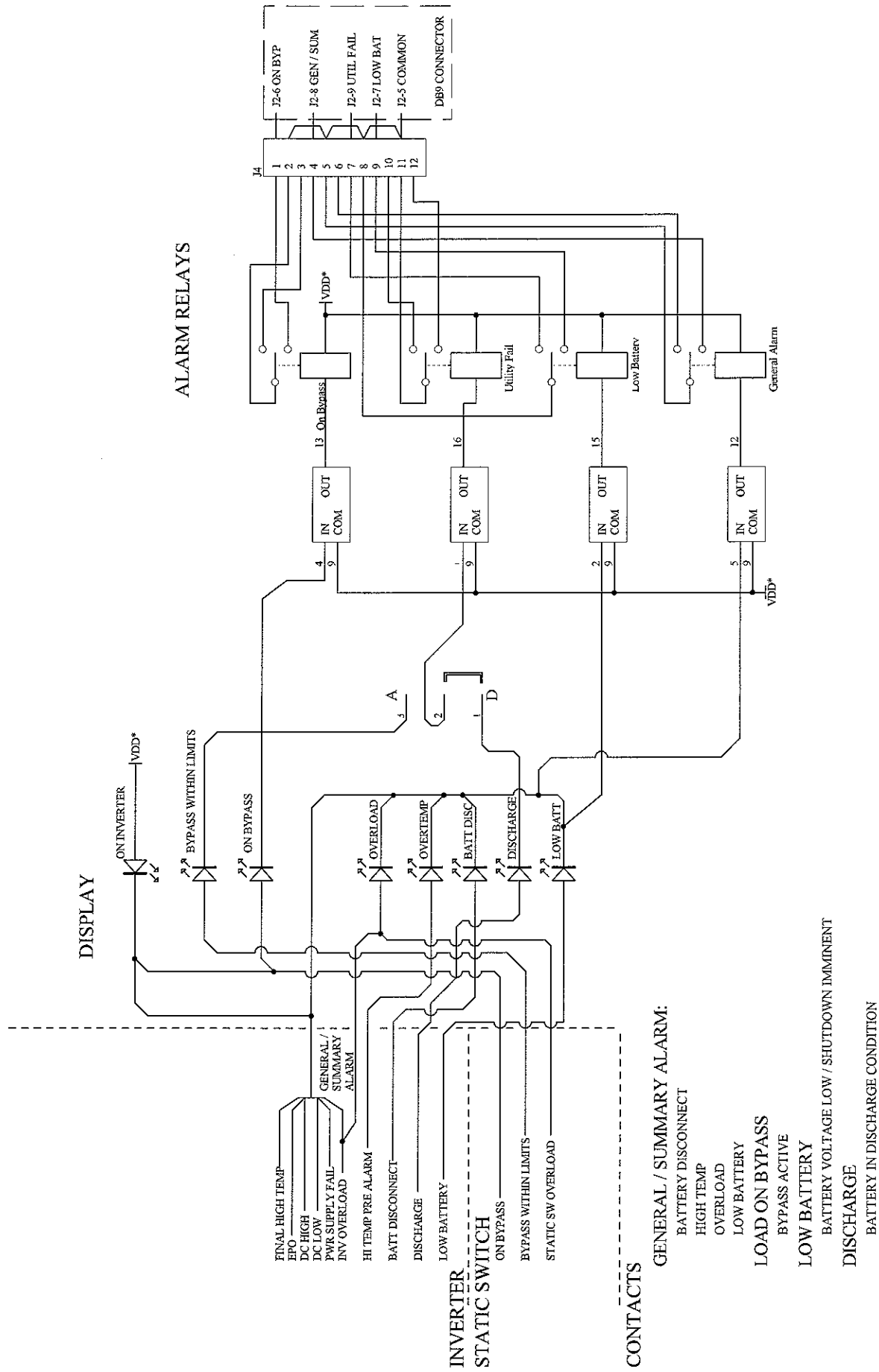




DISPLAY BOARD:

The display is the users interface to the unit. It uses a combination of lights and beeps to alert the user to the condition of the unit.

The green **LOAD ON INVERTER LED** will be lit when the inverter is selected by the static switch to supply power to the load. If there is an OVER TEMPERATURE, BATTERY DISCONNECT, LOW BATTERY alarm, the LOAD ON INVERTER LED will start flashing. Pressing the reset will stop this LED from flashing, and silence the audible alarm.

The Green **BYPASS WITHIN LIMITS LED** indicates the bypass voltage and frequency are within limits, and can supply the load if needed. If jumper P5 is in the A position, the BYPASS WITHIN LIMITS alarm will control the UTILITY FAIL relay.

The Yellow **LOAD ON BYPASS LED** indicates the bypass source is supplying power to the load. The GENERAL ALARM / SUMMARY alarm relay, and the ON BYPASS relay will activate. This condition may occur if the DC has fallen below expectable limits, the system has been overloaded, an over-temp condition has occurred, or the inverter has failed. If this is the only alarm, the audible alarm will produce a slow beep.

The red **OVERLOAD LED** indicates the load has exceeded the maximum output power the unit can deliver. Either the inverter board or the static switch generates this alarm. When the load is on the inverter, the inverter board generates the alarm, and once the load transfers to bypass, the static switch generates the alarm, and holds the unit on bypass until the load returns to a safe level. The GENERAL ALARM / SUMMARY alarm relay will activate and the audible alarm will start beeping.

The red **OVER TEMP LED** will light and the audible alarm will start when the temperature of the switching devices, or the inverter transformer has risen above safe levels. There are 2 levels of this alarm. The first level is a high temp pre-alarm. It is used to alert users of a possible problem, so load or ambient temperature can be decreased. The load is still supplied from the inverter. The GENERAL ALARM / SUMMARY alarm relay will activate, and the audible alarm will start beeping. The second over temperature alarm will cause the inverter to transfer to bypass before damage to the system occurs.

The red **BATTERY DISCONNECT LED** monitors the contact closure on the battery breaker. In some models, auxiliary contacts are used to monitor the breaker status, and other units compare the voltages across the battery breaker. Because the potential of the inverter shutting down due to a power failure, the GENERAL ALARM / SUMMARY alarm relay will activate and the audible alarm will start.

The red **DISCHARGE LED** indicates the unit is running on batteries, or the batteries are in a discharged state. If jumper P5 is in the B position, the DISCHARGE alarm will control the UTILITY FAIL relay. There will also be a slow beep from the audible alarm.

The red **LOW BATTERY LED** will indicate the batteries are approaching the low DC shutdown point. The LOW BATTERY relay, and the GENERAL ALARM / SUMMARY alarm relay will activate. The audible alarm will also start.

The relay interface is connected to J4 of the display PCB. J4-1 to J4-3 are the ON BYPASS contacts. J4-4 to J4-6 are the GENERAL ALARM / SUMMARY alarm contacts. J4-7 to J4-9 are the LOW BATTERY alarm contacts. J4-10 to J4-12 are the UTILITY FAIL contacts.

Pressing the **RESET** will silence any audible alarm associated with this display.

Connector J4 of the display connects dry relay contacts for the user to interface with their equipment. Although the PCB has Form C contacts, only the NO or NC contacts are wired to the DB9 connector. If the user desires a change to the state of the relay contacts, the appropriate wire may need to be moved to the opposite contact.

Following is a list of the contact locations:

- J4 pin 1 Normally Open contacts for the LOAD ON BYPASS alarm.
- J4 pin 2 Common point for the LOAD ON BYPASS relay
- J4 pin 3 Normally Closed contacts for the LOAD ON BYPASS alarm.
- J4 pin 4 Normally Open contacts for the General alarm.
- J4 pin 5 Common point for the General alarm relay.
- J4 pin 5 Normally Closed contacts for the General alarm.
- J4 pin 7 Normally Open contacts for the LOW BATTERY alarm.
- J4 pin 8 Common point for the LOW BATTERY relay.
- J4 pin 8 Normally Closed contacts for the LOW BATTERY alarm.
- J4 pin 10 Normally Open contacts for the UTILITY FAIL alarm.
- J4 pin 11 Common point for UTILITY FAIL relay.
- J4 pin 12 Normally Closed contacts for the UTILITY FAIL alarm.

DISPLAY BOARD JUMPERS AND ADJUSTMENTS:

R38 adjusts the bar graph. It should be adjusted to match the load applied to the unit.