

Installation Guide

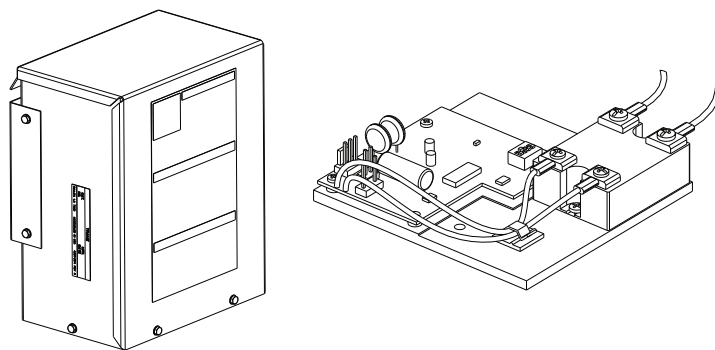
Head Pressure Control Kit

Odyssey Split-System Cooling and Heat Pumps 6-25 Tons

Model Numbers

BAYLOAMU01: TTA060/061/072/073/076/090,
TWA061D/073D/076D/090D, TWA090A,
TWA0604*A/0724*A/0764*A/0904*A,
TWA0902*A

BAYLOAMU02: TTA101/120/126/150/156/180/
201/240/251/300, TWA061E/073E/076E/090E,
TWA0604*D/0724*D/0764*D/0904*D/101/120/
156/180/201/240



▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE

Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in **NEC** and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING**Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

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Inspection

Remove the contents of the kit from the shipping package and inspect for possible damage. If the

accessory has been damaged, it should be reported to and claims made against the transportation company immediately. Any missing parts should be immediately reported to your supplier and replaced with authorized parts only.

Parts List

- (1) Head pressure control assembly
- (1) Outdoor fan motor heat sink with clamp
- (1) Thermal grease
- (1) Insulation tape
- (1) Installed accessory label
- (1) Snap bushing
- (14) Wire ties
- (6) 10 x 16 screws
- (3) Hook-Up diagrams
- (5) Black wire ties
- (1) Information label
- (2) Wire assemblies
- (1) Installation guide
- (1) Ambient sensor mounting bracket

Revision History

This version includes the following:

- New models: TTA060, TTA072
- Minor running edits

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Installation

BAYLOAMU01 (External Mount) - Single Circuit Units

⚠ WARNING

Hazardous Voltage w/Capacitors!

Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

For additional information regarding the safe discharge of capacitors, see PROD-SVB06-EN.*

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Prepare Unit for Installation

1. Disconnect all power from the unit.
2. Remove the compressor and control box access panels.
3. Ensure that the capacitor has discharged stored voltage.
4. Remove the snap plug and insert the snap bushing (provided in the kit) into the hole on the right side of the unit when facing the compressor access panel. See Figure 1, p. 5.
5. On TTA units without ReliaTel™ control, mount the

ambient temperature sensor mounting bracket to the underside of the control box as shown in Figure 2, p. 5. (Bracket, screws, and popin wire tie included in kit) This bracket is already installed and is not needed on units with ReliaTel™ control.

Figure 1. BAYLOAMU01 - External mount

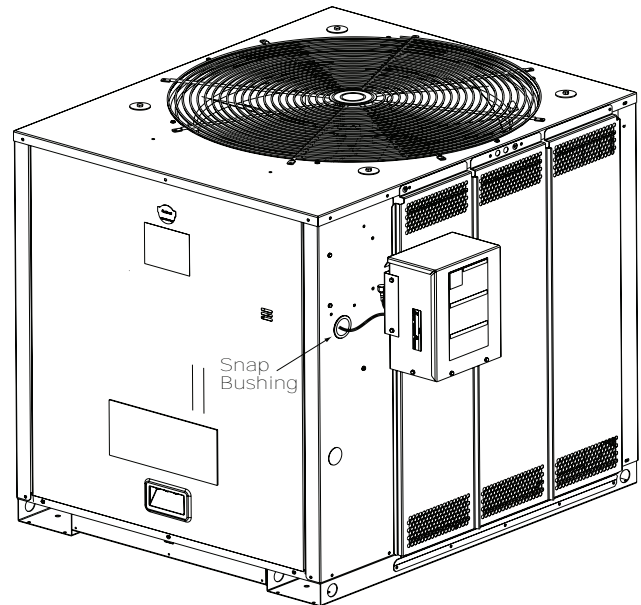


Figure 2. BAYLOAMU02 - Internal mount

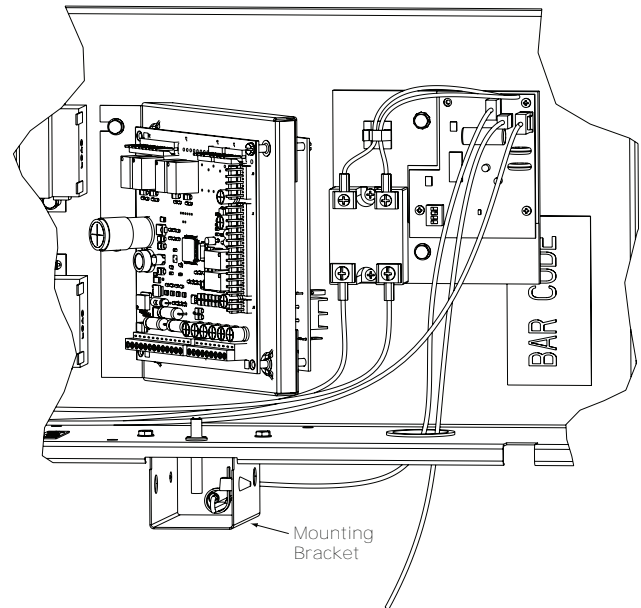


Figure 3. ReliaTel — J1-7 board connection

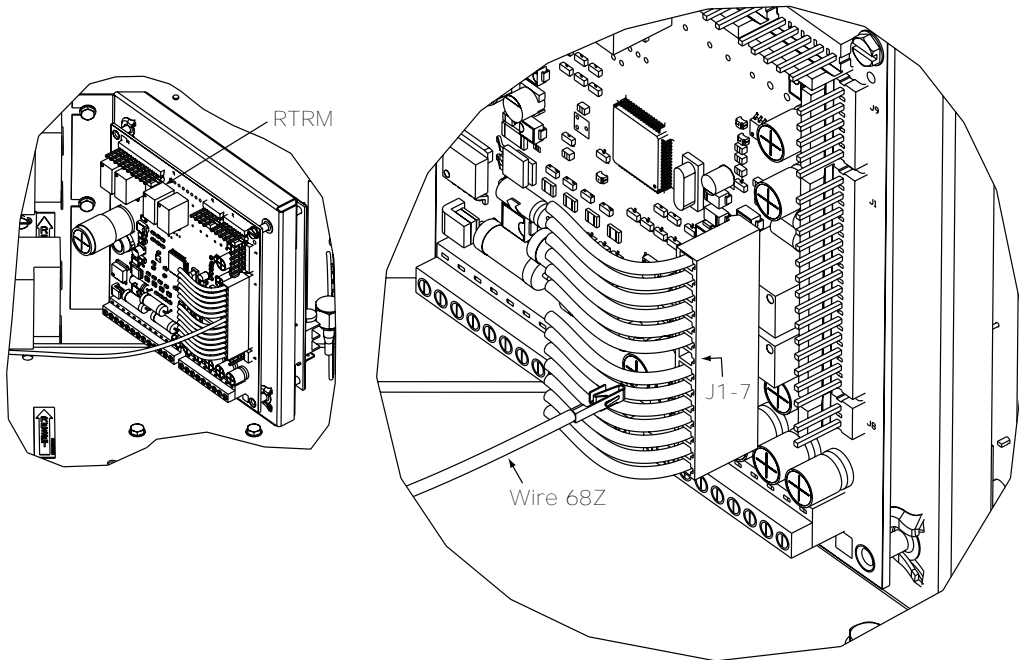
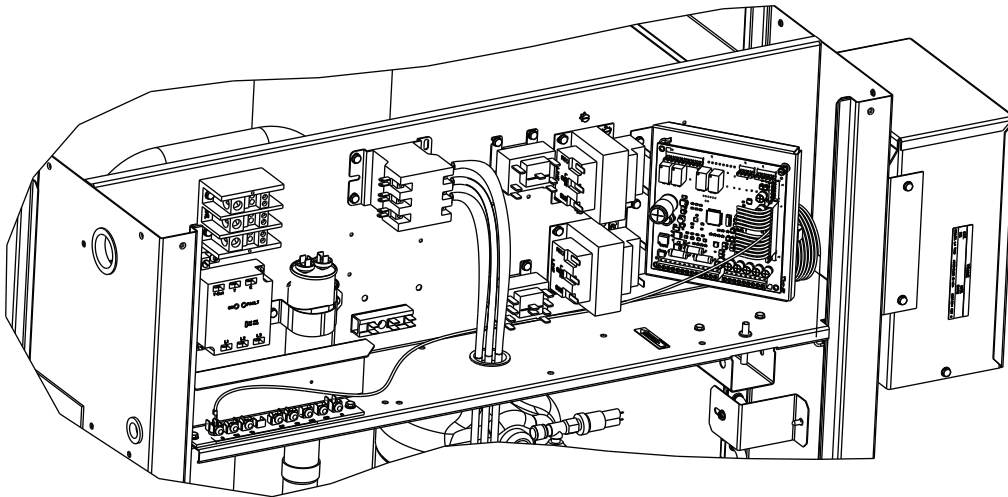


Figure 4. ReliaTel — low ambient function disable wire routing



Disable ReliaTel™ On-Board Low Ambient Function

1. Connect wire 68Z (BL) (supplied in kit) into the J1-7 pin on jack 1 on the RTRM.
2. Route wire 68Z (BL) to the low voltage terminal board (LTB1).
3. Connect wire 68Z (BL) to low voltage terminal board (LTB1) terminal "B".
4. Using wire ties (provided), bundle and dress this wire away from sharp edges and hot tubing.

Note: This wire connection is needed to disable the ReliaTel™ on-board low ambient function.

Install Mounting Bracket and Control Unit

1. Remove mounting bracket from the control unit enclosure. Using the punched and tapped holes provided, secure the control unit to the condenser unit using 10 x 16 screws (Supplied). See [Figure 1, p. 5](#) for kit mounting location.
Note: Two of the holes will already be in use. Remove existing screws first.
2. Mount the low ambient head pressure control (HPK) onto the mounting bracket and secure with the original screws. Route the low ambient head pressure control (HPK) wires through the snap

bushing on the side of the unit, see [Figure 1, p. 5](#).

Important: Route all wires away from hot tubes or sharp edges.

BAYLOAMU02 (Internal Mount) - Single Circuit Units

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Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

For additional information regarding the safe discharge of capacitors, see *PROD-SVB06*-EN*.

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Prepare Unit for Installation

1. Disconnect all power from the unit.
2. Remove the compressor and control box access panel.
3. Ensure that the capacitor has discharged stored voltage.
4. On TTA units without ReliaTel™ control, mount the ambient temperature sensor mounting bracket to the underside of the control box as shown in [Figure 2, p. 5](#). (Bracket, screws, and pop-in wire tie included in kit). This bracket is already installed and is not needed on units with ReliaTel™ control.

Disable ReliaTel™ On-Board Low Ambient Function

1. Connect wire 68Z (BL) (supplied in kit) into the J1-7 pin on jack 1 on the RTRM.
2. Route wire 68Z (BL) to the low voltage terminal board (LTB1).
3. Connect wire 68Z (BL) to low voltage terminal board (LTB1) terminal "B".
4. Using wire ties (provided), bundle and dress this wire away from sharp edges and hot tubing.

Note: This wire connection is needed to disable the ReliaTel™ on-board low ambient function.

Install and Connect Low Ambient Head Pressure Control Board

1. Secure the low ambient head pressure control board to the right side back wall of the control box using two 10 x 16 screws and two external tooth lock washers (supplied in the kit in the envelope). See [Figure 2, p. 5](#) for board mounting location.

Note: The two board mounting holes are already punched in the back wall of the control box on the right side.

2. Connect the low voltage harness (yellow, orange, and blue wires) to the 3-pin jack (J5) labeled "B Y O" which is close to the edge of the right side of the control board.
3. Connect the liquid line temperature sensor (yellow wires) to the small 2-pin jack (J2) which is labeled "LIQUID".
4. Connect the ambient temperature sensor (white wires) to the larger 2-pin jack (J3) labeled "AMBIENT" which is in the top middle of the board.
5. Follow the remaining installation instructions for the BAYLOAM U02 internal mount installation provided in the BAYLOAM U01 external mount "Install Fan Motor Heat Sink," p. 10 and ending with "Finish the Installation," p. 11.

BAYLOAMU02 (Internal Mount) - Dual Circuit Units

⚠ WARNING

Hazardous Voltage w/Capacitors!

Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

For additional information regarding the safe discharge of capacitors, see PROD-SVB06-EN.*

⚠ WARNING

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On dual circuit units, be careful not to "cross circuits" during installation. The low ambient head pressure control (HPK) for "circuit A" must sense liquid line temperature from compressor A. The low ambient head pressure control (HPK) for "circuit B" must sense liquid line temperature from compressor B.

Prepare Unit for Installation

1. Disconnect all power from the unit.
2. Remove the compressor and control box access panels.
3. Ensure that the capacitor has discharged stored voltage.

Note: *The ambient temperature sensor bracket is already installed on units with ReliaTel™ Control.*

4. On TTA units without ReliaTel control, mount the ambient temperature sensor mounting bracket to the circuit A side (Left Side) of the center divider panel underneath the control box using the pre-

punched holes in the panel. See [Figure 5, p. 8](#) and [Figure 6, p. 8](#) for bracket mounting location. (Bracket, screws, and pop-in wire tie included in kit)

Note: *Mount both ambient temperature sensors in the same location on the mounting bracket with the same pop-in wire tie, see [Figure 11, p. 11](#) and [Figure 6, p. 8](#).*

Figure 5. Bracket location

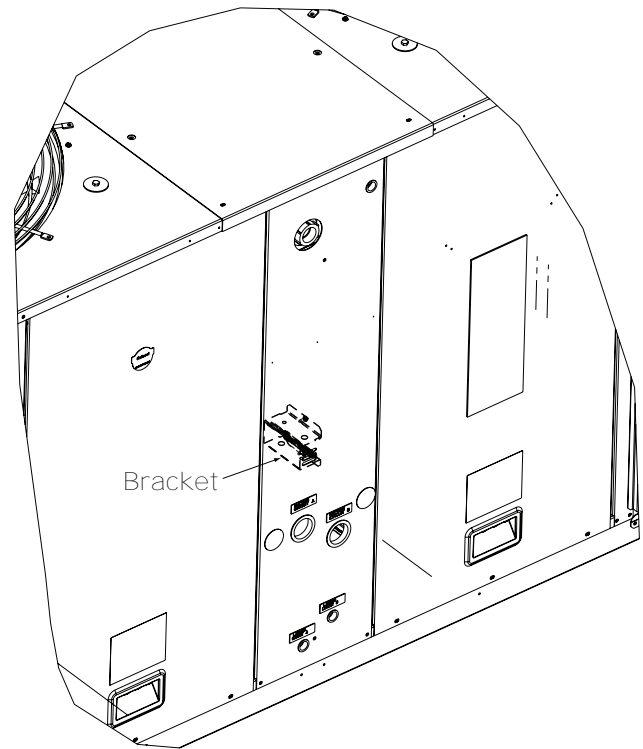
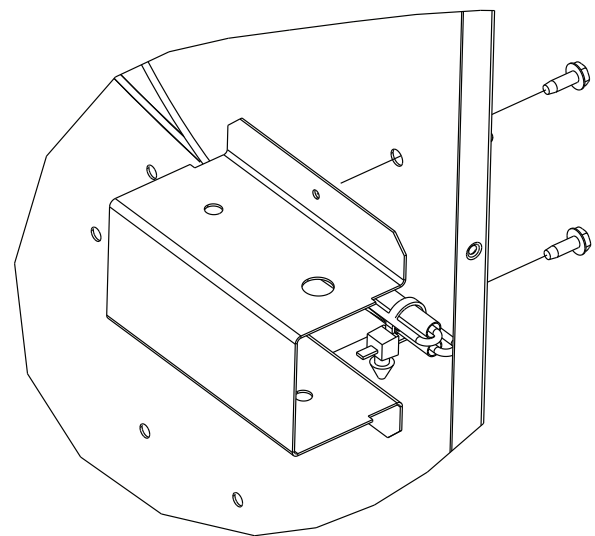


Figure 6. Bracket installation



Disable ReliaTel™ On-Board Low Ambient Function

1. Connect wire 68Z (BL) (supplied in kit) into the J1-7 pin on jack 1 on the RTRM.
2. Route wire 68Z (BL) to the low voltage terminal board (LTB1).
3. Connect wire 68Z (BL) to low voltage terminal board (LTB1) terminal "B".
4. Using wire ties (provided), bundle and dress this wire away from sharp edges and hot tubing.

Note: This wire connection is needed to disable the ReliaTel™ on-board low ambient function.

Install and Connect Low Ambient Head Pressure Control Board

1. Secure the low ambient head pressure control board in the back of the control box using two 10 x 16 screws and two external tooth lock washers (supplied in the kit in the envelope). The low ambient head pressure control board for circuit A is mounted on the left, and the low ambient head pressure control board for circuit B is mounted on the right. See [Figure 9, p. 10](#) for board mounting locations.

Note: The board mounting holes are already punched in the floor of the control box on the left and right sides in the back of the control box.

2. Connect the low voltage harness (yellow, orange, and blue wires) to the 3-pin jack (J5) labeled "B Y O" which is close to the edge of the right side of the control board.
3. Connect the liquid line temperature sensor (yellow wires) to the small 2-pin jack (J2) which is labeled "LIQUID"
4. Connect the ambient temperature sensor (white wires) to the larger 2-pin jack (J3) labeled "AMBIENT" which is in the top middle of the board.
5. Follow the remaining installation instructions for the BAYLOAM U02 internal mount installation for dual circuits provided in the BAYLOAM U01 external mount "[Install Fan Motor Heat Sink,](#)" [p. 10](#) and ending with "[Finish the Installation,](#)" [p. 11.](#)

Figure 7. ReliaTel™ – Low ambient function disable wire routing

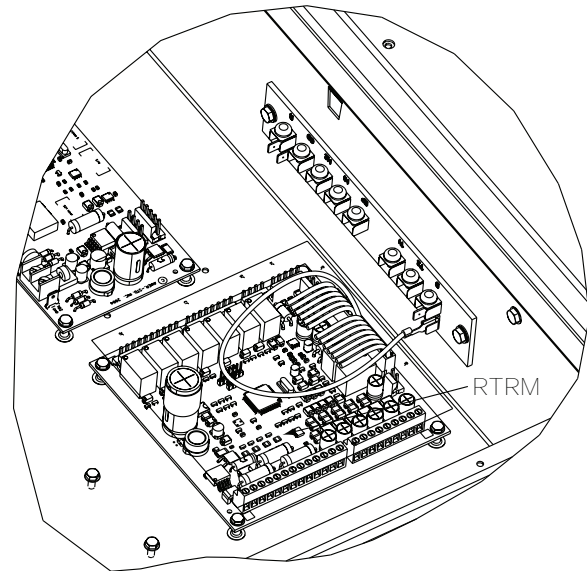


Figure 8. ReliaTel™ – J1-7 board connection

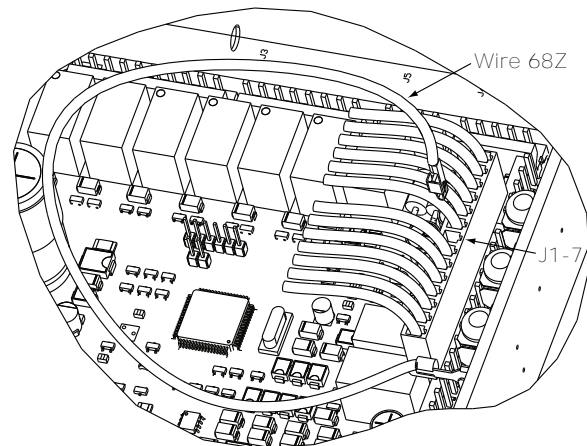
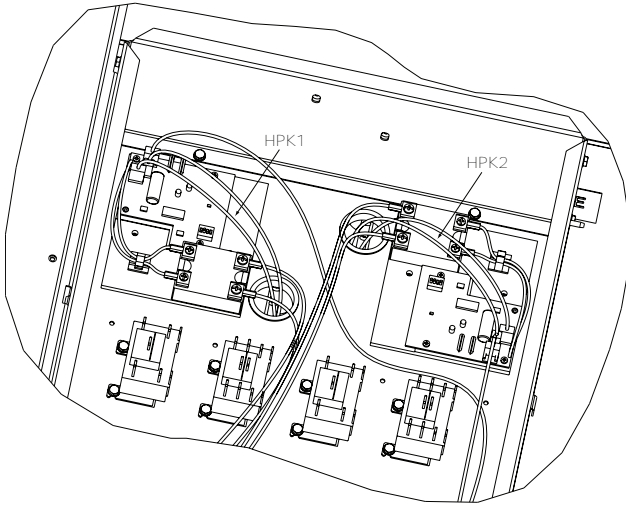


Figure 9. Control board mounting in dual fan unit control boxes



Install Fan Motor Heat Sink

1. Remove fan guard.

NOTICE

Motor Bearings Damage!

Do not bend fan blades when removing and installing fan motor assembly. Bent blades could cause excessive load on the motor bearings and its subsequent failure.

2. Remove the fan motor assembly as one piece by loosening the belly band mounting bolt, cutting the motor lead wire ties, and disconnecting the motor leads if needed.

Important: Be careful not to bend the fan blades.

3. Install the fan motor heat sink onto the shaft end of the motor.
4. Install the heat sink clamp and tighten until the heat sink is snug on the motor.
5. Ensure there are not interferences between the heat sink and the slinger. Make sure the fan hub bolt is tight. Torque to 168-176 in. lbs.
6. Re-install the fan motor assembly. Use the black wire ties provided to secure the fan motor lead wires to the same leg of the motor mount.
7. Re-install the fan guard.

Wire Fan Motors

Important: Route all wires away from hot tubes and sharp edges.

1. Locate the fan terminal board (FTB1), in the unit control box, and remove and discard the small black jumper wire that is connected between the "C" and "D" terminals. See unit connection

diagram on inside of compressor and control box access panel.

2. Connect the two black wires from the low ambient head pressure control to the fan terminal board (FTB1) terminals "C" and "D".

Note: It does not matter which black wire from the low ambient head pressure control connects to the "C" and "D" terminals.

Wire Low Voltage Wires

1. Connect the Blue wire from the low ambient head pressure control board to the "B1" terminal on the low voltage terminal board (LTB1) in the unit control box on electromechanical controlled units, and to the "B" terminal on the LTB1 on ReliaTel™ controlled units.
2. Connect the Yellow wire from the low ambient head pressure control board to the "Y1" terminal on the low voltage terminal board (LTB1) in the unit control box on electromechanical controlled units, and to the "R" terminal on the LTB1 on ReliaTel™ controlled units.
3. On TTA units, connect the Orange wire from the low ambient head pressure control board to the "Y1" terminal on the low voltage terminal board (LTB1) in the unit control box on electromechanical controlled units, and to the "R" terminal on the LTB1 on ReliaTel™ controlled units.
4. On TWA units, which are ReliaTel™ controlled, the Orange wire will need to be connected to the +24VAC switch over valve (SOV) coil terminal. This is done by using multi-lead wires (included in the kit) which splits the SOV coil signal into two wires. These multi-lead wires are also Orange, and are marked W16/W17. Follow the proper "Hook Up" diagram which corresponds to the TWA unit to connect these wires together correctly.

Route the Liquid Line Temperature Sensor Wires

1. Route the liquid line temperature sensor from the board through the snap bushing in the floor of the control box just underneath the head pressure control board.
2. Route the liquid line temperature sensor to the liquid line service valve for circuit A.

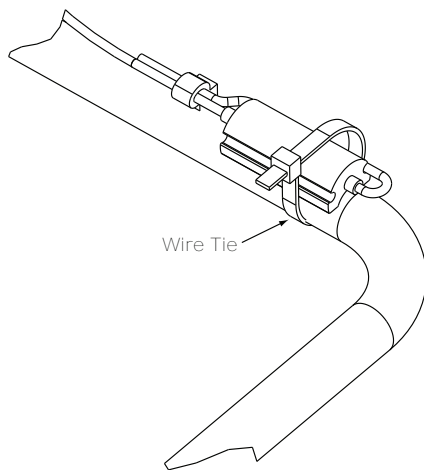
Note: Route all wires away from hot tubes or sharp edges.

Mount the Liquid Line Temperature Sensor

1. Find a horizontal section of the liquid line close to the liquid line service valve for circuit A.

2. Apply the thermal grease (supplied in the kit) to the underside of the liquid line temperature sensor for proper heat transfer from the tube to the sensor.
3. Using a wire tie (supplied in the kit), attach the sensor assembly as shown in [Figure 10, p. 11](#). Ensure that the wire tie is clamping the sensor tight against the liquid line.
4. With the liquid line temperature sensor clamped in place with the wire tie, wrap the complete assembly with black insulation tape (provided in the kit).

Figure 10. Liquid line sensor



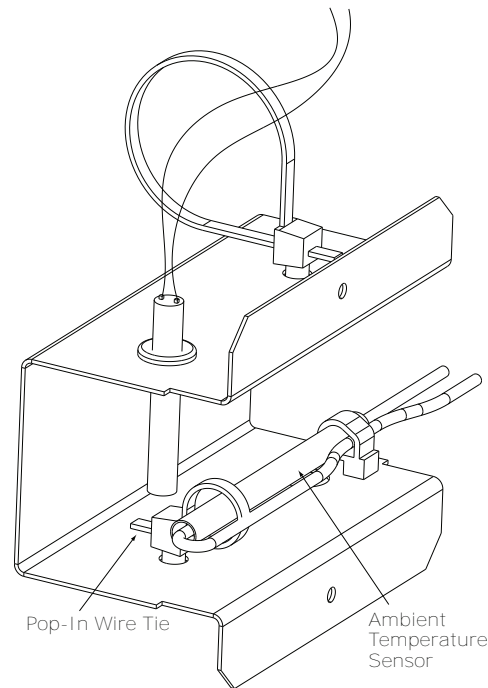
Route and Mount the Ambient Temperature Sensor Wires

1. Route the ambient temperature sensor from the board through the snap bushing in the floor of the control box just underneath the head pressure control board and then to the ambient sensor bracket which is mounted to the bottom of the control box.

Important: Route all wires away from hot tubes or sharp edges.

2. Insert pop-in wire tie into the ambient temperature sensor mounting bracket as shown in [Figure 11, p. 11](#).
3. Place the ambient sensor through the pop-in wire tie inside the ambient sensor mounting bracket.
4. Close the pop-in wire tie and secure the ambient sensor as shown in [Figure 11, p. 11](#).

Figure 11. Ambient temp. sensor



Finish the Installation

1. Using wire ties (provided in the kit), bundle and dress any excess wires away from hot copper tubing and sharp edges.
2. Apply the correct adhesive backed hook-up diagram that corresponds to the unit from the accessory kit to the inside of the access panel of the compressor (for BAYLOAMU01 and BAYLOAMU02 single circuit units) or control box (for BAYLOAMU02 dual circuit units) .
3. On BAYLOAMU01 kits, apply the 4" x 1" outdoor fan motor cycling information label (supplied in the kit) to upper right corner of the compressor access panel in place. On BAYLOAMU02 dual circuit unit kits, apply the 4" x 1" information label (supplied in the kit) to the top of the control box access panel and apply the second information label (supplied in the second kit) to the outside of the unit on the top of the center top cover of the unit.
4. Reinstall the compressor access panel and secure with the original screws.
5. On BAYLOAMU02 dual circuit unit kits, reinstall the control box access panels and unit top middle cover and secure with the original screws.
6. Restore power to the unit.
7. See the System Setup section for instructions on how to test the control.

System Operation

System Setup

Test Switch

The control board contains a momentary test switch (S1) located in the lower right hand corner of the control board. The test switch provides a means of verifying that the fan motor is under the control of the low ambient head pressure controller.

A “Y” signal must be present in order to test the control. Depressing the test switch causes the fan to alternately cycle on (for 3-seconds) and off (for 3-seconds) for a total time of 12-seconds. The on/ off fan operation may be observed by watching the fan once the test function has been invoked or by monitoring the head pressure using a gage set. The light emitting diode (LED) on the solid state relay should light when voltage is being applied to the fan motor. Once the 12-second test period is complete, the control resumes normal control operation.

Dip Switches

The control board contains a 4-position installer selectable dip switch (S2) located in the lower right hand corner of the control board, [Figure 12, p. 14](#). The controller will control to a liquid temperature set point as determined by the dip switch settings, [Table 1, p. 12](#). The dip switch is used:

1. To select either Automatic Mode (recommended setting) or Manual Mode operation (S2 dip switch 4-setting).
2. To select the liquid temperature set point (S2 dip switch 1, 2, and 3-settings).

Dip Switch Settings

Table 1. Dip switch setting

Liquid Temp Set Point °F	Dip Switch 1	Dip Switch 2	Dip Switch 3
70	OFF	OFF	OFF
76	OFF	OFF	ON
82	OFF	ON	OFF
88	OFF	ON	ON
94	ON	OFF	OFF
100	ON	OFF	ON
106	ON	ON	OFF
112	ON	ON	ON

Operating Mode	Dip Switch 4
Automatic	OFF
Manual	ON

Automatic Mode: (S2 dip switch 4 in OFF position)

The controller determines the approach temperature = liquid temperature - ambient temperature. The approach temperature is calculated only when the ambient temperature is in the range of 65°F to 75°F and the outdoor fan is on continuously.

If the controller has not yet acquired an approach temperature, S2 dip switch 1, 2, & 3 settings are used for determining the liquid temperature set point (the same as in manual mode). If the controller has acquired an approach temperature, then the liquid temperature set point is determined as follows:

$$\text{Liquid Temperature Set Point} = \text{Approach Temperature} + 70^{\circ}\text{F}$$

Manual Mode: (S2 dip switch 4 in ON position)

The S2 dip switch 1, 2, and 3 settings are read by the controller and used to determine the liquid temperature set point when:

1. The “Y” signal is first applied.
2. After initial start-up mode completion, i.e., during the system control mode (no sooner than six minutes after the “Y” or signal is applied). The liquid temperature set point will not change during system start-up. The dip switches should be set prior to initial application of the “Y” or signal to the controller.

The dip switches should be set for each specific HVAC system based upon the following instructions.

Determine Liquid Temperature Setpoint

1. Reference appropriate pressure curves from service facts; discharge pressure for cooling units.
2. Locate the high side pressure for 70°F outdoor temperature at the expected indoor wet bulb temperature.
3. Using the refrigerant properties chart, find the saturation temperature for the obtained discharge pressure.
4. Subtract 3 degrees for estimated coil saturated temperature drop to obtain liquid line saturated temperature.
5. Subtract the anticipated subcooling temperature (typically 12-degrees) from the saturation liquid temperature to obtain an estimate of the liquid temperature.
6. Set S2 dip switch 1, 2, and 3 setting to the nearest liquid temperature set point using [Table 1, p. 12](#).

S2 Dip Switch 4

OFF = Automatic Mode (recommended setting)

ON = Manual Mode

Control Board LEDs

The control board contains two LEDs; one green, and one red. The green LED is a status indicator labeled "Lite Port" on the control board. It flashes at a 1/2-second on (plus fast blink at the end for Lite Port data) and 1/2-second off rate in the cooling mode. The red LED is a small surface mount component located near the end of the large capacitor. The red LED is labeled ALERT on the control board. The red LED indicator is normally off. If the red LED is ON or flashing, then a fault is indicated according to the following:

- **Liquid Sensor Fault** = Red LED flashing 1/10-second ON and 1/10-second OFF
- **Ambient Sensor Fault** = Red LED flashing 1/2-second ON and 1/2-second OFF
- **IC EEPROM Fault Board Failure** = Red LED continuously ON (which cannot be field repaired).

If the cause of a fault is cleared or repaired, the red LED fault indication will clear with the removal and reapplication of 24 VAC power "Y" to the control.

The large green LED on the control board will flash at a rate of 0.5 seconds ON and 0.5 seconds OFF in cooling mode. The green LED will remain ON continuously when in heating mode. Once every second when the green LED is ON, "Lite Port" data is transmitted via the green LED and results in a flicker of the LED.

The solid state relay on the control module also contains a green LED indicator. This LED indicates when the solid state relay is energized by the control. If the control is cycling the fan, then the LED will be ON/OFF accordingly.

Sequence of Operation

BAYLOAMU01 and BAYLOAMU02 control the head pressure by cycling the condenser fan motor on and off (at Ambient Temperatures below 70°F). Utilizing two temperature sensors; one to sense the outdoor ambient temperature and one to sense the liquid line temperature, the controller determines the amount of

on/off cycle time for the motor using 10 second periods.

During the Fan "On Time," power is fully applied to the fan motor and during the Fan "Off Time," power is fully removed from the fan motor. The fan motor may or may not completely stop rotating during the Fan "Off Time" due to the variation in motor RPM coasting down.

For example: If conditions require a 50% duty cycle to maintain head pressure, the condenser fan will continuously cycle on for 5 seconds and off for 5 seconds.

If conditions require a 30% duty cycle to maintain head pressure, the condenser fan will continuously cycle on for 3 seconds and off for 7 seconds.

System Checkout

Verify the control module is installed and wired per the instructions contained within this installer's guide.

- If uncertain about S2 dip switch 1, 2, 3, and 4 settings, leave in the factory preset position.
- Apply power to the unit. Apply "Y" or control signal.
- Verify the green LED on the control board is flashing at 1/2-second ON, 1/2-second OFF rate.
- Verify no red LED faults are present.

The fan should run continuously for a minimum of 10-seconds after the "Y" signal is applied. After 10-seconds, the control may begin to cycle the fan if the ambient outdoor temperature is 70°F or below. If the fan is cycling and the outdoor temperature is below 70°F, the control is working. If after 10-seconds of the "Y" application the fan is ON continuously, the TEST switch (S1) may be used to verify the control module has control over the fan. Momentarily depress the TEST switch (S1) on the control board. The fan should cycle 3-seconds ON, then 3-seconds OFF for 12-seconds.

Note: *If the green LED on the control board is full ON with a blink/flicker OFF every second, the control thinks the unit is in heating mode because the orange wire is not seeing the +24VAC. Check to make sure that the orange wire from the control board is connected per the instructions in this document.*

Troubleshooting

Repairs and Replacement

Field repairs to the unit must not be made. For a replacement control, contact the local parts distributor.

Component Location and Connection Drawings

Figure 12. Control board

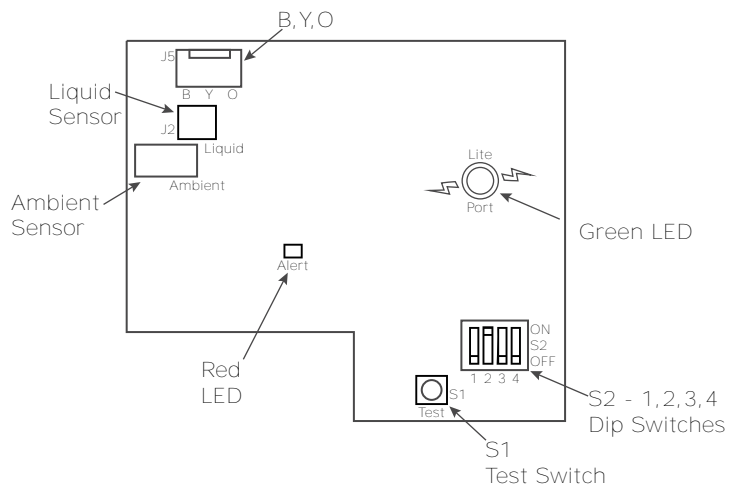


Figure 13. Wiring diagram for BAYLOAMU01 and BAYLOAMU02

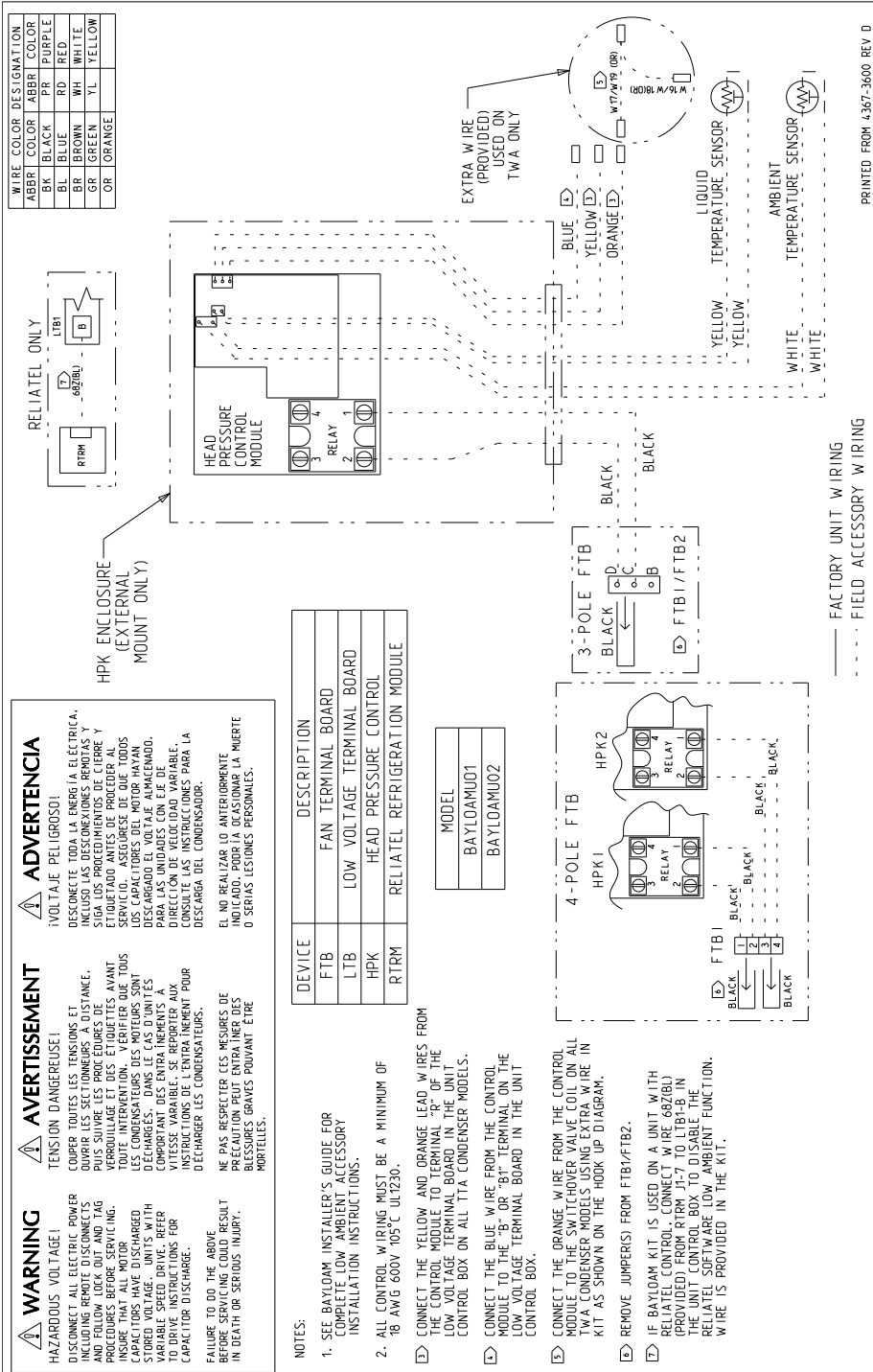


Figure 14. Hook-up diagram for BAYLOAMU01 - TTA units with electromechanical control

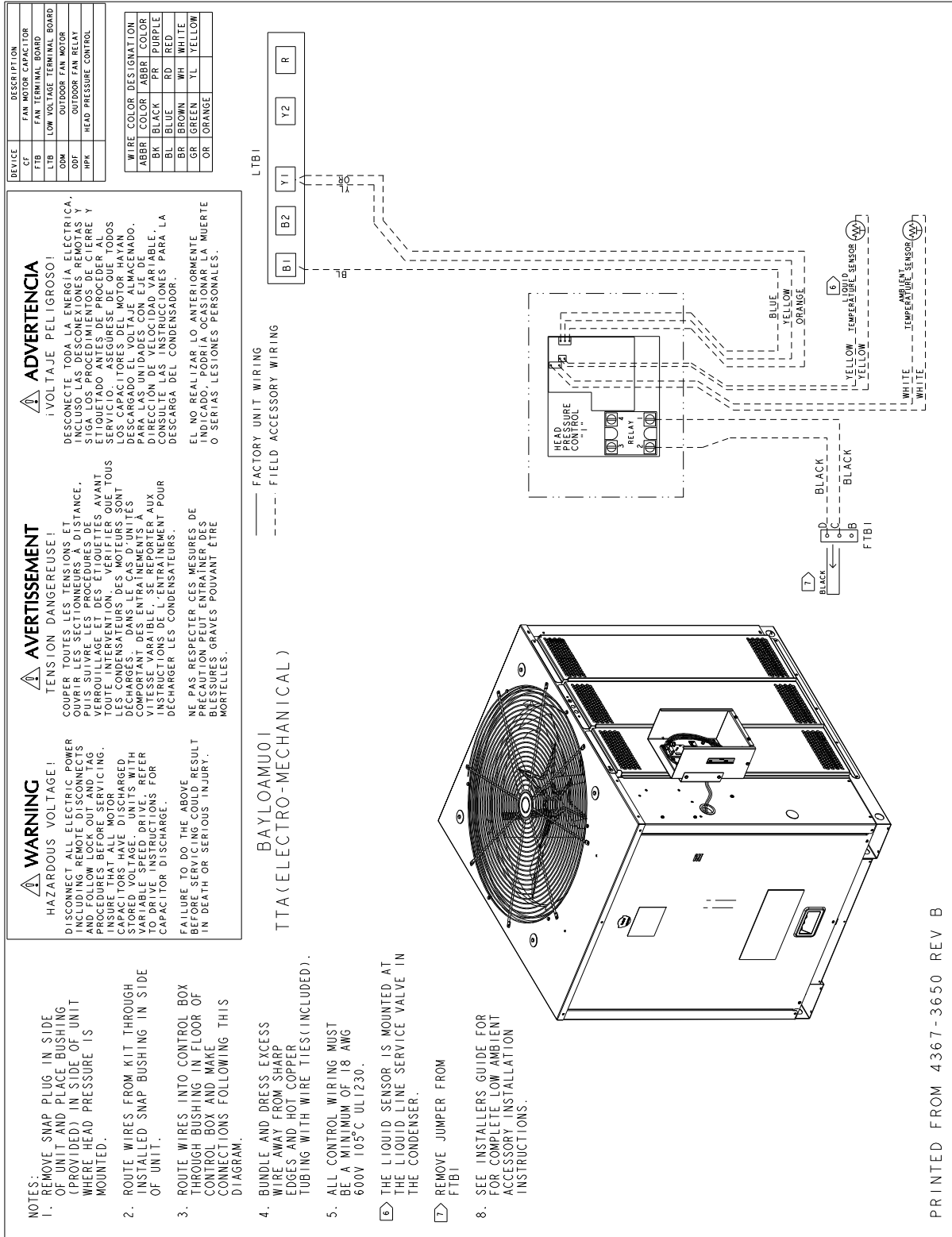
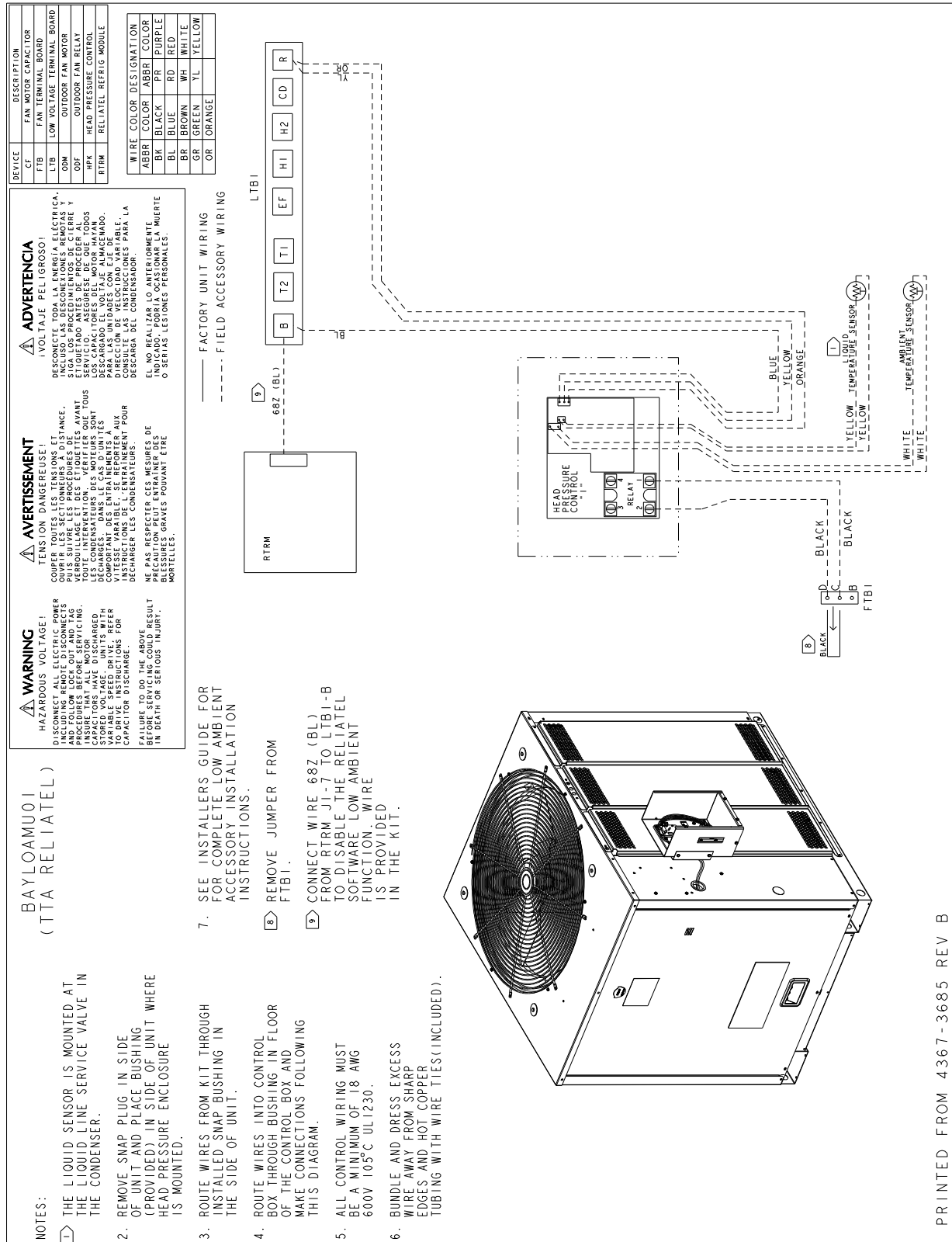


Figure 15. Hook-up diagram for BAYLOAMU01 – TTA units with ReliaTel™ control



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Figure 16. Hook-up diagram for BAYLOAMU01 – TWA units with ReliaTel™ control

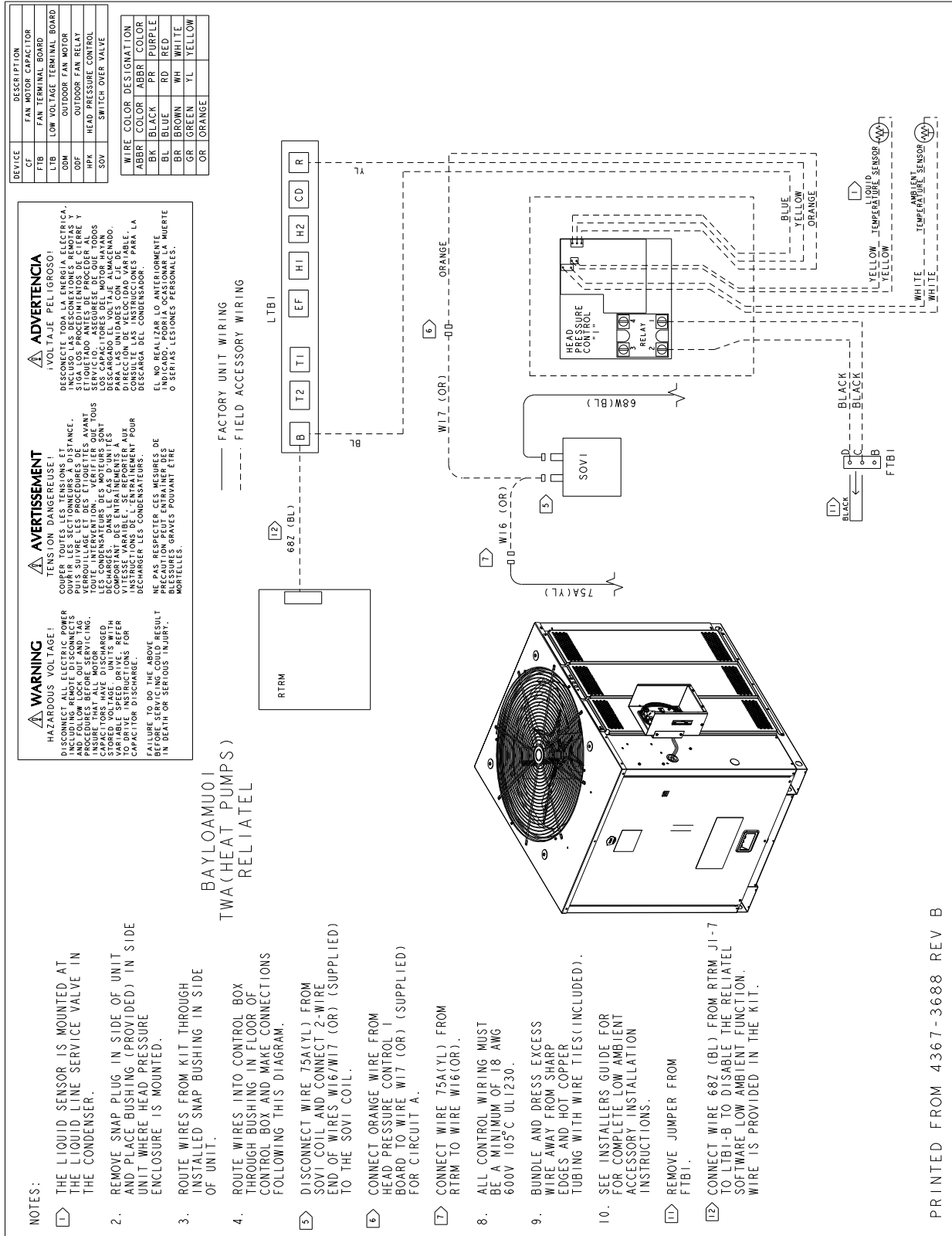


Figure 17. Hook-up diagram for BAYLOAMU02 on TTA units with electromechanical control

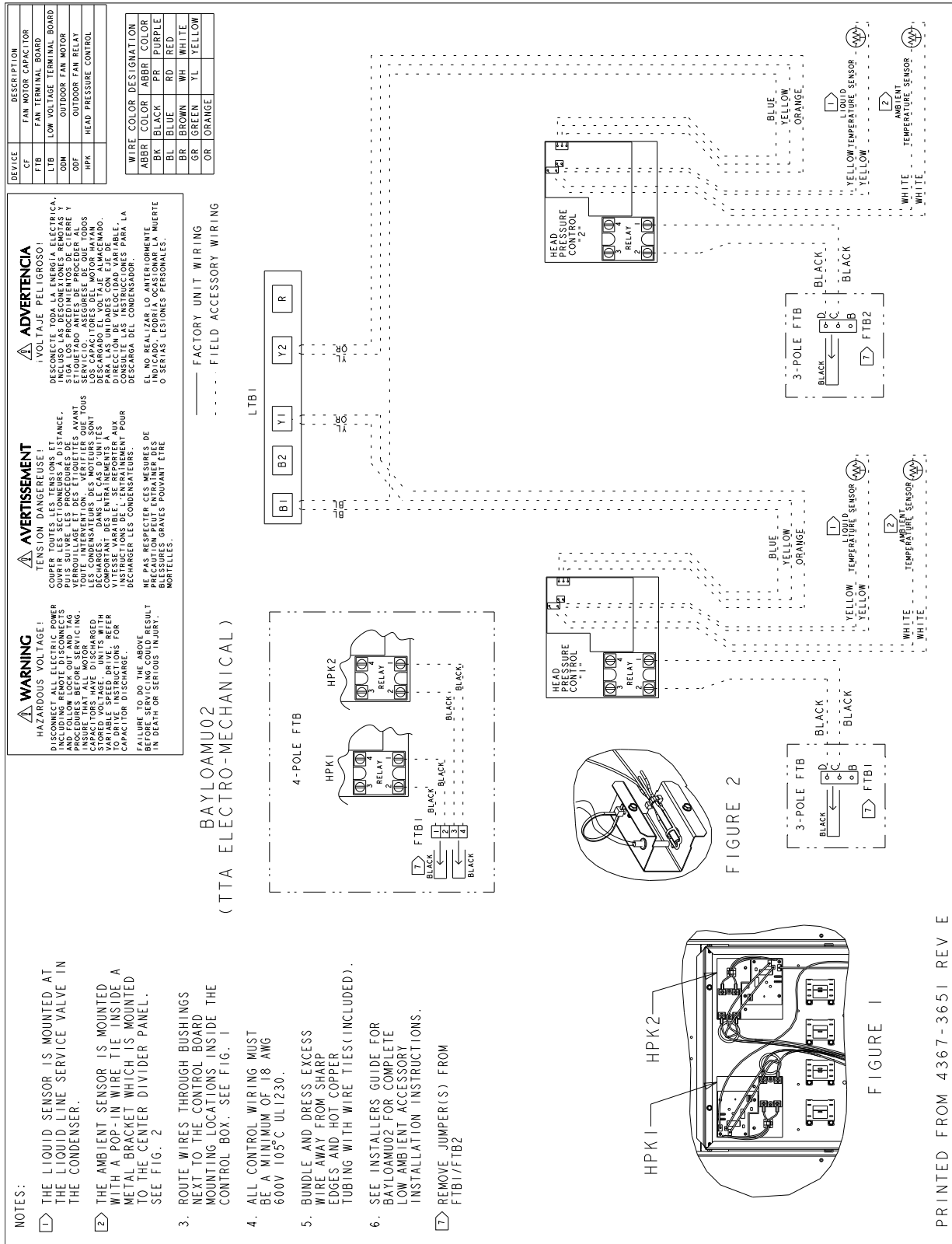


Figure 18. Hook-up diagram for BAYLOAMU02 on TTA units with ReliaTel control

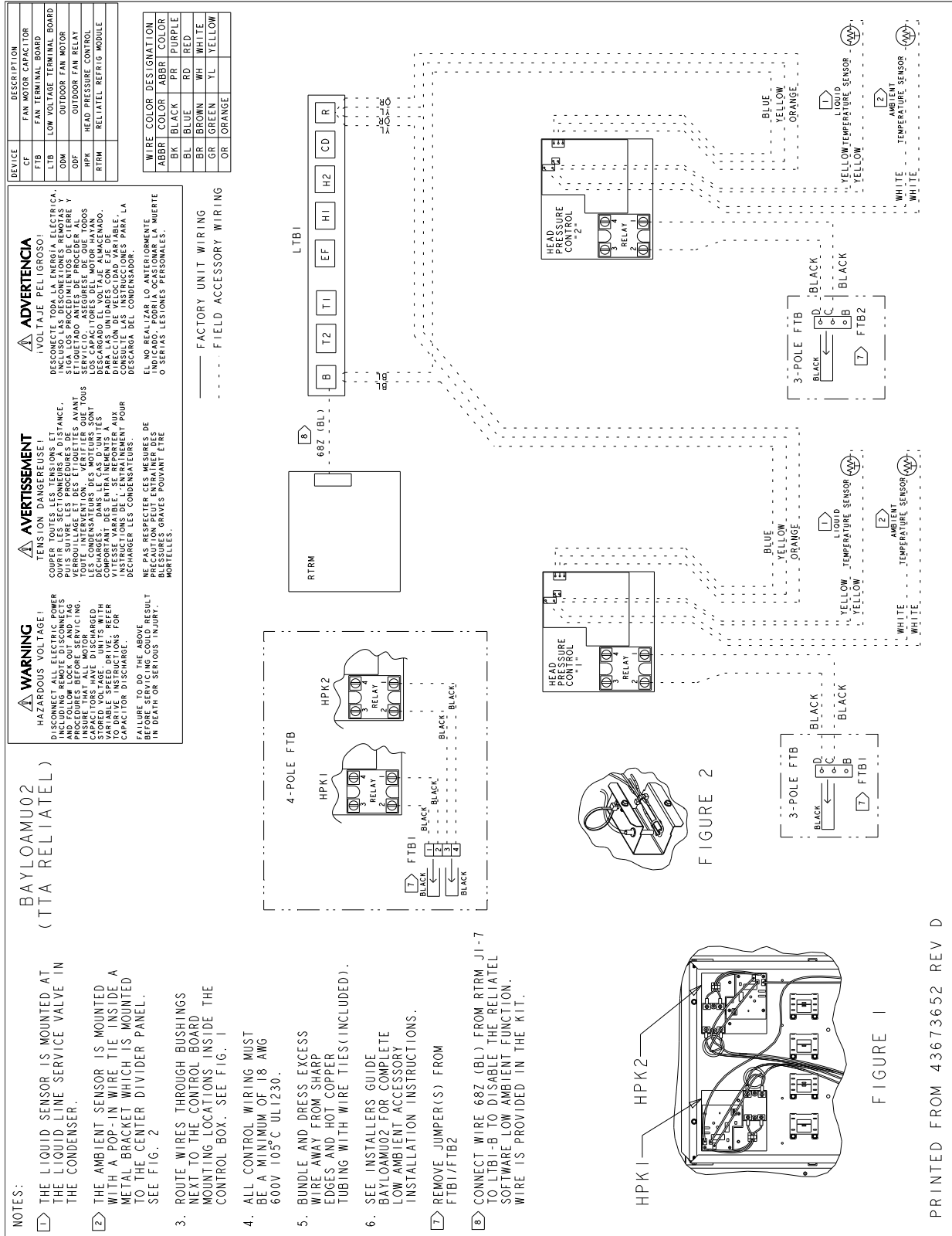
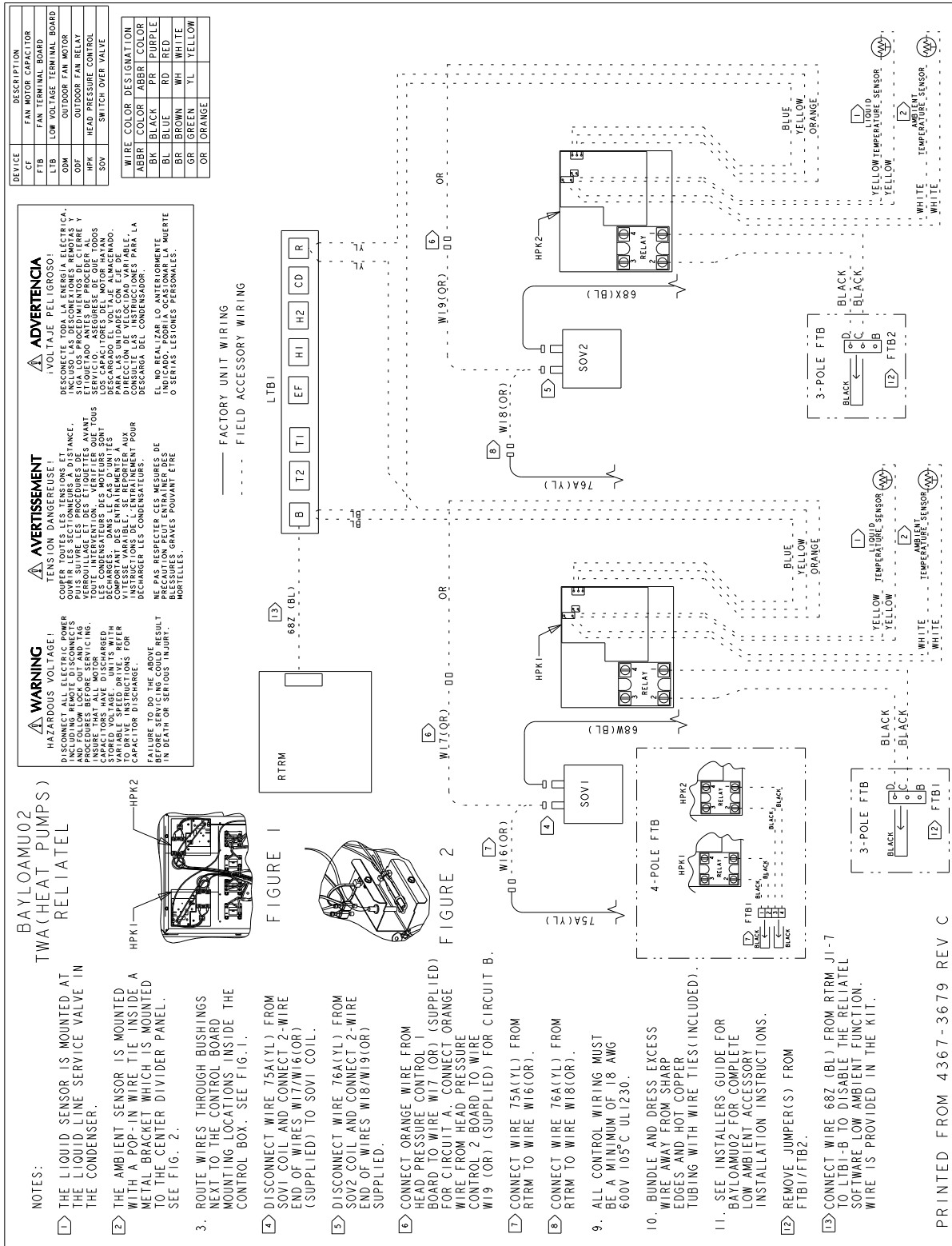


Figure 19. Hook-up diagram for BAYLOAMU02— TWA units with ReliaTel™ control



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