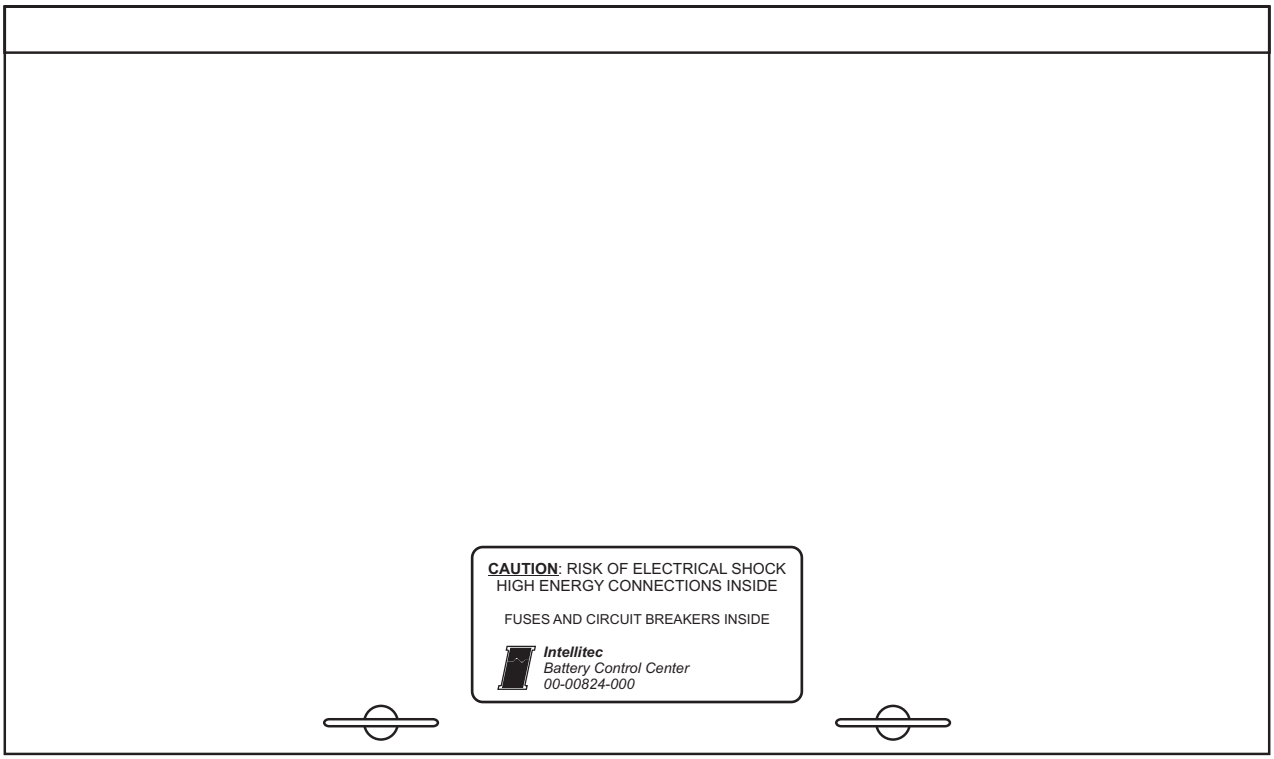
MONACO - SIGNATURE REAR BCC

SERVICE MANUAL



CAUTION:

The Battery Control Center is a centralized power switching, fusing, and distribution center. Power from both the chassis and coach batteries is fed into the box. The full power of these batteries is available within this box. Inadvertent shorts inside this box could result in severe damage and/or injury.

All servicing within this box should be done only by a qualified Service Technician.

The Battery Control Center is a centralized battery power switching and distribution point. It includes a number of modules, each with fuses and some control, along with box-mounted relays and circuit breakers. The fuses and relays on the modules all have LED indicators to help troubleshoot any problems that might occur. Each module-mounted relay has LEDs to indicate power to the relay, power from the relay and power to the relay coil. These LEDs aid in troubleshooting.
The LEDs will only work when the ignition is turned on.

Each module is described on the following pages.

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P/N 53-00824-000 Rev. B 121503

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BCC/BIRD Module

The BCC/BIRD module performs a number of battery control functions.

Battery Disconnect

The module operates with 2 latching relays to disconnect the coach battery for storage. At the first press of the “disconnect” button, the relays disconnect. With the next press, the relays connect the batteries. There are two LEDs that indicate the state of the disconnect relays; one of these should be on at a time. There is an LED indicator on the module that lights when the button is pressed. There is also a button on the module that can be used as the button in the coach.

Isolator Function

The isolator function of the module senses when either battery is being charged. After a period of about 30 seconds, the module activates the isolator relay in the box, connecting the batteries together so both are charged. An LED on the module indicates when the relay is “on”. There is also a button on the module that will momentarily close the isolator relay to provide both an auxiliary start and to test the relay.

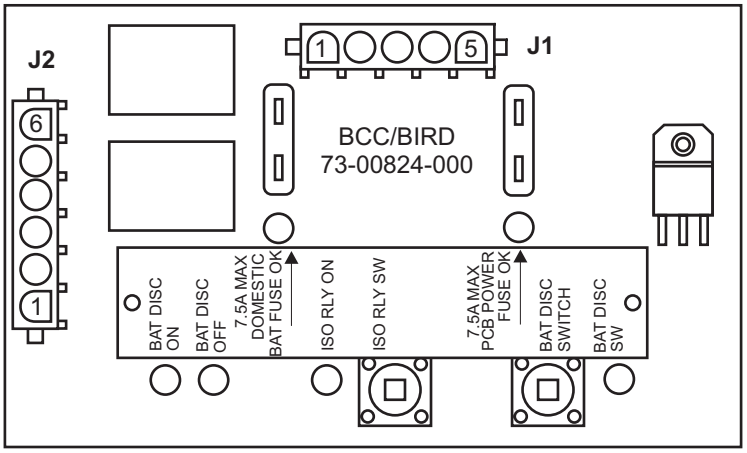
Fuses

There are two fuses on the module, each with their own LED indicator. One of these fuses provides power for the module and the isolator function. *If this fuse is defective, the LED will be out and the module will not function.* The other fuse provides power for the battery disconnect relays.

CONNECTIONS

J1 - 1	Ground
J1 - 2	Domestic Battery
J1 - 3	Ignition Signal In
J1 - 4	From Bat Boost Switch
J1 - 5	From Bat Disconnect Sw

J2 - 1	Isolator Relay Coil
J2 - 2	Isolator Relay Coil
J2 - 3	BD Relay 1 “I”
J2 - 4	BD Relay 2 “I”
J2 - 5	BD Relay 1 “S”
J2 - 6	BD Relay 2 “S”



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PCB1 module performs the control of the engine starting and running. It includes relays to provide power that is switched by the ignition, a neutral/safety interlock relay and a relay to drive the starter relay on the engine. It also includes the driver for the LED indicators on all the modules to turn them on only when the ignition is on. There are two rocker switches on this module that allows starting of the engine from this module. One of the switches selects the dash-mounted ignition switch, or the rear-mounted switch, and the other acts as a starter switch.

Engine Starting

A signal from the dash-mounted ignition switch is sent to the module where it goes through the neutral/safety relay and then drives a relay to operate the starter relay.

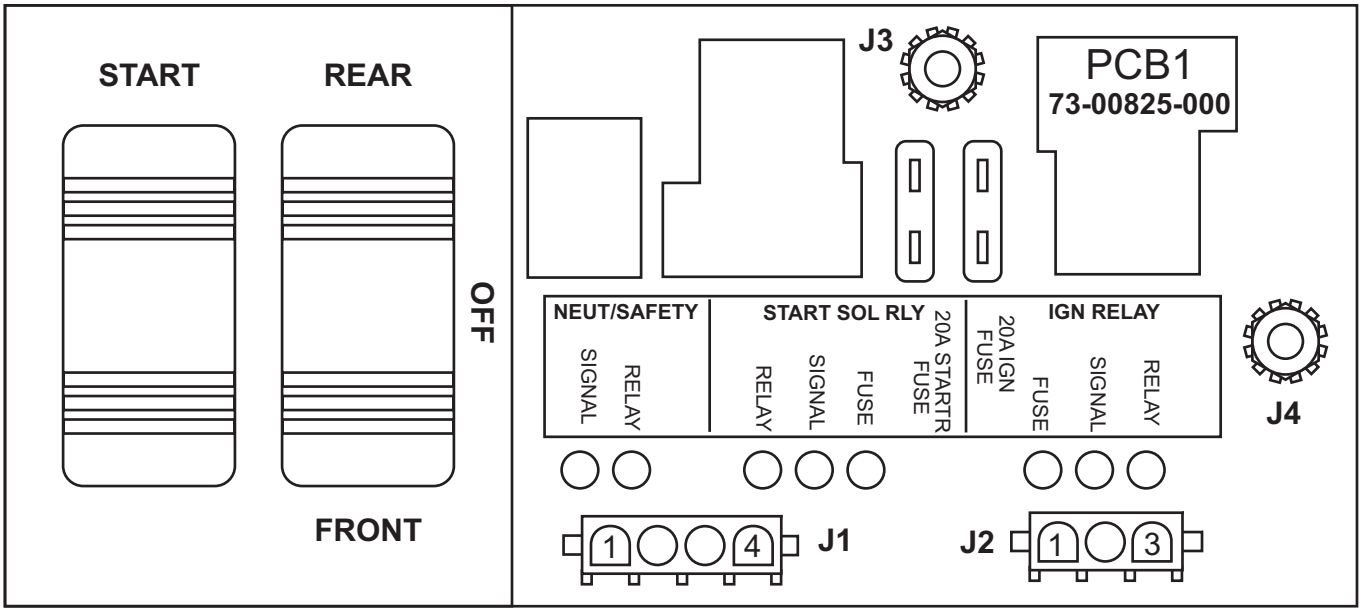
CONNECTIONS

J1 - 1 Test Signal (ground ed with ign)
J1 - 2 Ignition
J1 - 3 Ground

J2 - 1 From Ign switch
J2 - 2 From Solenoid in Front Run Box
J2 - 3 From Leveler safety terminal
J2 - 4 To Starter

J3 From switched chassis battery

J4 Ignition switched chassis battery



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PCB 2 module controls the hydra fan, disables the slide out, docking lights, and brake lights.

Hydra Fan
Ignition switched power is brought into the module and applied to the hydra fan relay. The signal for the coil comes from the thermostat to turn the fan on and off to keep the engine cool.

Slide-Out Disable
Power for the control of the slide-out is brought into the module through the 7.5 amp fuse and applied to the relay. The coil is powered by ignition voltage to open the relay contacts when the ignition is on.

Docking lights
Power for the docking lights comes from the chassis battery through the docking light fuse and applied to the docking light relay. The coil of the relay gets powered from the switch at the dash.

Brake Lights
Power for the brake lights comes from the chassis battery through the brake light fuse and applied to the brake light relay. The coil of the relay gets powered from the switch of the brake system.

CONNECTIONS

J1 - 1 Test LED input
J1 - 2 Power from domestic circuit breaker block
J1 - 3 Ignition input
J1 - 4 From domestic battery disconnect
J1 - 5 Ground

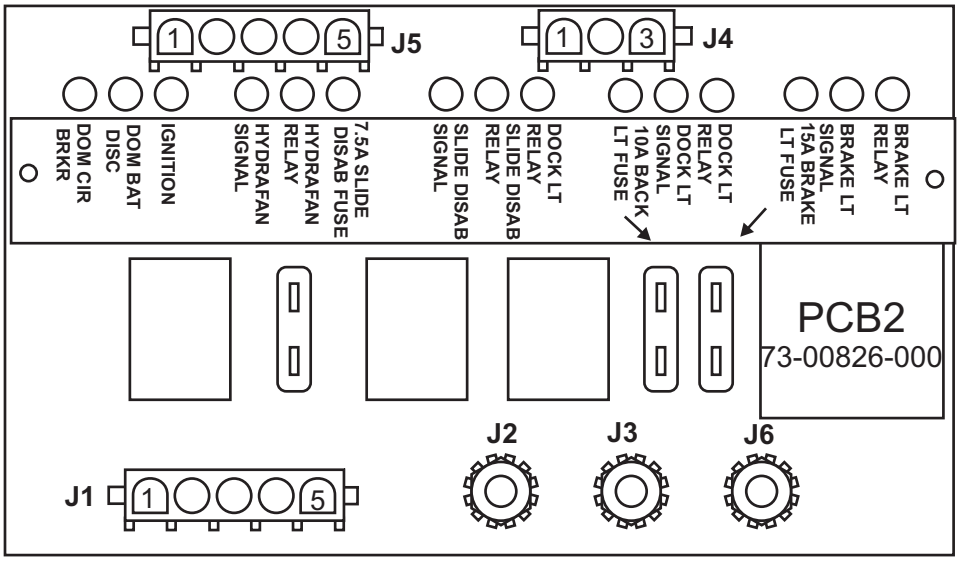
J2 To backing lights

J3 From Chassis battery switch

J4 - 1 To Docking lights
J4 -2 To rear Docking lights
J4 - 3 To Brake light relay coil

J5 - 1 From radiator thermostat
J5 - 2 To hydra fan
J5 - 3 From radiator thermostat
J5 - 4 Power to bedroom slide-out switch
J5 - 5 To slide-out switch

J6 To Brake lights



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PCB3 module controls the AC clutch, fuel filter and the alternator failure warning.

AC Clutch
Power is brought in to the module from the chassis battery and applied to the AC clutch relay through the 20 amp AC clutch fuse. The coil signal comes in to the coil from the dash.

Fuel Filter
Power is brought in to the module from the chassis battery through the fuel filter fuse and applied to the relay. Power for the relay coil comes from the ignition. All the LEDs should be on when the ignition is on.

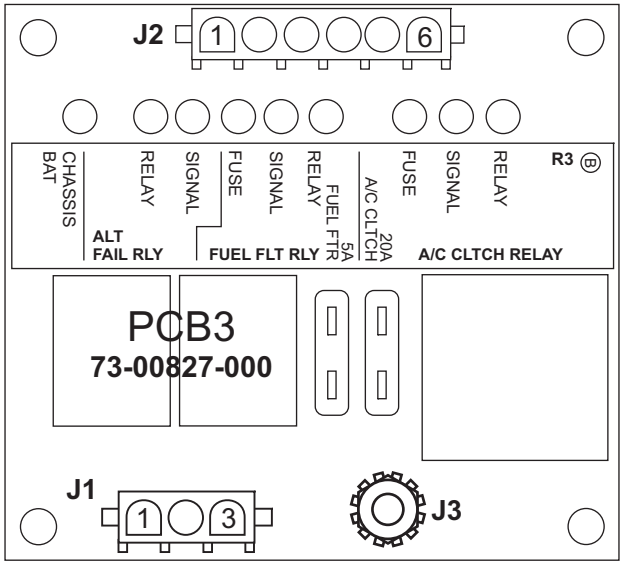
Alternator Failure
The signal for relay coil is brought into the module from the voltage regulator. The LEDs should all be on when the ignition is on and the alternator is working.

CONNECTIONS

J1 - 1 Ignition
J1 - 2 LED test input
J1 - 3 Ground

J2 - 1 From Alt regulator
J2 - 2 To Alt failure relay coil
J2 - 3 To Alt failure relay coil
J2 - 4 Power to fuel filter control
J2 - 5 Into AC clutch relay coil
J2 - 6 To AC clutch

J3 From Chassis battery switch



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Cold Weather Option Module

The Cold Weather Option module controls the heaters on the water storage tanks to prevent them from freezing in cold weather.

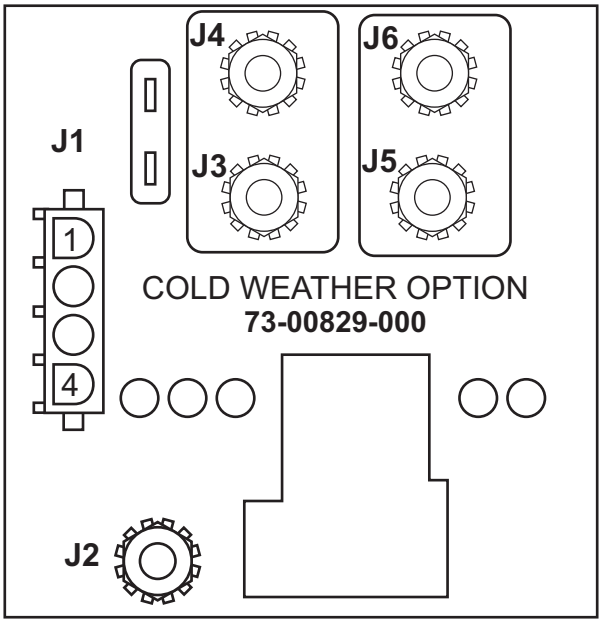
CONNECTIONS

J1 - 1 To light in tank heater switch
J1 - 2 To tank heater switch
J1 - 3 LED test input
J1 - 4 Ground

J2 - To tank heater mat stud

J3 -

J4 - From Domestic battery



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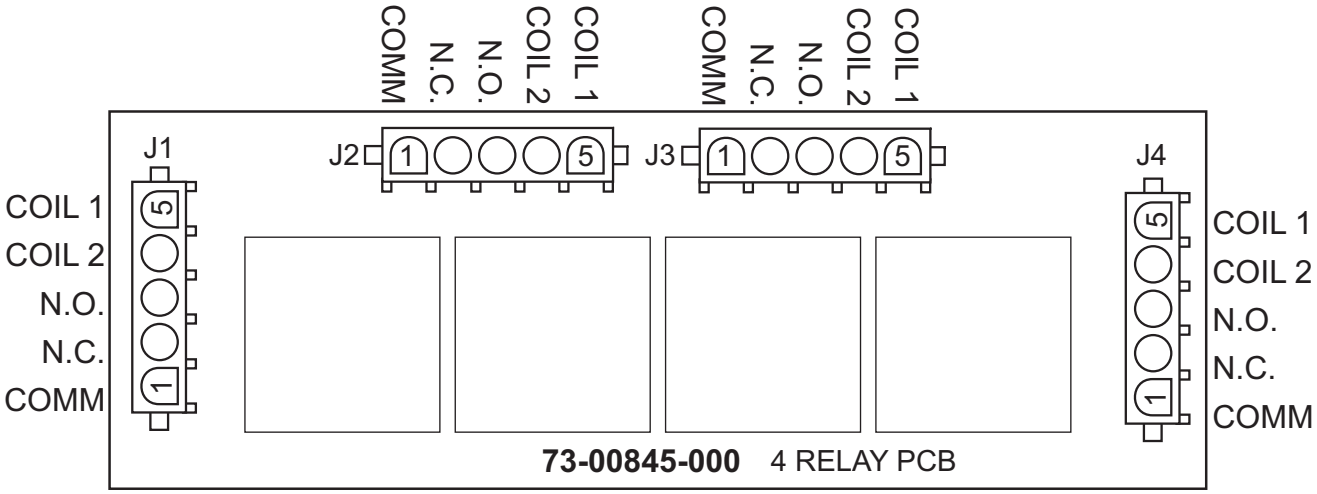
Accessory Relay Module

The optional Accessory Relay Module consists of four SPDT relays each pinned out to a separate 5-pin plug. These relays may be used for switching various options as necessary.



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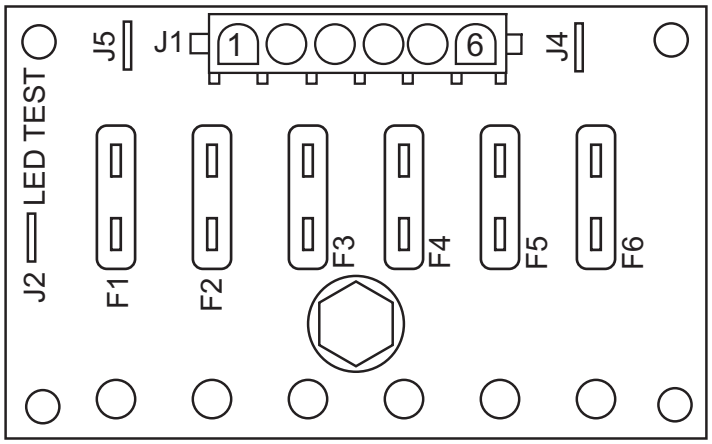
Fuse Module

The fuse module provides fusing of up to 6 circuits. Multiple modules are used in the control center, depending on how many circuits are needed. Each fuse on the module has an LED associated with it that turns ON when the board has power applied and ignition is ON. *If a fuse is blown, the LED will not illuminate.*



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