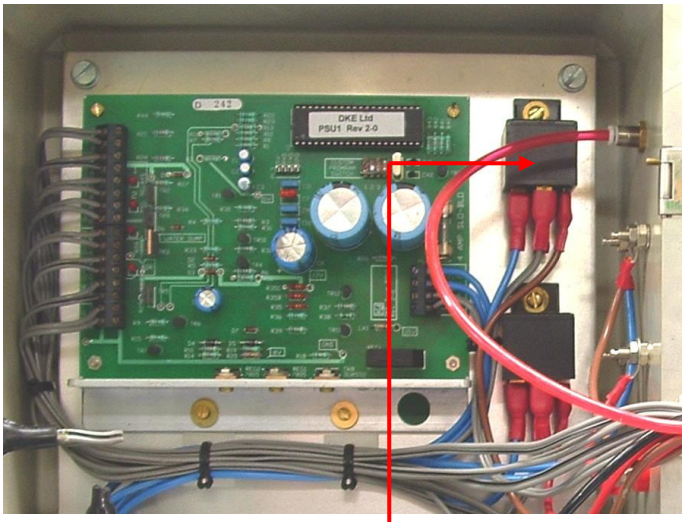
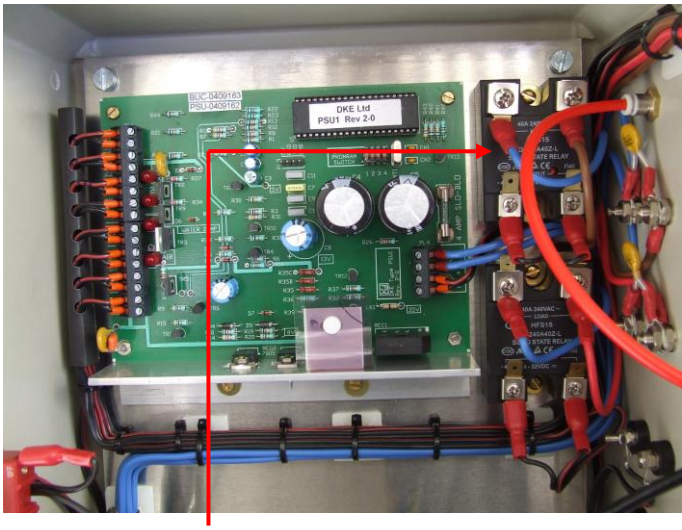
CHANGING RELAYS ON BAIL UNIT CONTROLLER (BUC)

There are two different types relays used in the Bail Unit Controllers (BUC).

In the earlier models, the automotive relays 30amps were used and with bad power, sometimes the contacts would ark causing the relay to fail. We now use a solid state relay 40 amps.



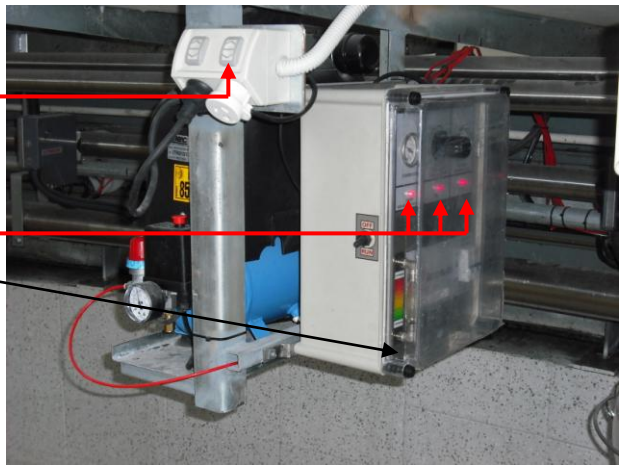
BUC with automotive relays 30amps fitted



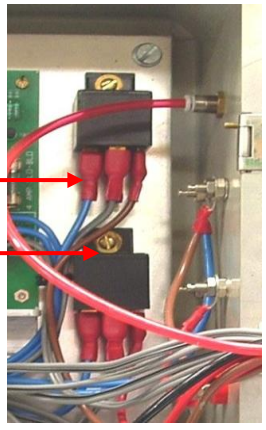
BUC with solid state relay 40 amps fitted

<u>To change from Automotive Relay to Solid State Relay (SSR)</u>

1. Switch off the power at the outlet and remove the plug from the supply socket
2. Ensure all LED's are off - if not repeat 1)
3. Remove the clear cover on the BUC and open the steel panel and inspect for damage.



4. Label all wires for correct reconnection
5. Remove the screws holding the relays to the aluminum gear plate and pull both relays away

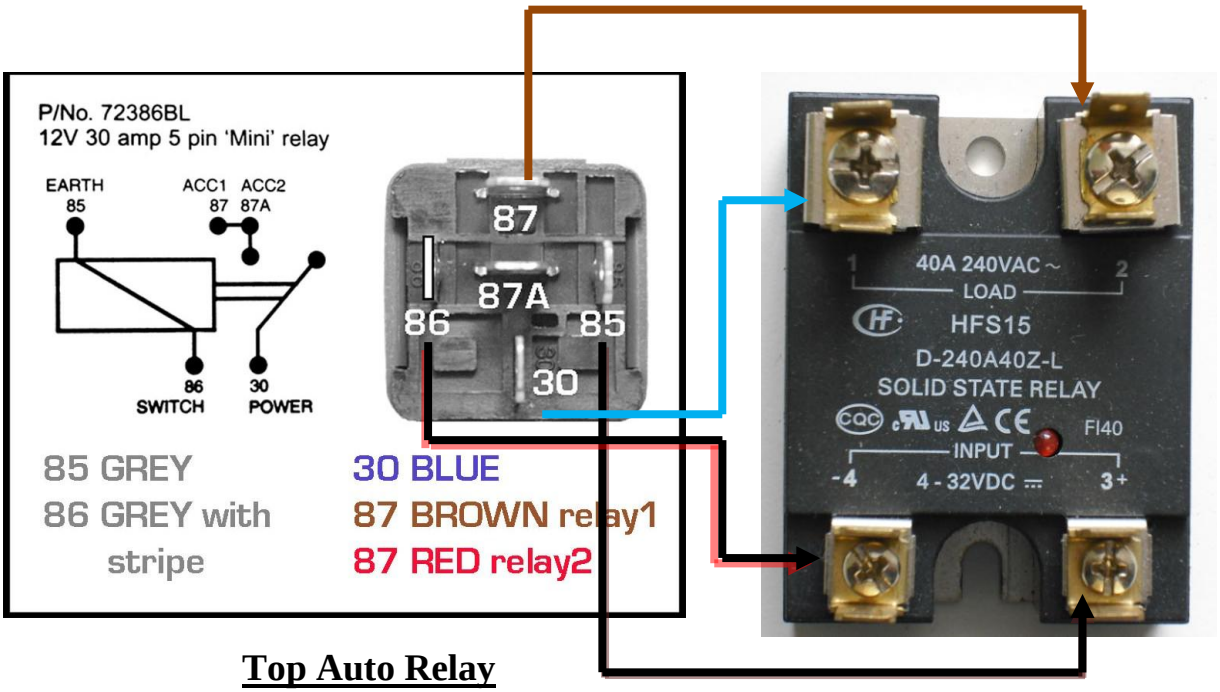


6. Fit the new SSR's to the gear plate.

7. Note, new holes may need to be drilled and tapped M4 thread!

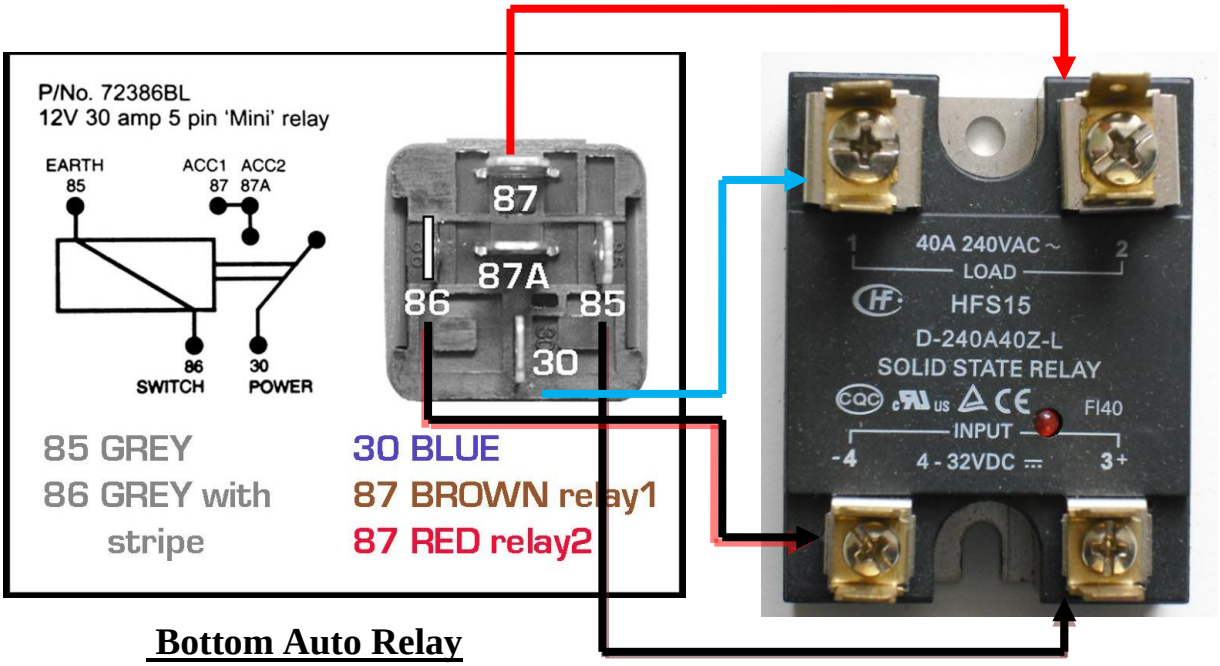
8. **CAUTION Ensure all drill and tap swarf is carefully removed**
(the photo shows the SSR mounted upside down, this is OK)

9. Remove the control wires from the **Auto Relay 1 (top relay**) and connect to SSR terminals "–4" & "+3" note the black wire is usually negative and the red is positive, stripes included
10. Remove the blue wire from the Auto Relay and connect to the SSR terminal "1", this comes from the transformer.
11. Remove the brown wire from the Auto Relay and connect to the SSR terminal "2", this goes to the Circuit Breaker for CCT1



Top Auto Relay

12. Repeat this process for Relay "2" bottom if fitted the load wire is Red



Bottom Auto Relay

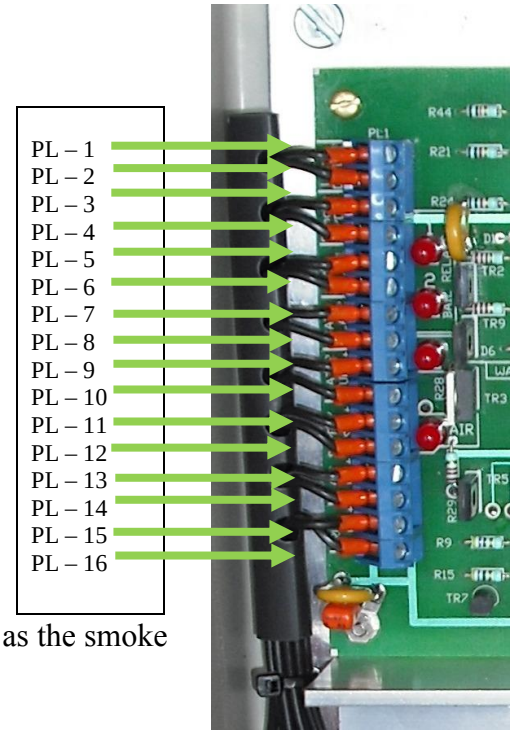
PL1- 5	SSR1 - 3
PL1- 6	SSR1 - 4
Transf blue	SSR1 - 1
MCB cct1 brown	SSR1 - 2
PL1- 7	SSR2 - 3
PL1- 8	SSR2 - 4
Transf blue	SSR2 - 1
MCB cct 2 red	SSR2 - 2

13. Re check the wire connections all note the control wires PL1- 5 to SSR1 3, PCB PL1- 6 to SSR1

14. Quick Connectors (spade type) must be tight if they are loose, please pull off again and squeeze with your pliers (not to tight!)

15. Check again all wires are connected correctly and remove all foreign object from the enclosure

16. Reconnect power and switch "ON" CAUTION the power supply is 35V dc (don't short anything as the smoke will escape)



17. Check Power LED on front panel is “ON”

18. Check the Relay 1 & 2 LEDs on the PCB are “ON

19. Toggle the “RUN” Switch, the PCB Relay LED’s should go off and “ON” again, both the SSR LED’s should be “ON”(red)

20. Air PCB LED should be “ON”

21. Check the AC Voltage at the CCT 1 & 2 terminals with your multi-meter

22. Check the air is coming out the supply connector at the top left side of the BUC enclosure

23. Refit the cover to enclosure.