

BUILT TO A HIGHER STANDARD[®]

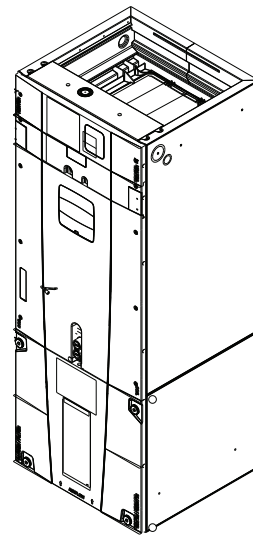
American Standard[®]

HEATING & AIR CONDITIONING

Product and Submittal Data

Multi-Speed Air Handlers 1.5 to 5 Tons

5TAM5B01AC21SB
5TAM5B02AC21SB
5TAM5C03AC21SB
5TAM5C04AC31SB
5TAM5D05AC31SB
5TAM5D06AC41SB
5TAM5D07AC51SB



Notes:

- Graphics in this document are for representation only. Actual model may differ in appearance.
- For use with BAYEA series heaters ONLY.

Introduction

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Revision History

- Updated model numbers to change the 14th digit from A to B throughout the document.
- Removed the term Epoxy Coated Coil throughout the document.
- Updated optional accessories.
- Updated table footnote (a) on all product specification tables.
- Updated airflow performance table.
- Updated the wiring diagram.

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Features and Benefits

- Unique cabinet design
 - Double Wall Foamed and Formed Cabinet System
 - Water Proof Cabinet Design
 - R-4.2 Insulating Value (Avg Insulating Value R-8.2)
 - Composite Cabinet Doors
 - Sweat Eliminating Cabinet Design
 - Loose Fiber Eliminating Cabinet Design
 - Smooth Cleanable Cabinet Design
 - 2% or Less Air Leakage
 - Precision Durable Door Seals
 - Modular Cabinet
- Multi-position: upflow, downflow, horizontal left, or horizontal right
- Phillips head door fasteners
- Side Return Option
- Refrigerant Connections
- Condensate Connections
- Premarked Conduit Connection Locations
- Vortica® Blower with Integrated Slide Deck for Easy Removal
- Polarized Plug connections on Blower
- Aluminum Coil with Integrated Slide Deck for Easy Removal
- Slide in Electric Heaters with polarized plug connections (sold as accessory)
- Polarized Plug connections for Electric Heater
- UVC light kit with safety switch and polarized plug connections (sold as accessory)
- Labeled Panels and connections
- 1 1/4-in. to 1-in. and 3/4-in. to 1/2-in. Conduit connection on Left, Right and Top
- Molded in 1-in Standard Filter rail
- R-454B Thermal Expansion Valve
- Low Voltage Pigtail Connections
- Enhanced Coil Fin Patented
- Blow Through Design
- High Efficiency ECM Motor
- Maximum Width of 23.5-in
- Compact 20.8-in depth with doors removed
- Integrated Horizontal Drain pans
- Soft start fan motor operation
- Single Color
- Fused 24v Power
- 5 Year Warranty
- 10 Year Warranty Registered
- Optional Extended Warranty Available

Optional Accessories

Table 1. Optional accessories

Accessory Number	Description	Fits Cabinet Width (in.)
BAYEA(AC/13)04BK1 ^(a)	Electric Heater, 4kW, Breaker, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)04LG1 ^(a)	Electric Heater, 4kW, Lugs, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)05BK1 ^(a)	Electric Heater, 5kW, Breaker, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)05LG1 ^(a)	Electric Heater, 5kW, Lugs, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)08BK1 ^(a)	Electric Heater, 8kW, Breaker, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)08LG1 ^(a)	Electric Heater, 8kW, Lugs, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10BK1 ^(a)	Electric Heater, 10kW, Breaker, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10LG1 ^(a)	Electric Heater, 10kW, Lugs, 24v Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10LG3 ^(a)	Electric Heater, 10kW, Lugs, 24v Control, 3 Ph	17.5, 21.0, 23.5
BAYEA(BC/23)15BK1 ^(a)	Electric Heater, 15kW, Breaker, 24v Control, 1 Ph	21.0, 23.5
BAYEA(BC/23)15LG3 ^(a)	Electric Heater, 15kW, Lugs, 24v Control, 3 Ph	21.0, 23.5
BAYEA(BC/23)20BK1 ^(a)	Electric Heater, 20kW, Breaker, 24v Control, 1 Ph	21.0, 23.5
BAYEA(CC/33)25BK1 ^(a)	Electric Heater, 25kW, Breaker, 24v Control, 1 Ph	23.5
BAYSUPFLGAA	Supply Duct Flange 17.5-in.	17.5
BAYSUPFLGBA	Supply Duct Flange 21.0-in.	21.0
BAYSUPFLGCA	Supply Duct Flange 23.5-in.	23.5
BAYRETF LGAA	Return Duct Flange 17.5-in.	17.5
BAYRETF LGBA	Return Duct Flange 21.0-in.	21.0
BAYRETF LGCA	Return Duct Flange 23.5-in.	23.5
BAYSRKIT100A	Side Return Kit	17.5, 21.0, 23.5
BAYFLR1620A	High Velocity Filter Kit, 16-in. X 20' X 1-in. (10 filters)	17.5
BAYFLR2020A	High Velocity Filter Kit, 20-in. X 20' X 1-in. (10 filters)	21.0
BAYFLR2220A	High Velocity Filter Kit, 22-in. X 20' X 1-in. (10 filters)	23.5
TASB175SB	Plenum Stand with Integrated Sound Baffle 17.5-in.	17.5
TASB215SB	Plenum Stand with Integrated Sound Baffle 21.0-in.	21.0
TASB235SB	Plenum Stand with Integrated Sound Baffle 23.5-in.	23.5
BAYBAFKT175	Sound Baffle Kit for 17.5-in. Cabinet	17.5
BAYBAFKT215	Sound Baffle Kit for 21.0-in. Cabinet	21.0
BAYBAFKT235	Sound Baffle Kit for 23.5-in. Cabinet	23.5
TASSBK175	Sound Baffle Kit for 17.5-in. Cabinet	17.5
TASSBK215	Sound Baffle Kit for 21.0-in. Cabinet	21.0
TASSBK235	Sound Baffle Kit for 23.5-in. Cabinet	23.5
BAYICSKIT01A	Internal Condensate Switch Kit	17.5, 21.0, 23.5
BAYHHKIT001A	Horizontal Hanger Kit	17.5, 21.0, 23.5
BAYUVCLK001A	UV Lights	17.5, 21.0, 23.5
BAYLVKIT100A	Low Voltage Conduit Entry Kit	17.5, 21.0, 23.5
BAYSPEKT200A	Single Point Power Entry Kit	21.0, 23.5
BAYWAAA05SC1AA	Hydronic heater, 17.5-in. cabinet, no control, slide-in	17.5
BAYWABB07SC1AA	Hydronic heater, 21.0-in. cabinet, no control, slide-in	21.0
BAYWACC08SC1AA	Hydronic heater, 23.5-in. cabinet, no control, slide-in	23.5
BAYWACC11SC1AA	Hydronic heater, 23.5-in. cabinet, no control, external	23.5
BAYINSKT175A	Solcoustic® Liner Kit - 17.5-in. Cabinet	17.5
BAYINSKT215A	Solcoustic® Liner Kit - 21.5-in. Cabinet	21.0
BAYINSKT235A	Solcoustic® Liner Kit - 23.5-in. Cabinet	23.5
BAYCNDPIP01A	3/4-in. PVC Threaded Pipe Kit Foam Seal (10 per box)	17.5, 21.0, 23.5

^(a) Model number may have either of the pairs of characters in parentheses.

Unique Cabinet Design Features and Benefits

Figure 1. Cabinet design

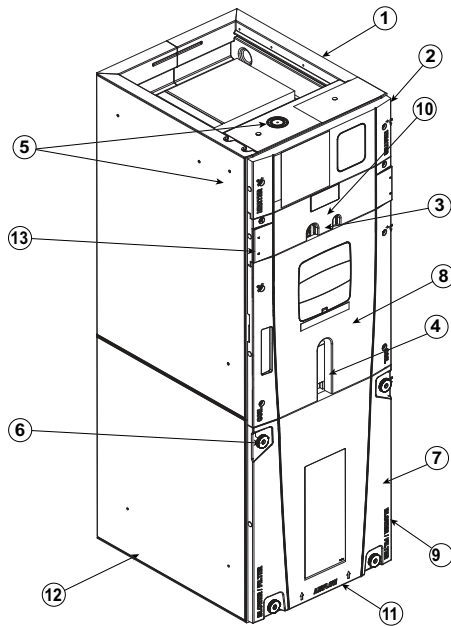


Table 2. Features and benefits

SI No	Description
1	Unique Cabinet Design
	— Double wall foamed cabinet system
	— Waterproof Cabinet Design
	— R-4.2 Insulating Value (Avg Insulating Value R-8.2)
	— Composite Cabinet Doors
	— Sweat Eliminating Cabinet Design
	— Loose Fiber Eliminating Design
	— Smooth Cleanable Cabinet Design
2	Precision Durable Door Seals
3	Refrigeration Connections
4	Condensate Connections
5	Conduit Connection
	— Conduit Connection locations on Left, Right, and Top
6	Easy access large thumb screws
7	Vortica™ Blower and Deck
	— Polarized Plug on Blower
8	All Aluminum Coil
	— Integrated Slide Deck for Easy Removal
	— Patented Enhanced Coil Fin
9	Labeled Panels and Connections
10	Thermal Expansion Valve
11	Maximum width is 23.5-in.
12	Compact 20.8-in. Depth with Doors Removed
13	Integrated Horizontal Drain Pans
14	Modular Cabinet

Product Specifications

Table 3. Models – 5TAM5B01AC21SB, 5TAM5B02AC21SB, and 5TAM5C03AC21SB

Model	5TAM5B01AC21SB	5TAM5B02AC21SB	5TAM5C03AC21SB
Family Description	R-454B Multi-Speed Air Handler	R-454B Multi-Speed Air Handler	R-454B Multi-Speed Air Handler
Application Configuration	4-Way	4-Way	4-Way
Rated Capacity Range (BTUH)	18K - 24K	18K - 24K	24K - 36K
System Control Type	24v	24v	24v
Power Conn. - V/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15	15	15
Max Breaker Size, With Electric Heater (Amps) ^(a) ^(b)	60	60	60
Coil Type	All-Aluminum Plate Fin	All-Aluminum Plate Fin	All-Aluminum Plate Fin
Refrigerant Type	R-454B	R-454B	R-454B
Refrigerant Control	TXV	TXV	TXV
Refrigerant Line Connection - Gas (in.)	3/4	3/4	3/4
Refrigerant Line Connection - Liquid (in.)	3/8	3/8	3/8
Blower Type	Direct Drive Centrifugal	Direct Drive Centrifugal	Direct Drive Centrifugal
Configuration	Blow Through	Blow Through	Blow Through
Dimensions (Diameter x Width (in.))	11 x 8	11 x 8	11 x 10
Motor Type	Constant Torque	Constant Torque	Constant Torque
Nominal CFM ^(c)	600	800	1000
Speed (RPM)	1050	1050	1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Full Load Amps	2.6	2.6	3.8
Filter Rack (Yes, No)	Yes	Yes	Yes
Dimensions (Length x Width (in.))	16 x 20 x 1	16 x 20 x 1	20 x 20 x 1
Duct Connections	L x W	L x W	L x W
Supply (in.)	14.5 x 14.35	14.5 x 14.35	18.4 x 14.35
Return (in.)	14.5 x 17.15	14.5 x 17.15	18.4 x 17.15
Drain Conn. Size (in.)	3/4 NPT	3/4 NPT	3/4 NPT
Dimensions	H x W x D	H x W x D	H x W x D
Uncrated (in.)	49-7/8 x 17-1/2 x 21-3/4	49-7/8 x 17-1/2 x 21-3/4	55-3/4 x 21-1/4 x 21-3/4
Crated (in.)	51-3/8 x 20-1/2 x 25-3/4	51-3/8 x 20-1/2 x 25-3/4	57-1/4 x 24-1/4 x 25-3/4
Weight			
Shipping/Net (LBS.)	126/120	126/120	150/142

^(a) Maximum overcurrent protection is dependent on which electric heater is installed. See [Heater Attribute Data](#), p. 15.

^(b) If installing system outside of the United States, accessory electric heaters may not be installed.

^(c) For CFM versus external static pressure (in. w.c.), refer to Installation, Operation, and Maintenance manual.

Table 4. Models – 5TAM5C04AC31SB, 5TAM5D05AC31SB, and 5TAM5D06AC41SB

Model	5TAM5C04AC31SB	5TAM5D05AC31SB	5TAM5D06AC41SB
Family Description	R-454B Multi-Speed Air Handler	R-454B Multi-Speed Air Handler	R-454B Multi-Speed Air Handler
Application Configuration	4-Way	4-Way	4-Way
Rated Capacity Range (BTUH)	24K - 36K	36K - 48K	42K - 60K
System Control Type	24v	24v	24v
Power Conn. - V/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15	15	15
Max Breaker Size, With Electric Heater (Amps) ^(a) ^(b)	60	60	60

Product Specifications

Table 4. Models – 5TAM5C04AC31SB, 5TAM5D05AC31SB, and 5TAM5D06AC41SB (continued)

Model	5TAM5C04AC31SB	5TAM5D05AC31SB	5TAM5D06AC41SB
Coil Type	All-Aluminum Plate Fin	All-Aluminum Plate Fin	All-Aluminum Plate Fin
Refrigerant Type	R-454B	R-454B	R-454B
Refrigerant Control	TXV	TXV	TXV
Refrigerant Line Connection - Gas (in.)	3/4	7/8	7/8
Refrigerant Line Connection - Liquid (in.)	3/8	3/8	3/8
Blower Type	Direct Drive Centrifugal	Direct Drive Centrifugal	Direct Drive Centrifugal
Configuration	Blow Through	Blow Through	Blow Through
Dimensions (Diameter x Width (in.))	11 x 10	11 x 10	11 x 10
Motor Type	Constant Torque	Constant Torque	Constant Torque
Nominal CFM ^(c)	1200	1400	1600
Speed (RPM)	1050	1050	1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Full Load Amps	3.8	3.8	5.4
Filter Rack (Yes, No)	Yes	Yes	Yes
Dimensions (Length x Width (in.))	20 x 20 x 1	22 x 20 x 1	22 x 20 x 1
Duct Connections	L x W	L x W	L x W
Supply (in.)	18.4 x 14.35	20.5 x 14.35	20.5 x 14.35
Return (in.)	18.4 x 17.15	20.5 x 17.15	20.5 x 17.15
Drain Conn. Size (in.)	3/4 NPT	3/4 NPT	3/4 NPT
Dimensions	H x W x D	H x W x D	H x W x D
Uncrated (in.)	55-3/4 x 21-1/4 x 21-3/4	56-7/8 x 23-1/2 x 21-3/4	61-3/4 x 23-1/2 x 21-3/4
Crated (in.)	57-1/4 x 24-1/4 x 25-3/4	58-1/2 x 27-1/2 x 25-3/4	63-1/4 x 27-1/2 x 25-3/4
Weight			
Shipping/Net (LBS.)	150/142	163/153	176/166

^(a) Maximum overcurrent protection is dependent on which electric heater is installed. See [Heater Attribute Data](#), p. 15.

^(b) If installing system outside of the United States, accessory electric heaters may not be installed.

^(c) For CFM versus external static pressure (in. w.c.), refer to Installation, Operation, and Maintenance manual.

Table 5. Model – 5TAM5D07AC51SB

Model	5TAM5D07AC51SB
Family Description	R-454B Multi-Speed Air Handler
Application Configuration	4-Way
Rated Capacity Range (BTUH)	48K - 60K
System Control Type	24v
Power Conn. - V/Ph/Hz	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15
Max Breaker Size, With Electric Heater (Amps) ^(a) ^(b)	60
Coil Type	All-Aluminum Plate Fin
Refrigerant Type	R-454B
Refrigerant Control	TXV
Refrigerant Line Connection - Gas (in.)	7/8
Refrigerant Line Connection - Liquid (in.)	3/8
Blower Type	Direct Drive Centrifugal
Configuration	Blow Through
Dimensions (Diameter x Width (in.))	11 x 10
Motor Type	Constant Torque

Table 5. Model – 5TAM5D07AC51SB (continued)

Model	5TAM5D07AC51SB
Nominal CFM ^(c)	2000
Speed (RPM)	1050
Volts/Ph/Hz	208-230/1/60
Full Load Amps	7.0
Filter Rack (Yes, No)	Yes
Dimensions (Length x Width (in.))	22 x 20 x 1
Duct Connections	L x W
Supply (in.)	20.5 x 14.35
Return (in.)	20.5 x 17.15
Drain Conn. Size (in.)	3/4 NPT
Dimensions	H x W x D
Uncrated (in.)	61-3/4 x 23-1/2 x 21-3/4
Crated (in.)	63-1/4 x 27-1/2 x 25-3/4
Weight	
Shipping/Net (LBS.)	180/170

^(a) Maximum overcurrent protection is dependent on which electric heater is installed. See [Heater Attribute Data](#), p. 15.

^(b) If installing system outside of the United States, accessory electric heaters may not be installed.

^(c) For CFM versus external static pressure (in. w.c.), refer to Installation, Operation, and Maintenance manual.

Airflow Performance Tables

Table 6. Model – 5TAM5B01AC21SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	949	832	796	748
0.2	917	802	769	718
0.3	895	771	736	685
0.4	863	745	707	647
0.5	838	709	668	607
0.6	805	674	629	564
0.7	771	637	590	527
0.8	740	600	554	493
0.9	707	567	522	451

Note: In horizontal and downflow applications, airflow should be limited to 800 CFM due to condensate blowoff.

^(a) Factory setting.

Table 7. Model – 5TAM5B02AC21SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	1039	955	855	793
0.2	1010	930	822	760
0.3	984	900	789	729
0.4	956	873	764	700
0.5	931	848	735	667
0.6	906	824	702	628
0.7	884	794	667	589
0.8	855	762	631	554
0.9	823	731	597	524

Note: In horizontal and downflow applications, airflow should be limited to 800 CFM due to condensate blowoff.

^(a) Factory setting.

Table 8. Model – 5TAM5C03AC21SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	1236	1170	1043	946
0.2	1201	1132	1000	894
0.3	1161	1098	950	837
0.4	1121	1049	881	761
0.5	1071	994	825	707
0.6	1011	938	764	631
0.7	963	891	702	568
0.8	917	841	640	520
0.9	869	774	584	480

Note: In horizontal and downflow applications, airflow should be limited to 1200 CFM due to condensate blowoff.

^(a) Factory setting.

Airflow Performance Tables

Table 9. Model – 5TAM5C04AC31SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	1341	1295	1184	1109
0.2	1309	1256	1142	1066
0.3	1274	1216	1103	1021
0.4	1238	1180	1063	970
0.5	1195	1141	1005	913
0.6	1145	1082	953	860
0.7	1098	1033	907	800
0.8	1056	991	846	730
0.9	1014	940	780	678

Note: In horizontal and downflow applications, airflow should be limited to 1200 CFM due to condensate blowoff.

^(a) Factory setting.

Table 10. Model – 5TAM5D05AC31SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	1590	1497	1324	1202
0.2	1553	1460	1283	1156
0.3	1515	1423	1243	1110
0.4	1480	1386	1201	1063
0.5	1442	1356	1159	1014
0.6	1405	1308	1113	956
0.7	1365	1267	1068	900
0.8	1322	1224	1012	839
0.9	1278	1170	958	761

Note: In horizontal and downflow applications, airflow should be limited to 1400 CFM due to condensate blowoff.

^(a) Factory setting.

Table 11. Model – 5TAM5D06AC41SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	1849	1700	1637	1583
0.2	1816	1664	1607	1548
0.3	1787	1623	1570	1512
0.4	1753	1592	1538	1474
0.5	1721	1555	1500	1436
0.6	1688	1517	1464	1400
0.7	1654	1482	1428	1365
0.8	1628	1445	1391	1325
0.9	1595	1446	1350	1283

Note: In horizontal and downflow applications, airflow should be limited to 1800 CFM due to condensate blowoff.

^(a) Factory setting.

Airflow Performance Tables

Table 12. Model – 5TAM5D07AC51SB

External Static (in w.g.)	Airflow (CFM)			
	Speed Taps: 208 - 230 Volts			
	TAP 5	TAP 4	TAP 3 ^(a)	TAP 2
0.1	2116	2051	1803	1762
0.2	2083	2025	1769	1731
0.3	2055	1995	1736	1696
0.4	2033	1963	1706	1661
0.5	2000	1937	1670	1628
0.6	1975	1904	1637	1591
0.7	1942	1875	1599	1552
0.8	1910	1843	1565	1517
0.9	1880	1809	1524	1480

Note: In horizontal and downflow applications, airflow should be limited to 1800 CFM due to condensate blowoff.

^(a) Factory setting.

Notes:

- *TAP 1 is not an airflow selection. Black wire must always be on TAP 1.*
- *Values are with wet coil and no filter. Contact filter manufacturer for pressure drop data.*
- *Electric heater pressure drop is negligible and is included within the airflow data.*
- *Add 3% for dry coil CFM correction.*
- *First-stage airflow is approximately 75% of full-stage airflow setting.*

Minimum Airflow Setting

Table 13. Model – 5TAM5B01AC21SB

Heater	Minimum Heat Speed Tap	
	Without Heat Pump	With Heat Pump
BAYEA(AC/13)04+++1, BAYEA(AC/13)05+++1, BAYEA(AC/13)08+++1	TAP 3	TAP 4
BAYEA(AC/13)10+++1	TAP 3 ^(a)	TAP 5 ^(a)
BAYEA(AC/13)10LG3	TAP 5	TAP 5 ^(b)

Notes:

- Heater model number digits “++” are LG or BK.
- Heater model numbers may have either of the pairs of characters in parentheses.

^(a) Heater not qualified for downflow installations.

^(b) Approved for 240v only.

Table 14. Model – 5TAM5B02AC21SB

Heater	Minimum Heat Speed Tap	
	Without Heat Pump	With Heat Pump
BAYEA(AC/13)04+++1, BAYEA(AC/13)05+++1, BAYEA(AC/13)08+++1	TAP 3	TAP 4
BAYEA(AC/13)10+++1	TAP 3 ^(a)	TAP 5 ^(a)
BAYEA(AC/13)10LG3	TAP 5	TAP 5 ^(b)

Notes:

- Heater model number digits “++” are LG or BK.
- Heater model numbers may have either of the pairs of characters in parentheses.

^(a) Heater not qualified for downflow installations.

^(b) Approved for 240v only.

Table 15. Models – 5TAM5C03AC21SB and 5TAM5C04AC31SB

Heater	Minimum Heat Speed Tap	
	Without Heat Pump	With Heat Pump
BAYEA(AC/13)04+++1, BAYEA(AC/13)05+++1	TAP 2	TAP 3
BAYEA(AC/13)08+++1	TAP 3	TAP 4
BAYEA(AC/13)10+++1, BAYEA(AC/13)10LG3, BAYEA(BC/23)15LG3, BAYEA(BC/23)15BK1	TAP 4	TAP 5

Notes:

- Heater model number digits “++” are LG or BK.
- Heater model numbers may have either of the pairs of characters in parentheses.

Table 16. Model – 5TAM5D05AC31SB

Heater	Minimum Heat Speed Tap	
	Without Heat Pump	With Heat Pump
BAYEA(AC/13)04+++1, BAYEA(AC/13)05+++1, BAYEA(AC/13)08+++1, BAYEA(AC/13)10+++1, BAYEA(AC/13)10LG3	TAP 2	TAP 3
BAYEA(BC/23)15LG3, BAYEA(BC/23)15BK1	TAP 3	TAP 4

Notes:

- Heater model number digits “++” are LG or BK.
- Heater model numbers may have either of the pairs of characters in parentheses.

Minimum Airflow Setting

Table 17. Models – 5TAM5D06AC41SB and 5TAM5D07AC51SB

Heater	Minimum Heat Speed Tap	
	Without Heat Pump	With Heat Pump
BAYEA(AC/13)04++1, BAYEA(AC/13)05++1, BAYEA(AC/13)08++1, BAYEA(AC/13)10++1, BAYEA(AC/13)10LG3	TAP 2	TAP 3
BAYEA(BC/23)15LG3, BAYEA(BC/23)15BK1, BAYEA(BC/23)20BK1	TAP 3	TAP 4
BAYEA(CC/33)25BK1	TAP 4	TAP 5

Notes:

- Heater model number digits “++” are LG or BK.
- Heater model numbers may have either of the pairs of characters in parentheses.

Heater Attribute Data

Note: Heater size will be announced when using the resistor that is being provided with the BAYEA heater. Heater can also be configured in the UX360 User Interface or Diagnostics Mobile App.

Table 18. Model – 5TAM5B01AC21SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	2.6 ^(a)	3	15	—	—	2.6 ^(a)	3	15
BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1	1	3.84	13100	16.0	23	25	2.88	9800	13.8	21	25
BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	1	4.80	16400	20.0	28	30	3.60	12300	17.3	25	25
BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	1	7.68	26200	32.0	43	45	5.76	19700	27.7	38	40
BAYEA(13/AC)10BK1 ^(b) BAYEA(13/AC)10LG1 ^(b)	1	9.60	32800	40.0	53	60	7.20	24600	34.6	47	50
BAYEA(13/AC)10LG3 ^(c)	1 to 3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30

(a) Motor Amps.

(b) Heater not qualified for downflow installations.

(c) Approved for 240v only with Heat Pump.

Table 19. Model – 5TAM5B02AC21SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	2.6 ^(a)	3	15	-	-	2.6 ^(a)	3	15
BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1	1	3.84	13100	16.0	23	25	2.88	9800	13.8	21	25
BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	1	4.80	16400	20.0	28	30	3.60	12300	17.3	25	25
BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	1	7.68	26200	32.0	43	45	5.76	19700	27.7	38	40
BAYEA(13/AC)10BK1 ^(b) BAYEA(13/AC)10LG1 ^(b)	1	9.60	32800	40.0	53	60	7.20	24600	34.6	47	50
BAYEA(13/AC)10LG3 ^(c)	1 to 3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30

(a) Motor Amps.

(b) Heater not qualified for downflow installations.

(c) Approved for 240v only with Heat Pump.

Table 20. Model – 5TAM5C03AC21SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	3.8 ^(a)	5	15	-	-	3.8 ^(a)	5	15
BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	26	30
BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40

Heater Attribute Data

Table 20. Model – 5TAM5C03AC21SB (continued)

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(13/AC)10LG3	1 to 3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYEA(23/BC)15LG3 ^(b)	1 to 3 PH	14.40	49200	34.6	47	50	10.80	36900	30.0	42	45
BAYEA(23/BC)15BK1 - Circuit 1 ^(c)	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(23/BC)15BK1 - Circuit 2	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

^(a) Motor Amps

^(b) 208v not approved for upflow installations

^(c) MCA and MOP for circuit 1 contains the motor amps

Table 21. Model – 5TAM5C04AC31SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	3.8 ^(a)	5	15	—	—	3.8 ^(a)	5	15
BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	26	30
BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(13/AC)10LG3	1 to 3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYEA(23/BC)15LG3	1 to 3 PH	14.40	49200	34.6	47	50	10.80	36900	30.0	42	45
BAYEA(23/BC)15BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(23/BC)15BK1 - Circuit 2	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

^(a) Motor Amps

^(b) MCA and MOP for circuit 1 contains the motor amps

Table 22. Model – 5TAM5D05AC31SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	3.8 ^(a)	5	15	—	—	3.8 ^(a)	5	15
BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	26	30
BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(13/AC)10LG3	1 to 3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30

Table 22. Model – 5TAM5D05AC31SB (continued)

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
BAYEA(23/BC)15LG3	1 to 3 PH	14.40	49200	34.6	47	50	10.80	36900	30.0	42	45
BAYEA(23/BC)15BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEA(23/BC)15BK1 - Circuit 2	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

^(a) Motor Amps

^(b) MCA and MOP for circuit 1 contains the motor amps

Table 23. Model – 5TAM5D06AC41SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	5.4 ^(a)	7	15	-	—	5.4 ^(a)	7	15
BAYEA(13/AC)04BK1	1	3.84	13100	16.0	27	30	2.88	9800	13.8	24	25
BAYEA(13/AC)04LG1	1	4.80	16400	20.0	32	35	3.60	12300	17.3	28	30
BAYEA(13/AC)05BK1	1	7.68	26200	32.0	47	50	5.76	19700	27.7	41	45
BAYEA(13/AC)08BK1	1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYEA(13/AC)10BK1	1 to 3 PH	9.60	32800	23.1	35	35	7.20	24600	20.0	31	35
BAYEA(13/AC)10LG1	1 to 3 PH	14.40	49200	34.6	49	50	10.80	36900	30.0	43	45
BAYEA(23/BC)15BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYEA(23/BC)15BK1 - Circuit 2	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEA(23/BC)20BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYEA(23/BC)20BK1 - Circuit 2	—	9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEA(33/CC)25BK1 - Circuit 1 ^(b)	3	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYEA(33/CC)25BK1 - Circuit 2	—	9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEA(33/CC)25BK1 - Circuit 3	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

^(a) Motor Amps

^(b) MCA and MOP for circuit 1 contains the motor amps

Table 24. Model – 5TAM5D07AC51SB

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	—	—	—	7.0 ^(a)	9	15	—	—	7.0 ^(a)	9	15
BAYEA(13/AC)04BK1	1	3.84	13100	16.0	29	30	2.88	9800	13.8	26	30
BAYEA(13/AC)04LG1	1	4.80	16400	20.0	34	35	3.60	12300	17.3	30	30
BAYEA(13/AC)05BK1	1	7.68	26200	32.0	49	50	5.76	19700	27.7	43	45
BAYEA(13/AC)08BK1	1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYEA(13/AC)10BK1	1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYEA(13/AC)10LG1	1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60

Heater Attribute Data

Table 24. Model – 5TAM5D07AC51SB (continued)

Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
BAYEA(13/AC)10LG3	1 to 3 PH	9.60	32800	23.1	37	40	7.20	24600	20.0	33	35
BAYEA(23/BC)15LG3	1 to 3 PH	14.40	49200	34.6	51	60	10.80	36900	30.0	45	45
BAYEA(23/BC)15BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYEA(23/BC)15BK1 - Circuit 2	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEA(23/BC)20BK1 - Circuit 1 ^(b)	2	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYEA(23/BC)20BK1 - Circuit 2	—	9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEA(33/CC)25BK1 - Circuit 1 ^(b)	3	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYEA(33/CC)25BK1 - Circuit 2	—	9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEA(33/CC)25BK1 - Circuit 3	—	4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

^(a) Motor Amps

^(b) MCA and MOP for circuit 1 contains the motor amps

Notes:

1. See Air Handler nameplate for approved combinations of Air Handlers and Heaters.
2. Heater model numbers may have additional suffix digits.

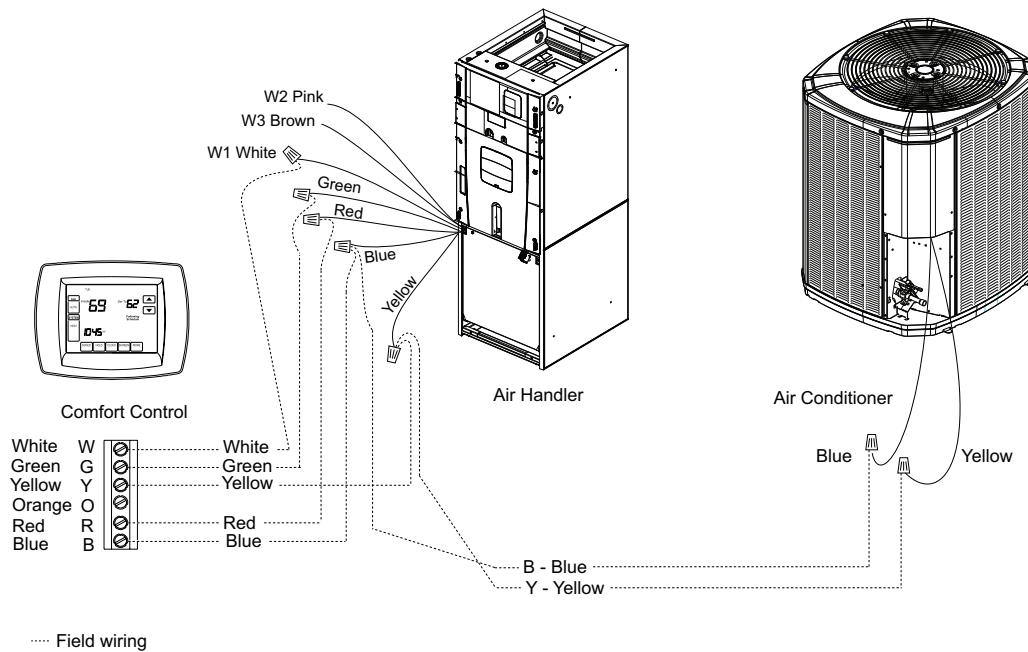
Figure 2. Wiring diagram



Wiring Diagram

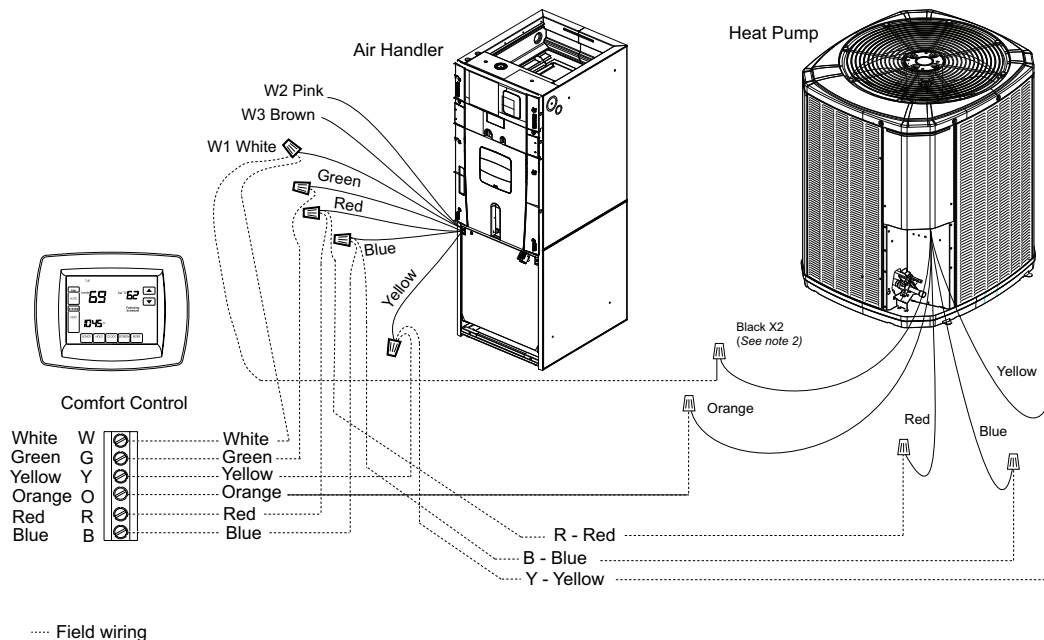
Connection Diagrams

Figure 3. Air handler connection diagram – 1 stage cooling



Note: For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.

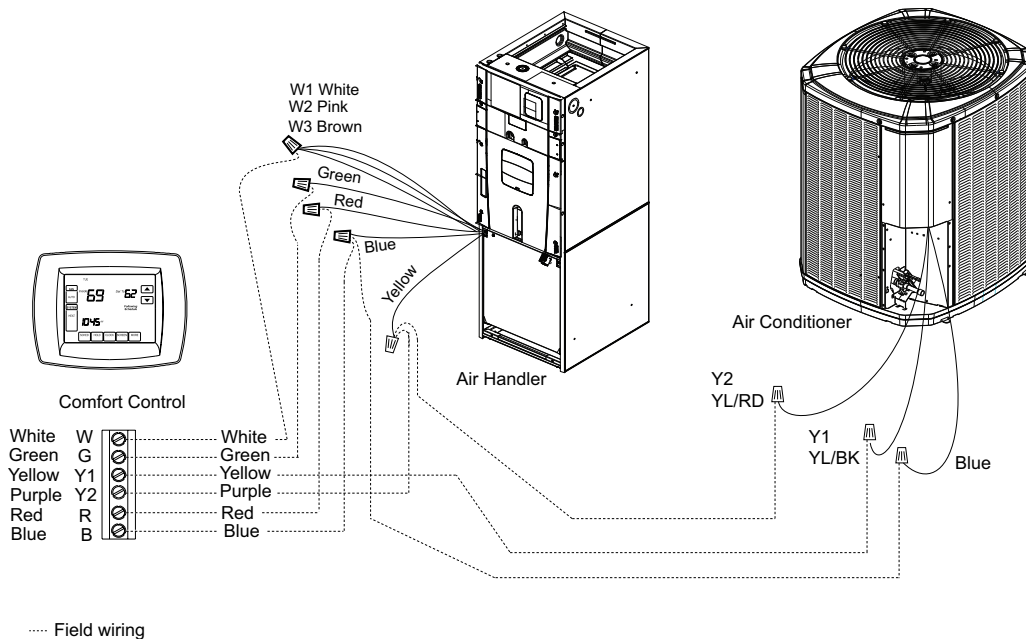
Figure 4. Air handler connection diagram – 1 stage HP



Notes:

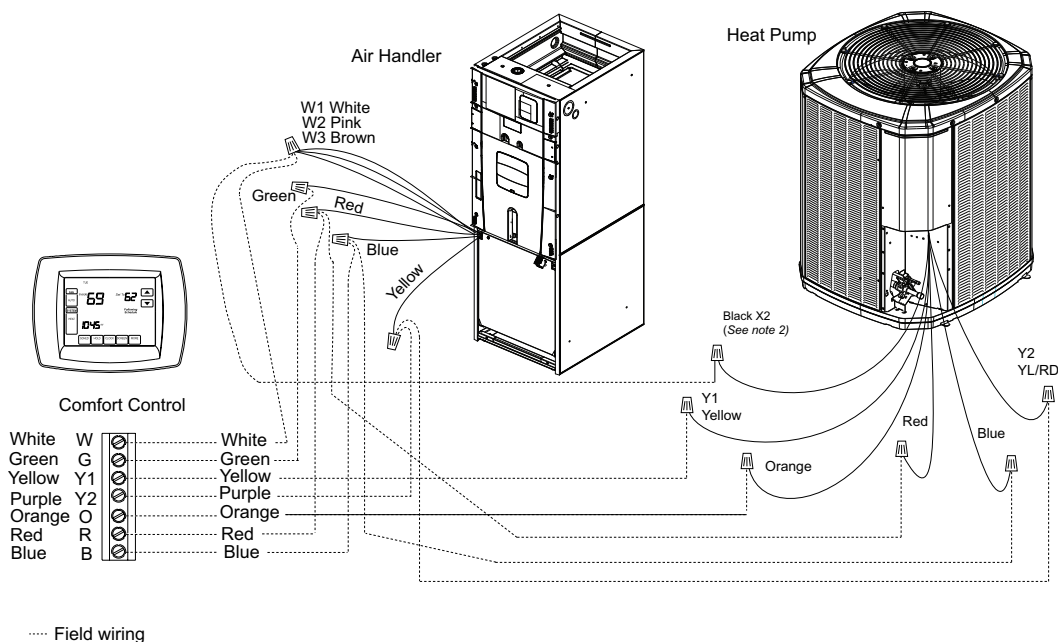
1. For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.
2. X2 is only necessary if not using a Trane or American Standard branded thermostat.

Figure 5. Air handler connection diagram – 2 stage cooling



Note: For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.

Figure 6. Air handler connection diagram – 2 stage HP

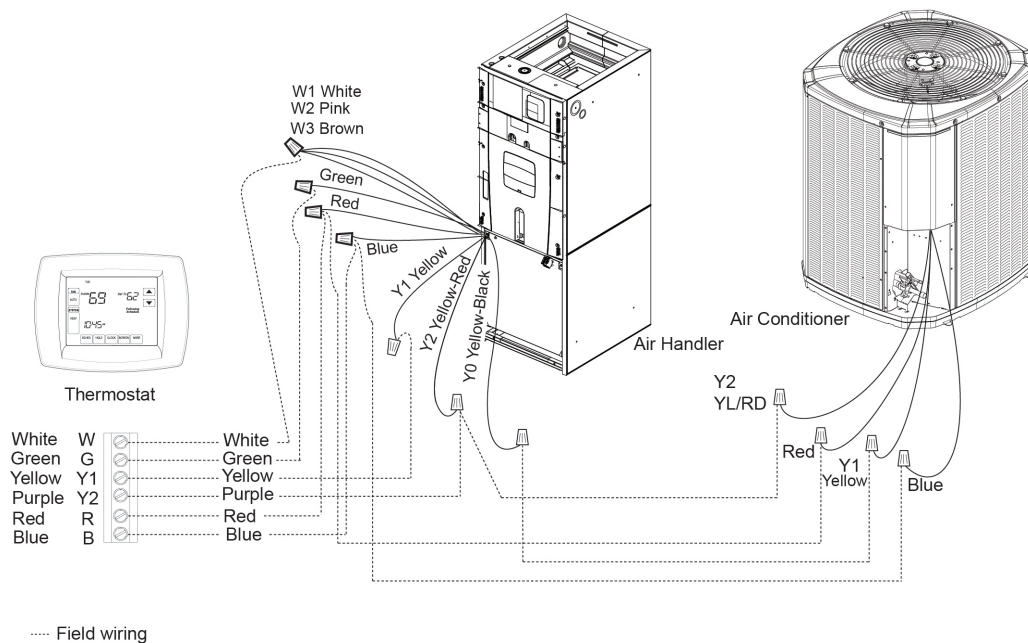


Notes:

1. For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.
2. X2 is only necessary if not using a Trane or American Standard branded thermostat.

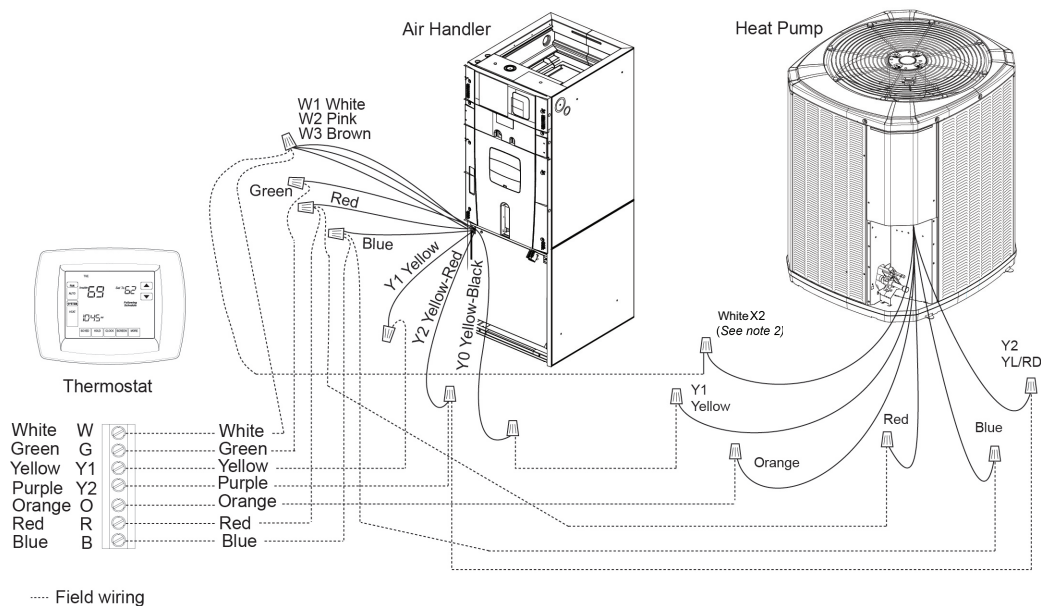
Wiring Diagram

Figure 7. Air handler connection diagram — multi-stage, 24v inverter, cooling only



Note: For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.

Figure 8. Air handler connection diagram — multi-stage, 24v inverter, HP



Notes:

1. For multiple stages of electric heat, jumper W1, W2, and W3 together if comfort control has only one stage of heat.
2. X2 is only necessary if not using a Trane or American Standard branded thermostat.

External Switches and Accessories

The following optional connections are available on the mitigation control board (See Accessories Diagram Figure):

- ACC1 and ACC2 accessory connections. Use when connecting an accessory to the air handler that could be considered a source of ignition (ex. electronic air cleaner).
- Aoa/Aob audible alarm connections. Use when configuring an audible alarm on the refrigerant detection system of the air handler.

ACC1, ACC2, and Aoa/Aob are dry contacts and need source voltage provided from either the accessory or the unit's control wiring.

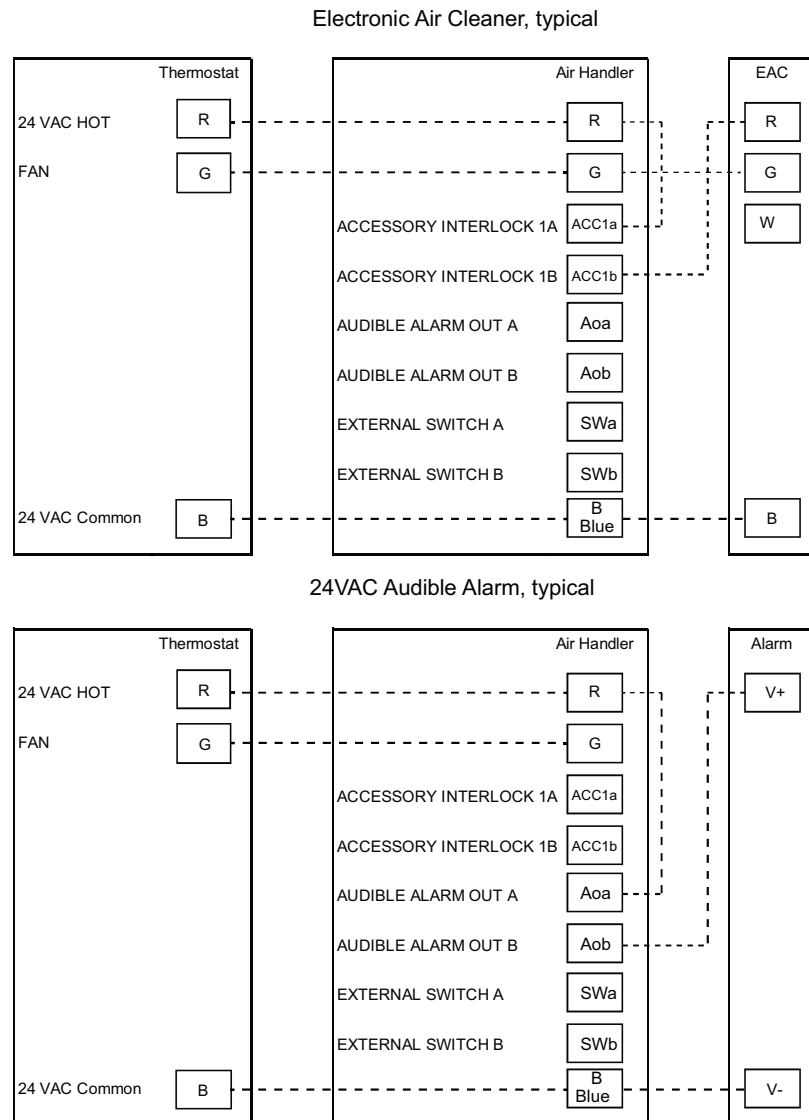
Connect using field-supplied 3/16-in. (Aoa/Aob) or 1/4-in. (ACC1, ACC2) female spade connections.

Figure 9. External switches and accessories connections



SCAN ME

Scan QR code to view instructional videos on field wiring for CleanEffects or AccuClean electronic air cleaners.



Four-Way Conversion

To place the unit in the configuration your application requires (upflow, downflow, horizontal right, or horizontal left), simply turn the unit to that orientation. Remember to adjust the badge and the A2L sensor accordingly.

Notes:

1. The air handlers are shipped from the factory suitable for four-way application.
2. Entry for low voltage connections is allowed on either side of cabinet.

Figure 10. Upflow and downflow configuration

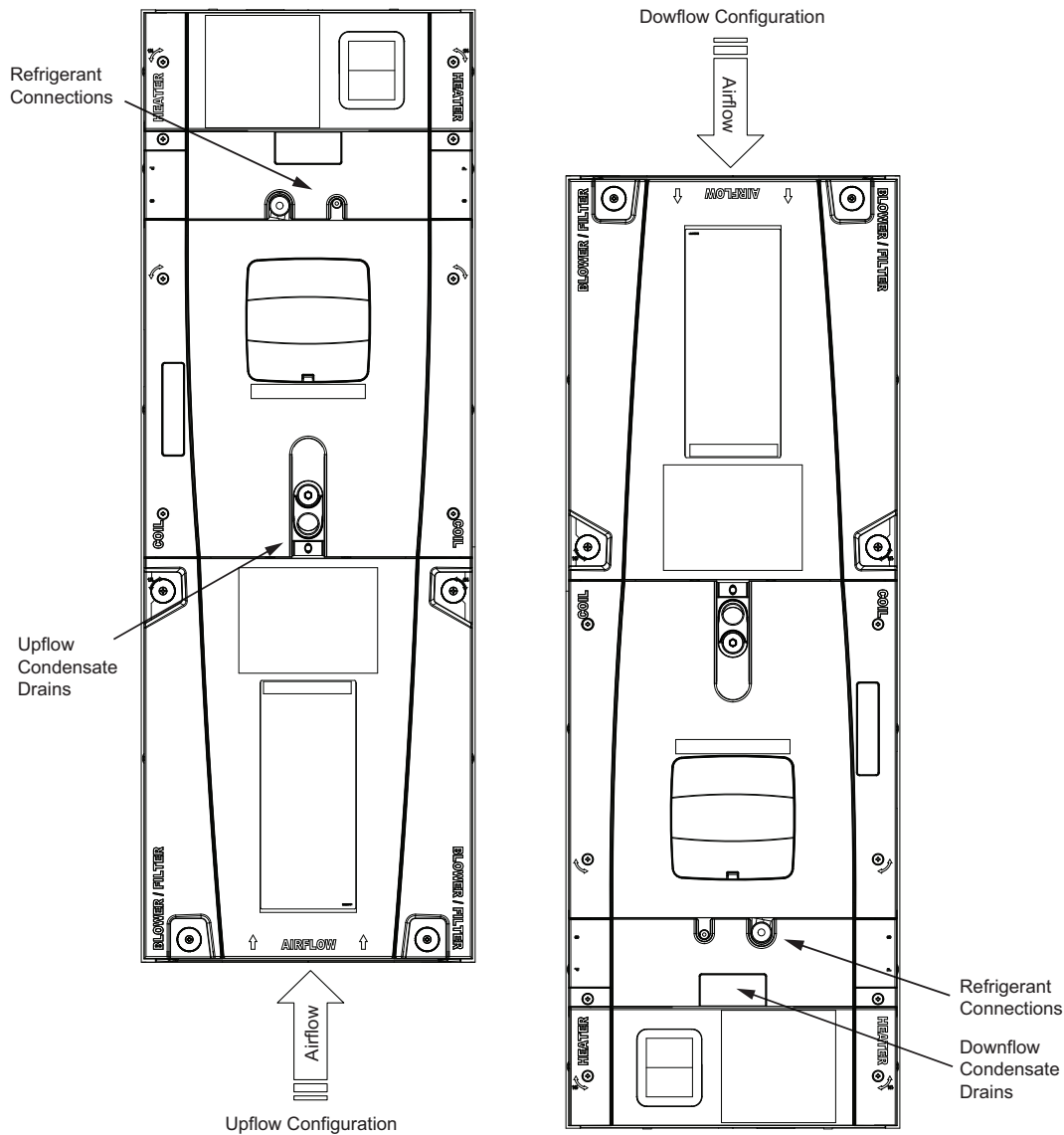
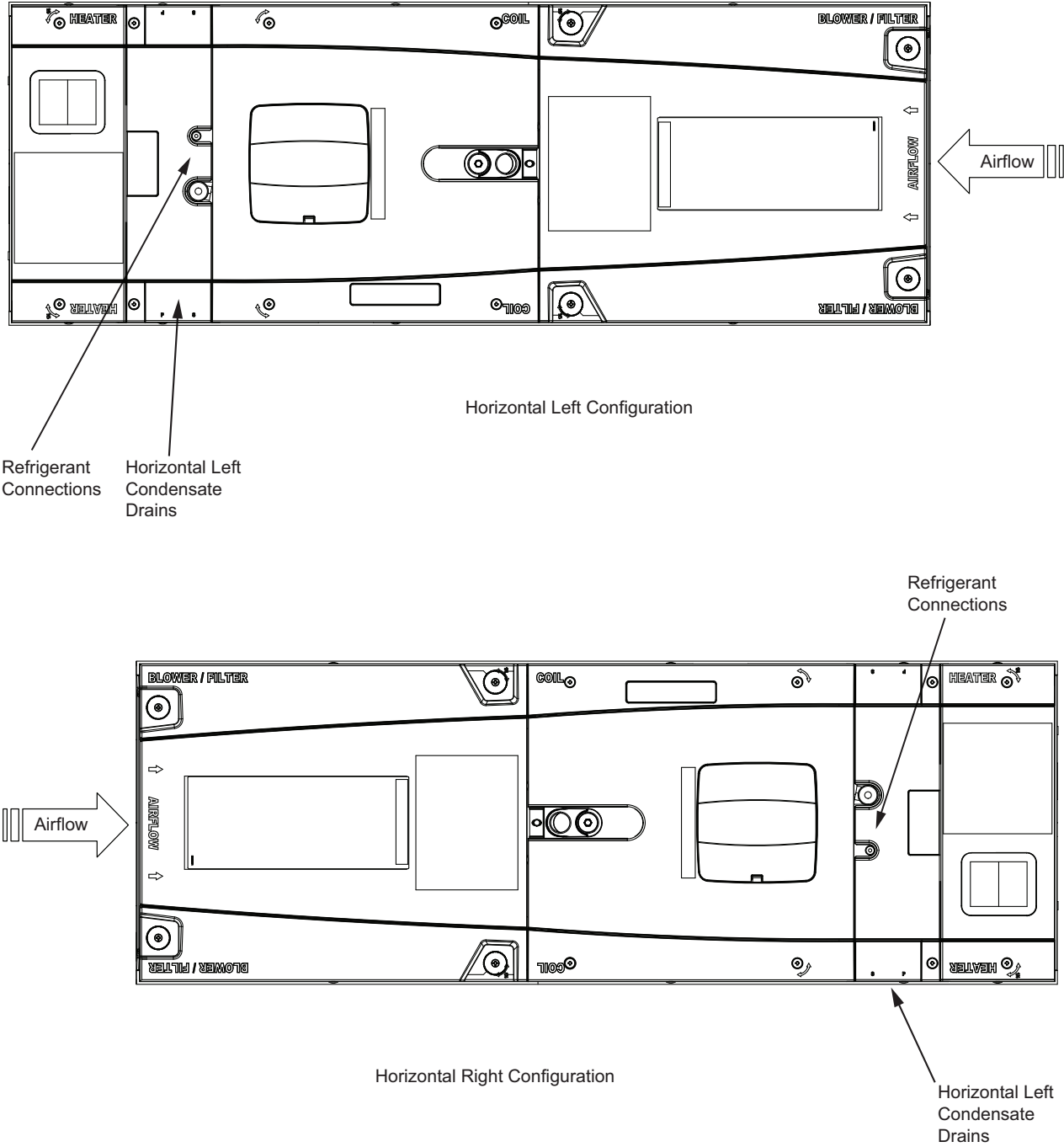


Figure 11. Horizontal left and right configuration



Dimensional Data

Figure 12. Dimensional data

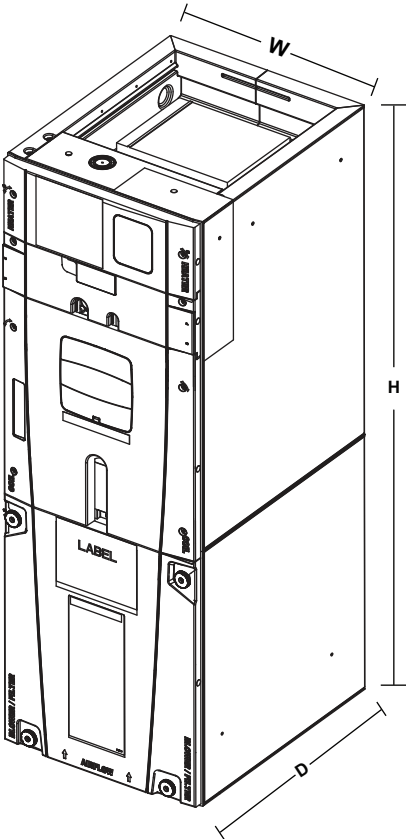


Table 25. Unit dimensions (inch)

Model Number	H x W x D
5TAM5B01AC21SB	49-7/8 x 17-1/2 x 21-3/4
5TAM5B02AC21SB	49-7/8 x 17-1/2 x 21-3/4
5TAM5C03AC21SB	55-3/4 x 21-1/4 x 21-3/4
5TAM5C04AC31SB	55-3/4 x 21-1/4 x 21-3/4
5TAM5D05AC31SB	56-7/8 x 23-1/2 x 21-3/4
5TAM5D06AC41SB	61-3/4 x 23-1/2 x 21-3/4
5TAM5D07AC51SB	61-3/4 x 23-1/2 x 21-3/4

Figure 13. Dimensions

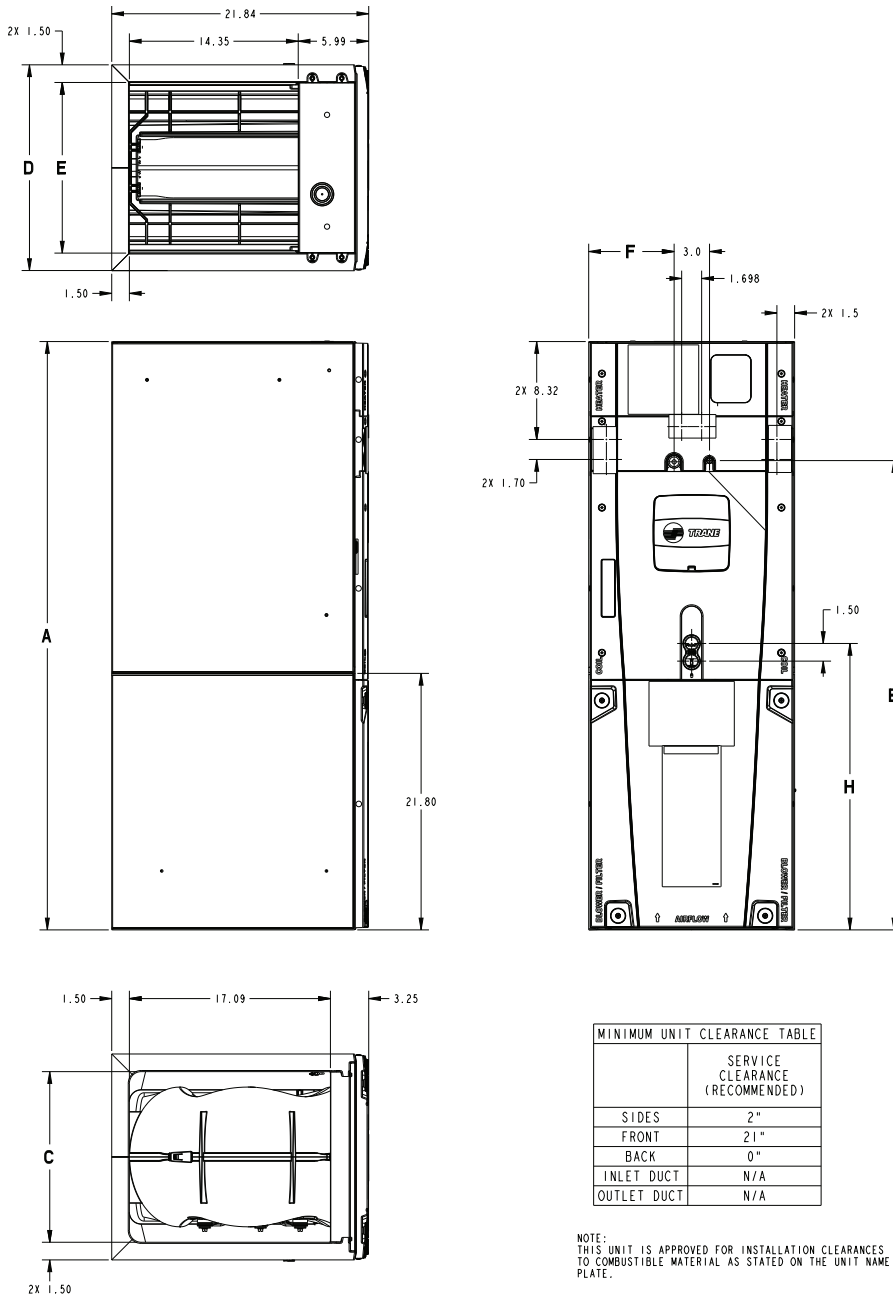


Table 26. Dimensions (inch)

Model Number	A	B	C	D	E	F	H	Flow Control	Gas Line Braze
5TAM5B01AC21SB 5TAM5B02AC21SB	49.9	39.6	14.5	17.5	14.5	7.3	24.3	TXV	3/4
5TAM5C03AC21SB 5TAM5C04AC31SB	55.7	45.5	18.4	21.3	18.4	9.2	26.3	TXV	3/4
5TAM5D05AC31SB	56.9	46.7	20.5	23.5	20.5	10.3	25.7	TXV	7/8
5TAM5D06AC41SB 5TAM5D07AC51SB	61.7	51.5	20.5	23.5	20.5	10.3	24.4	TXV	7/8

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