 | 0.25 | 0.25 |
| | Compressor Data | RLA | 9.3 | 12.8 | 14.1 | 16.6 | 17.9 | 21.8 | 26.4 |
| | | LRA | 56.6 | 58.3 | 73.0 | 79.0 | 112.0 | 117.0 | 134.0 |
| RECOMMENDED REFRIGERANT SUCTION LINE O.D NOTE: Liquid line is 3/8" O.D. for entire length. | 0 - 24 ft. | 3/4" | 3/4" | 3/4" | 3/4" | 7/8" | 7/8" | 7/8" | |
| | 25 - 39 ft. | 3/4" | 3/4" | 3/4" | 7/8" (3) | 7/8" | 7/8" | 1-1/8" (4) | |
| | 40 - 75 ft. | 3/4" | 3/4" | 3/4" | 7/8" (3) | 7/8" | 7/8" | 1-1/8" (4) | |
| REFRIGERANT CHARGE R-410A in ounces for outdoor unit & 20' Lineset. (5) | | 53 | 53 | 54 | 54 | 85 | 80 | 115 | |
| APPROXIMATE WEIGHT (LBS.) | Net | 113 | 114 | 119 | 123 | 173 | 175 | 189 | |
| | Ship | 126 | 127 | 133 | 137 | 194 | 196 | 211 | |

- (1) Operating Voltage Range: 187v min. — 253v max.
- (2) HACR Type Circuit Breakers may be used.
- (3) Requires 7/8" to 3/4" reducer from line to unit.
- (4) Requires 7/8" to 1-1/8" reducer from line to unit.
- (5) Additional charge for line sets above 20 feet. Values based on suction line as follows with 3/8" liquid line.
 - (a) 3/4" = 0.6 oz. per additional foot.
 - (b) 7/8" = 0.7 oz. per additional foot.
 - (c) 1 1/8" = 0.8 oz. per additional foot.

Table 1. Electrical Specifications & Physical Data

| WIRE GAUGE | RECOMMENDED MAXIMUM WIRE LENGTH (FT) FROM UNIT TO THERMOSTAT |
|------------|--|
| 22 | 45 |
| 20 | 70 |
| 18 | 115 |
| 16 | 180 |

Table 2. Control Wiring (24V)

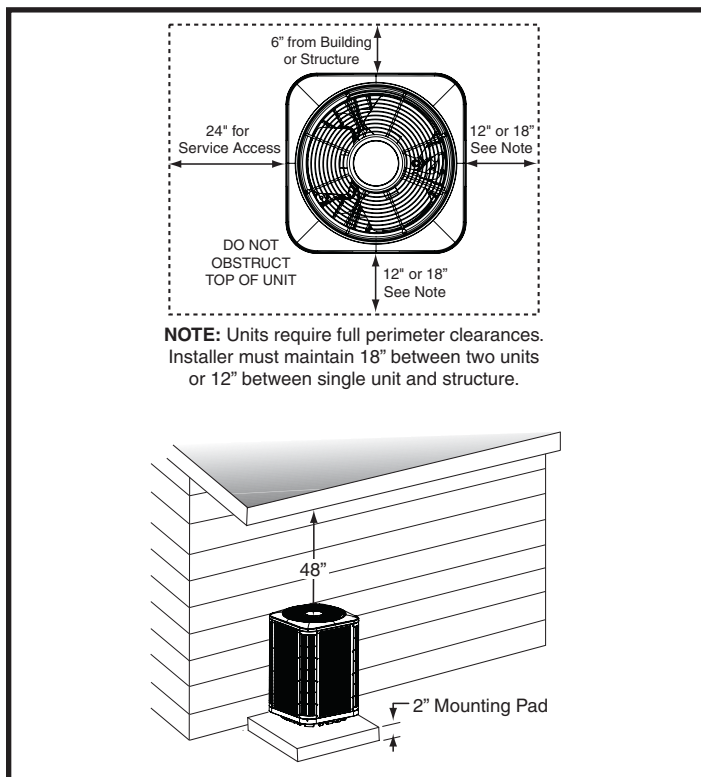
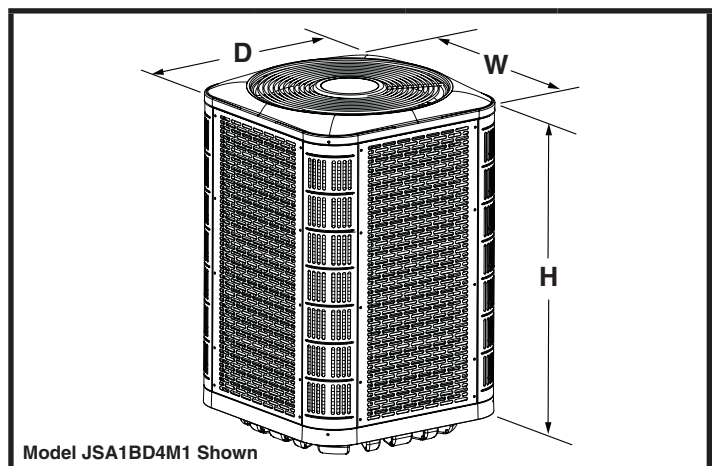


Figure 1. Clearance Requirements



| MODEL NUMBER | HEIGHT (H) | WIDTH (W) | DEPTH (D) |
|----------------|------------|-----------|-----------|
| *SA1BD4M1SN18K | 24 1/2" | 23 3/4" | 23 3/4" |
| *SA1BD4M1SN24K | 24 1/2" | 23 3/4" | 23 3/4" |
| *SA1BD4M1SN30K | 28 1/2" | 23 3/4" | 23 3/4" |
| *SA1BD4M1SN36K | 28 1/2" | 23 3/4" | 23 3/4" |
| *SA1BD4M1SN42K | 29 1/4" | 31 3/4" | 31 3/4" |
| *SA1BD4M1SN48K | 29 1/4" | 31 3/4" | 31 3/4" |
| *SA1BD4M1SN60K | 33 1/4" | 31 3/4" | 31 3/4" |

Table 3. Unit Dimensions

Instructions:

1. Find the column for the model of outdoor unit that is being installed.
2. Find the row for the model of the indoor unit that is being installed.
3. Find the cell in the table in which this row and column meet. In this cell the appropriate orifice / TXV and charge addition for this match are listed. If the text in this cell is **BOLD**, then a change of orifice is necessary.
4. If a change in restrictor is necessary, then the appropriate restrictor will already be supplied with the outdoor unit.

Examples:

- For the *SA1BD4M1S18K / C8(B,D)AM01830U-B match, the appropriate restrictor is the .048" and no additional charge needs to be added. (CHANGE IN RESTRICTOR)
- For the *SA1BD4M1S48K / C8(B,D)VMX48U-C match, the appropriate TXV is the 669568 and 22 ounces of refrigerant should be removed. (CHARGE REDUCTION)

| MODEL NUMBER: *SA1BD4M1SN | | 18K | 24K | 30K | 36K | 42K | 48K | 60K |
|--------------------------------------|------------------|--|----------------------------|----------------------|----------------------|--------------------------|-------------------------|--------------------------|
| ID RESTRICTOR SUPPLIED WITH OD UNIT: | | 0.048 | 0.055 | | | | | |
| OUTDOOR UNIT BOM CHARGE (OZ.) | | 53 | 53 | 54 | 54 | 85 | 80 | 115 |
| MODELS | SUPPLIED WITH ID | REQUIRED RESTRICTOR OR TXV (CHARGE ADDITION (OZ) / RATED AIRFLOW (SCFM)) | | | | | | |
| C7-X | | | | | | | | |
| C7B(A,H)MX24(C,U)-B | 669681 | 669681 (0 / 530) | 669681 (5 / 700) | -- | -- | -- | -- | -- |
| C7B(A,H)MX30(C,U)-B | 669682 | -- | -- | 669682 (6 / 955) | -- | -- | -- | -- |
| C7B(A,H)MX36(C,U)-B | 669683 | -- | -- | -- | 669683 (4 / 1100) | -- | -- | -- |
| C7B(A,H)MX36(C,U)-C | 669683 | -- | -- | -- | 669683 (4 / 1100) | -- | -- | -- |
| C7B(A,H)MX42(C,U)-B | 669684 | -- | -- | -- | -- | 669684 (-13 / 1245) ‡ | -- | -- |
| C7B(A,H)MX42(C,U)-C | 669684 | -- | -- | -- | -- | 669684 (-13 / 1245) ‡ | -- | -- |
| C7B(A,H)MX48(C,U)-C | 669852 | -- | -- | -- | -- | -- | 669852 (-8 / 1400) ‡ | -- |
| C7B(A,H)MX60(C,U)-C | 669686 | -- | -- | -- | -- | -- | -- | 669686 (-34 / 1695) ‡ |
| C8 | | | | | | | | |
| C8(B,D)AM01830U-B | 0.061 | 0.048 (0 / 535) | 0.055 (0 / 705) | 0.061 (0 / 960) | -- | -- | -- | -- |
| C8(B,D)AM036U-B | 0.067 | -- | -- | -- | 0.067 (0 / 1190) | -- | -- | -- |
| C8(B,D)AM042U-B | 0.071 | -- | -- | -- | -- | 0.071 (-6 / 1290) ‡ | -- | -- |
| C8-X | | | | | | | | |
| C8(B,D)AMX24U-B | 669564 | 669564 (0 / 530) | 669564 (5 / 850) | -- | -- | -- | -- | -- |
| C8(B,D)AMX30U-B | 669565 | -- | -- | 669565 (6 / 1080) | -- | -- | -- | -- |
| C8(B,D)VMX42U-C | 669567 | -- | -- | -- | -- | 669567 (-10 / 1265) ‡ | -- | -- |
| C8(B,D)VMX48U-C | 669568 | -- | -- | -- | -- | -- | 669568 (-5 / 1430) ‡ | -- |
| CM4B | | | | | | | | |
| CM4B-53U | TXV | -- | -- | -- | -- | TXV (0 / 1250) | -- | -- |
| CM4B-54U | TXV | -- | -- | -- | -- | -- | TXV (0 / 1450) | TXV (0 / 1450) |
| CM4B-56U | TXV | -- | -- | -- | -- | -- | TXV (10 / 1500) | TXV (0 / 1600) |

NOTES:

- ‡ Requires **REMOVAL** of refrigerant from unit.
- The charges listed are only valid for the standard 20' lineset.
- Numbers listed as 0.*** are restrictor diameters, while numbers listed as 669*** are TXV part numbers.

Table 4. Restrictor or TXV / Charge Addition (Oz)

THE CHARGE ADDITIONS PROVIDED IN THIS DOCUMENT ARE ESTIMATES BASED ON TEST DATA AND SHOULD ONLY BE A STARTING POINT. AFTER FOLLOWING THESE DIRECTIONS PLEASE ADJUST THE REFRIGERANT AMOUNT BASED ON THE APPROPRIATE CHARGING TABLES OR CHARTS IN THE INSTALLATION INSTRUCTIONS OR CHARGING LABEL.

