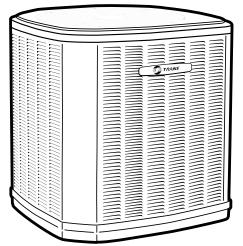


# **Product Data**

## **Split System Heat Pump**

4TWR6018H1000A 4TWR6024H1000A 4TWR6030H1000A 4TWR6036H1000A 4TWR6042H1000A 4TWR6048H1000A 4TWR6060H1000A



**Note:** "Graphics in this document are for representation only. Actual model may differ in appearance."





# **Product Specifications**

Model No. (a)	4TWR6018H1000A	4TWR6024H1000A	4TWR6030H1000A	4TWR6036H1000A	
POWER CONNS. — V/PH/HZ (b)	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60	
MIN. BRCH. CIR. AMPACITY	12	14	17	18	
BR. CIR. PROT. RTG. — MAX. (AMPS)	20	25	25	30	
COMPRESSOR	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATAUFF®- SCROLL	
RL AMPS — LR AMPS	9 — 56	10.9 — 62.9	12.8 — 67.8	14.1—72.2	
Outdoor Fan FL AMPS	0.64	0.64	0.71	0.64	
Fan HP	1/8	1/8	1/8	1/8	
Fan Dia (inches)	23	23	27.5	27.5	
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™	
Refrigerant R-410A	7 LBS., 4 OZ	7 LBS., 5 OZ	8 LBS., 0 OZ	8 LBS., 14 OZ	
LINE SIZE — IN. O.D. GAS (c) (d)	3/4	3/4	3/4	3/4	
LINE SIZE — IN. O.D. LIQ.	3/8	3/8	3/8	3/8	
Charge Spec. Subcooling	8°F	10°F (see charging info)	10°F	10°F	
Dimensions H x W X D Crated (IN.)	38 x 30.1 x 33	38 x 30.1 x 33	42 x 35.1 x 38.7	42 x 35.1 x 38.7	
Weight — Shipping (lbs.)	208	208	245	246	
Weight — Net (lbs.)	174	174	198	199	
Optional Accessories:					
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A	
Evaporator Defrost Control	NA	NA	NA	NA	
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101	
Extreme Condition Mount Kit	BAYECMT023	BAYECMT023	BAYECMT004	BAYECMT004	
Start Kit	_	BAYKSKT263	BAYKSKT263	BAYKSKT263	
Crankcase Heater Kit	BAYCCHT302	BAYCCHT302	BAYCCHT302	BAYCCHT302	
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001	
Low Ambient Kit	BAYLOAM107	BAYLOAM107	BAYLOAM107	BAYLOAM107	
Refrigerant Lineset (e)	TAYREFLN7*	TAYREFLN7*	TAYREFLN7*	TAYREFLN7*	
Service Valve Panel Cover	TAYSVPANL3343AA	TAYSVPANL3343AA	TAAYSVPANL0044AA	TAYSVPANL0044AA	

<sup>(</sup>a) Certified in accordance with the Unitary Air-conditioner equipment certification program which is based on AHRI standard 210/240.

 $<sup>^{(</sup>b)}$  Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

 <sup>(</sup>c) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide SS-APG006-xx for long line sets or specialty applications (xx denotes latest revision).
 (d) Trane outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting

<sup>(</sup>d) Trane outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.

<sup>(</sup>e) \* = 15, 20, 25, 30, 40 and 50 foot lineset available.

### **Product Specifications**

Model No. (a)	4TWR6042H1000A	4TWR6048H1000A	4TWR6060H1000A		
POWER CONNS. — V/PH/HZ (b)	280/230/1/60	280/230/1/60	280/230/1/60		
MIN. BRCH. CIR. AMPACITY	22	26	31		
BR. CIR. PROT. RTG. — MAX. (AMPS)	35	40	50		
COMPRESSOR	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL		
RL AMPS — LR AMPS	16.7 — 109	18.5 — 124	23.7 — 152.5		
Outdoor Fan FL AMPS	2.80	2.80	2.80		
Fan HP	1/3	1/3	1/3		
Fan Dia (inches)	26.6	27.6	27.6		
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™		
Refrigerant R-410A	10 LBS., 5 OZ	10 LBS., 9 OZ	10 LBS., 9 OZ		
LINE SIZE — IN. O.D. GAS (c) (d)	7/8	7/8	7/8		
LINE SIZE — IN. O.D. LIQ.	3/8	3/8	3/8		
Charge Spec. Subcooling	12°F	8°F	8°F		
Dimensions H x W X D Crated (IN.)	51 x 35.1 x 38.7	51 x 35.1 x 38.7	51 x 35.1 x 38.7		
Weight — Shipping (lbs.)	277	300	301		
Weight — Net (lbs.)	227	250	251		
Optional Accessories:					
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A		
Evaporator Defrost Control	NA	NA	NA		
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101		
Extreme Condition Mount Kit	BAYECMT004	BAYECMT004	BAYECMT004		
Start Kit	BAYKSKT263	BAYKSKT263	BAYKSKT263		
Crankcase Heater Kit	BAYCCHT301	BAYCCHT301	BAYCCHT301		
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001		
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103		
Refrigerant Lineset (e)	TAYREFLN3*	TAYREFLN3*	TAYREFLN3*		
Service Valve Panel Cover	TAYSVPANL0046AA	TAYSVPANL0046AA	TAYSVPANL0046AA		

<sup>(</sup>a) Certified in accordance with the Unitary Air-conditioner equipment certification program which is based on AHRI standard 210/240.

 $<sup>\</sup>begin{tabular}{ll} \textbf{(b)} & \textbf{Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.} \end{tabular}$ 

<sup>(</sup>c) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide SS-APG006-xx for long line sets or specialty applications (xx denotes latest revision).

<sup>(</sup>d) Trane outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.

<sup>(</sup>e) \* = 15, 20, 25, 30, 40 and 50 foot lineset available.



## **Product Specifications**

### **Sound Power Level**

MODEL	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power(dB)							
		63 Hz*	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
4TWR6018H1	74	72	69	63	70	70	67	56	49
4TWR6024H1	71	77	72	68	68	69	60	53	47
4TWR6030H1	70	75	69	68	68	66	62	57	51
4TWR6036H1	70	75	69	68	68	66	62	57	51
4TWR6042H1	72	77	75	72	70	67	62	59	52
4TWR6048H1	72	77	75	72	70	67	62	59	52
4TWR6060H1	72	77	75	72	70	67	62	59	52

Note: Rated in accordance with AHRI Standard 270–2008 \*For Reference Only



## **Accessory Description and Usage**

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

**Evaporation 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** — Five (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.

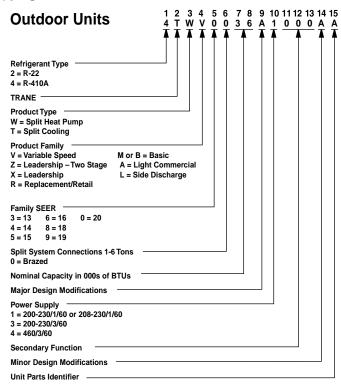
### **AHRI Standard Capacity Rating Conditions**

AHRI Standard 210/240 Rating Conditions

- 1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
- 2. High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil
- 3. Low Temperature Heating 17°F DB air entering indoor coil.
- 4. Rated indoor airflow for heating is the same as for cooling.

**AHRI Standard 270 Rating Conditions** — (Noise rating numbers are determiend with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

## **Model Nomenclature**





## **Schematic Diagrams**

LEGEND -(W) ACR A/C RECTIFIER
CSS COIL BOTTOM SENSOR
CF FAM CAPACITOR
UT SINCE COMMETCING
CP COMPRESSOR
CR SUN CAPACITOR
CS STATING CAPACITOR
CS STATING CAPACITOR
CS CAPACIT CPR 24 V FACTORY 24 V ) FIELD LINE Y WIRING FIELD INSTALLED FACTORY WIRING MAGNETIC COIL GROUND JUNCTION CAPACITOR JUNCTION

CAPACITOR

WIRE NUT OR

TERMINAL

TRANSFORMER

FUSE CAPACITOR TERMINAL BLOCK/BOARD RELAY CONTACT (N.O) E RELAY CONTACT (N.C) **₩** THERMISTOR мѕг o5º TEMP ACTUATED SWITCH O INTERNAL OVERLOAD PROTECTION BK/BL COLOR OF MARKER PRESSURE ACTUATED SWITCH BK BLACK RD RED OR ORANGE BL BLUE WH WHITE GR GREEN BR BROWN YL YELLOW PR PURPLE PK PINK POL.PLUG FEMALE HOUSING  $\triangle$ POL. PLUG MALE HOUSING (FEMALE TERMINALS) DFC BOARD I. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. 2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES. 3. LOW YOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR. 4. ODT-B MUST BE SET LOWER THAN ODT-A cs BK O ZOBK-**∆**WARNING ODT-A OPTIONAL BK POBK HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRICAL POWER
INCLUDING REMOTE DISCONNECTS
BEFORE SERVICING.
Failure to disconnect power
before servicing can cause severe
personal injury or death. <del>-</del> **∆**CAUTION х2 -----USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED
TO ACCEPT OTHER TYPES OF CONDUCTORS
Feliare to de so may cause damage
to the equipment. B BL. See | <u>Y1</u>— POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON RD RD SYSTEMS EXCEEDING 150Y-TO-GROUND ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE PRINTED FROM DI58595P02 REVA

Figure 1. 2.0 Ton Models

TRANE

THERMALLY PROTECTED INTERNALLY PI F<sub>0</sub> LEGEND oww.d CR A/C RECIFIER

CSS COIL BOTTON SERSOR

CF FAN CAPACITOR

CF WIRE COMMESTOR

CP COMMESSOR

CF ROW CAPACITOR

CS STRATING CAPACITOR

CS STRATING CAPACITOR

CS STRATING CAPACITOR

CS CAPACITOR SEVENICHING RELAY

DOC DEPOSITIONING RELAY

DOC DEPOSITIONING RELAY

FOR INCOMESSOR CURPORT SERVICE

LOW RESSERVE CURPORT SERVICE

COMMESSOR MOTOR CONTACTOR

COMMESSOR MOTOR CONTACTOR

CONTOCOM TARTICIPATOR

CF OUTDOOR FAN THEMSORTAT

CF OUTDOOR FAN THEMSORTAT CPR 24 V LINE V FACTORY WIRING 24 V FIELD LINE V WIRING FIELD INSTALLED FACTORY WIRING MAGNETIC COIL GROUND JUNCTION CAPACITOR WIRE NUT OR TERMINAL TRANSFORMER CAPACITOR  $\stackrel{\sim}{\sim}$ dymà FUSE TERMINAL BLOCK/BOARD RELAY CONTACT (N.O)  $\dashv\vdash$ RELAY CONTACT (N.C) # THERMISTOR TEMP ACTUATED SWITCH O INTERNAL OVERLOAD PROTECTION L2**q** COLOR OF WIRE **‡** ≅ BK/BL COLOR OF MARKER PRESSURE ACTUATED SWITCH BK BLACK RD RED OR ORANGE BL BLUE WH WHITE GR GREEN BR BROWN YL YELLOW PR PURPLE PK PINK SEE SERVICE FACTS FOR OPTIONAL START KIT ACCESSORY КЗ OTTO MOTOR WINDING POL.PLUG FEMALE HOUSING (MALE TERMINALS) BK/BL  $\triangle$ POL. PLUG MALE HOUSING DFC BOARD NOTES: CSR I. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. 2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH 3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR. GR 4. ODT-B MUST BE SET LOWER THAN ODT-A CS. d. O. OPTIONAL REMOT ODT-B (NOTE-485) BK-0 50BK-1 **∆**LWARNING ODT-A OPTIONAL HAZARDOUS VOLTAGE BK SOBK DISCONNECT ALL ELECTRICAL POWER
INCLUDING REMOTE DISCONNECTS
BEFORE SERVICING.
Failure to disconnect power
before servicing can cause severe
personal injury or death. jį.  $\Box$ ∆LCAUTION X2 ======= COPPER CONDUCTORS ONLY . . . . . . . . . . . UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS Follure to do so may cause damage to the equipment. B. B. \_0\_1\_0R FOR CANADIAN INSTALLATIONS Se BK POUR INSTALLATIONS CANADIENNES
CAUTION: NOT SUITABLE FOR USE ON
SYSTEMS EXCEEDING 150V-TO-GROUND R RD TO POWER SUPPLY PER UNIT NAMEPLATES AND LOCAL CODES ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE PRINTED FROM DI58595P01 <u>Y 2</u>

Figure 2. 1.5 and 3.0 Ton Models

### **Schematic Diagrams**

VARIABLE SPEED OD FAN MOTOR P Z T LEGEND owwo CRE A/C RICTIFIER

CRE COLL BOTTON SERIOR

CF FAR CAPACITOR

CF WHE COMMESSION

CF RA CAPACITOR

CR RICK CAPACITOR

CR CAPACITOR SELECTION

CR CAPACITOR SELECTION

CR CAPACITOR SELECTION

CR CAPACITOR CRAPACITOR

CR CAPACITOR CRAPACITOR

CR CAPACITOR CRAPACITOR

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CR CAPACITOR CRAPACITOR

CR CAPACITOR CRAPACITOR

CR CAPACITOR

CR CAPAC CPR 24 V LINE V FACTORY WIRING 24 V LINE V FIELD WIRING FIELD INSTALLED FACTORY WIRING MAGNETIC COIL ㅗ GROUND JUNCTION CAPACITOR JUNCTION
CAPACITOR
WIRE NUT OR
TERMINAL
TRANSFORMER
FUSE WIRE NUT OR TERMINAL CR TERMINAL BLOCK/BOARD RELAY CONTACT (N.O) RELAY CONTACT (N.C) MS T THERMISTOR TEMP ACTUATED SWITCH O INTERNAL OVERLOAD PROTECTION PRESSURE ACTUATED SWITCH BK BLACK RD RED OR ORANGE BL BLUE WH WHITE GR GREEN BR BROWN YL YELLON PR PURPLE PK PINK SEE SERVICE FACTS FOR OPTIONAL START KIT ACCESSORY \_\_\_\_ RESISTER OR HEATING ELEMENT OTTO MOTOR WINDING кз POL.PLUG FEMALE HOUSING BK/BL  $\triangle$ POL. PLUG NALE HOUSING (FEMALE TERMINALS) DFC BOARD I. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. |□| ≠ csr [ 2. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES. 3. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR. GR 4. ODT-B MUST BE SET LOWER THAN ODT-A CS Œ. ď, BK-0 50BK-ODT-A OPTIONAL **∆**WARNING BK 50BK HAZARDOUS VOLTAGE! HAZANDUS VOLIAGE!

DISCONNECT ALL ELECTRICAL POWER
INCLUDING REMOTE DISCONNECTS

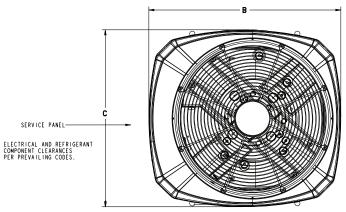
BEFORE SERVICING.

Failure to disconnect power
before servicing can cause severe
personal injury or death.  $\triangle$ 7 **∆**CAUTION x2 ======= USE COPPER COMDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED
TO ACCEPT OTHER TYPES OF CONDUCTORS.
Failure to do so may cause damage
to the equipment. --------B\_B\_BL. \_0\_4\_or FOR CANADIAN INSTALLATIONS SE BK-\_ \_<u>Y\_I</u>← <sub>YL</sub>. POUR INSTALLATIONS CANADIENNES CAUTION: NOT SUITABLE FOR USE ON RA RD TO POWER SUPPLY PER UNIT NAMEPLATES AND LOCAL CODES SYSTEMS EXCEEDING 150V-TO-GROUND
ATTENTION: NE CONVIENT PAS AUX
INSTALLATIONS DE PLUS DE 150 V A
LA TERRE PRINTED FROM DI58596P01

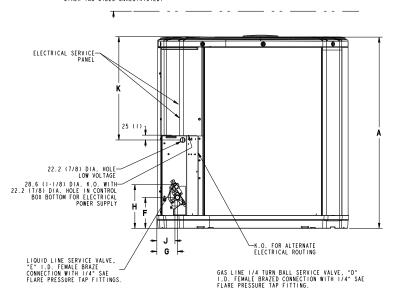
Figure 3. 3.5 - 5.0 Ton Models



# **Outline Drawing**



TOP DISCHARGE AREA SHOULD BE
UNRESTRICTED FOR AT LEAST 1524 (5 FET)
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 MEMBEREY ON TWO SIDES.
OTHER TWO SIDES UNRESTRICTED.



Model	Base	Α	В	С	D	Е	F	G	Н	J	K
4TWR6018H	3	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	127 (5)	76 (3)	197 (7-3/4)	60 (2-3/8)	508 (20)
4TWR6024H	3	832 (32-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	127 (5)	76 (3)	197 (7-3/4)	60 (2-3/8)	508 (20)
4TWR6030H	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWR6036H	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWR6042H	4	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)	813 (32)
4TWR6048H	4	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)	813 (32)
4TWR6060H	4	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)	813 (32)



## **Mechanical Specification Options**

#### General

The Outdoor Units are fully charged from the factory for up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior is designed for outdoor application.

#### Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test.

#### **Refrigerant Controls**

Refrigeration system controls include condenser fan, compressor contactor and low and high pressure switches. A factory supplied, field installed liquid line drier is standard.

#### Compressor

The compressor features internal over temperature and pressure protection. Other features include: Centrifugal oil pump and low vibration and noise.

#### Condenser Coil

The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

#### **Low Ambient Cooling**

As manufactured, this system has a cooling capacity to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

The addition of the BAYLOAM107A low ambient kit permits ambient cooling to 20°F.

**Thermostats**—Cooling only and heat/cooling (manual and automatic change over). Sub-base to match thermostat and locking thermostat cover.



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