

Service Manual



Phoenix PLK Holding Bin Series



CAUTION: Read the instructions before using the machine.

LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of 1 year (repair parts) and 1 year (service labor) from date of original installation, not to exceed 30 months from the date of manufacture.

Any component which proves to be faulty in material and/or workmanship will be replaced or repaired (at the option of Prince Castle LLC) without cost to the customer for parts and labor. This warranty covers on location service (i.e. trip charges and or mileage). Travel mileage is limited to 100 miles (200 Kilometers) round trip (one trip warranty) from an authorized service agency or its sub-service agency. This warranty is subject to the following exceptions/conditions:

- Use of any non-genuine Prince Castle parts voids this warranty.
- All labor to be performed during regular work hours. Overtime premium (the incremental amount) will be charged to the customer.
- Damage caused by carelessness, neglect and/or abuse (e.g., dropping, tampering or altering parts, equipment damaged in shipment, by fire, flood or an act of nature) is not covered under this warranty.
- All problems due to operation at voltages other than that specified on equipment nameplates are not covered by this warranty. Conversion to correct voltage is the customer's responsibility.
- This equipment must be serviced by Prince Castle Authorized Service Agency or a Prince Castle Service Technician during the warranty period.

TABLE OF CONTENTS

Model Specifications	2
Safety Information	2
Serial Number Matrix	3
How to Change Display Assembly	4
How to Change PC Board	6
How to Change Heater Panel	8
How to Change Timer Bar	10
How to Change USB Harness	11
How to Change Ethernet Harness	12
How to Change Speaker	13
How to Change Power Cord	14
How to Change Power Switch	15
Wiring Diagram	16
Troubleshooting	18
Exploded View	19



355 EAST KEHOE BLVD. ~ CAROL STREAM, IL, 60188, USA

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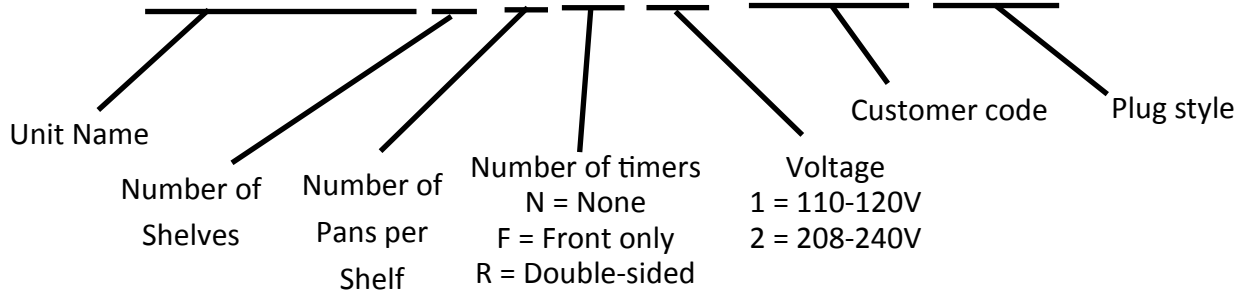
FAX 630-462-1460 ~ WWW.PRINCECASTLE.COM

Phoenix PLK

Holding Bin Series

Model Identification

PHB21N1-PLK01



Model Specifications

STYLE	MODEL NO.	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)	WEIGHT (kgs)	VOLTAGE	WATTS	PLUG
2H X 1W	PHB21N1-PLK01	15.6 (396.2)	21.0 (533)	22.0 (559)	96 lbs (43.5)	120	1380	5-15P
2H X 1W	PHB21N2-PLK50B	15.6 (396.2)	21.0 (533)	22.0 (559)	96 lbs (43.5)	208-240	1380	IEC309
2H X 1W	PHB21N2-PLK18	15.6 (396.2)	21.0 (533)	22.0 (559)	96 lbs (43.5)	208-240	1380	L6-15P
2H X 1W	PHB21N2-PLK17	42.0 (1067)	14.2 (361)	20.0 (508)	124 lbs (56.2)	208-240	2290-3040	L6-20P
2H X 1W	PHB21N2-PLK50S	42.0 (1067)	14.2 (361)	20.0 (508)	124 lbs (56.2)	208-240	2290-3040	IEC309
2H X 1W	PHB21N2-PLK17-CA	42.0 (1067)	14.2 (361)	20.0 (508)	124 lbs (56.2)	208-240	2290-3040	L6-20P
3H X 4W	PHB34R2-PLK22	41.5 (1054)	18.8 (478)	14.0 (356)	158 lbs (71.7)	208-240	2880-3830	L6-30P
3H X 4W	PHB34R2-PLK53	41.5 (1054)	18.8 (478)	14.0 (356)	158 lbs (71.7)	208-240	2880-3830	IEC309 (32A)
3H X 4W	PHB34R2-PLK22-CA	41.5 (1054)	18.8 (478)	14.0 (356)	158 lbs (71.7)	208-240	2880-3830	L6-30P


Safety Information

WARNING

Indicates information important to the proper operation of the unit. Failure to observe may result in damage to the equipment and/or severe bodily injury or death.

CAUTION

Indicates information important to the operation of the unit. Failure to observe may result in damage to the equipment.

 **WARNING:** Holding bin is not load-bearing. Do not place any weight on top unless directed to do so.


Safe Service Practice


Children shall not play with appliance.

Cleaning and user maintenance shall not be made by children without supervision

To avoid personal injury and/or property damage, it is important that safe service practices be observed, including the following:

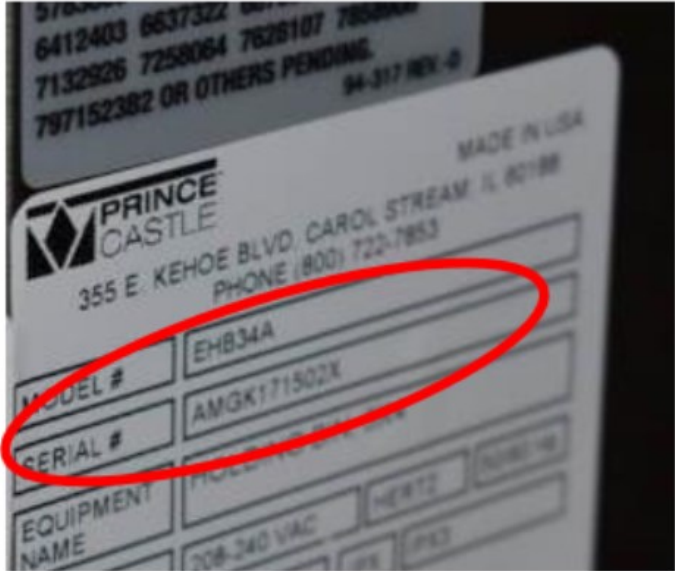
- Do not service this unit without first reading this manual.
- Do not attempt a repair, if you have doubt as to your ability.
- Do not attempt to replace any components, unless all power has been disconnected.

 **WARNING:** This application is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

 **NOTE:** Some procedures such as programming are not described in detail here. Please refer to the Operations Manual where indicated in the service steps.

Phoenix PLK Holding Bin Series

Locate model tag on unit on the opposite side of the UI display.



Serial Number Matrix

The manufacture date is encoded in the unit's serial number.
The service bench installation date (used to determine warranty coverage) is considered to be the end of the following month. For example:

Serial Number: JL0173804
Manufacture Date: September 2016
Service Bench Installation Date: October 31, 2016

		SERIAL NUMBER MATRIX							
		2016	2017	2018	2019	2020	2021	2022	2023
		L	M	N	P	R	S	T	U
January	A	AL	AM	AN	AP	AR	AS	AT	AU
February	B	BL	BM	BN	BP	BR	BS	BT	BU
March	C	CL	CM	CN	CP	CR	CS	CT	CU
April	D	DL	DM	DN	DP	DR	DS	DT	DU
May	E	EL	EM	EN	EP	ER	ES	ET	EU
June	F	FL	FM	FN	FP	FR	FS	FT	FU
July	G	GL	GM	GN	GP	GR	GS	GT	GU
August	H	HL	HM	HN	HP	HR	HS	HT	HU
September	J	JL	JM	JN	JP	JR	JS	JT	JU
October	K	KL	KM	KN	KP	KR	KS	KT	KU
November	L	LL	LM	LN	LP	LR	LS	LT	LU
December	M	ML	MM	MN	MP	MR	MS	MT	MU

Phoenix PLK

Holding Bin Series

How to change Display Assembly (PLK17 and PLK22)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

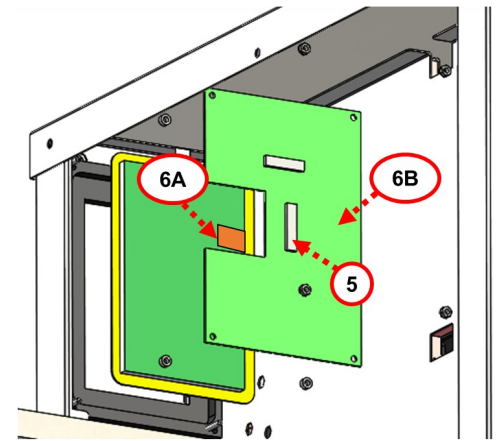
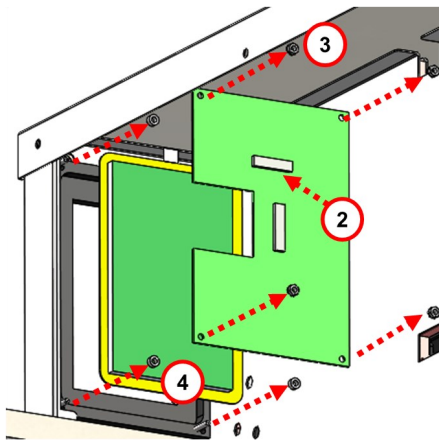
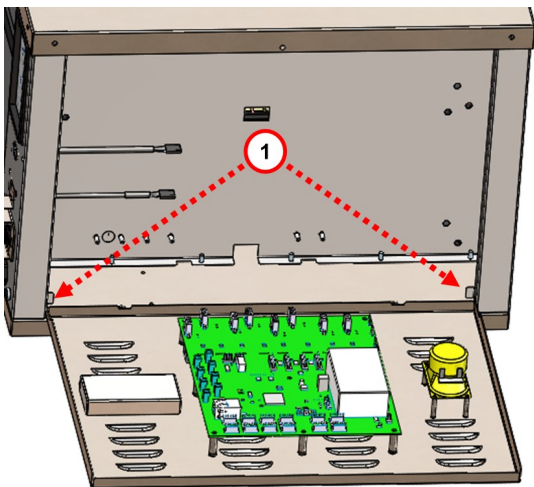
- 1) REMOVE (QTY-1) SCREW THAT HOLDS THE SIDE COVER AND PUT ASIDE. PULL UP ON HANDLE, AND CAREFULLY LAY THE COVER ON ITS SIDE, USING THE TABS TO LOCK IT OPEN AT 90° (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT THE DISPLAY RIBBON CABLE FROM THE DISPLAY PC BOARD.
- 3) REMOVE (QTY-4) NUTS THAT HOLD THE DISPLAY PC BOARD IN THE ASSEMBLY (DO NOT DISCARD HARDWARE).
- 4) **COLLECT THE WHITE SPACERS (QTY-4) FOR RE-ASSEMBLY LATER (DO NOT DISCARD HARDWARE).
**IGNORE IF UNIT SERIAL STARTS WITH "LRGK..." OR LATER
- 5) USE YOUR FINGER ON THE HEADER TAB TO UNLOCK THE RIBBON CABLE THAT CONNECTS THE DISPLAY PC BOARD AND THE LCD SCREEN.
- 6) *IF REPLACING THE LCD SCREEN, PROCEED TO 6A; IF REPLACING THE DISPLAY PC BOARD, PROCEED TO 6B.
 - A. PEEL THE STICKER FROM THE NEW LCD SCREEN AND DISCARD. INSTALL THE NEW LCD SCREEN WITH ITS AMBER-COLORED RIBBON CABLE ORIENTED AWAY FROM YOU
 - B. INSTALL NEW DISPLAY PC BOARD
- 7) MOUNT THE WHITE SPACERS FROM STEP (3) ONTO THE FOUR STUDS.
**IGNORE IF UNIT SERIAL STARTS WITH "LRGK..." OR LATER
- 8) RE-CONNECT RIBBON CABLE TO THE DISPLAY PC BOARD WITH THE BLUE SIDE FACING TOWARD YOU (ON BOTH THE LCD AND DISPLAY BOARD HEADERS).
- 9) RE-INSTALL THE DISPLAY PC BOARD ONTO THE FOUR STUDS.
- 10) USE THE NUT DRIVER TO GENTLY TIGHTEN THE NUTS FROM STEP (3) UNTIL YOU START TO FEEL RESISTANCE.
- 11) RE-CONNECT THE DISPLAY RIBBON CABLE FROM STEP (2).
- 12) DISENGAGE THE SIDE COVER TABS, AND USE THE HANDLE TO RE-INSERT THE SIDE COVER.
- 13) REPLACE THE SCREWS FROM STEP (1). POWER THE UNIT ON TO ENSURE DISPLAY FUNCTIONALITY.



TOOLS REQUIRED



*Torque to 6 in-lbs in Step 10.



Phoenix PLK Holding Bin Series

How to change Display Assembly (PLK01 and PLK18 Only)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE (QTY-4) SCREWS THAT HOLD THE LID ONTO THE UNIT TOP AND SET ASIDE.
- 2) DISCONNECT THE DISPLAY RIBBON CABLE FROM THE DISPLAY PC BOARD.
- 3) REMOVE (QTY-4) NUTS THAT HOLD THE DISPLAY PC BOARD IN THE ASSEMBLY (DO NOT DISCARD HARDWARE).
- 4) **COLLECT THE WHITE SPACERS (QTY-4) FOR RE-ASSEMBLY LATER (DO NOT DISCARD HARDWARE).
**IGNORE IF UNIT SERIAL STARTS WITH "LRGK..." OR LATER
- 5) USE YOUR FINGER ON THE HEADER TAB TO UNLOCK THE RIBBON CABLE THAT CONNECTS THE DISPLAY PC BOARD AND THE LCD SCREEN.
- 6) *IF REPLACING THE LCD SCREEN, PROCEED TO 6A; IF REPLACING THE DISPLAY PC BOARD, PROCEED TO 6B.
 - A. PEEL THE STICKER FROM THE NEW LCD SCREEN AND DISCARD. INSTALL THE NEW LCD SCREEN WITH ITS AMBER-COLORED RIBBON CABLE ORIENTED TOWARD THE POWER SWITCH
 - B. INSTALL NEW DISPLAY PC BOARD
- 7) **MOUNT THE WHITE SPACERS FROM STEP (3) ONTO THE FOUR STUDS.
**IGNORE IF UNIT SERIAL STARTS WITH "LRGK..." OR LATER
- 8) RE-CONNECT RIBBON CABLE TO THE DISPLAY PC BOARD WITH THE BLUE SIDE FACING TOWARD YOU (ON BOTH THE LCD AND DISPLAY BOARD HEADERS).
- 9) RE-INSTALL THE DISPLAY PC BOARD ONTO THE FOUR STUDS.
- 10) USE THE NUT DRIVER TO GENTLY TIGHTEN THE NUTS FROM STEP (3) UNTIL YOU START TO FEEL RESISTANCE.
- 11) RE-CONNECT THE DISPLAY RIBBON CABLE FROM STEP (2).
- 12) CLOSE THE LID, AND REPLACE THE SCREWS FROM STEP (1). POWER THE UNIT ON TO ENSURE DISPLAY FUNCTIONALITY.

TOOLS REQUIRED

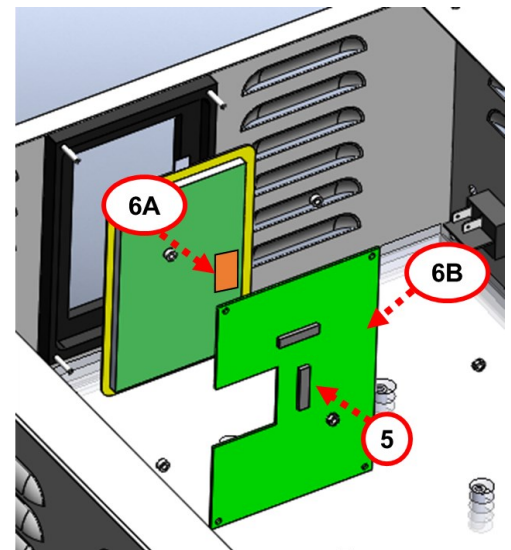
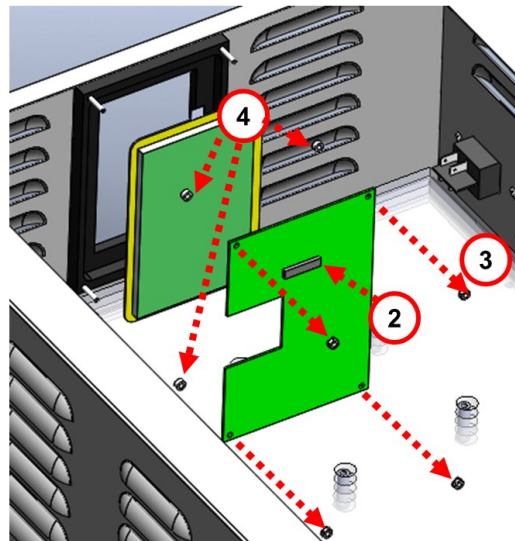
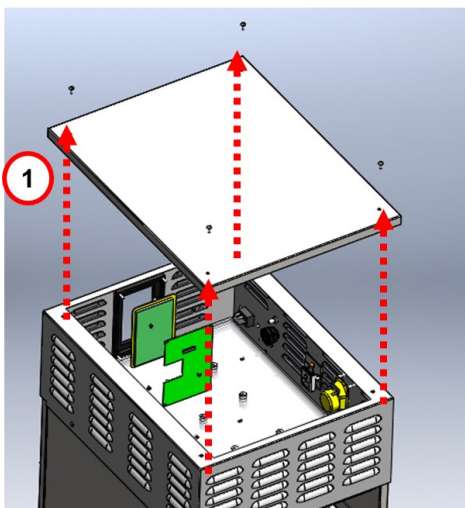


SCRERWDRIVER - #2 PHILLIPS



NUTDRIVER - M5.5

*Torque to 6 in-lbs in Step 10.



Phoenix PLK Holding Bin Series

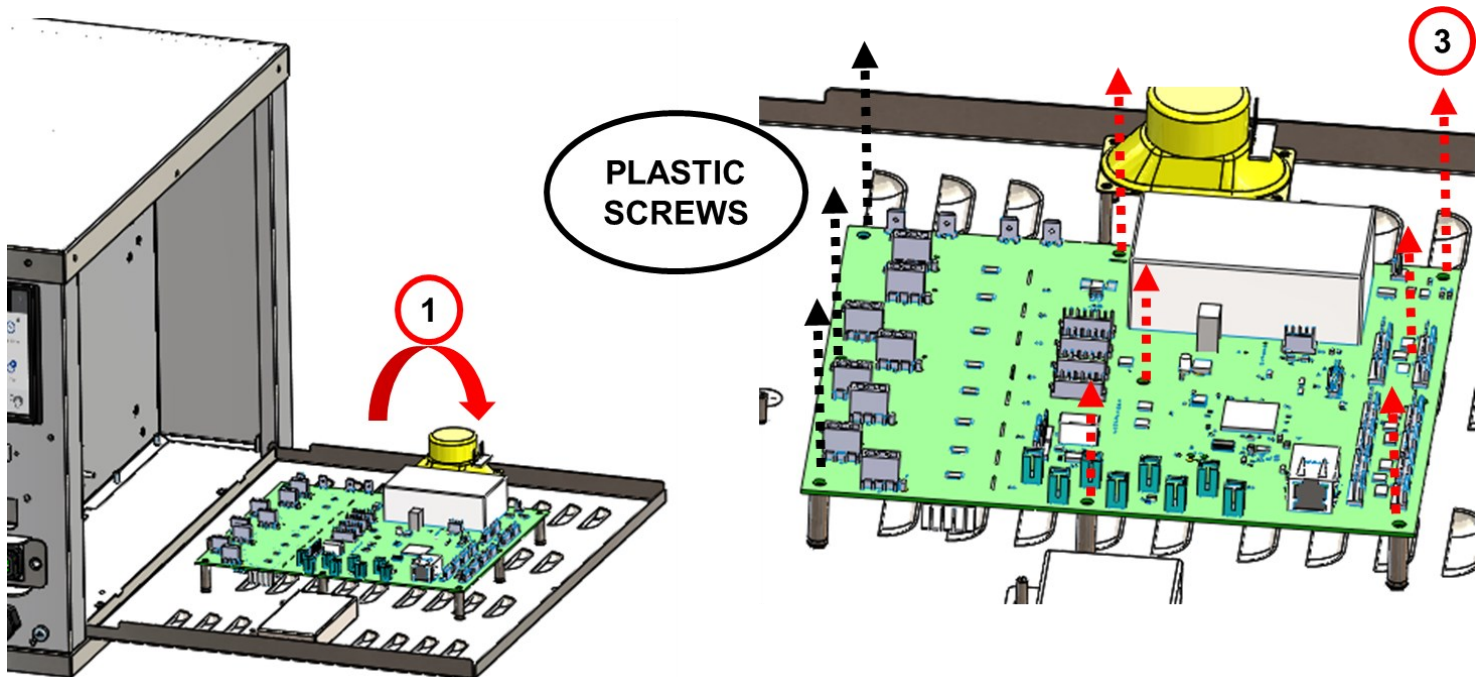
How to change PC Board (PLK17 and PLK22)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE (QTY-1) SCREW THAT HOLDS THE SIDE COVER AND PUT ASIDE. PULL UP ON HANDLE, AND CAREFULLY LAY THE COVER ON ITS SIDE, USING THE TABS TO LOCK IT OPEN AT 90° (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT ALL WIRING CONNECTIONS TO THE PC BOARD, AND NOTE THE ORIENTATION OF THE BOARD AND LOCATION OF EACH CONNECTION FOR USE WHEN INSTALLING THE NEW PC BOARD (REFER TO DIAGRAMS ON PG. 16 AND 17).
- 3) REMOVE (QTY-9) SCREWS THAT SECURE PC BOARD TO PANEL (DO NOT DISCARD HARDWARE). NOTE THE LOCATION OF THE BLACK PLASTIC SCREWS (QTY-3).
- 4) INSTALL NEW PC BOARD WITH (QTY-9) SCREWS, ENSURING THE BLACK PLASTIC SCREWS ARE RE-INSERTED INTO HOLES NOTED "PLASTIC FASTENER ONLY".
- 5) RE-ATTACH ALL WIRING AS PREVIOUSLY NOTED.
- 6) DISENGAGE THE SIDE COVER TABS, AND USE THE HANDLE TO RE-INSERT THE SIDE COVER WITHOUT PINCHING ANY WIRES. SECURE USING SCREW (QTY-1) REMOVED IN STEP (1).
- 7) POWER ON THE UNIT TO ENSURE FUNCTIONALITY. ALLOW THE UNIT TO GO TO THE HOME SCREEN AS INDICATED IN THE OPERATIONS MANUAL.

TOOLS REQUIRED



Phoenix PLK Holding Bin Series

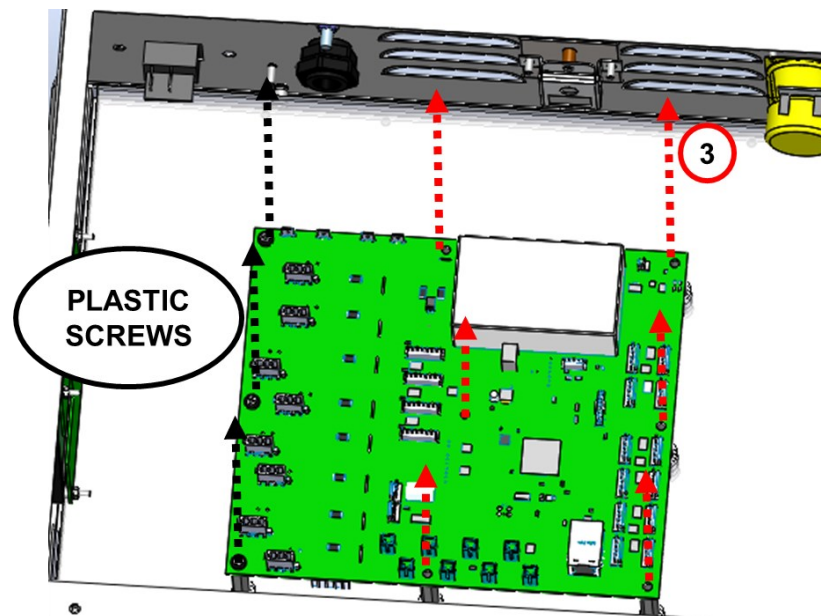
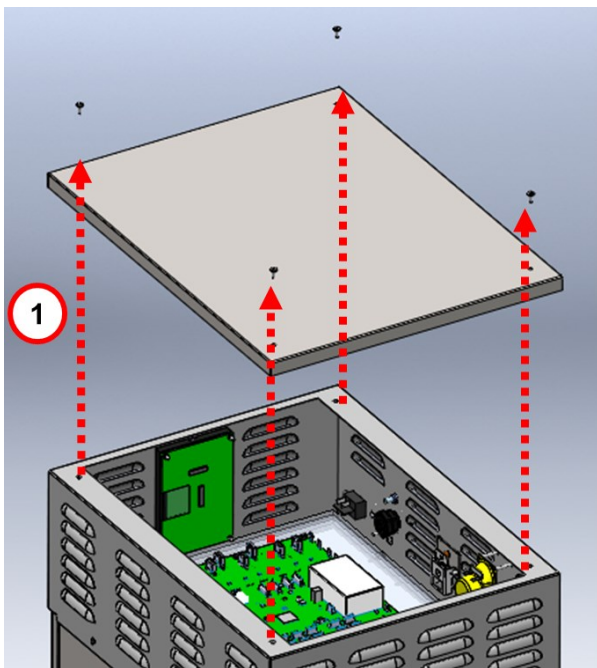
How to change PC Board (PLK01 and PLK18 Only)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE (QTY-4) SCREWS THAT HOLD THE LID ONTO THE UNIT TOP AND SET ASIDE (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT ALL WIRING CONNECTIONS TO THE PC BOARD, AND NOTE THE ORIENTATION OF THE BOARD AND LOCATION OF EACH CONNECTION FOR USE WHEN INSTALLING THE NEW PC BOARD (REFER TO DIAGRAM ON PG. 16).
- 3) REMOVE (QTY-9) SCREWS THAT SECURE PC BOARD TO PANEL (DO NOT DISCARD HARDWARE). NOTE THE LOCATION OF THE BLACK PLASTIC SCREWS (QTY-3).
- 4) INSTALL NEW PC BOARD WITH (QTY-9) SCREWS, ENSURING THE BLACK PLASTIC SCREWS ARE RE-INSERTED INTO HOLES NOTED "PLASTIC FASTENER ONLY".
- 5) RE-ATTACH ALL WIRING AS PREVIOUSLY NOTED.
- 6) CLOSE THE LID, AND REPLACE THE SCREWS FROM STEP (1).
- 7) POWER ON THE UNIT TO ENSURE FUNCTIONALITY. ALLOW THE UNIT TO GO TO THE HOME SCREEN AS INDICATED IN THE OPERATIONS MANUAL.

TOOLS REQUIRED



Phoenix PLK

Holding Bin Series

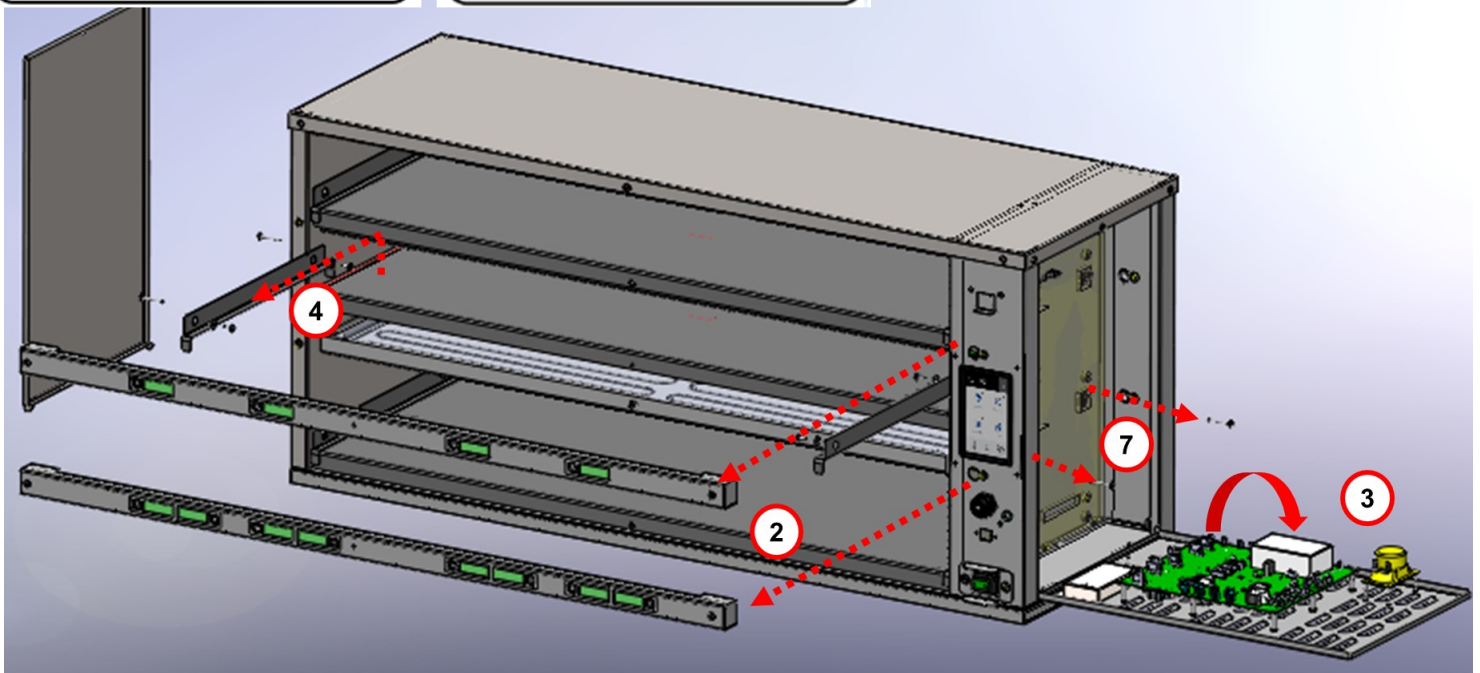
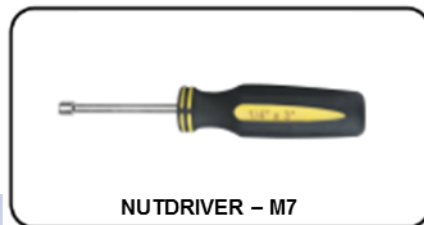
How to change Heater Panel (PLK17 and PLK22)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) SET ASIDE ALL PANS AND WIRE RACK ASSEMBLIES (PLK22 ONLY).
- 2) IF NEEDED, REMOVE TIMER BARS TO ACCESS THE HEATER PANELS (PLK22 ONLY).
- 3) REMOVE (QTY-1) SCREW THAT HOLDS THE SIDE COVER AND PUT ASIDE. PULL UP ON HANDLE, AND CAREFULLY LAY THE COVER ON ITS SIDE, USING THE TABS TO LOCK IT OPEN AT 90° (DO NOT DISCARD HARDWARE).
- 4) IF NEEDED, REMOVE (QTY-4) SCREWS AND WASHERS THAT HOLD BOTH SHELF BRACKETS ON THE UNIT (DO NOT DISCARD HARDWARE).
- 5) DISCONNECT HEATER WIRING FROM PC BOARD, NOTE THE LOCATIONS OF THE CONNECTIONS ON THE PC BOARD.
- 6) REMOVE (QTY-1) NUT THAT IS HOLDING THE GROUND WIRE TO THE UPRIGHT (DO NOT DISCARD HARDWARE).
- 7) REMOVE (QTY-4) SCREWS THAT HOLD HEATER PANEL IN PLACE (DO NOT DISCARD HARDWARE).
- 8) REMOVE HEATER INSULATION AND SET ASIDE TO REUSE WITH NEW HEATER ASSEMBLY.
- 9) PULL THE HEATER WIRES THROUGH THE RECTANGULAR OPENING IN THE UPRIGHT.
- 10) INSTALL THE NEW HEATER ASSEMBLY BY GOING THROUGH STEPS (10)-(2) IN REVERSE.
- 11) POWER ON THE UNIT, AND CALIBRATE THE NEW HEATER (SEE PROCEDURE IN OPERATIONS MANUAL).

TOOLS REQUIRED



Phoenix PLK Holding Bin Series

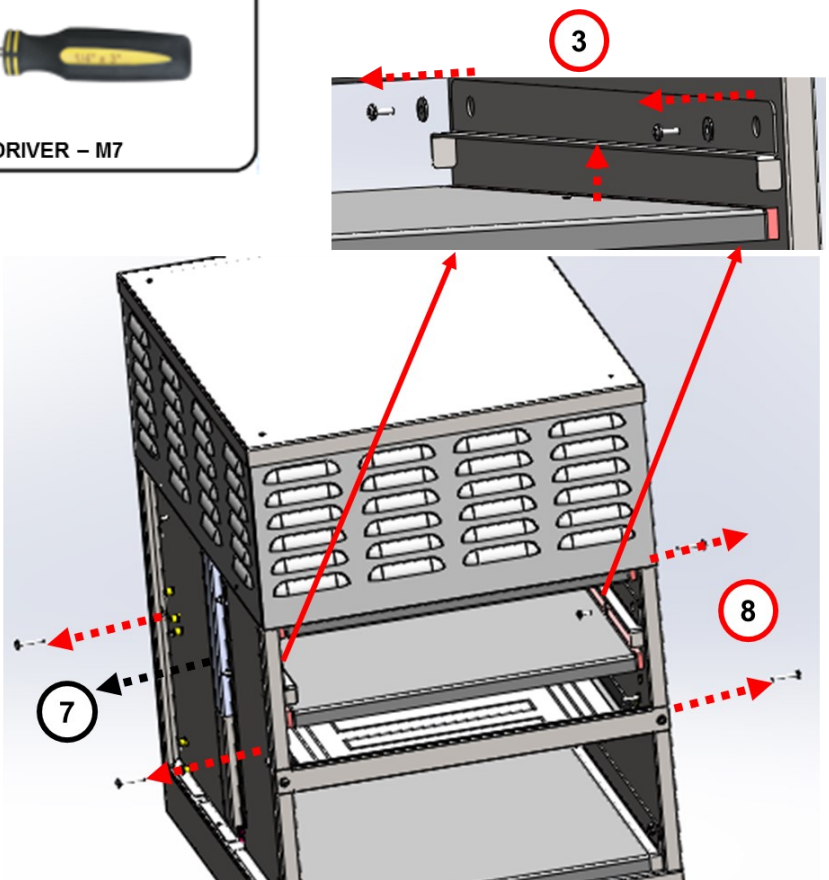
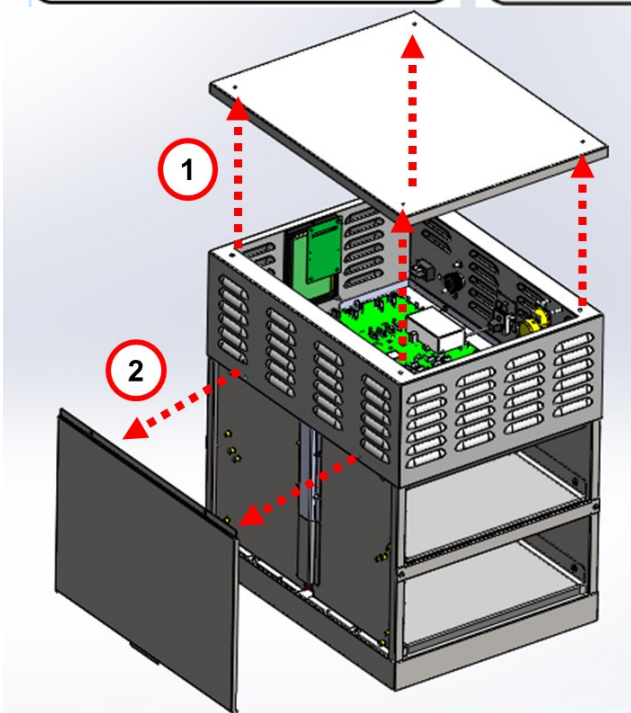
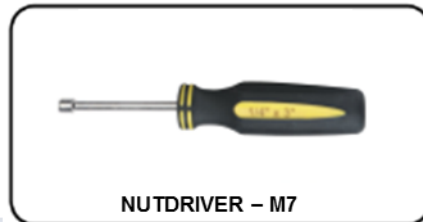
How to change Heater Panel (PLK01 and PLK18 Only)



CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE (QTY-4) SCREWS THAT HOLD THE LID ONTO THE UNIT TOP AND SET ASIDE (DO NOT DISCARD HARDWARE).
- 2) REMOVE (QTY-2) SCREWS THAT HOLD BOTH SIDE PANELS ONTO THE UNIT. LIFT THE LOUVERED TOP COVER SLIGHTLY IN ORDER TO LIFT THE SIDE PANELS UP AND OUT (DO NOT DISCARD HARDWARE).
- 3) IF NEEDED, REMOVE (QTY-4) SCREWS AND WASHERS THAT HOLD BOTH SHELF BRACKETS ON THE UNIT (DO NOT DISCARD HARDWARE).
- 4) REMOVE HEATER INSULATION AND SET ASIDE TO REUSE WITH NEW HEATER ASSEMBLY.
- 5) DISCONNECT HEATER WIRING FROM PC BOARD, NOTE THE LOCATIONS OF THE CONNECTIONS ON THE PC BOARD.
- 6) REMOVE (QTY-1) NUT THAT IS HOLDING THE GROUND WIRE TO THE UPRIGHT (DO NOT DISCARD HARDWARE).
- 7) TO ROUTE THE WIRES OUT OF THE PC BOARD AREA, REMOVE (QTY-4) NUTS THAT HOLD THE U-CCHANNEL IN PLACE. THEN FEED THROUGH OPENINGS.
- 8) REMOVE (QTY-4) SCREWS THAT HOLD HEATER PANEL IN PLACE (DO NOT DISCARD HARDWARE).
- 9) PULL THE HEATER WIRES THROUGH THE RECTANGULAR OPENING IN THE UPRIGHT, AND REMOVE THE PANEL ASSEMBLY.
- 10) INSTALL THE NEW HEATER ASSEMBLY BY GOING THROUGH THE ABOVE STEPS IN REVERSE.
- 11) POWER ON THE UNIT, AND CALIBRATE THE NEW HEATER (SEE PROCEDURE ON PG.6 OF OPERATIONS MANUAL #1265-903).

TOOLS REQUIRED



Phoenix PLK

Holding Bin Series

How to change Timer Bar (PLK22 Only)



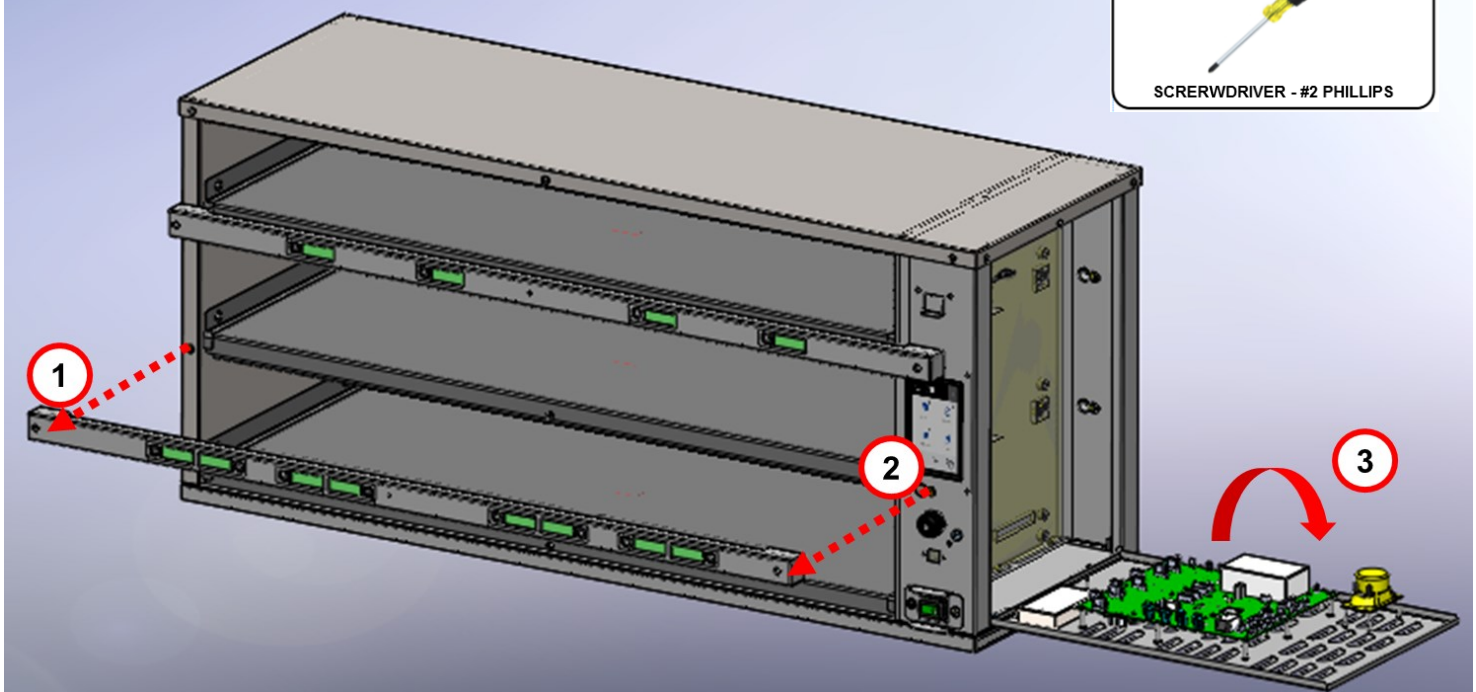
CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE (QTY-2) SCREWS THAT HOLD TIMER BARS ONTO UNIT (DO NOT DISCARD HARDWARE).
- 2) PULL THE TIMER BAR HARNESS THROUGH THE HOLE IN THE UPRIGHT. DISCONNECT IT AT THE BLACK CONNECTOR.

**IF THE HARNESS CANNOT BE PULLED THROUGH OR FALLS INSIDE THE UNIT, PROCEED TO STEP (3). OTHERWISE, PROCEED TO STEP (6).
- 3) REMOVE (QTY-1) SCREW THAT HOLDS THE SIDE COVER AND PUT ASIDE. PULL UP ON HANDLE, AND CAREFULLY LAY THE COVER ON ITS SIDE, USING THE TABS TO LOCK IT OPEN AT 90° (DO NOT DISCARD HARDWARE).
- 4) FEED THE HARNESS THROUGH THE HOLE. IF NEEDED, USE THE WIRING DIAGRAM AT THE END OF THIS MANUAL TO DETERMINE WHICH HARNESS BELONGS TO WHICH HOLE.
- 5) REMOUNT PC SIDE PANEL BACK ONTO UNIT WITH HARDWARE REMOVED IN STEP (2).
- 6) INSTALL NEW TIMER BAR BY CONNECTING IT TO THE CONNECTOR PROTRUDING FROM THE HOLE.
- 7) POWER ON THE UNIT TO ENSURE TIMER BAR FUNCTIONALITY. NOTE: YOU MUST WAIT UNTIL "WARM UP" IS DONE FLASHING IN ORDER TO ACTIVATE TIMER BUTTONS.



TOOLS REQUIRED



Phoenix PLK Holding Bin Series

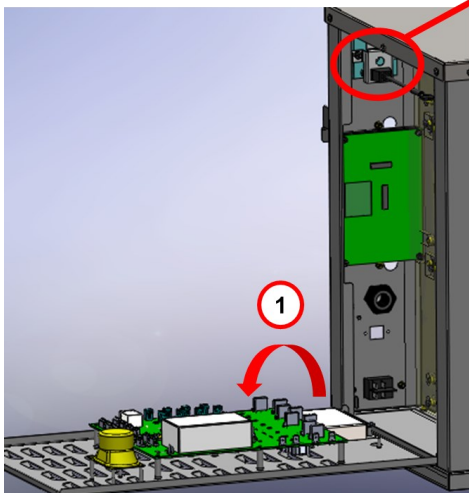
How to change USB Harness



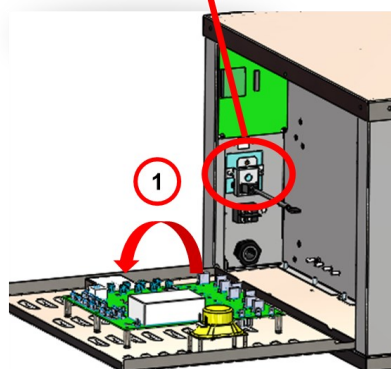
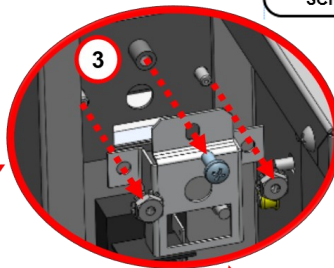
CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE SCREW(S) THAT HOLD THE COVER PANEL FOR THE CONTROL CAVITY (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT THE USB CORD FROM THE PC BOARD. NOTE THE CORRECT CONNECTION ORIENTATION: THE RED-COLORED WIRE MUST BE FACING TOWARD THE DISPLAY RIBBON CABLE PORT.
- 3) REMOVE (QTY-2) NUTS, (QTY-1) SCREW, AND BRACKET THAT HOLD USB CORD TO THE CHASSIS (DO NOT DISCARD HARDWARE).
- 4) PUT THE COVER PANEL BACK ONTO THE UNIT WITH THE SCREW(S) REMOVED IN STEP (1).

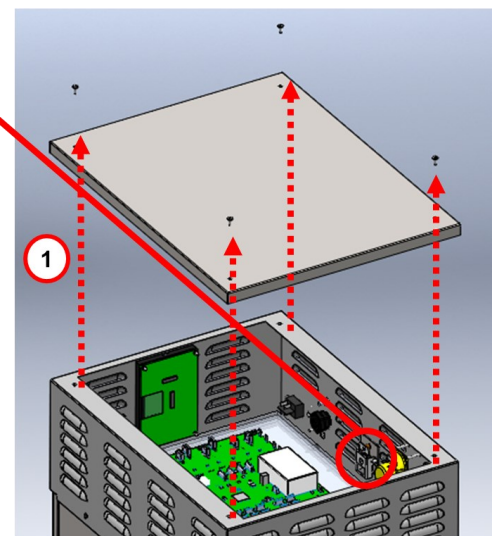
TOOLS REQUIRED



PLK22



PLK16



PLK01

Phoenix PLK Holding Bin Series

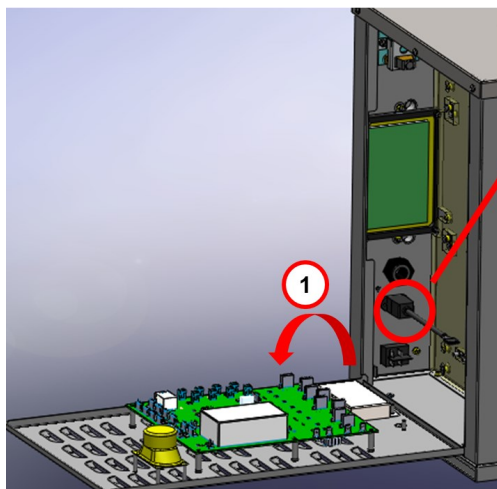
How to change Ethernet Harness



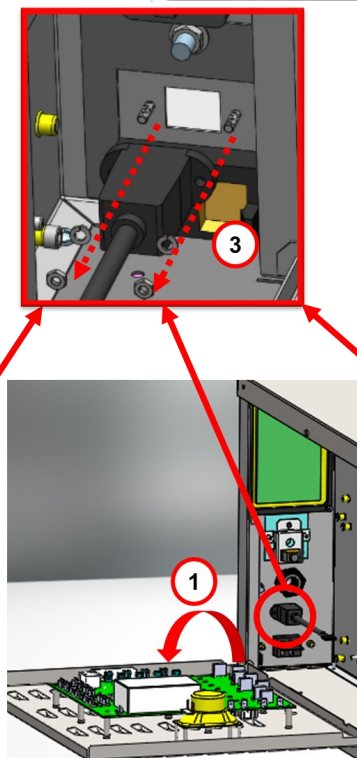
CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE SCREW(S) THAT HOLD THE COVER PANEL FOR THE CONTROL CAVITY (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT THE ETHERNET CABLE FROM THE PC BOARD.
- 3) REMOVE (QTY-2) NUTS, (QTY-2) WASHERS, AND (QTY-2) SCREWS THAT HOLD ETHERNET CABLE TO THE UPRIGHT (DO NOT DISCARD HARDWARE).
- 4) INSTALL NEW ETHERNET CABLE USING HARDWARE REMOVED IN STEP (3), AND RECONNECT TO THE PC BOARD.
- 5) PUT THE COVER PANEL BACK ONTO THE UNIT WITH THE SCREW(S) REMOVED IN STEP (1).
- 6) POWER THE UNIT ON AND ENSURE ETHERNET CONNECTIVITY.

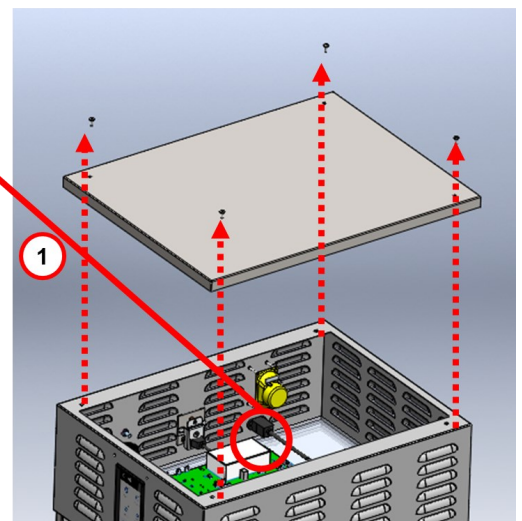
TOOLS REQUIRED



PLK22



PLK16



PLK01

Phoenix PLK Holding Bin Series

How to change Speaker

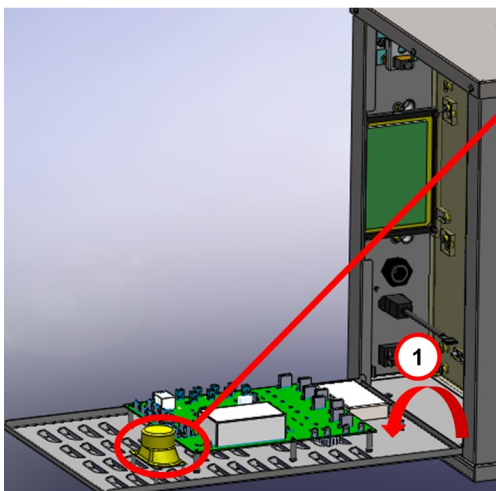


CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

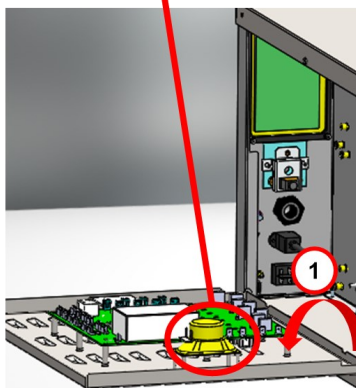
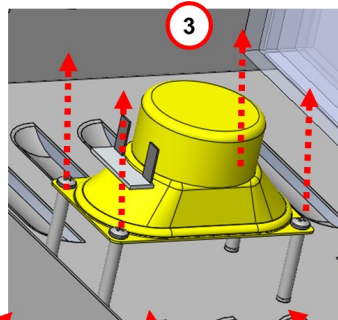
- 1) REMOVE SCREW(S) THAT HOLD THE COVER PANEL FOR THE CONTROL CAVITY (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT THE SPEAKER FROM THE PC BOARD.
- 3) REMOVE (QTY-4) SCREWS THAT HOLD THE SPEAKER TO THE CHASSIS (DO NOT DISCARD HARDWARE).
- 4) INSTALL NEW SPAKER USING HARDWARE REMOVED IN STEP (3), AND RECONNECT TO THE PC BOARD.
- 5) PUT THE COVER PANEL BACK ONTO THE UNIT WITH THE SCREW(S) REMOVED IN STEP (1).
- 6) POWER THE UNIT ON AND ENSURE SPEAKER SOUND (REFER TO THE SECTION "CHANGING ALARM VOLUME" IN THE OPERATIONS MANUAL).



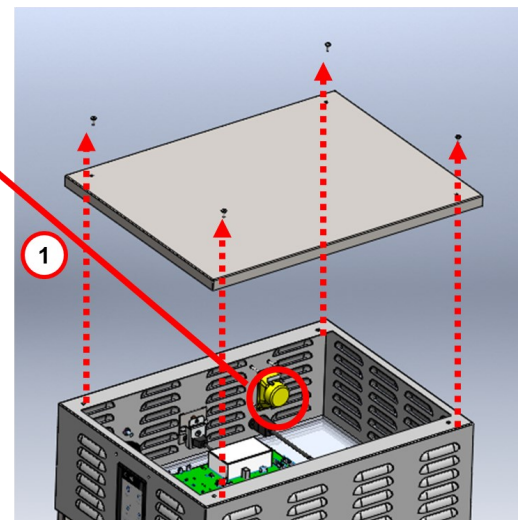
TOOLS REQUIRED



PLK22



PLK16



PLK01

Phoenix PLK

Holding Bin Series

How to change Power Cord

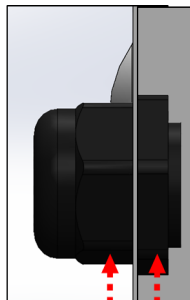
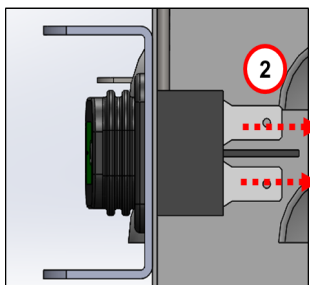
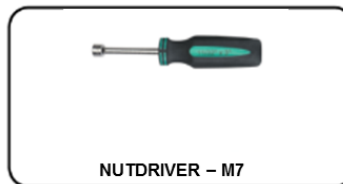


CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

- 1) REMOVE SCREW(S) THAT HOLD THE COVER PANEL FOR THE CONTROL CAVITY (DO NOT DISCARD HARDWARE).
- 2) USE NEEDLE NOSE PLIERS TO REMOVE THE POWER CORD TERMINALS FROM THE SWITCH.
- 3) REMOVE (QTY-1) NUT THAT SECURES THE GREEN WIRE OF THE POWER CORD TO THE CHASSIS (DO NOT DISCARD HARDWARE).
- 4) USE A WRENCH ON EITHER SIDE OF THE STRAIN RELIEF TO LOOSEN FROM CHASSIS (DO NOT DISCARD HARDWARE).
- 5) TWIST THE STRAIN RELIEF AT THE OUTER HEX NUT TO RELEASE THE POWER CORD.
- 6) PULL THE ORIGINAL POWER CORD OUT OF THE STRAIN RELIEF, AND FEED THE NEW CORD INTO THE STRAIN RELIEF HOLE.
- 7) INSERT THE NEW CORD WITH STRAIN RELIEF INTO THE CHASSIS HOLE. SECURE USING THE NUT ON THE INSIDE.
- 8) CONNECT THE NEW POWER CORD TERMINALS TO THE SWITCH. THE BLACK WIRE OR THE WIRE MARKED "L" GOES TO THE TOP SPADE; THE WHITE WIRE OR THE UNMARKED WIRE (NEUTRAL) GOES TO THE BOTTOM SPADE. NOTE: YOU MAY ALSO DETERMINE ORIENTATION BY MATCHING WITH THE WIRES GOING TO THE CIRCUIT BOARD.
- 9) SECURE THE NEW GREEN WIRE TO THE CHASSIS USING THE STUD AND NUT IN STEP (3).
- 10) GIVE 4" OF SLACK FOR THE POWER CORD ON THE INSIDE BEFORE TIGHTENING THE STRAIN RELIEF (CLOCKWISE).
- 11) CLOSE THE COVER PANEL, AND REPLACE THE SCREW(S) FROM STEP (1). POWER THE UNIT ON TO ENSURE FUNCTIONALITY.



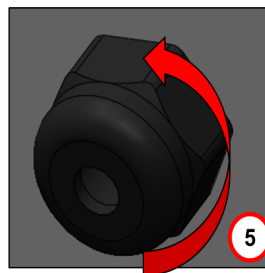
TOOLS REQUIRED



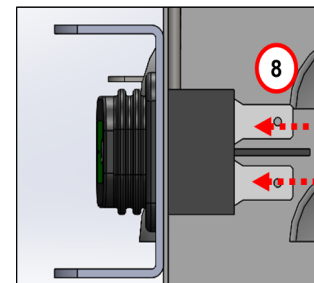
Turn counterclockwise (outside hex nut)

Hold in place (inside hex nut)

4



5



BLACK / BROWN / "L"

WHITE / BLUE

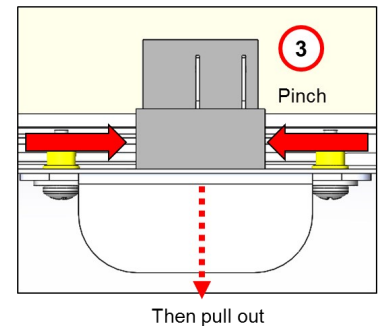
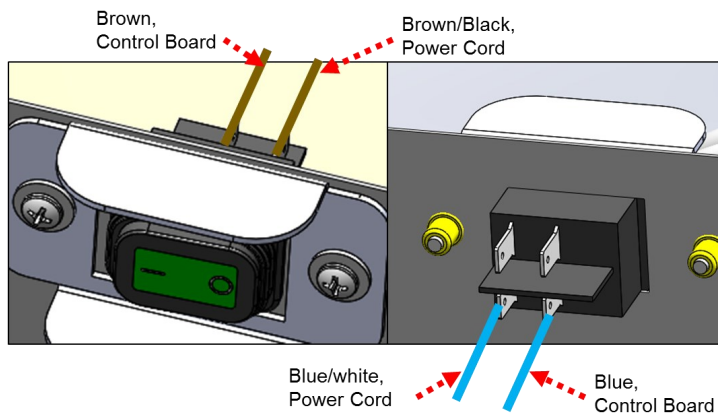
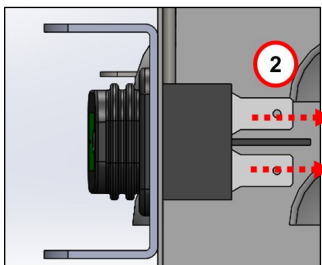
Phoenix PLK Holding Bin Series

How to change Power Switch



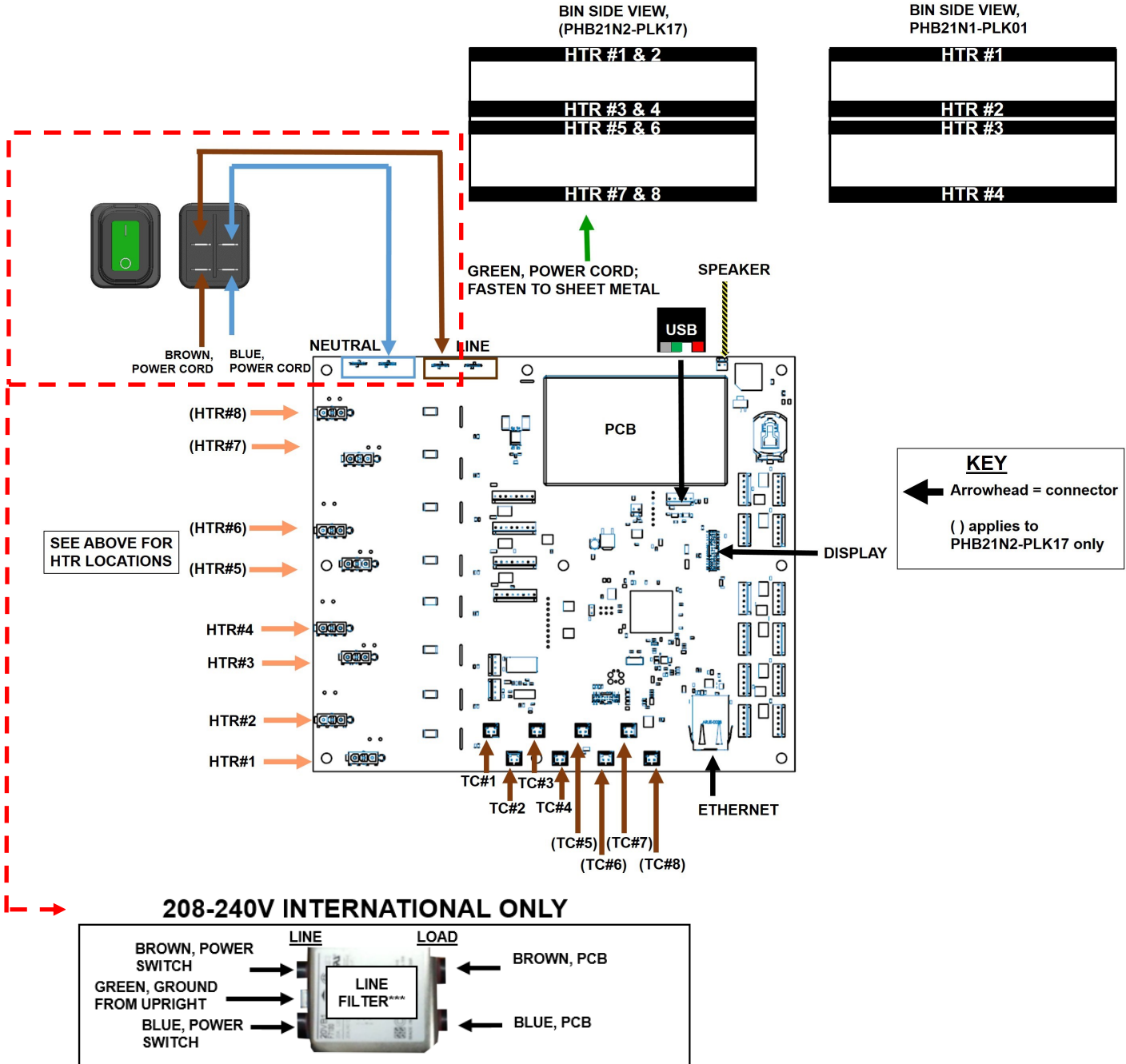
- 1) REMOVE SCREW(S) THAT HOLD THE COVER PANEL FOR THE CONTROL CAVITY (DO NOT DISCARD HARDWARE).
- 2) USE NEEDLE NOSE PLIERS TO REMOVE THE TERMINALS FROM THE SWITCH.
- 3) SQUEEZE THE POWER SWITCH AT THE TABS FROM THE INSIDE OF THE CHASSIS, AND PRY IT OUT.
- 4) SNAP THE NEW POWER SWITCH ASSEMBLY INTO PLACE IN THE SAME ORIENTATION AS IN STEP (2).
- 5) RE-CONNECT THE TERMINALS IN THE SAME POSITIONS AS STEP (2).
- 6) CLOSE THE COVER PANEL, AND REPLACE THE SCREW(S) FROM STEP (1). POWER THE UNIT ON TO ENSURE FUNCTIONALITY.

TOOLS REQUIRED



Phoenix PLK Holding Bin Series

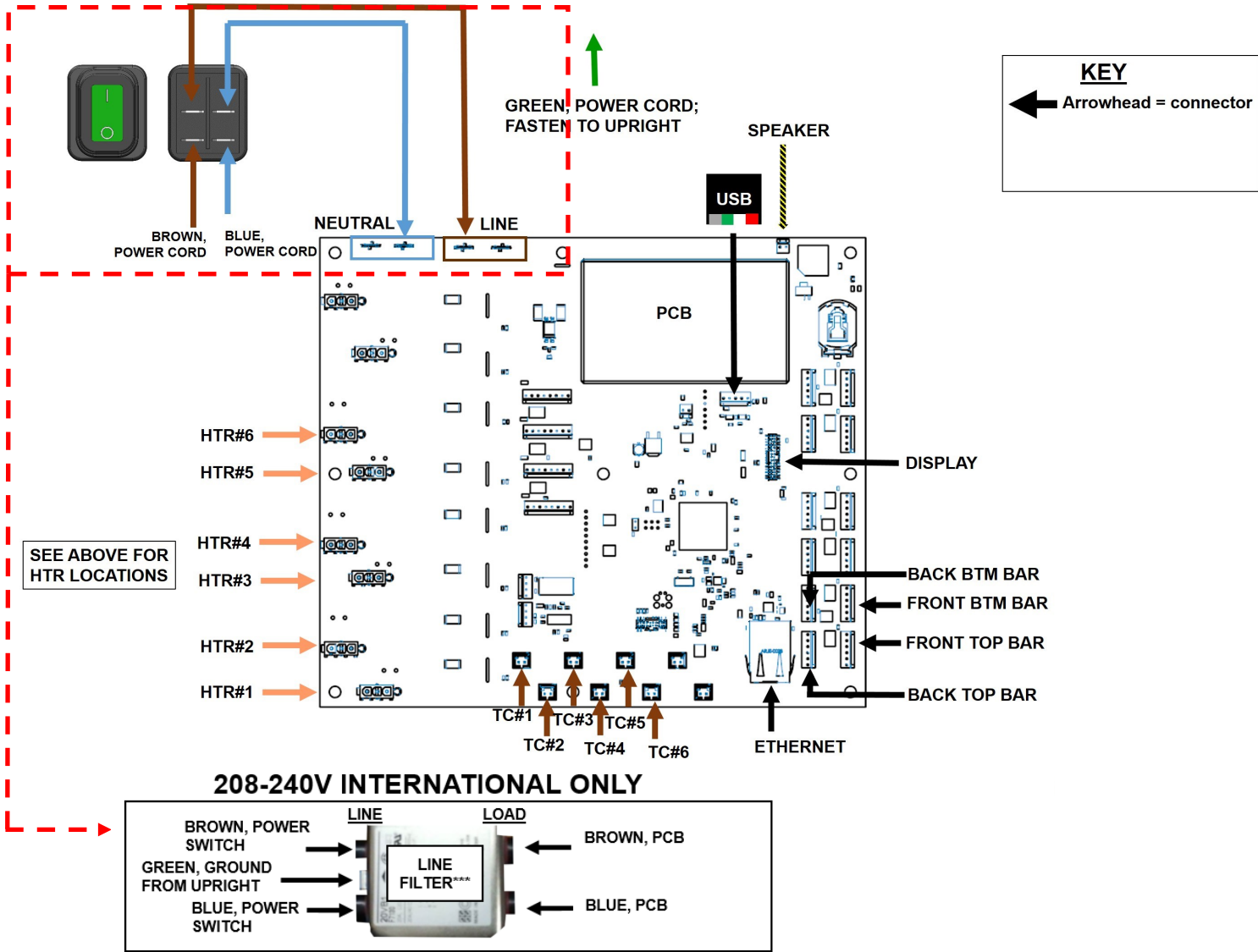
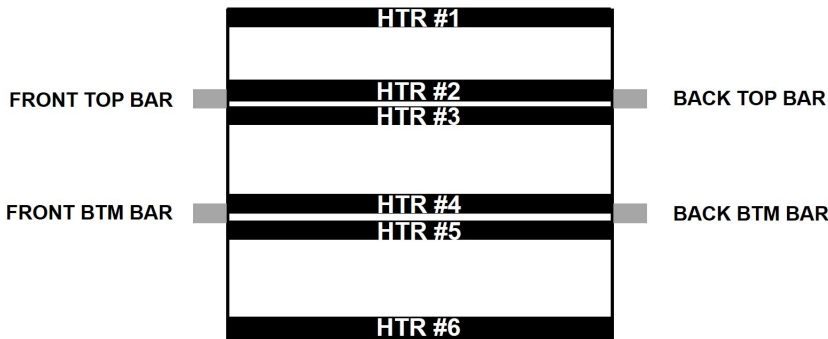
Wiring Diagrams



Phoenix PLK Holding Bin Series

Wiring Diagrams (PLK22 Only)

BIN SIDE VIEW



KEY

← Arrowhead = connector

Phoenix PLK

Holding Bin Series

Troubleshooting



WARNING

To avoid possible personal injury and/or damage to the unit, inspection, test and repair of electrical equipment should be performed by qualified service personnel. The unit should be unplugged when servicing, except when electrical tests are required. Use extreme care during electrical circuit tests. Live circuits will be exposed.



WARNING

BURN/ELECTRICAL SHOCK HAZARD! Bins are HOT and can cause severe burns or severe shock.

Keep hands and objects out of the unit! Failure to exercise caution may result in serious injury.

Let the unit cool down completely, turn it off and unplug it before touching or working on internal apparatus. The plug removed from the outlet shall remain clearly visible to the operator during the maintenance procedure.

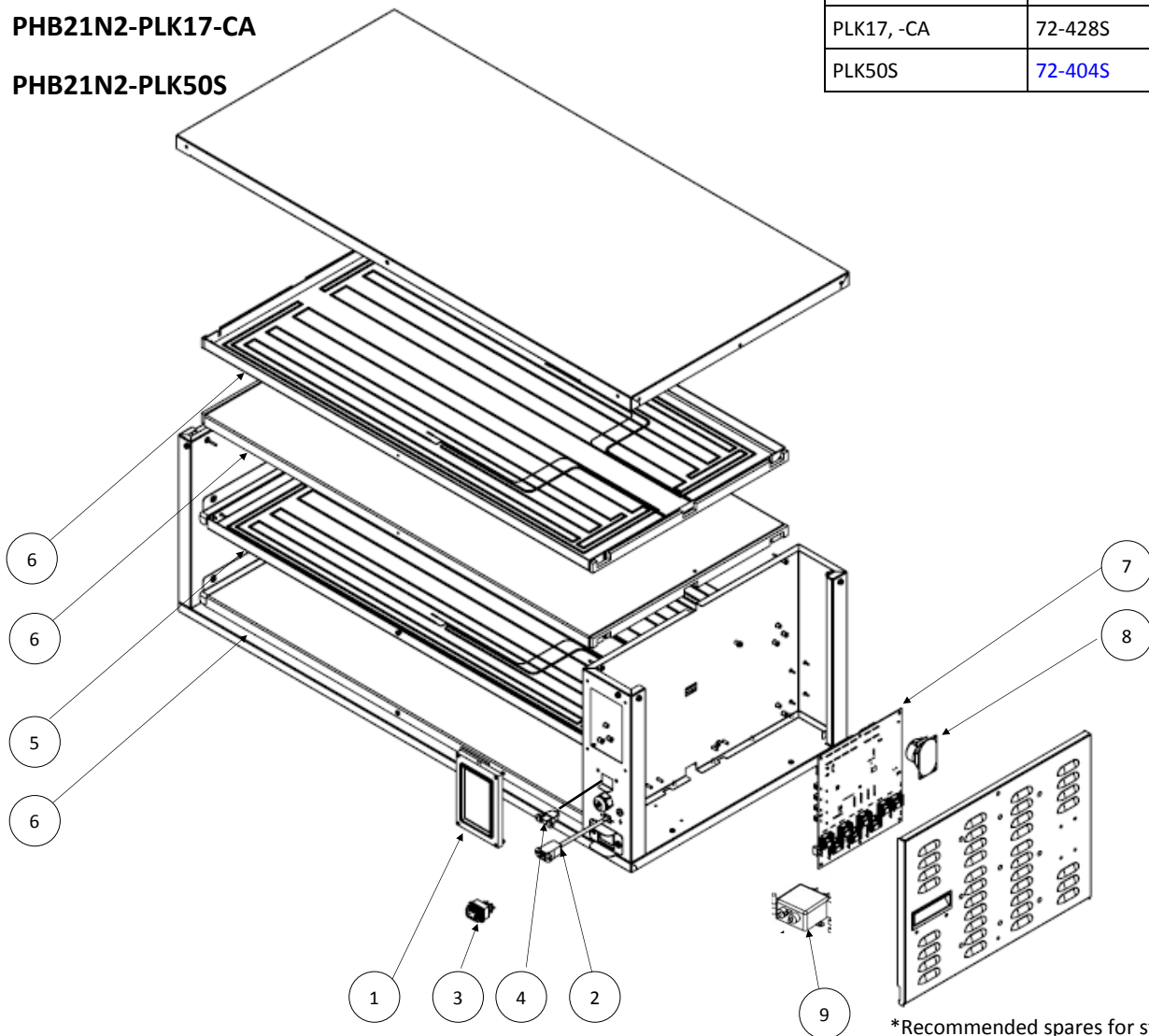
PROBLEM	POSSIBLE CAUSE	SOLUTION
Unit has no power	Unit unplugged.	Plug unit in.
	Breaker tripped.	Check condition of power cord; replace if needed. Reset breaker.
	Loose connection on power switch.	A) Correct any loose or missing connections at power switch. B) Probe the power switch terminals. Each should output 120V (if 208-240V unit); if not the case, replace power switch.
	Inoperable power switch.	C) Repeat (B) at the control board; if not the case, replace control board.
E01 through E40 code visible on display	Sensor XX Error: Sensor is in either short or open condition. XX = sensor number in the range [1,40]	A) Disconnect then re-connect thermocouple into control board. B) Check resistance between wires. Should not exceed 10 Ohms. C) Plug known working thermocouple into port on control board that is displaying error. If error persists, replace control board; otherwise, replace heater assembly.
E41 through E80 code visible on display	Heater XX Error: Heater is not heating up according to temp feedback. XX = heater number in the range [1,40]	A) Disconnect then re-connect heater into control board. B) Check resistance between wires. Each heater should output PHB21N1-PLK01: 41.8 - 48.4 Ohms PHB21N2-PLK17: 148.2 - 171.6 Ohms PHB34R2-PLK22: 86.4 - 100.1 Ohms C) Plug known working heater into port on control board that is displaying error. If error persists, replace control board; otherwise, replace heater assembly.
E81 code visible on display	Non-Volatile Memory Error: Failed to make data persistent.	Replace control board.
E82 code visible on display	EEPROM Data Corrupt Error: CRC mismatch.	Replace control board.
E83 code visible on display	USB File Upload Error: File operation error or CRC mismatch of file contents.	A) Make sure there is only 1 file in USB drive with (*.bin, *.tun, *.mnu) file extensions; these cannot be embedded within a file folder. B) Do not turn off unit while USB operation is in progress.
E84 code visible on display	System Configuration Error: System configuration mismatch.	A) Check that all button bar connections are plugged into control board in correct positions (i.e. front top bar should be in "MAIN1"). B) Delete error from notification screen, then power cycle.
E85 code visible on display	Menu/Tunable Error: Corruption of stored menu file and tunable parameters.	Check if file was generated correctly from PC tool.
E86 code visible on display	Buttons Error: Buttons stuck in button bar	A) Check that each button can be depressed. If only one button gives no response, replace button bar; otherwise, go to (B). B) Disconnect then re-connect button bar from control board. If error persists, replace button bar.
Cleaning Notification visible on display	This indicates cleaning is required. It appears every 8 hrs.	Clean unit (see <i>Cool Down</i> and <i>Cleaning</i> sections).
Upgrade Successful Notification visible on display	This appears after USB upgrade.	Delete notification (see <i>Updating Software</i> section).

Phoenix PLK Holding Bin Series

Exploded View

PHB21N2-PLK17
PHB21N2-PLK17-CA
PHB21N2-PLK50S

Model Ends in...	Power Cord
PLK17, -CA	72-428S
PLK50S	72-404S



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	1265-001S	LCD ASSEMBLY	5	1265-011S**	HEATER, MID LOWER
1A	1265-408S*	LCD SCREEN	6	1265-012S**	HEATER, MID UPPER
1B	7500-031S	LCD ADAPTER BOARD	7	1265-019S*	CONTROLLER PCB
2	95-2011S	ETHERNET CONNECTOR	8	88-709-2-11S	SPEAKER
3	78-184S	POWER SWITCH	9	88-824S	LINE FILTER (SEE WIRING
4	95-1819S	USB CORD			

*Recommended spares for stocking

**For PLK17-CA, use the following heater service kits:

ITEM NO.	PART NUMBER	DESCRIPTION
5	1265-027S**	HEATER, MID LOWER
6	1265-028S**	HEATER, MID UPPER

Phoenix PLK

Holding Bin Series

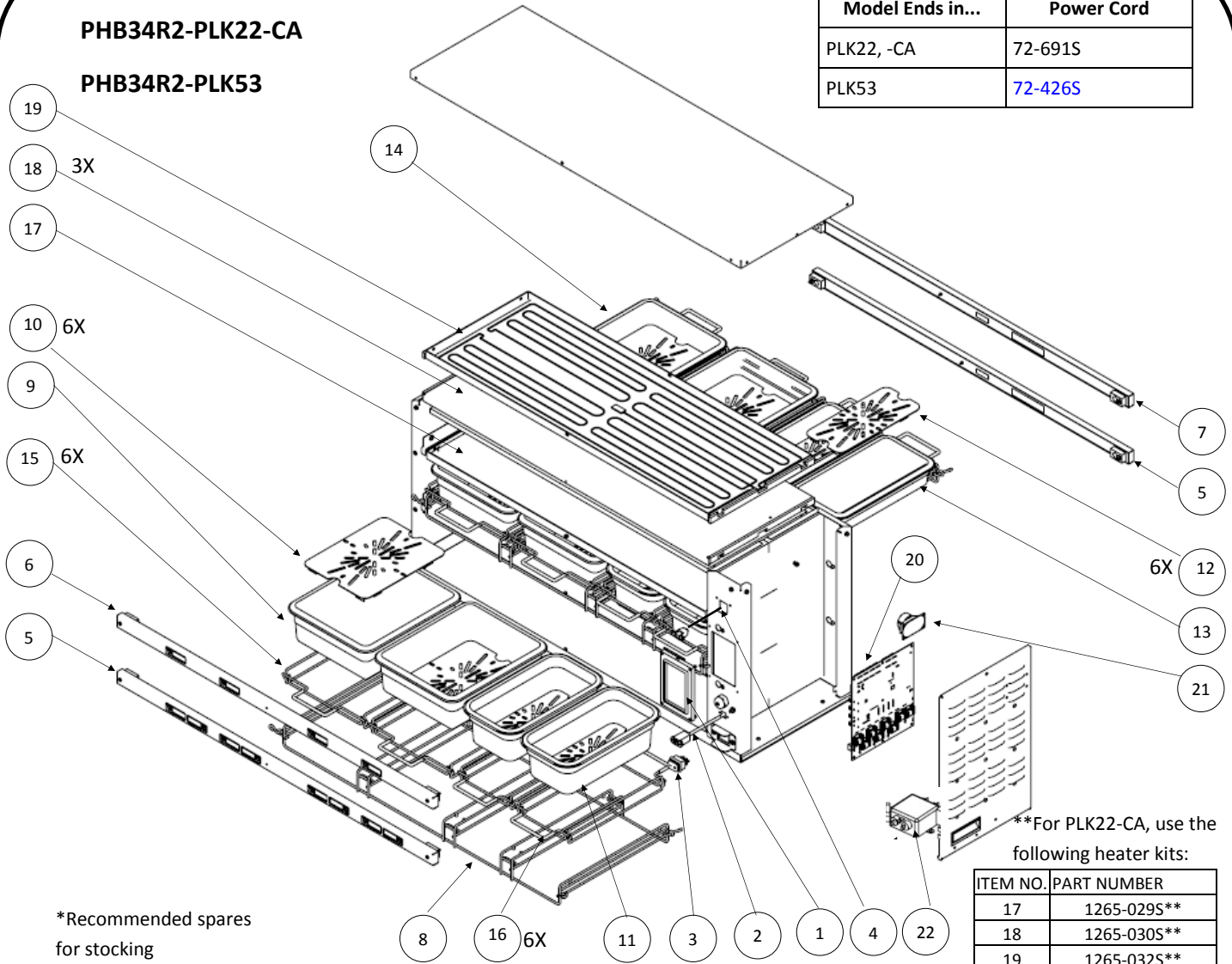
Exploded View

PHB34R2-PLK22

PHB34R2-PLK22-CA

PHB34R2-PLK53

Model Ends in...	Power Cord
PLK22, -CA	72-691S
PLK53	72-426S



*Recommended spares for stocking

ITEM NO.	PART NUMBER
17	1265-029S**
18	1265-030S**
19	1265-032S**

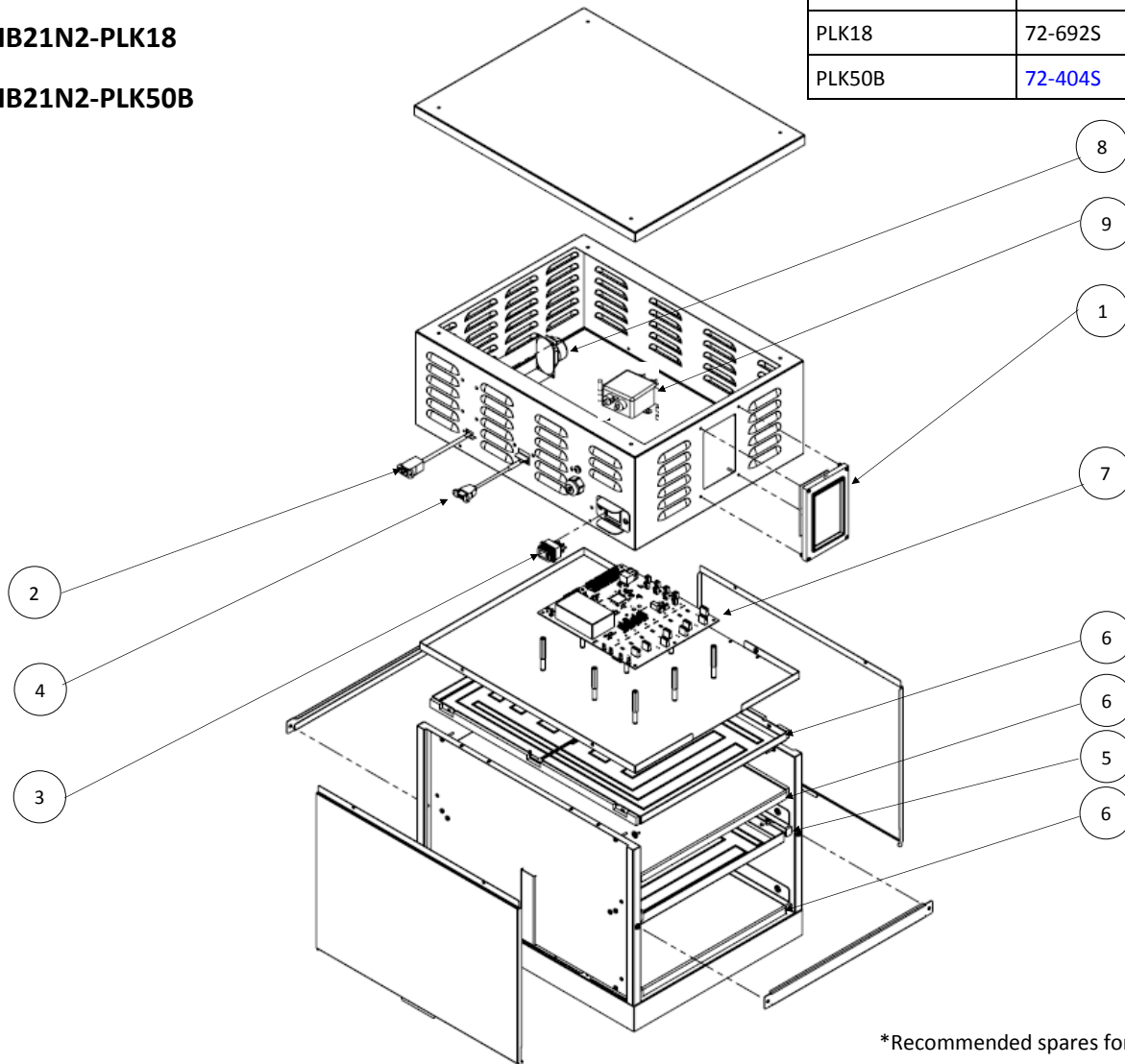
ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	1265-001S	LCD ASSEMBLY	7	1265-009S*	TIMER BAR, UPPER BACK	15	542-763S	PAN GLIDE, 1/2-SIZE
1A	1265-408S*	LCD SCREEN	8	1265-600S	SHELF PAN RACK	16	541-142S	PAN GLIDE, 1/3-SIZE
1B	7500-031S	LCD ADAPTER BOARD	9	541-1405S	PAN, 1/2-SIZE, 4" DEEP	17	1265-003S**	HEATER, MID LOWER
2	95-2011S	ETHERNET CONNECTOR	10	86-168-2A	TRIVET, 1/2-SIZE (6-PK)	18	1265-004S**	HEATER, MID UPPER
3	78-184S	POWER SWITCH	11	541-1556S	PAN, 1/3-SIZE, 4" DEEP	19	1265-005S**	HEATER, TOP
4	95-1819S	USB CORD	12	86-168-3A	TRIVET, 1/2-SIZE (6-PK)	20	1265-018S*	CONTROLLER PCB
5	1265-006S*	TIMER BAR, LOWER SHELF	13	541-1397S	PAN, 1/3-SIZE, 2.5" DEEP	21	88-709-2-11S	SPEAKER
6	1265-008S*	TIMER BAR, UPPER FRONT	14	541-1398S	PAN, 1/2-SIZE, 2.5" DEEP	22	88-799S	LINE FILTER (SEE WIRING DIAGRAM)

Phoenix PLK Holding Bin Series

Exploded View

PHB21N1-PLK01
PHB21N2-PLK18
PHB21N2-PLK50B

Model Ends in...	Power Cord
PLK01	72-200-30S
PLK18	72-692S
PLK50B	72-404S



*Recommended spares for stocking

**For PLK18 and PLK50B, use the following heater service kits:

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	1265-001S	LCD ASSEMBLY	5	1265-013S**	HEATER, MID LOWER
1A	1265-408S*	LCD SCREEN	6	1265-014S**	HEATER, MID UPPER
1B	7500-031S	LCD ADAPTER BOARD	7	1265-020S*	CONTROLLER PCB
2	95-2011S	ETHERNET CONNECTOR	8	88-709-2-11S	SPEAKER
3	78-184S	POWER SWITCH	9	88-824S	LINE FILTER (SEE
4	95-1819S	USB CORD			

ITEM NO.	PART NUMBER	DESCRIPTION
5	1265-025S**	HEATER, MID LOWER
6	1265-026S**	HEATER, MID UPPER

Phoenix PLK

Holding Bin Series

REV.	DATE	DESC.
A	05/18/2020	RELEASE
B	08/18/2020	UPDATED ELECTRICAL RATINGS
C	10/13/2020	ADDED NO-LIFT AND NO-LOAD WARNINGS TO INSTALLATION SECTION AND SECTIONS PERTAINING TO PHB34R2-PLK22 SERVICE; MODEL CHANGE FROM PLK16 TO PLK17
D	11/16/2020	ADDED SERIAL NUMBER MATRIX.
E	05/13/2021	Updated error codes in Troubleshoot section. Added international and Canadian SKUs