

Application Brief - Pilot House Navigation Battery Isolation Using the CL-Series BatteryLink™ ACR

The Coast Guard has found that vessels may lose communications if there is flooding of the engine room. With the engine room flooded, charging stops, and circuitry may short from sea water and rapidly discharge the main batteries. In larger vessels and commercial applications, it is desirable to have the house or auxiliary battery (#2), in the pilothouse to power navigation and communications equipment. This pilothouse battery can be connected through the CL-Series BatteryLink™ ACR (PN 7600) to isolate it from the other circuitry. The BatteryLink™ ACR is installed in the pilothouse along with the pilothouse battery (#2).

In the event of flooding of the lower levels, the BatteryLink™ ACR will isolate the communications battery and prevent discharge by anything but the intended critical loads. The BatteryLink™ ACR sensing circuit maintains independence from voltage drop in the charging wiring and will maintain the charge of the communications battery automatically under normal operation.

When using the BatteryLink™ ACR to protect the pilothouse battery:

- Connect the pilothouse battery (#2) positive to BatteryLink™ ACR Terminal A.
- Connect the boat's main source battery (#1) (could be start or house battery) positive to BatteryLink™ ACR Terminal B through a 120 to 150A circuit breaker (assuming 6 ga. wire) placed near the main source battery.
- Connect the remote sensing line from main source battery (#1) positive to BatteryLink™ ACR Terminal 1 to allow the BatteryLink™ ACR to sense charge availability. Use a suitable fuse to protect this line against faults in the wire.
- Connect Terminal 3 to the negative bus or negative of the auxiliary battery (#2).
- To provide a manual override or to connect a remote LED, refer to BatteryLink™ ACR instructions.

