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Battery Manager / Load Tester

General Overview:

The Battery Manager/Battery Load Tester offers a unique solution to monitoring the status of both the Charger and Battery is a Lead Acid Charging circuit.

The unit uses an embedded micro controller to continuously monitor and initiate testing sequences as needed or pre-defined.

The Battery Manager when set into the corresponding 12V or 24V battery mode via the on-board selector switch will monitor for the following

1. Battery Available
2. Charger Available
3. Acceptable voltage level of Battery
4. Acceptable voltage level of Charger

Should any of the above conditions fall out of the acceptable / allowable levels the unit will switch the fault relay, thus notifying the user.

The Battery Manager will periodically at a pre-defined timed interval enter a load testing sequence. The load testing sequence will energize a dedicated slave relay to allow the user control over larger relays and contactors. The slave relay should signal a battery load bank to be connected. During the battery loading sequence the battery manger will take voltage samples to ensure that the battery is considered to be in a healthy state.

The dedicated input will allow the user to initiate their own load test and therefor resetting the timer of timed interval load testing.

General Specifications:

1. Supply input voltage: 6VDC to 30VDC.
2. Supply input current: Up to 60mA.
3. Clock speed: 32 MHz
4. Input: 1 x Opto-Isolated input.
5. Output: 1 x Relay Switched 90W output.
6. Potential free outputs: 1 x SPDT output rated at 90W.
7. Fuse Protection: Yes, Supply (1x6A), Control (0.5A)

8. Time adjustments: Yes, Pre-defined at order stage
9. Onboard indication: Yes, LED Based, Battery Available, Charger Fail, load Test Fail and Battery fail / Disconnected.

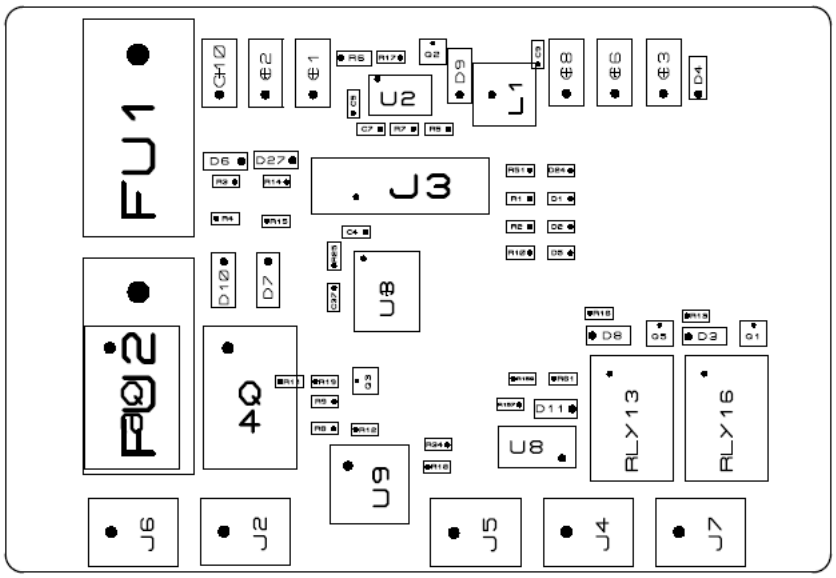
General Operation:

The board can be powered from both the charger or the battery circuit independently.
The fault relay is configuring to be a normally closed contact when all power is removed, this is considered to be a fail-safe connection. In other words, the controller will only enter a healthy state when all health conditions have been satisfied.

Pin-Out:

J6 = Battery pos + and Battery neg -
J2 = Charger pos + and Charger neg –
J5 = Remote Test Input
J4 = Load Control Relay
J7 = Fault Relay

General Layout of PCB:



Contact us:

For further details or requirements please contact us at Info@day-tec.com