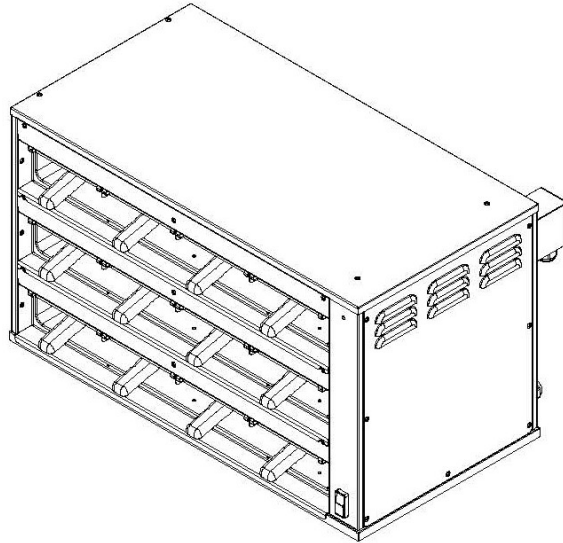




INSTALLATION INSTRUCTIONS For “IRHS” and “IRHSE” Timer Bars



IMPORTANT INFORMATION, READ BEFORE INSTALLING

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I. Warnings and Safety

- A. Make sure unit is unplugged before servicing.
- B. Read these instructions completely before proceeding.
- C. Front of unit is identified as the Power Switch Side.
- D. To be performed by Duke personnel and/or specially trained service agents.

II. Tools Required

- A. Cordless Drill
- B. Center Punch
- C. #32 Drill
- D. Phillips Tip
- E. 10MM Driver with extension



III. Kit Parts

- A. Based on Model and “Front”, or “Front and Back” Timer Bars. See kits list Appendix A.

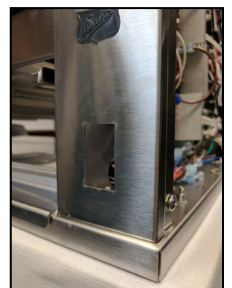
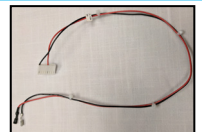
IV. Removal of Visor Timer Panels (TP)

- A. Remove power supply for all Timer panels. (wall wart)
- B. Remove 4 mounting Screws and any ground connectors if grounded separately. (and set aside)
- C. Remove Timer panels and power cords.
- D. Blind fill holes where Timer panels were mounted with saved mounting screws from step B.



V. Prepare unit for Timer Bars – Front of unit

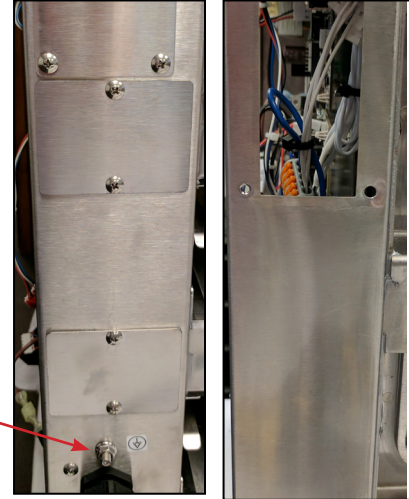
- A. Remove side panel on control side and set aside to re-install later
- B. Remove all cover plates on front. Disconnect LED light from top plate
- C. Remove wire harness for LED from unit and discard.
- D. Disconnect wires from main power switch
- E. Remove switch from unit and discard



VI. Prepare unit for Timer Bars – Back of unit

Note: If Timer Bars are not to be installed skip to next section

- A. Remove rear cover plates.
- B. Remove grounding nut just above power cord and **save to re-install later.**



VII. Drilling Holes to mount Timer Bars

Note: For IRHS units ONLY - NOT IRHSE

- A. Using Template provided Mark or center punch end of unit for Timer Bar mounting holes. (opposite control panel)
1. For 1 Timer Bar on front only two holes
 2. For 1 Timer Bar front and back 2 sets of holes
 3. For 2 Timer Bars on front only 2 sets of holes
 4. For 2 Timer Bars front and back 4 sets of holes

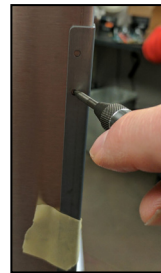
Complete for both sides if rear Timer Bars are required.

- B. Using a washer style magnet and a #32 drill bit drill out all required holes

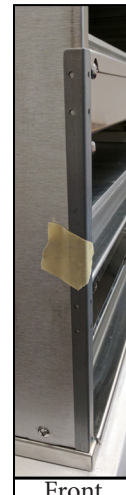
“Caution”: Carefully make sure all metal shavings are cleaned out of control compartment.



Template



Set Template with holes to the top on lower liner. See picture



Front



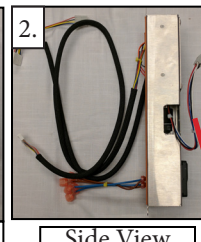
Rear if required

VIII. Installing Front Day Part Box Assembly

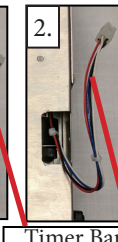
- A. Front of Unit Box Assembly
1. Locate Front day part box assembly with wire harness. Pictures shown are for two wells high 1 Timer Bar.
 2. Make sure wires for Timer Bars are extended through side of box as shown in picture.
 3. Feed three of the wire harnesses through the old switch opening.
 4. Secure Box at top using hardware enclosed. 8-32 Bolt & Nut or 2ea. 8-32 bolts based on type of unit.



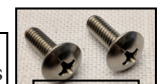
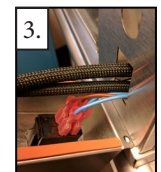
Front View



Side View



Timer Bar Wire Harness



8-32



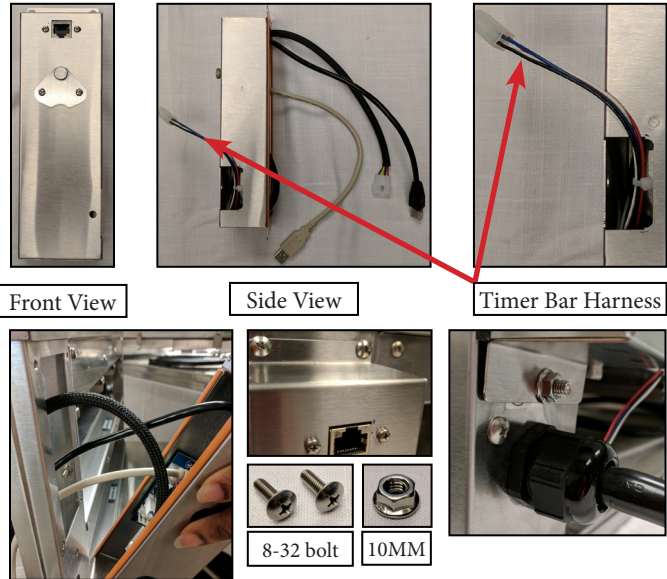
Note: Do not tighten bolts at this time.

“IRHS” “IRHSE” Timer Bar Installation Instructions

C. Rear Box Assembly

**Note: Complete only if rear Timer Bars are needed
If not proceed to next section.**

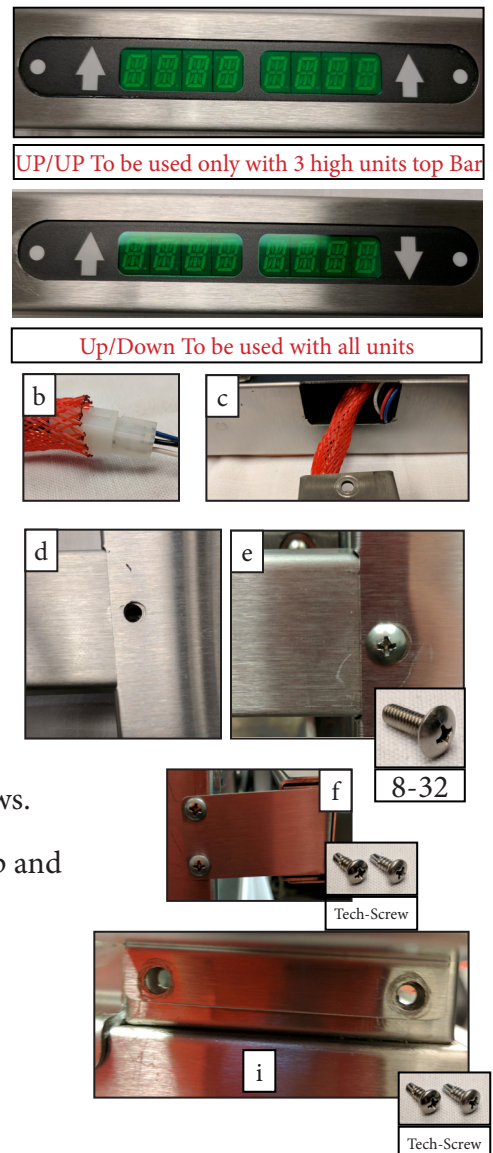
1. Locate back box assembly with wire harness.
2. Make sure wires for Timer Bars are extended through side of box as shown in pictures.
3. Feed the Black wire harness, USB cable and Ethernet cable through top cutout on back of unit.
4. Using two 8-32 Bolts secure top of box and tighten.
5. Secure bottom of box using the #10mm nut removed earlier and tighten.



IX. Installing Timer Bars

Note: If unit requires more than 1 Timer Bar per side:
2 Wells High – 1 Timer Bar up/down arrows
4 Wells High – 2 Timer Bars up/down arrows
3 Wells High – 1 Top Timer Bar always has all arrows pointing up, Bottom Timer Bar has up/down arrows.

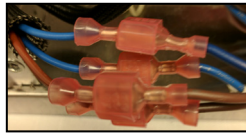
1. Front Timer Bars
 - a. Based on above select the proper Timer Bar to be installed
 - b. Plug the Timer Bar harness to harness from the box. (b)
 - c. Push wires and connection into box. (c)
 - d. Push Timer Bar into box until the holes lines up. (d)
 - e. Using an 8-32 bolt secure end of Timer Bar. (e)
- Note: do not tighten until all bolts and screws have been started**
 - f. Using Tech Screws provided secure other end of Timer Bar.
 - g. If more than 1 Timer Bar repeat steps “a-f” for each Timer Bar
 - h. When all Timer Bars are in place tighten all bolts and tech screws.
 - i. Making sure front panel is straight on control panel hold box up and drill two holes using a #32 drill bit and the box as a template.
 - j. Secure bottom with 2 tech screws provided in kit.
2. Rear Timer Bars - if required, repeat steps “a-j”



X. Connecting Wire Harnesses

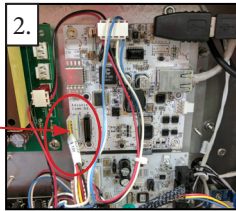
A. Front Box Assembly

- Using wire harness off the lower switch connect to the four wires removed from the switch earlier.

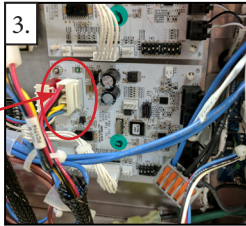


Caution: Make sure color of wires are matched up
“Blue to Blue”. “Brown to Brown”

- Using wire harness with 8 Pin connector plug into **top** PCB board.



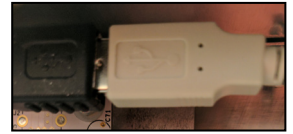
- Using Wire Harness with 5 pin connector plug into the bottom power board.



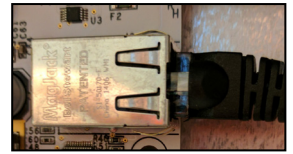
B. Rear Box Assembly

Note: For rear Timer Bars only

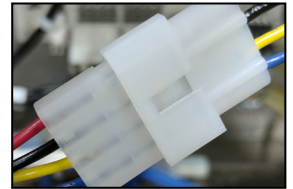
- Connect USB cable to USB connection on top PCB board.



- Connect the Ethernet cable to the Ethernet connection on top PCB board.



- Connect 4 pin connection to the wire harness from the box assembly.



XI. Power Supply replacement

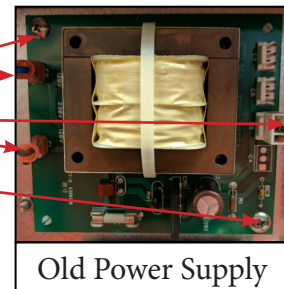
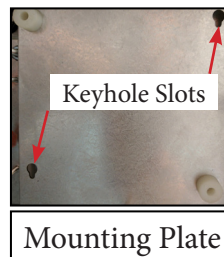
Note: This Section is for when a power supply is included in kit.

Please use ESD strap provided in kit when changing out the power supply.

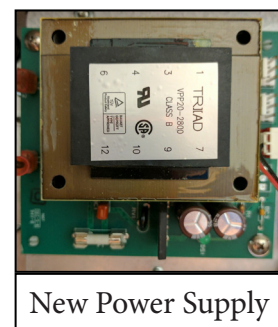
- Remove wires –
 - Two on left – Quick Disconnect
 - 3 pin connector on right
- Remove two screws in opposite corners.
- Remove power supply by sliding up and then out.

Note: Other two corners are attached using a keyhole.

- Install new power supply with fuse down slide new supply in and then down
- Replace two mounting screws – Do not over tighten
- Re-attach wires.
 - Two on left – Quick Connect
 - 3 pin connector on right.



Old Power Supply



New Power Supply

XII. Miscellaneous

1. Silicone all openings around front and rear boxes.
2. Silicone all openings around Timer Bar.
3. Install end Panel in unit
4. Plug in unit do not turn on
5. Update firmware.



XIII. Firmware Update

Updates IRHS_OS and Bootloader Firmware versions to:

IRHSBKOS version X.Y.Z (latest version) (Duke part # SFT0174)

Acm_bootloader version 3.1 (Duke part # SFT0119)

1. Extract the contents of the file SFT0174_X.Y.Z (latest version) + SFT0119_3.1 + xibit(IRHS_OS).zip onto the root of a USB drive. Root means, do not place in any folders. (The extracted files are: contents.txt, IRHS_OS.hex and RCVRVY.hex)
2. Turn unit off.
3. Place USB drive in unit USB slot.
4. Turn unit on.
5. When the timer bar displays switch from pin-wheel displays, the load is complete
6. Verify Firmware load was successful with the following procedure:
Enter Menu Mode:
 1. Press/Hold paired timer bar buttons for 3 seconds to enter Menu Mode.
Display will toggle (NAME/product name).
 2. 1st button press will display (ACT TEMP, actual temp bottom deck)
 3. 2nd button press will display (SET TEMP, temp set point bottom deck)
 4. 3rd button press will display (LID, On or Off)
 5. 4th button press will display (IDLE IR, idle IR duty cycle)
 6. 5th button press will display (PHASE 1, IR phase 1 duty cycle & time)
 7. 6th button press will display (PHASE 2, IR phase 2 duty cycle & time)
 8. 7th button press will display (PHASE 3, IR phase 1 duty cycle & time)
 9. 8th button press will display (TURBO, turbo boost time)
 10. 9th button press will display (COOK MORE TIME, time in minutes)
 11. 6th button press will display (FIRM, firmware version)

Note: Confirm the firmware load: the timer bar will cycle through the following:

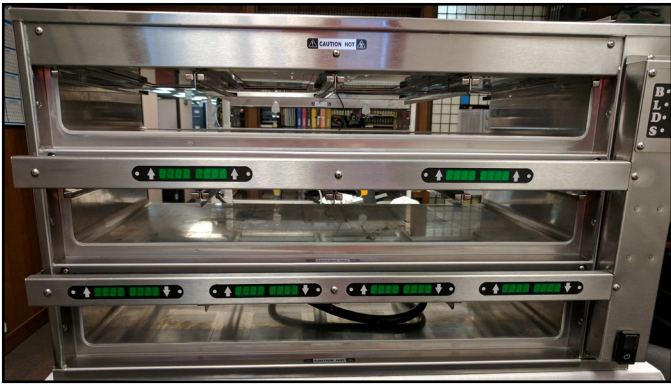
M:X (latest version)

m: Y (latest version)

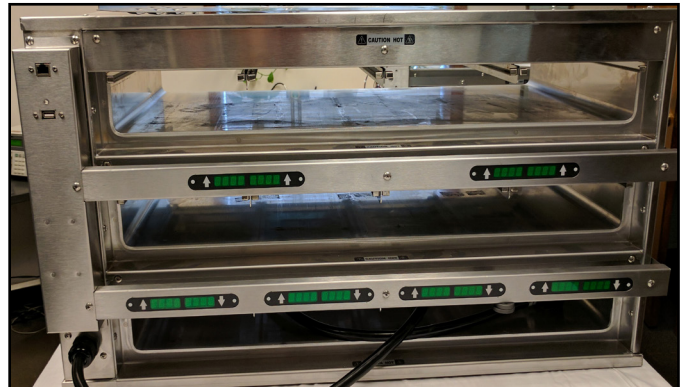
b: Z (latest version)

12. 7th button press will display (LED display test, cycles through all LED segments)

“IRHS” “IRHSE” Timer Bar Installation Instructions



Completed IRHS 3X4 Front View



Completed IRHS 3X4 Rear View

Appendix A

IRHS

CONFIG	HAND	TIMER BARS	KIT #
2X2	LH	FRONT ONLY	1030-3031
2X2	LH	FRONT & REAR	1030-3032
2X2	RH	FRONT ONLY	1030-3033
2X2	RH	FRONT & REAR	1030-3034
2X3	LH	FRONT ONLY	1030-3035
2X3	LH	FRONT & REAR	1030-3036
2X3	RH	FRONT ONLY	1030-3037
2X3	RH	FRONT & REAR	1030-3038
2X4	RH	FRONT ONLY	1030-3039
2X4	RH	FRONT & REAR	1030-3040
3X4	RH	FRONT ONLY	1030-3041
3X4	RH	FRONT & REAR	1030-3042

IRHSE

CONFIG	HAND	TIMER BARS	KIT #
2X2	RH	FRONT ONLY	1030-3033
2X2	RH	FRONT & REAR	1030-3034
2X3	RH	FRONT ONLY	1030-3037
2X3	RH	FRONT & REAR	1030-3038
2X4	RH	FRONT ONLY	1030-3043
2X4	RH	FRONT & REAR	1030-3044
3X4	RH	FRONT ONLY	1030-3045
3X4	RH	FRONT & REAR	1030-3046