PS3189 Heater Interrupt Switch
INSTRUCTION MANUAL

TOOL(S) NEEDED

- Phillips Screwdriver or Screw Gun
- 1/2" Wrench
- 5/16" Nut-Driver
- 1"(25mm) Drill bit
- Hammer
- .5" (13mm) Drill Bit
- Ruler or Tape Measure
- Punch
- 3/8" Wrench or Socket
- 1/4" Nut-Driver
- Marker

*** Prior to installing the heater interrupt switch, shut fryer off, unplug or shut off breaker, drain the oil from the fryer, and allow to cool.**

1. Using a 1/2" wrench, remove the drain valve handle. (Fig.1-2)

Fig.1

Fig.2

2. Using a 5/16" nut driver remove the drain valve mounting plate screws. (Fig.3-4)

Fig.3

Fig.4

3. Using a Phillips screwdriver, remove the front panel screws and lower the front panel. (Fig.5-6)

Fig.5

Fig.6

4. Using a tape measure or ruler, measure and mark a spot on the inner cabinet base that is 8.5" (215.9mm) from the right side of the fryer, and 3.5" (88.9mm) from the front of the fryer. (Fig. 7-8)

Fig.7

Fig.8

5. Using a 1"(25mm) drill bit, drill a hole in the marked spot of the inner cabinet base and insert the provided grommet. (Fig. 9-10)

Fig.9

Fig.10

6. Slide the switch housing over the drain and insert the washers onto the drain valve stem. Using a 5/16" nut driver, reattach the drain plate bolts and tighten. (Fig.11-12)

Fig.11

Fig.12

7. Using a drill with a 5/16" nut driver bit and the provided self tapping screws, mount the switch housing to the fryer bottom. Replace the drain handle. (Fig.13-14)

Fig.13

Fig.14

8. Using a 3/8" socket or wrench, remove the retaining nuts that secure the high limit. Disconnect the high limit wires and set the high limit in the fryer cabinet. (Fig.15-16)

Fig.15

Fig.16

9. Using a 1/4" nut driver, remove the grounding wire coming from the control board. Mark and remove all wires coming from the control board to the contactors. (Fig.17-18)

Fig.17

Fig.18

10. Lift up and remove the front panel. (Fig.19-20)

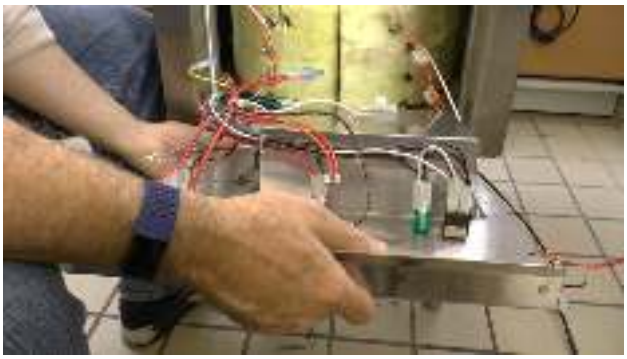

Fig.19

Fig.20

11. Lay the front panel on a flat surface and remove the control board using a Phillips screwdriver. Align the provided template to the panel bottom and left side. (Fig.21-22)

Fig.21

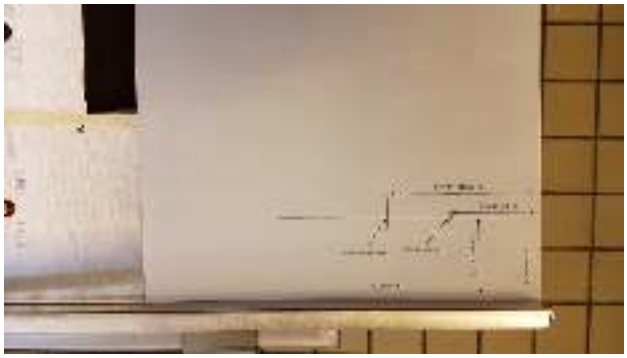

Fig.22

12. Using a punch and hammer, mark the two holes onto the front panel. (Fig.23-25)

Fig.23

Fig.24

Fig.25

13. Using a 1"drill bit, drill the top marked hole. Next use a 1/2" drill bit to drill the bottom marked hole. (Fig.26-28)

Fig.26

Fig.27

Fig.28

14. Insert the provided rubber grommet into the bottom hole, and then flip the front panel over so the back side is facing up. (Fig.29-30)

Fig.29

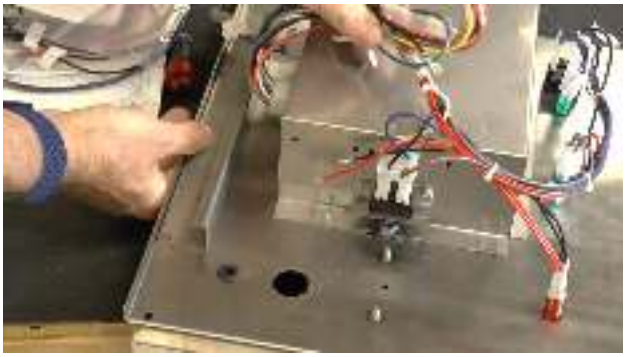

Fig.30

15. Place the two spacer washers over the alarm hole. insert the alarm buzzer into the large hole. (Fig.31-32)

Fig.31

Fig.32

16. Insert the reset switch bracket over the alarm buzzer and into the grommet hole. Insert the rubber washer onto the alarm buzzer and thread the plastic nut on and tighten. (Fig.33-34)

Fig.33

Fig.34

17. Set front panel on fryer front lip. Using a 3/8 socket, reattach the high limit switch to the front panel. (Fig.35-36)

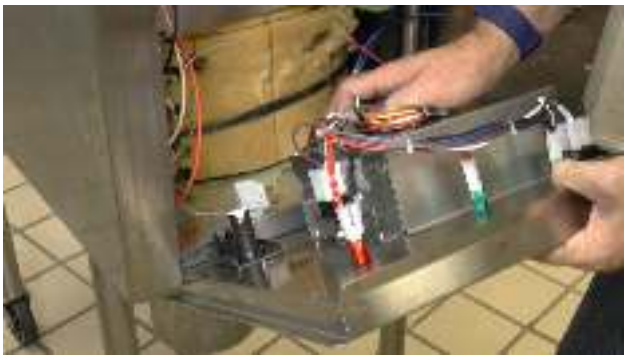

Fig.35

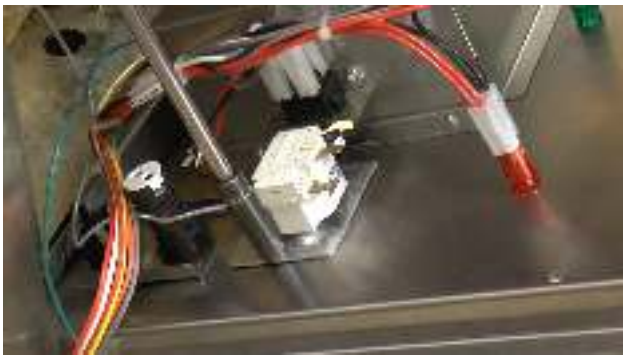

Fig.36

18. Referencing the provided wiring diagram, reattach the wires from the control board to the fryer. (Fig.37-38)

Fig.37

Fig.38

19. Place the latching relay block in the front left corner of the fryer cabinet. Ensure that the relay is at least 1.5" (63mm) from the front edge of the cabinet front. Using the provided self tapping screws and a Phillips screw gun, secure the relay block to the fryer cabinet. (Fig.39-40)

Fig.39

Fig.40

20. Using a Phillips screwdriver or screwgun, remove the two screws that secure the relay block to the fryer and remove the relay block. (Fig.41-42)

Fig.41

Fig.42

21. Place the relay block on a clean surface. Locate the numbers on each of the relay block terminals. The block is numbered one through eleven. (Fig.43)

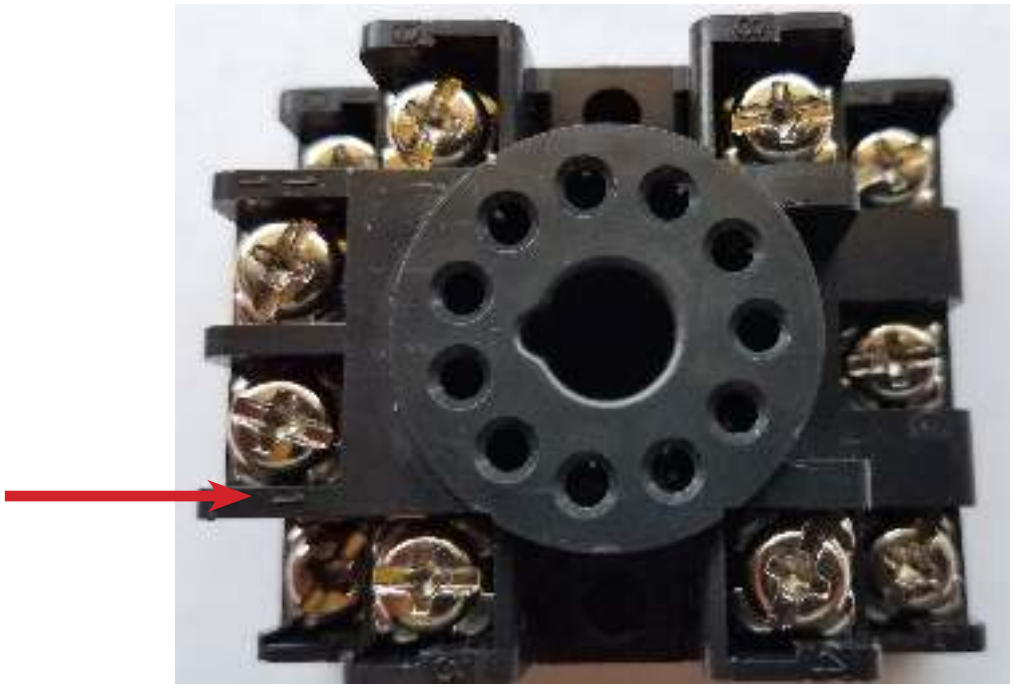

Fig.43

22. Referencing the wiring diagram,connect the following wires to the relay block.

23. Connect the black wire labeled FS2 to the number one (1) terminal and the number two (2) terminal. (Fig.44)

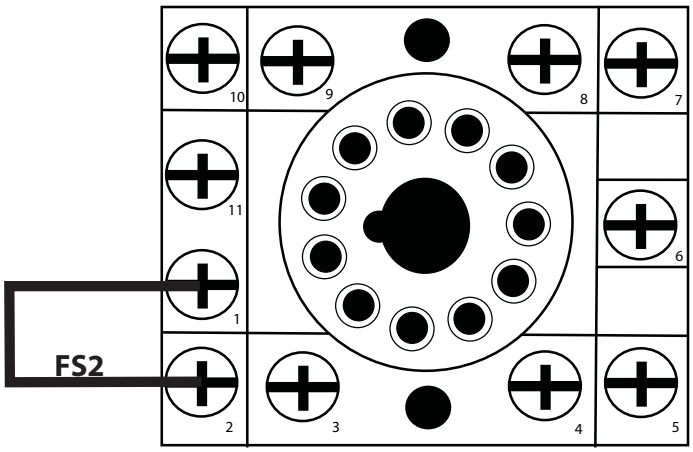

Fig.44

24. Connect the black wire labeled FS3 to the number two (2) terminal and the number six (6) terminal. (Fig.45)

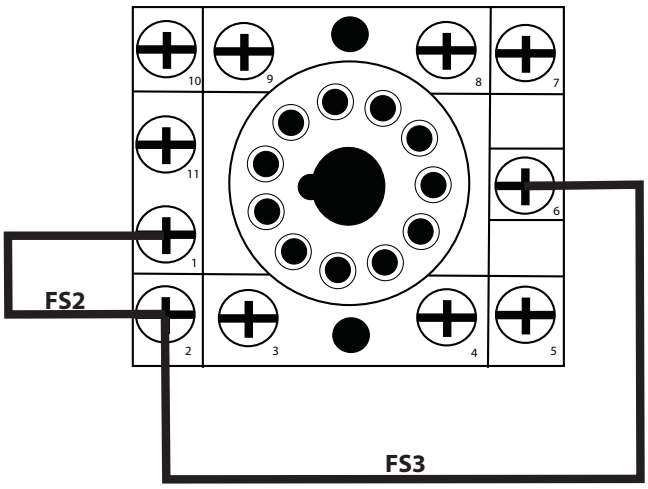

Fig.45

25. Connect the purple wire to the number three (3) terminal. (Fig.45)

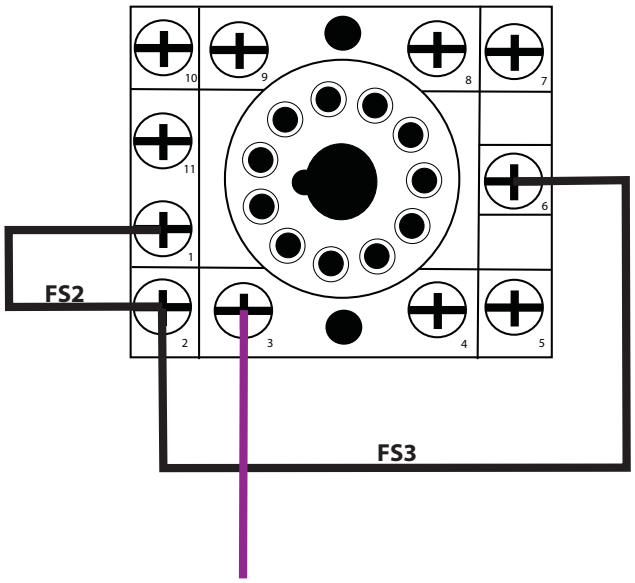

Fig.44

26. Connect the blue wire to the number four (4) terminal. (Fig.45)

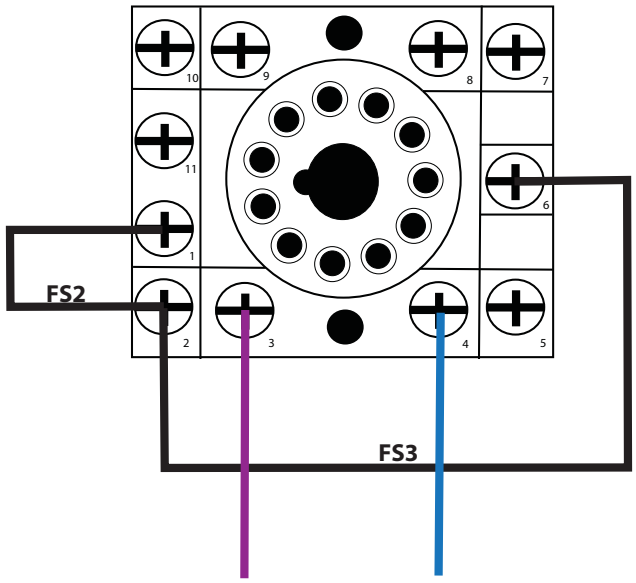

Fig.45

27. Connect the black wire labeled FS5 to the number six (6) terminal. (Fig.46)

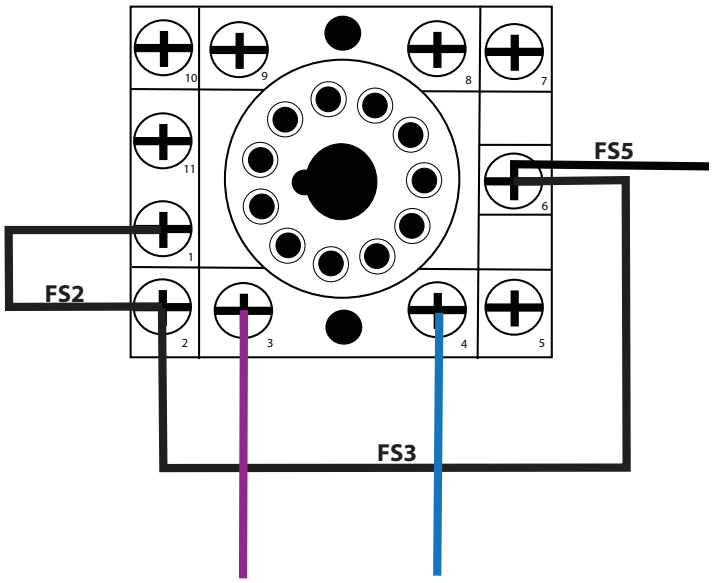

Fig.46

28. Connect the red wire to the number eight (8) terminal. (Fig.47)

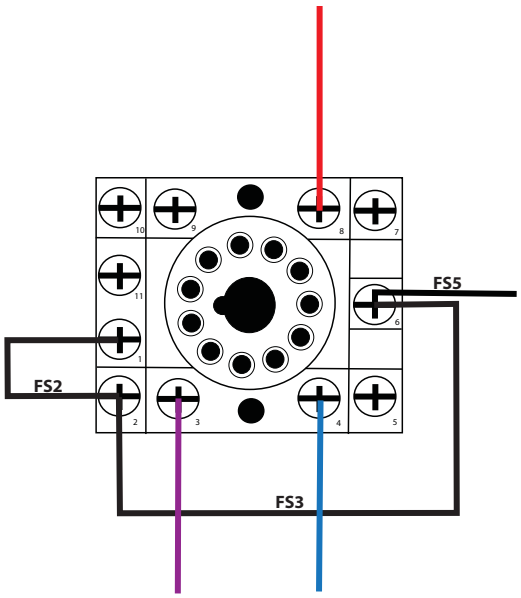

Fig.47

29. Connect the gray wire labeled FS12 to the number ten (10) terminal. (Fig.48)

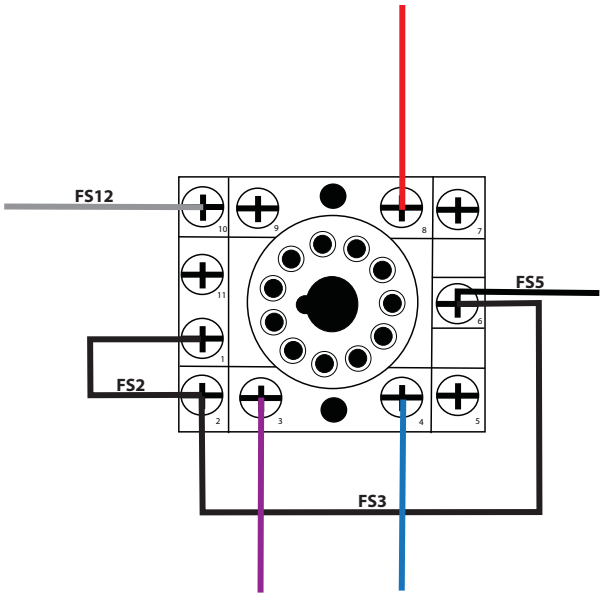

Fig.48

30. Connect the yellow wire to the number eleven terminal.(Fig.49)

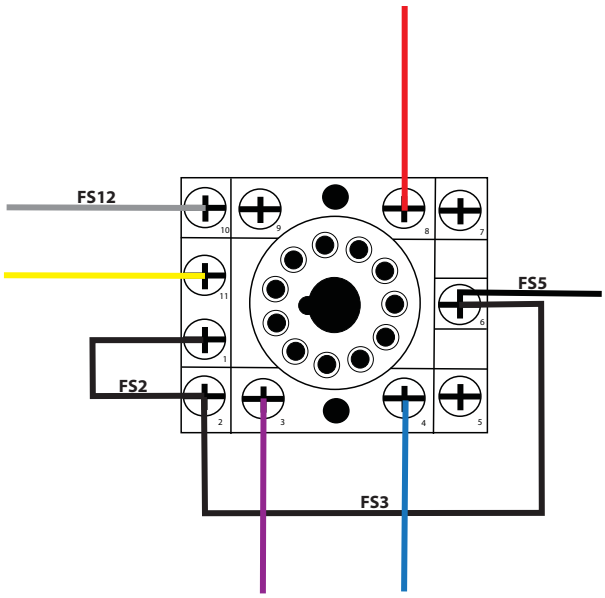

Fig.49

31. Referencing the wiring diagram, verify that the relay block is wired correctly. Remount the relay block to the fryer base bottom using the two provided screws. (Fig.50-51)

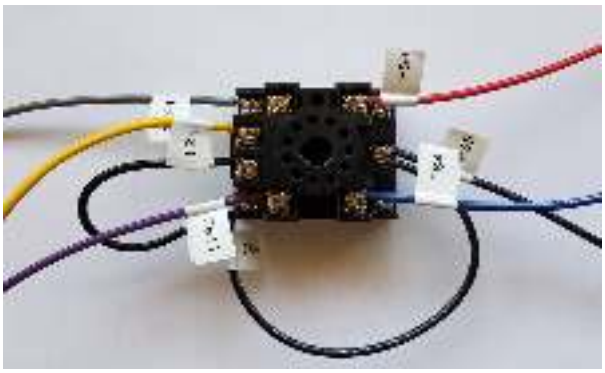

Fig.50

Fig.51

32. Connect the purple wire coming from the number three (3) terminal to the number 2B connection on the reset switch. (Fig.52-53)

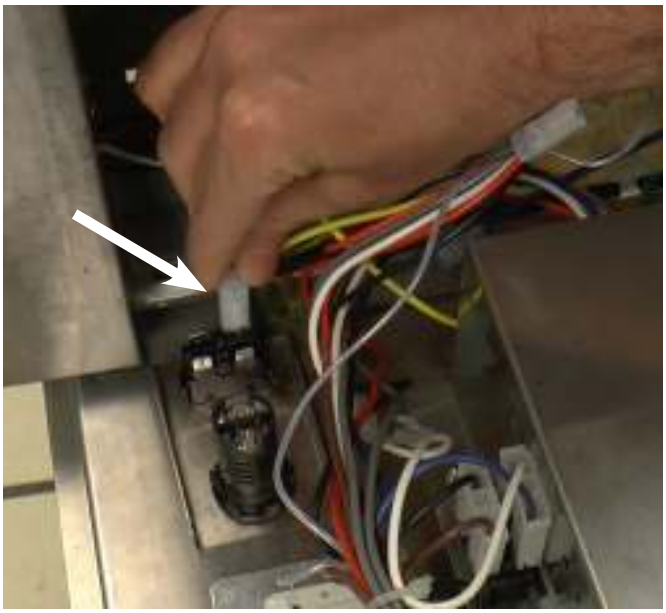

Fig.52

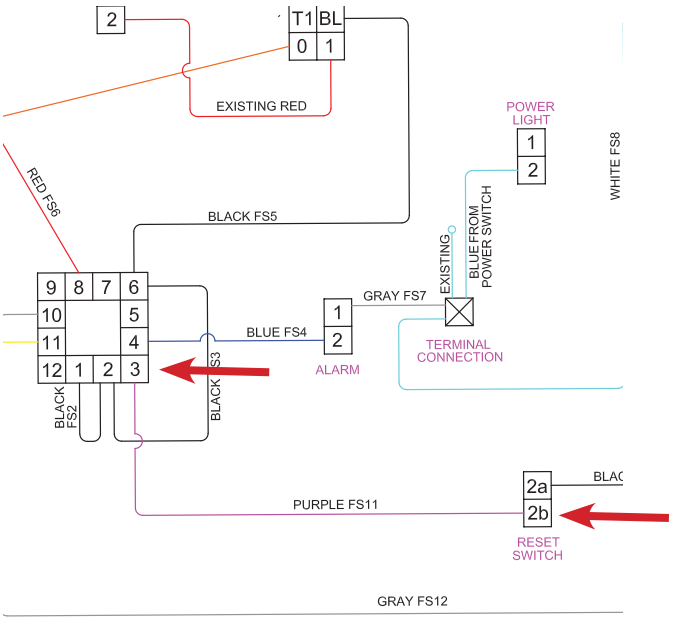

Fig.53

33. Using a Phillips screwdriver, connect the blue wire coming from the number four (4) terminal to the number 2 connection on the alarm light. (Fig.53-54)

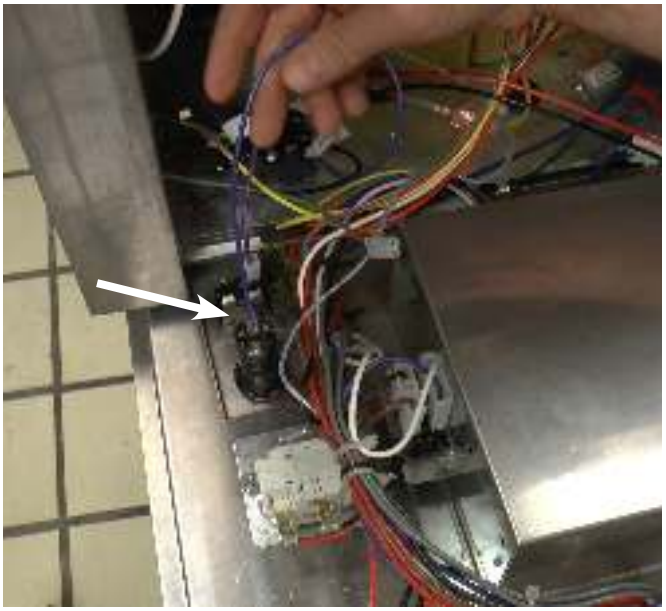

Fig.53

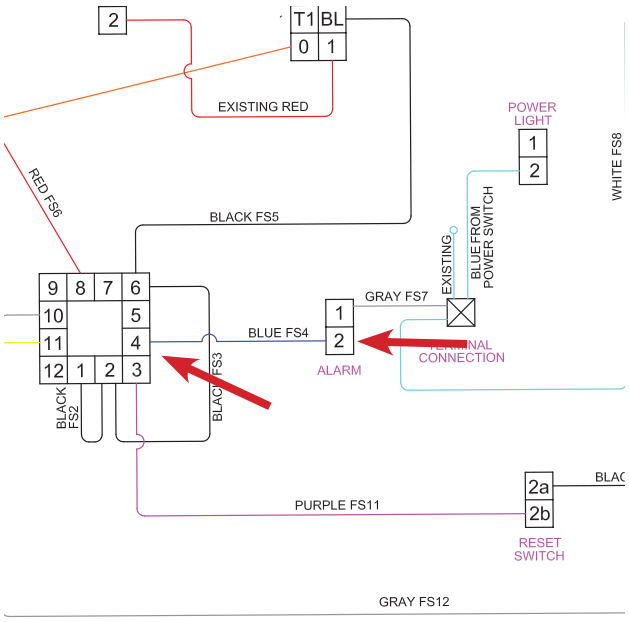

Fig.54

34. Connect the black FS5 wire coming from the number six (6) terminal to the terminal where the brown or black wire are connected on the incoming power relay. (Fig.55-56)

****Typically the brown wire is at L1 on international fryers & the black wire is at L3 on domestic models**

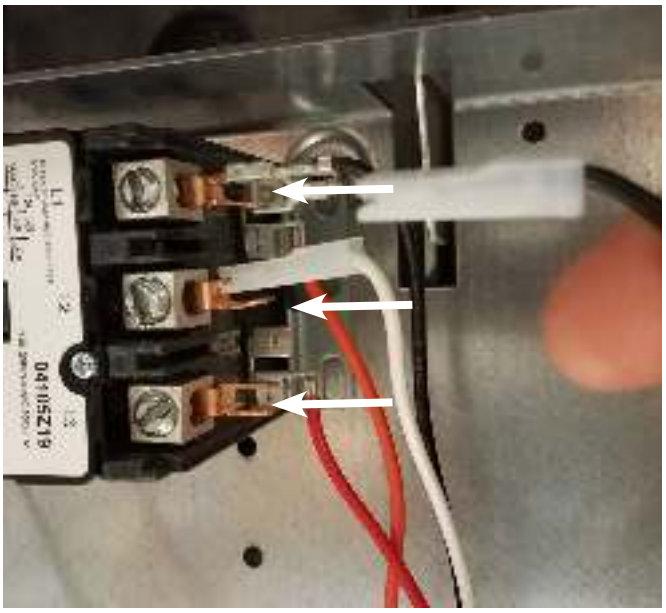

Fig.55

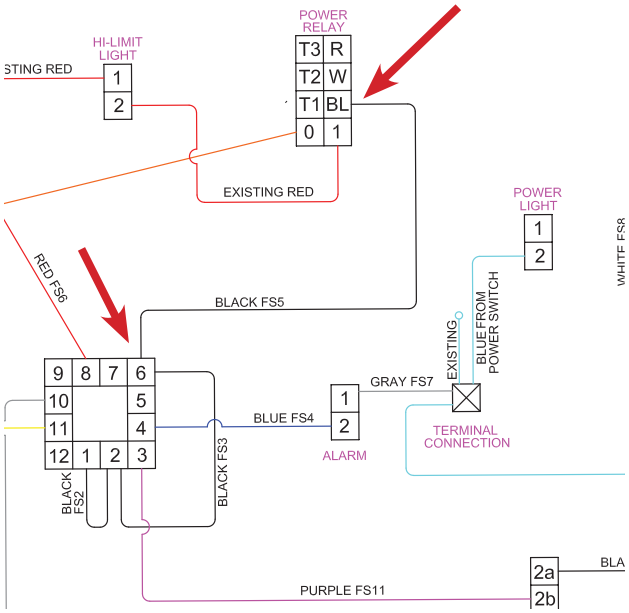

Fig.56

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35. Using needlenose plier, remove the black wire connected to the high limit. Connect the red wire coming from the number eight (8) terminal to the high limit terminal. (Fig.57-59)

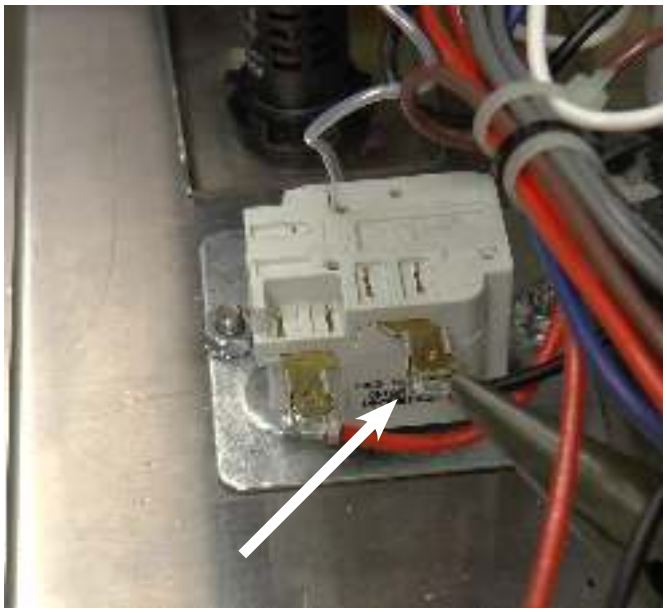

Fig.57

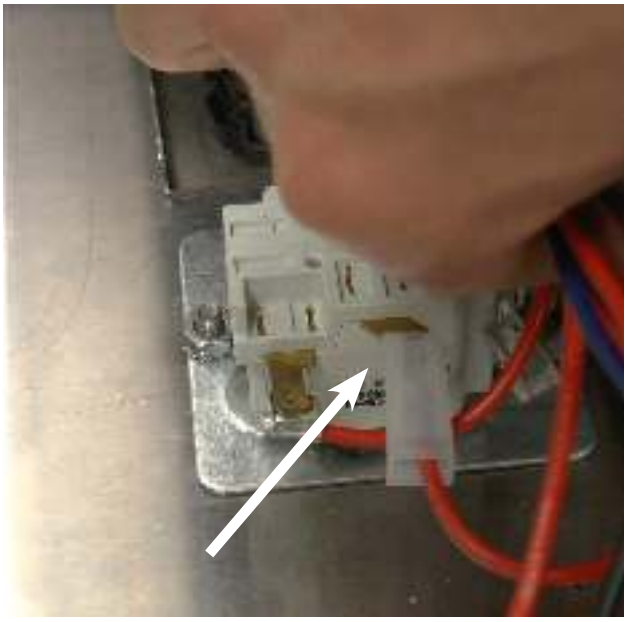

Fig.58

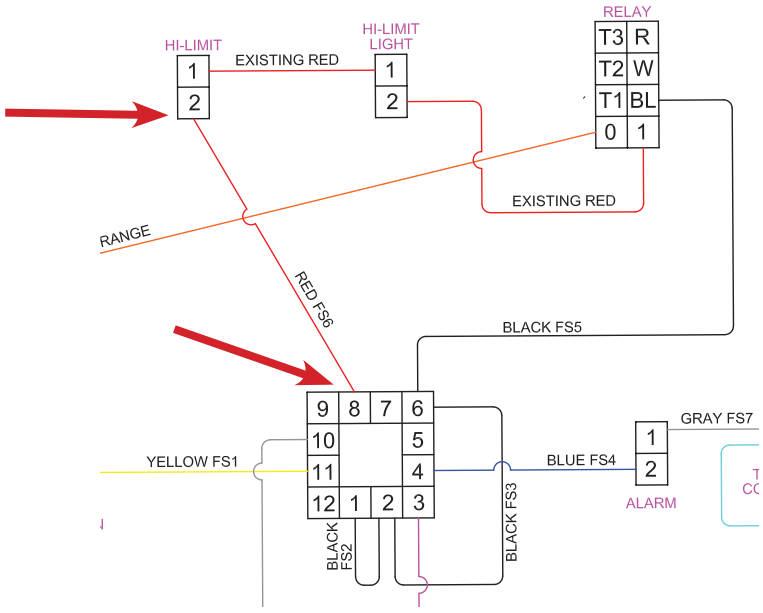

Fig.59

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36. Insert the gray FS12 wire into the drain switch grommet hole. Connect the gray FS12 wire to the number three (3) terminal on the drain switch. (Fig.60-62)

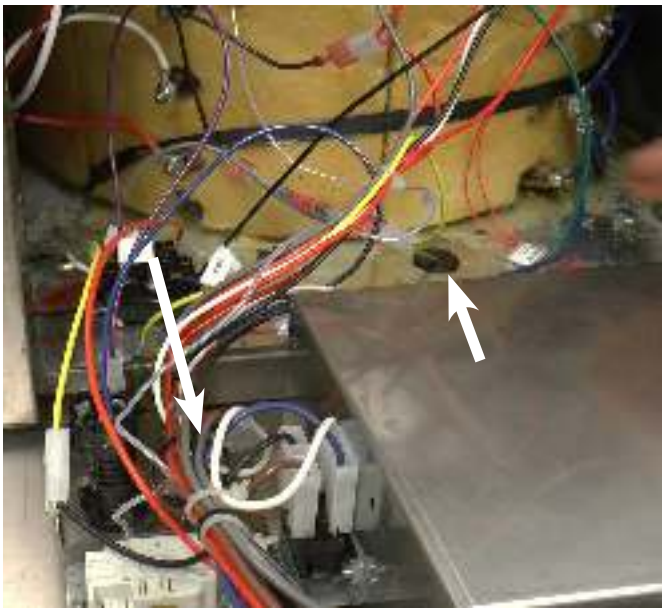


Fig.60

Fig.61

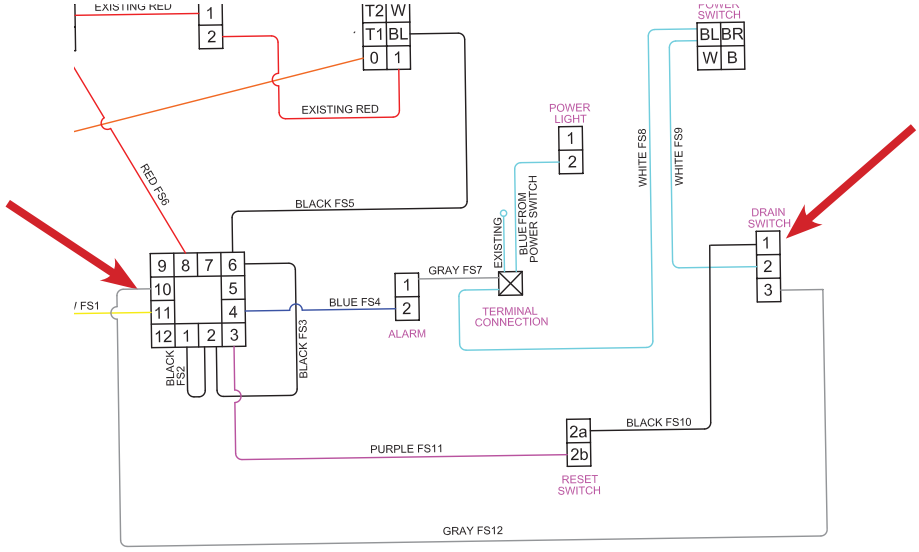


Fig.62

37. Connect the yellow wire to the black wire that was removed from the high limit Ensure to cover connection with electrical tape. (Fig.63-64)

Fig.63

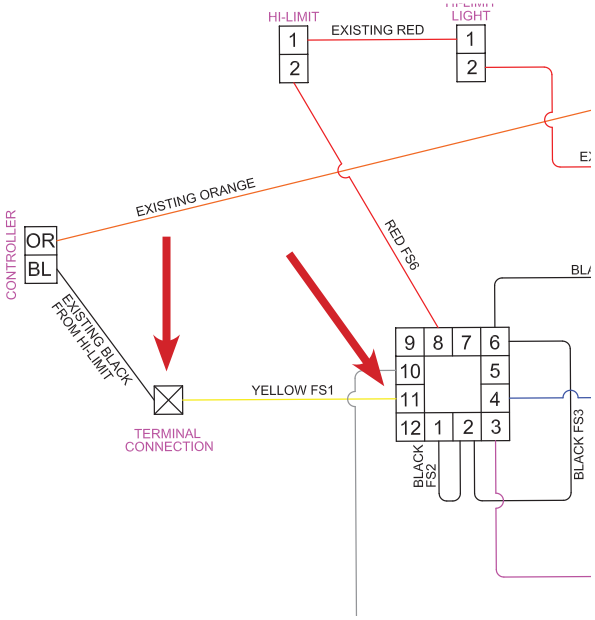


Fig.64

38. Route the black FS10 wire that is connected to the switch through the center grommit and connect to the 2A connection on the reset switch. (Fig.65-68)

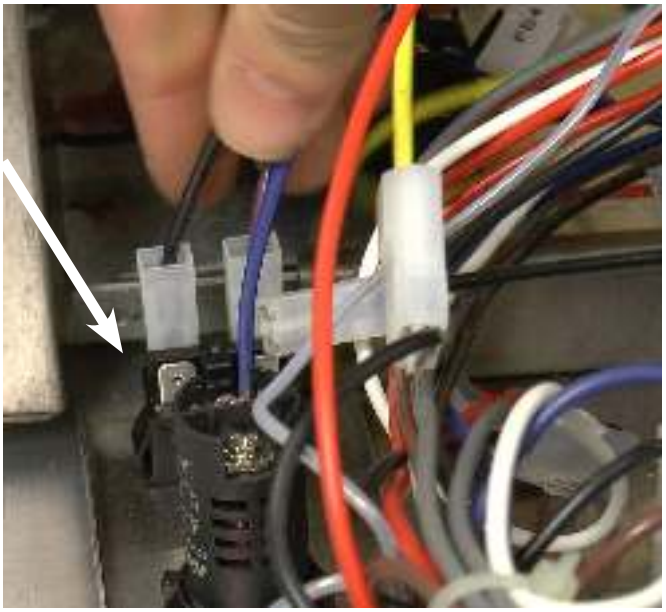


Fig.65

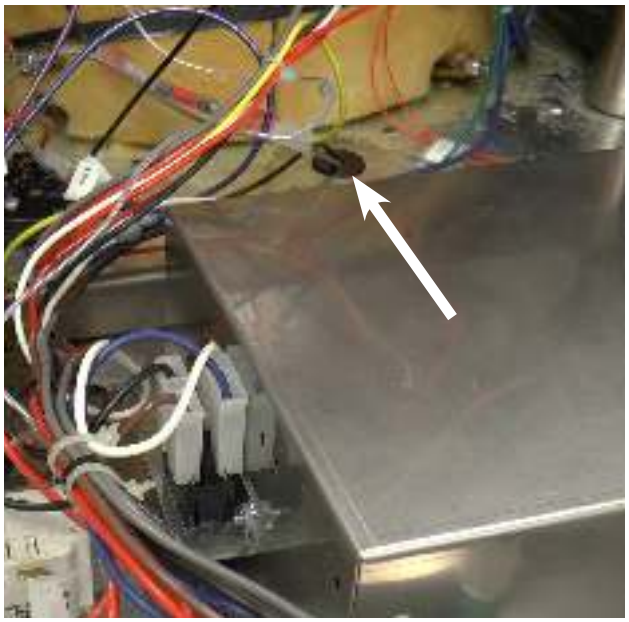


Fig.66

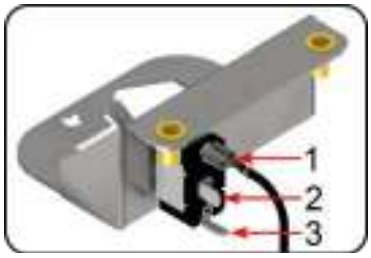


Fig.67

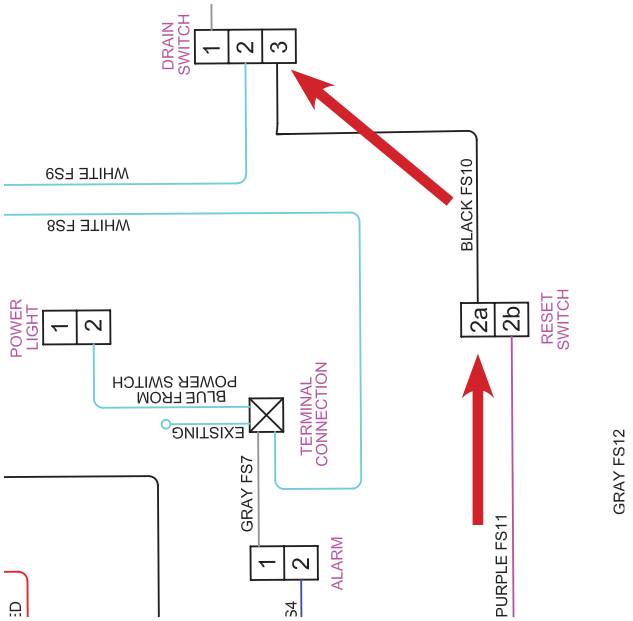


Fig.68

39. Locate the gray FS7, white FS8 and white FS9 wire bundle. Connect the gray FS7 wire to the number one (1) terminal of the alarm light. Insert the white FS9 wire into the drain switch grommet, and connect to the number two (2) connection on the drain switch. (Fig.69-72)

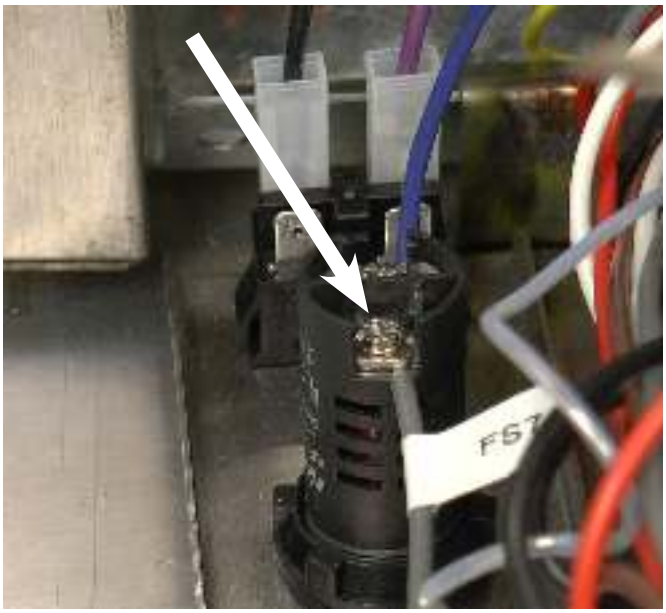


Fig.69

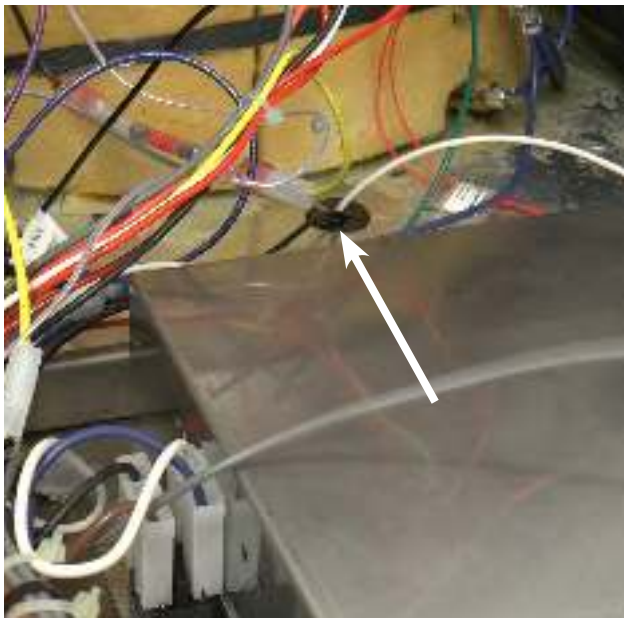


Fig.70

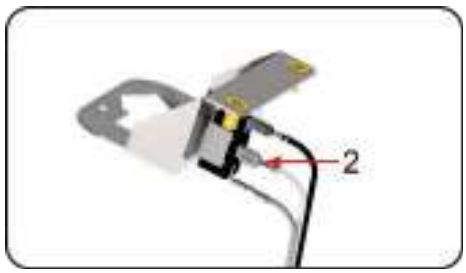


Fig.71

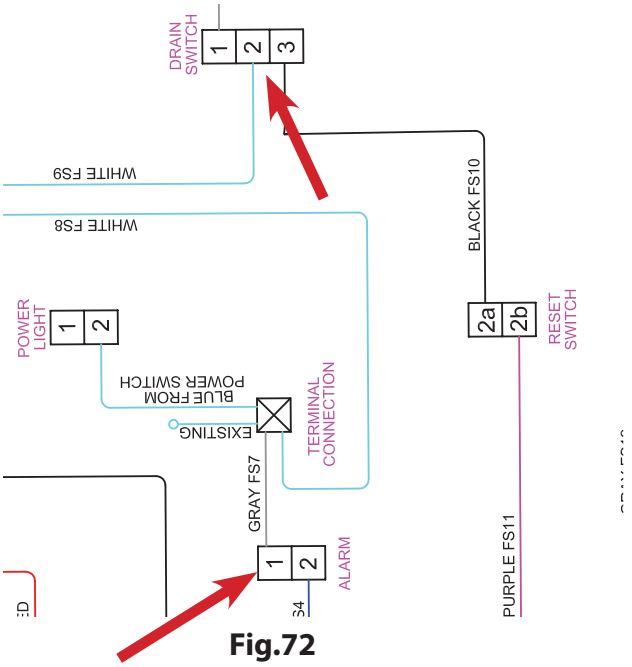


Fig.72

40. If the unit is a 230V Wye configured fryer (international),disconnect the double blue wires from the power switch. Connect the double white FS8/FS9 wire to the power switch. Connect the double blue wires that were removed from the power switch to the white and gray double wire. (Fig.73-76)

Fig.73

Fig.74

Fig.75

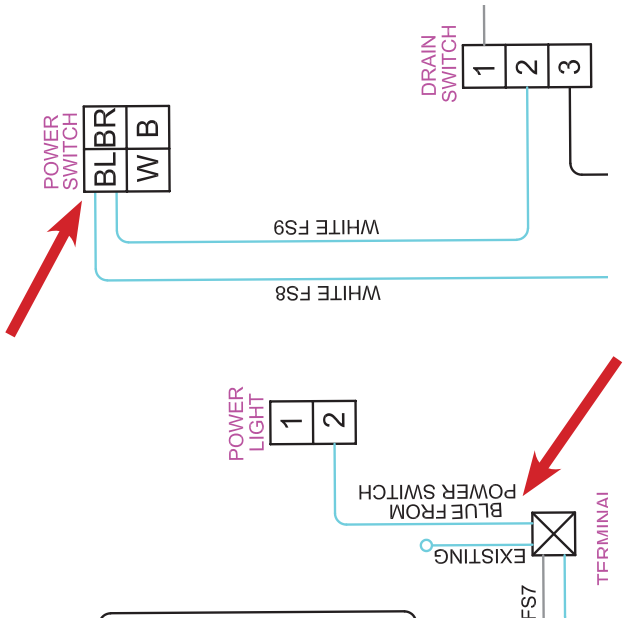


Fig.76

41. If the unit is a 208V240V Delta configured fryer (domestic),disconnect the double white wires from the power switch. Connect the double white FS8/FS9 wire to the power switch. Connect the double white wires that were removed from the power switch to the white and gray double wire. (Fig.77-80)

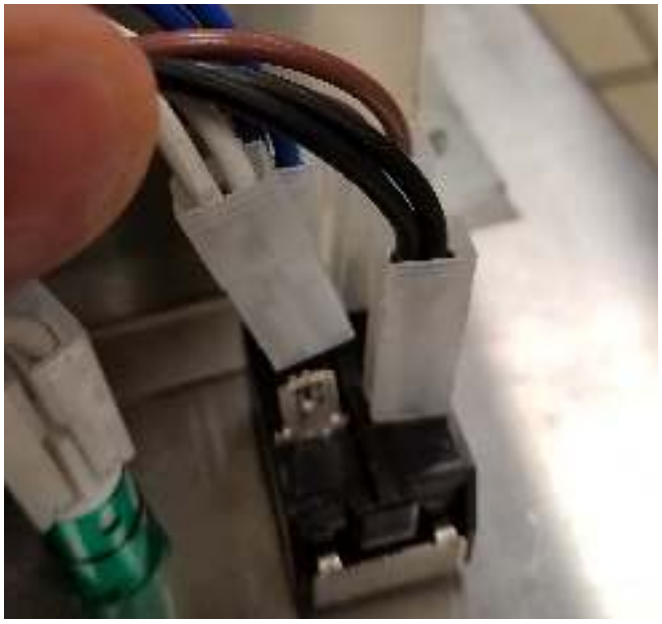


Fig.77

Fig.78

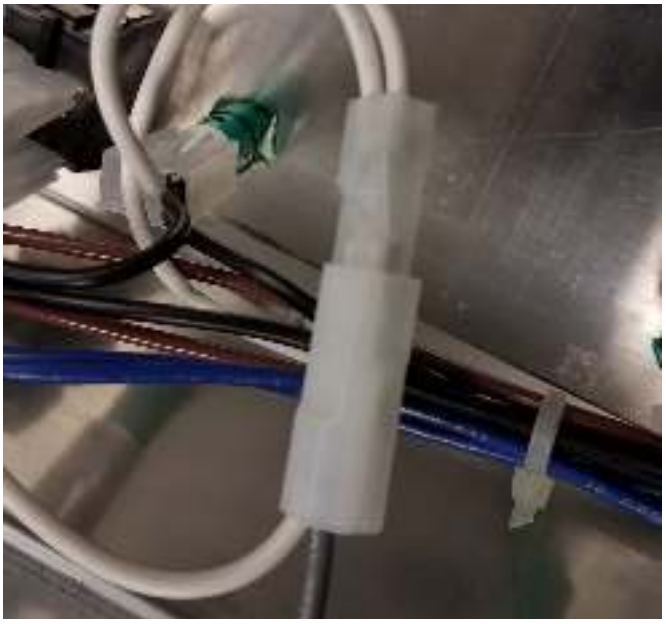


Fig.79

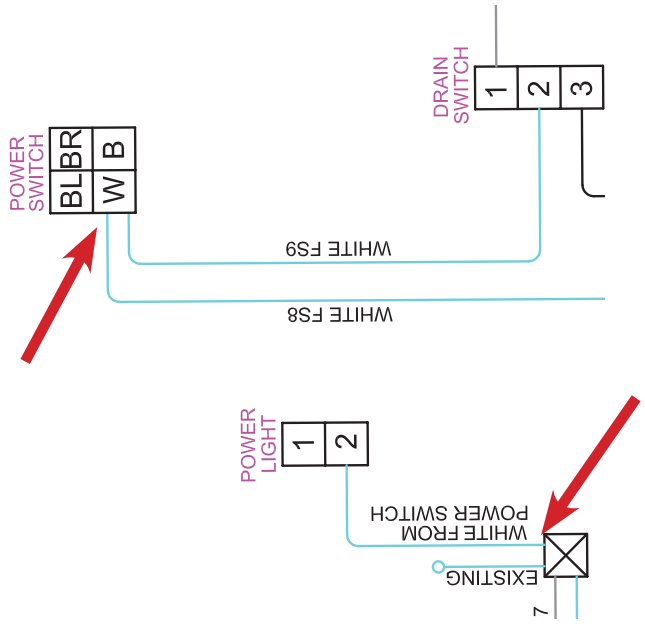


Fig.80

42. Insert the latching relay into the relay block. The relay pins are keyed and will only go in one way. (Fig.81)

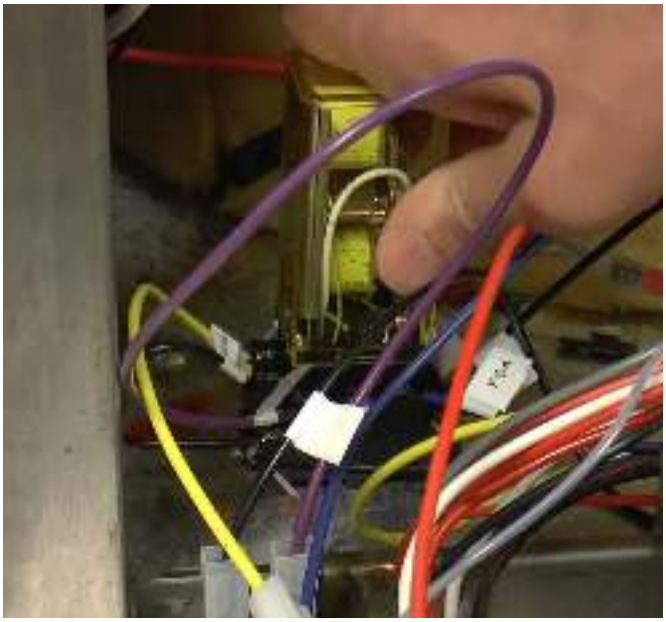


Fig.81

43. Raise the front panel and secure with the retaining screws. (Fig.82-83)

Fig.82

Fig.83

44. Replace the control board. (Fig.84)

Fig.84

45. Insert the switch cover over the switch housing and secure with retaining screws. (Fig.85-86)

Fig.85

Fig.86

46. Ensure that the drain valve is closed. Fill the fryer with oil.

47. Plug fryer in and turn on. Verify that alarm switch is working correctly.

NOTE: If operator follows proper operating procedure, turning OFF main power switch before opening drain valve, none of the following circuitry activates.

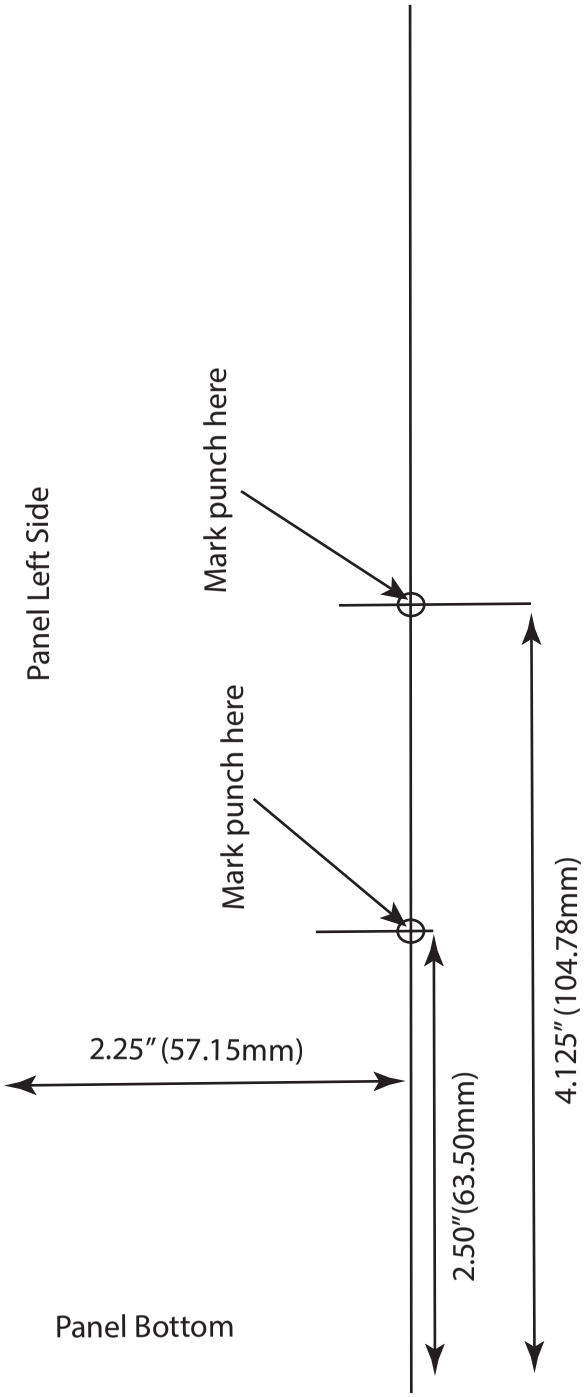
With Fryer Power Switch ON, heaters cycling

1. Open drain valve, activating switch
    a. Latching relay will activate two circuits
        i. Cutting power to heaters
        ii. Red warning lamp will illuminate, and horn will sound
2. Turn Power Switch OFF
    a. Red lamp and horn will turn off

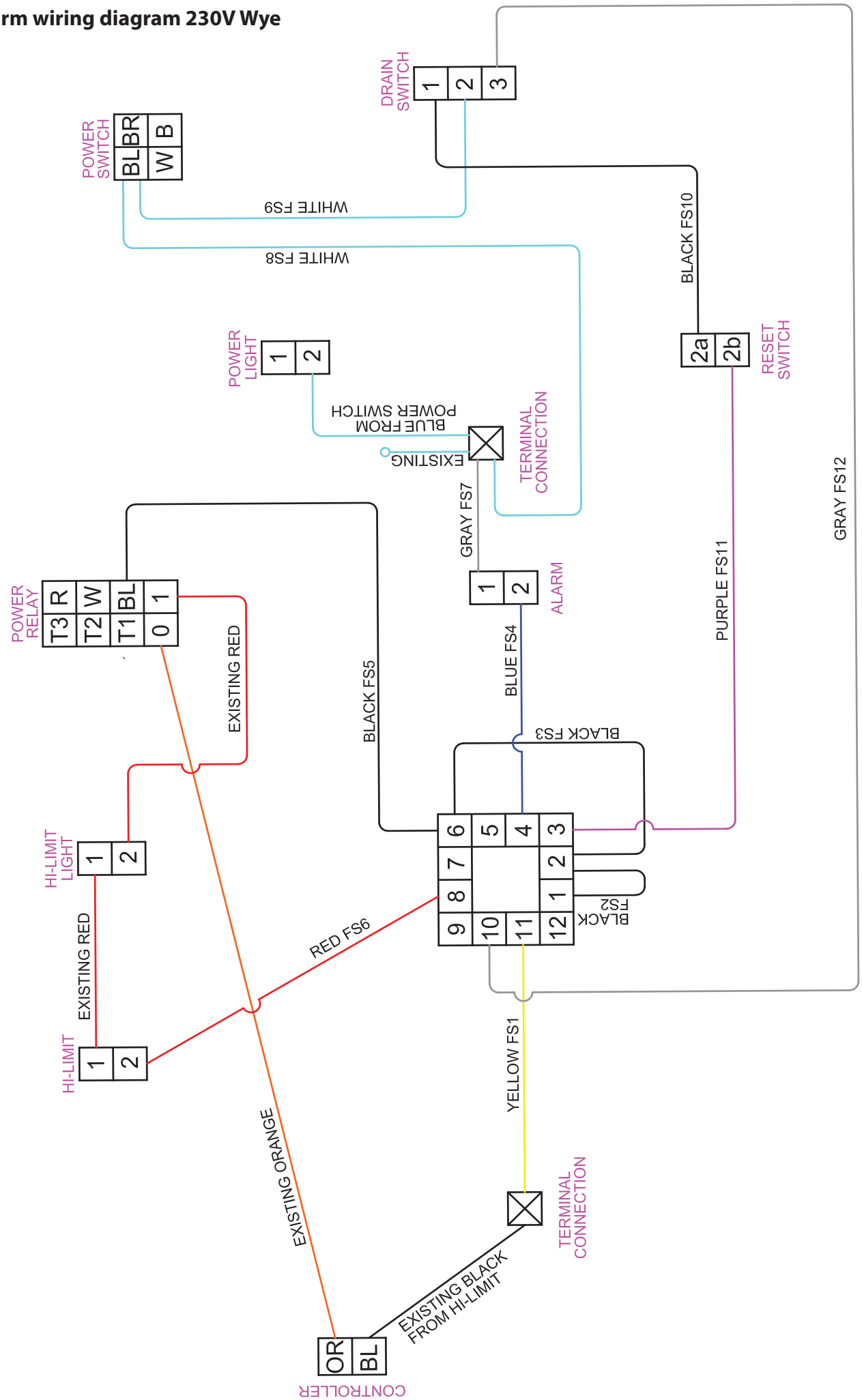
After oil is drained, close drain valve and refill with oil. Fryer will remain inoperable until the following steps are followed.

3. Turn Power Switch ON.
    a. Latching relay still activated
        i. Power cut to heaters
        ii. Red lamp will illuminate, and horn will sound
4. Press black reset button under red lamp/horn with pen, pencil, or other thin instrument
5. Fryer is now operable, heaters cycling. Resume normal operation.

Front Panel Hole Punch Template



Drain alarm wiring diagram 230V Wye



Drain alarm wiring diagram 208-240V Delta