Technical Service Bulletin:

Control Board Replacement Procedure

Models: Bosch IDS2.0 / IDP Heat Pumps

WARNING:

- Improper servicing could result in dangerous operation, injury or property damage. The operations described below must be performed by qualified personnel.

NOTICE:

- Do not directly touch the components on the main board to avoid static electricity damage.

Board Replacement Procedure (For BOVA-36HDN1-M20G or BRB-36HWD1N1-M18)

1. Turn off power to both the indoor and outdoor unit and wait AT LEAST 3 minutes before removing the outdoor unit's control board access panel.

WARNING: ELECTRICAL HAZARD 380 VOLTS DC

- Wait 3 minutes after disconnecting power, then verify DC voltage is less than 43 VDC at inverter test points P-N. Components may store a dangerous electrical potential of 380 Volts DC. Failure to follow these instructions could result in personal injury or death.

NOTICE:

- Take a picture before removing any screws or wiring to use as reference when installing the new board.
- Use a screw driver instead of an electric screw driver/drill or damage to the control board may occur.
- **There is no need to disconnect the field supplied thermostat wires; directly remove the thermostat wire plug on the control board.**

2. Remove wires and plugs from control board.
3. Remove compressor wire plugs, power wire screws and ground wire screws (refer to Figure 1: items circled in blue).
4. Remove the 8 screws on the board (refer to Figure 1: items circled in yellow).

Figure 1

Screw Type				
Color for Location	○	○	○	✖

Table 1

5. Remove the 4 screws on the board (refer to Figure 1: items circled in red).

NOTICE:

- There are 4 different types of screws; they should not be mixed. Different screw types are installed in different locations. Refer to color coding in Figure 1 for appropriate screw type and location.

6. Using the fourth screw in Table 1, fasten screw into the "X" position (refer to Figure 1) to separate control board from heat sink and take off control board.
7. Apply the thermal paste on the heat sink (refer to Figure 2).

NOTICE:

- The full surface area of the replacement board's heat sink must be COMPLETELY covered with thermal paste. Failure to follow these instructions will cause poor heat dissipation and will lead to control board failure.

Two tubes of thermal paste are included with each board replacement.

Figure 2

8. Install the new board on the unit.
9. Fasten all screws (Refer to Figure 1 for screw type and location).
10. Reconnect the wires according to the wiring diagram (referencing the picture that was taken prior to removal of old board). (Note: CN11, CN25, CN30 do not have any wire connections. Ensure Tf and T5 connections at the board are correct.)
11. Check SW4/SW5/J2 dip switch positions. Refer to IOM or the picture you took.
12. Double check all wire connections and screw positions before powering on.

NOTICE:

- **The SW4-1 dipswitch should be set in the correct position** or it will damage the unit. SW4-1 should be set to the "OFF" position for BOVA-36HDN1-M20G and the "ON" position for BRB-36HWD1N1-M18.

Board Replacement Procedure (For BOVA-60HDN1-M20G or BRB-60HWD1N1-M19)

1. Turn off power to both indoor and outdoor unit and wait AT LEAST 3 minutes before removing the outdoor unit's control board access panel.

WARNING: ELECTRICAL HAZARD 380 VOLTS DC

- Wait 3 minutes after disconnecting power, then verify DC voltage is less than 43 VDC at inverter test points P-N. Components may store a dangerous electrical potential of 380 Volts DC. Failure to follow these instructions could result in personal injury or death.

NOTICE:

- Take a picture before removing any screws or wiring to use as reference when installing the new board.
- Use a screw driver instead of an electric screw driver/drill or damage to the control board may occur.
- **There is no need to disconnect the field supplied thermostat wires; directly remove the thermostat wire plug on the control board.**

2. Remove wires and plugs from control board.
3. Remove compressor wire plugs, power wire screws and ground wire screws (refer to Figure 3: items circled in blue).
4. Remove the 10 screws on the board (refer to Figure 3: items circled in yellow).
5. Remove the 6 screws on the board (refer to Figure 3: items circled in red).

NOTICE:

- There are 4 different types of screws; they should not be mixed. Different screw types are installed in different locations. Refer to color coding in Figure 3 for appropriate screw type and location.

6. Using the fourth screw in Table 2, fasten screw into the "X" position (refer to Figure 3) to separate control board from heat sink and take off control board.
7. Apply the thermal paste on the heat sink (refer to Figure 4).

NOTICE:

- The full surface area of replacement board's heat sink must be COMPLETELY covered with thermal paste. Failure to follow these instructions will cause poor heat dissipation and will lead to control board failure.

Two tubes of thermal paste are included with each board replacement.

Figure 3

Screw Type				
Color for Location				

Table 2

8. Install the new board on the unit.
9. Fasten all screws (Refer to Figure 3 for screw type and location).
10. Reconnect the wires according to the wiring diagram (referencing the picture that was taken prior to removal of old board). (Note: CN11, CN25, CN30 do not have any wire connections. Ensure Tf and T5 connections at the board are correct.)
11. Check SW4/SW5/J2 dip switch positions. Refer to IOM or the picture you took.
12. Double check all wire connections and screw positions before powering on.

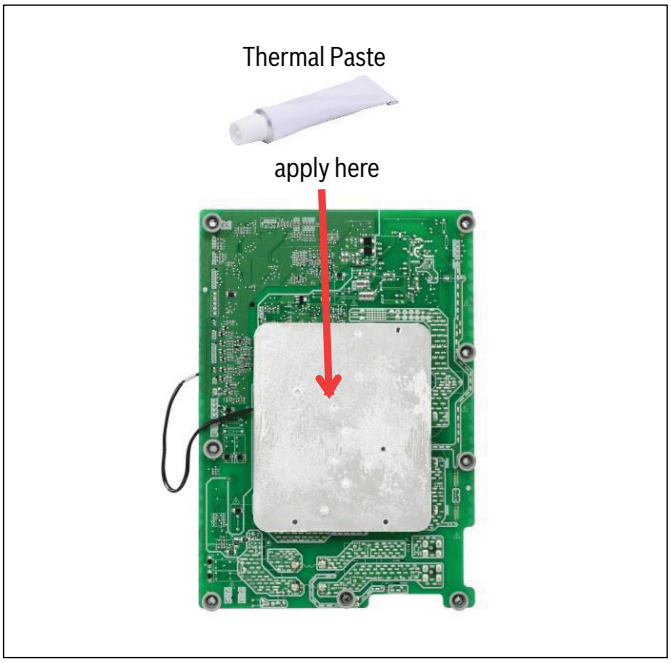

Figure 4

NOTICE:

- **The SW4-1 dipswitch should be set in the correct position** or it will damage the unit. SW4-1 should be set to the "OFF" position for BOVA-60HDN1-M20G and the "ON" position for BRB-60HWD1N1-M19.

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