YORK®	SB0037 Supersedes: SB0031 (503)	1003
	File In: N/A	
ESG SERVICE BULLETIN	Affected Equipment: All YPAL Rooftop Units	

Subject: Main Control Board Replacement

Issue Date: 10/08/03 **Withdrawal Date: 02/15/04** **Data Control Level: B**
Materials Needed: Replacement Control Board
Tools Required: N/A
Estimated Time Required: 1-1/2 hours
Warranty: Yes
Revision Notes: N/A

General

This letter is an update to Service Bulletin SB0031 that requires the immediate replacement of the main control board on the YPAL rooftop units (eco^2), and affects all units in the field. This required replacement board allows the unit to operate with full functionality and protects the unit from compressor failures. This service bulletin supersedes SB0031 issued May 2003.

Each District Service Manager is being provided with a list of all units (Unit Listing - attached) within their respective district, and identifies the units by:

- Location
- Contract Number
- Unit Model Number
- Project Name
- **Communication Card Option**

This service bulletin only pertains to the replacement of the main control board. Any communication card attached to the main control board must be removed and reinstalled as explained in the installation instructions in this bulletin.

Work on this equipment should only be done by properly trained personnel who are qualified to work on this type of equipment. Failure to comply with this requirement could expose the worker, the equipment and the building and its inhabitants to the risk of injury or property damage.

The instructions on this service bulletin are written assuming the individual who will perform this work is a fully trained HVAC & R journeyman or equivalent, certified in refrigerant handling and recovery techniques, and knowledgeable with regard to electrical lock out/tag out procedures. The individual performing this work should be aware of and comply with all national, state and local safety and environmental regulations while carrying out this work. Before attempting to work on any equipment, the individual should be thoroughly familiar with the equipment by reading and understanding the associated service literature applicable to the equipment. If you do not have this literature, you may obtain it by contacting a York Service Office.

Should there be any question concerning any aspect of the tasks outlined in this bulletin, please consult a York Service Office prior to attempting the work. Please be aware that this information may be time sensitive and that York International reserves the right to revise this information at any time. Be certain you are working with the latest information. The York Service office nearest you may be found on the Internet at www.york.com.

Part Replacement Ordering Instructions

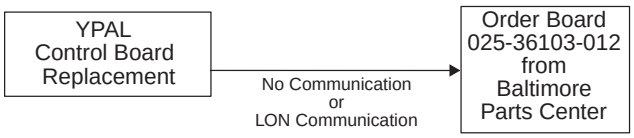
The type of communication option on the Unit Listing will determine the new control board part number and ordering process.

NOTE

The communication option for each unit is shown on the Unit Listing, however, verification should be made with the customer to ensure that the communication option was not changed/added after the unit was installed in the field.

Units without a Communication Option or the LON Option

On units **without** a communication option, **or** units with the LON communication option, the replacement control board must be ordered using part number 025-36103-012. The part can be ordered directly from the Baltimore Parts Center and installed per the installation instructions listed below.



BACnet IP (Ethernet) Option or BACnet MS/TP Option

On units with BACnet communications (either IP or MS/TP), a three-step process must be used to ensure proper unit operation for the respective communication option as each unit has a unique address already being used by the customer. Each control board being ordered will require individual programming of the communication parameters on the replacement control board by our supplier. The unit "address" information must be supplied by the district office before a replacement board can be shipped. Follow the ordering process below.

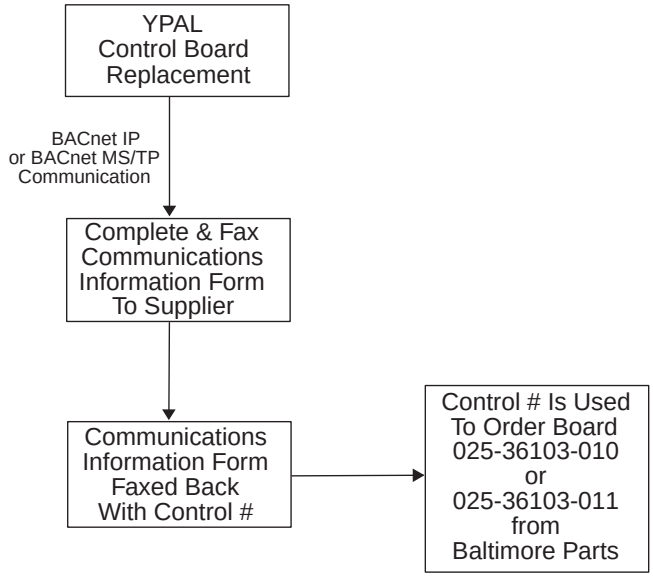
1. District Office Action - The Communication Information form (attached as part of this bulletin) must be completed by the field for each unit and faxed to the supplier at 610-916-0157, Attn: Sue Yanchocik.

NOTE

THIS STEP DOES NOT PLACE THE ORDER FOR THE REPLACEMENT CONTROL BOARD.

2. Supplier Action - A C*ontrol Number* will be assigned by the supplier and the Communication Information form will be faxed back to the district office within 24 hours, as confirmation of the address requirements, and to provide a *Control Number* which must be used by the district office, along with the respective control board part number, when placing the order with the Baltimore Parts Center (step 3).

3. District Office Action - Order the control board from the Baltimore Parts Center with the respective part number shown below, and **include the *Control Number* in the "special instruction" portion of the order to the Baltimore Parts Center**. The control boards will be shipped with the respective *Control Number* identified on the control board label, along with a copy of the Communication Information form for the respective YPAL unit. Refer to Figure 1.



BACnet IP (Ethernet) communication card part number:	025-36103-010
BACnet MS/TP communication card part number:	025-36103-011

NOTE

The Communications Information Form is NOT sent to the Baltimore Parts Center when ordering the Replacement Control Board. Only the Control Number and the replacement board part number is required to order the part from Baltimore Parts.

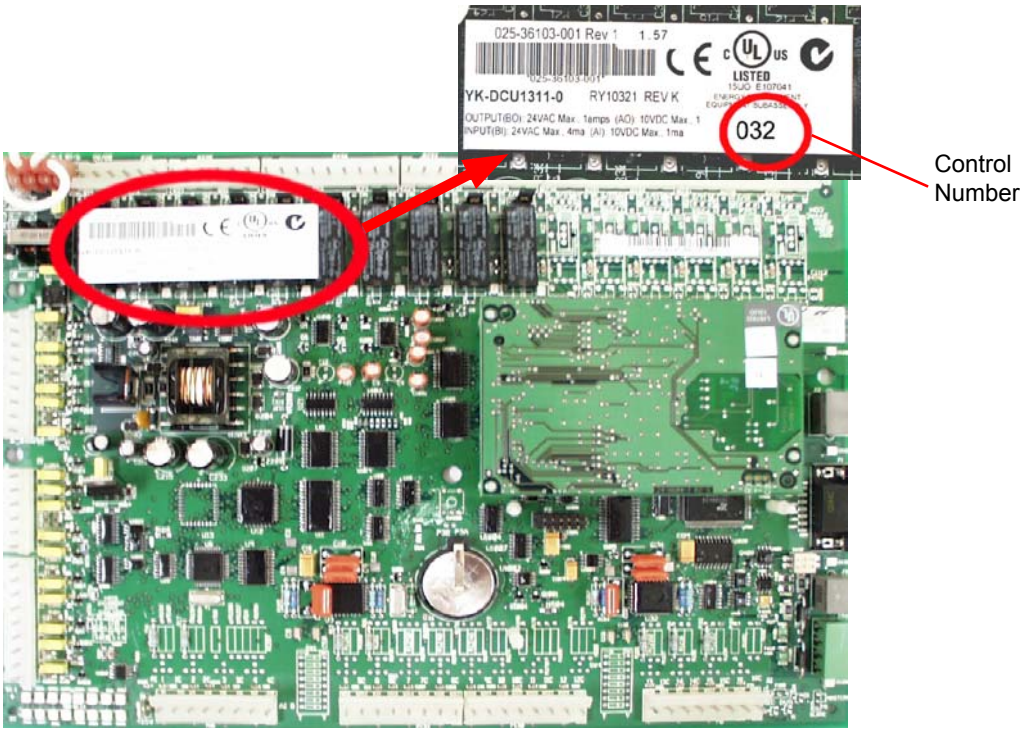


FIGURE 1 - CONTROL BOARD LABEL

Control Board Installation Instructions

1. Before replacing the control board, record all parameters listed under the Unit Status key, Setpoint key, Unit Setup key, Configuration key, and Service key. These are the parameters that must be reprogrammed back into the replacement board after it is installed. The password required to make these changes is 9725. If needed, refer to Quick Start Guide 100.50-NO1 (302) for instructions on changing setpoints. A blank Parameter list has been included with this service bulletin. Please note that under the Unit Status key and Service key, only those parameters that are programmable are listed.

2. Stop the unit by pressing the RUN/STOP switch located in the unit control panel, underneath the OpticLogic control panel.

3. Disconnect power from the unit.

4. Disconnect the customer connection from the communication card. This is only required on LON or BACnet MS/TP cards – refer to Figures 2 and 3. Remove the communications card from the main control board. This can be done by compressing the "ears" of the stand-offs on the corners of the board, and carefully pulling the card away from the control board. The customer connection is not located on the BACnet IP card and need not be disconnected – refer to Figure 4.

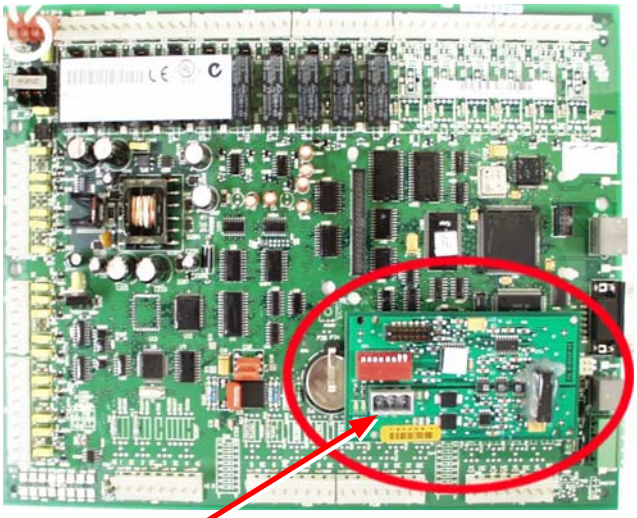


FIGURE 2 - BACnet MS/TP CARD LOCATION

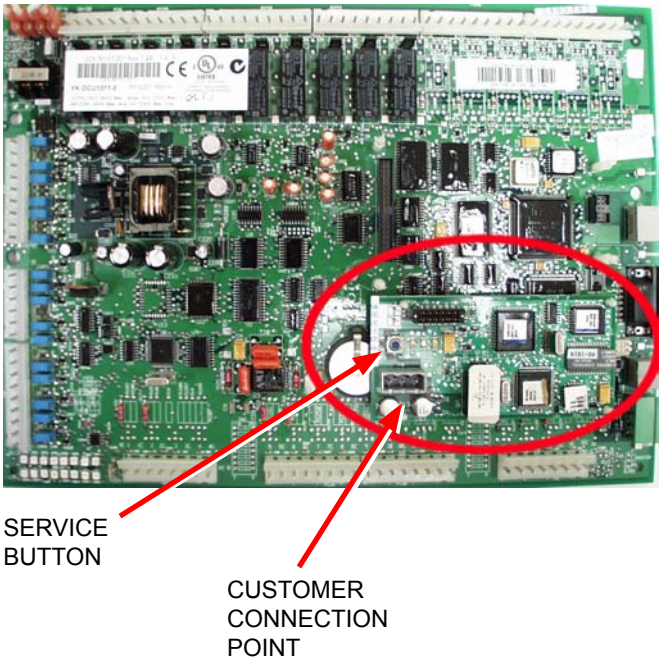


FIGURE 3 - LON CARD LOCATION

5. Disconnect the main control board connections and replace with the new control board.

NOTE

Ensure that the Control Number on the replacement board (see Figure 1) matches the serial number of the YPAL unit and Control Number shown on the Communication Information form.

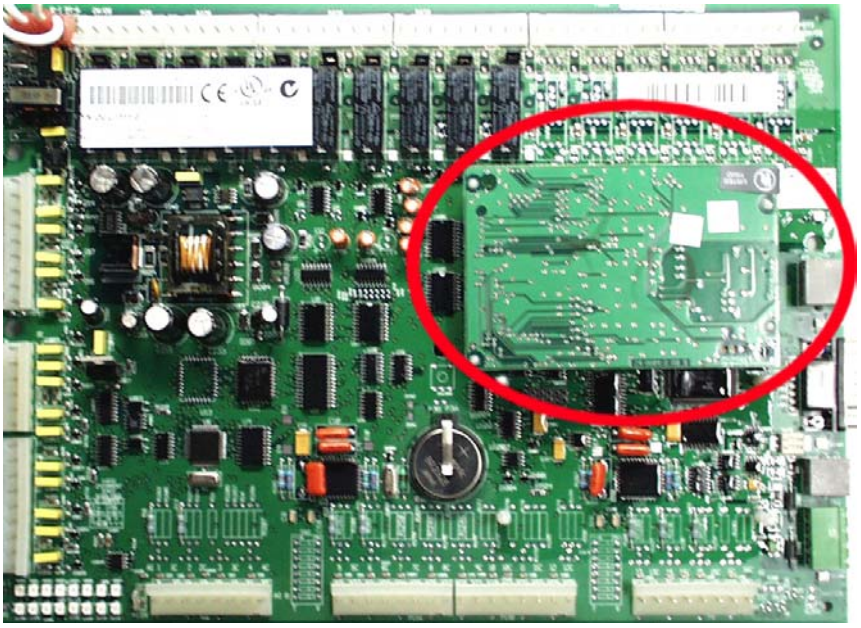


FIGURE 4 - BACnet CARD LOCATION - (NOTE CUSTOMER CONNECTION IS NOT LOCATED ON CARD)

6. Reinstall the communication card removed in step 4 and reconnect the customer connection.

7. Reapply power to the unit. The unit will initiate a self-check that will take approximately five minutes.

8. Reprogram the customer parameters recorded in step #1.

9. LON COMMUNICATIONS ONLY – Following reinstallation of the existing LON card onto the new control board, the card should immediately be recognized on the LON network. If it is not recognized, the individual responsible for integration of the building's LON network should be advised that a new LON card is installed and under power. This invididual may request that you press the "SERVICE BUTTON", located on the LON communication card directly above the LON connection (see figure 3).

10. Start the unit by pressing the RUN/STOP switch. Observe that the unit returns to "normal" operation.

Submitting the Warranty

Charges must be submitted under warranty referencing Service Bulletin SB0037. One warranty claim can be submitted for multiple units on the same sales/contract number **IF** the serial number of each unit is included in the *Comments* section of the warranty claim, otherwise one warranty claim per unit. Actual time for the control board replacement should not exceed 1-1/2 hours.

Returning the Replaced Control Board For Warranty Credit

The replaced control board must be returned to YORK for warranty credit. Return the replaced control board(s) referencing the respective warranty claim number (SD number) on the shipping invoice to which the boards were charged – the warranty claim number serves as the return authorization number to return the control board. The

shipping address for returning the boards is:

York International Corp
Attn: Al Keener
631 S. Richland Avenue
Door 44
York, PA. 17403

FAILURE TO RETURN THE CONTROL BOARDS WILL RESULT IN A BACKCHARGE TO THE DISTRICT OFFICE FOR THE COST OF THE CONTROL BOARD(S) ON THE RESPECTIVE WARRANTY CLAIM.

OPTILOGIC CONTROL CENTER

UNIT PROGRAMMING DEFAULTS/VALUES

UNIT MODEL NO._____ UNIT SERIAL NUMBER_____

CONFIGURATION KEY		
Text Description	**Default**	**Programmed Value**
Unit Type	CV	
Dirty Filter Switch	OFF	
ASCD Override	OFF	
Run Test	OFF	
Panel Test	ON or OFF	
# of Compressors	4 or 6	
# of Heat Steps	0 - 6	
Heating Type'	NONE	
Freezestat	OFF	
Transducer Package	0	
Low Ambient Config	0	
Dischrg Press Cntrl	160 spig	
Sys Unloading Press	400 psig	
Reset Lead-Lag	OFF	
SAT Temper Available	OFF	
Cooling SAT Limit #1	45° F	
Cooling SAT Limit #2	50° F	
Heating SAT Limit	160° F	
Power Exhaust Config	0	
Economizer Installed	NO	
Airflow Meas Config	NONE	
AMS #1 Area	3.33	
AMS #1 K-Factor	.050	
AMS #2 Area	10.00	
AMS #2 K-Factor	.750	
Duct Sensor Hi Limit	5.0	
Evaporator Damper Installed		

SERVICE KEY		
Text Description	**Default**	**Programmed Value**
Sys X Comp Runtimes2	0	
Sys X Comp Starts2	0	
Exhaust (Fan Runtimes)2	0	
AMS #1 Balancer Calculated Airflow	1	
AMS #1 Controller Measured Air Flow at balance	1	
AMS #2 Balancer Calculated Airflow	1	
AMS #1 Controller Measured Air Flow at balance	1	
Economizer Tuning Prop Band Integ Time	 4° F 45 Sec	

Continues next page

SETPOINT KEY		
Text Description	**Default**	**Programmed Value**
Unoccupied Heating	60°	
Unoccupied Cooling	85°	
Occupied Heating	68°	
Occupied Cooling	72°	
VAV Cool High Temp	60°	
VAV Cool Low Temp	55°	
VAV SP FOR SAT Reset	72°	
Duct Static Pressure	1.50	
Building Pressure	+0.100	
Economizer 1 st Stage	55°	
Economizer 2nd Stage	50°	
SAT Econo Load Heat	150	
Outside Air Enthalpy	28	
Cmfrt Vent High SAT	80°	
Cmfrt Vent Low SAT	70°	
Warm-Up RAT	70°	
Hydro Heat 1 st Stage	100°	
Hydro Heat 2nd Stage	115°	
OA Damper MinPos#1	15	
OA Damper Min Pos #2	30	
Demand Ventilation	1000	
Min Outside Airflow	4000	
(FlexSys) MSAT Setpoint	62	
(FlexSys) Min Dewpt Diff	3	

UNIT SETUP KEY		
Text Description	**Default**	**Programmed Value**
Language Option	English	
Measurement Units	Imperial	
Space Sensor Enable	OFF	
Unocc Override Time	60 min	
Space Setpt Offset	3°F	
Fan ON With Sensor	ON	
RAT Sensor Enable	OFF	
Space Temp AIrm Diff	5°F	
Space Temp AIrm Time	60 min	
Low Ambient Operate	OFF	
Sens Consist Enable	OFF	
SAT Control For Cool	ON	
SAT Control For Heat	OFF	
Rev Act Heat Valve	OFF	
Cooling Mode Enable	ON	
Heating Mode Enable	ON	

UNIT SETUP KEY - CONT'D		
Text Description	**Default**	**Programmed Value**
Heat Lockout OAT	75°F	
Cool Lockout OAT	45°F	
Cooling SAT Alarm	0°F	
Heating SAT Alarm	0°F	
Duct Pressure Limit	3.00 inwg	
VAV Occupied Heat	OFF	
Master/Slave Control	OFF	
Master/Slave Config	Master	
OA SAT Reset	OFF	
SAT Temper Enable	OFF	
VAV With Thermostat	ON	
VAV Control Offset	4.5	
FlexSys Dewpt Reset	OFF	
ExhDmprPosForON	80	
Exh Dmpr Pos For OFF	20	
OADmprPosForON	60	
OA Dmpr Pos For OFF	20	
OAH Sensor Enable	OFF	
RAH Sensor Enable	OFF	
Exhaust Cntrl Offset	0.015 inwg	
Economizer Enable	ON	
SAT Econo Loading	ON	
Power Exhaust Enable	OFF	
OA Flow Cntrl Enable	OFF	
Comfort Vent Mode	OFF	
Cmfrt Vent Max Dampr	75	
IAQ Sensor Enable	OFF	
IAQ Sensor Span	5000	
MAX DV Multiplier	1.25	
Altitude	1000 Ft	
Morning Warm-Up	OFF	
Max Warm-Up Time	120 min	
Pre-Occupancy Purge	OFF	
Purge Schedule	All Days	
Purge OAT High Limit	85°F	
Purge OAT Low Limit	55°F	
Smoke Purge Mode	0-	
Internal Clk/Sched	OFF	
Weekly Schedule	7 am - 6 pm weekdays	
Holiday Schedule	(No Sched)	
UNIT STATUS KEY		
Date and Time	dd-mm-year hh:mm:ss am/pm	

YPAL COMMUNICATIONS INFORMATION FORM

Fax completed Form to: 610-916-0157
ATTN: Sue Yanchocik

Contract/Sales Order # _____ District Office _____

Job Name _____ Location _____

District Contact:

Name _____ Phone _____

FAX _____

The FAX number provided will be number used by the supplier to provide the control number required to order the YPAL control board from the Baltimore Parts Center.

Unit Model # _____ Unit Serial # _____

Communications Option -
(Check one and provide address information - all address information shown may not be required by customer)

☐ **BACNET IP**

Part Number 025-36103-010
IP Address _____
IP Mask _____
IP Router Address _____
Network Address _____
Device Object Identifier _____

☐ **BACNET MS/TP**

Part Number 025-36103-011
MS/TP Baud Rate _____
(76800 Baud is not supplied)
MS/TP Network Address _____
MAC Address _____
MAC Master _____

Control Number _____ *(Provided by Supplier)*

Refer to Service Bulletin SB0037 for use of control number in the order process through the Baltimore Parts Center