

B I R D – 909 Wiring Repair

Certain Concord: 2024 – 2025

Certain Entourage: 2024

Certain Freelanders: 2023 – 2025

Certain Leprechaun: 2021 - 2025

Problem: We have seen certain conditions with motorhomes equipped with the Auto Generator Start system, which includes a Bi-Directional Isolator Relay Delay (BIRD) module, where the isolator solenoid may stay engaged and cause a low battery situation in both the house auxiliary and chassis engine batteries.

Cause: The BIRD-909 module is improperly wired to a constant chassis battery voltage signal on the IG+ terminal, which is vendor specified for ignition circuit voltage.

Remedy: Correct BIRD-909 wiring by connecting the red/white wire on the IG+ terminal to the yellow/black ignition source wire located near the auxiliary buss bar and isolator solenoid. The method of repair is dependent on the Auto Generator Start system installed (Magnum or Onan).

BIRD-909 Module Wiring Repair

- 1) Locate isolator solenoid; ensure orange/white wire is in bottom battery terminal, and the red/white wire is on top battery terminal. A black/yellow wire should be on the trigger post of the solenoid. Figs. 1 & 2

MAGNUM AGS

- Disconnect red/white wire from isolator solenoid in battery storage area or rear dinette base (2022 & newer Frelander/Leprechaun 26/260DS & 29/298KB models).
- Using WAGO or an appropriately sized connector and splice red/white wire with yellow/black wire that should be laying in the same area. Note: The yellow/black wire may have a yellow/red wire attached; since this is an ignition power source, all 3 (yellow/black, yellow/red & red/white) should be connected. Reference Figures 2 & 3

ONAN AGS

- Locate BIRD-909 module, remove red/white wire from IG + terminal, tape end or protect end so it will not short to another component. Alternately, the wire can be cut, leaving it connected to the module; the module wire end can then be used and spliced into a 2-way WAGO connector with the wire being brought to its location; the other side should be terminated and taped to prevent any electrical short in the circuit. Figure 4
- Locate yellow/black wire near the buss bar/isolator solenoid (battery compartment or dinette, as noted in Magnum explanation), connect a length of 16-gauge wire, long enough (8-15 ft) to be routed to the BIRD-909 module location (see attached location addendum). Figure 5
- Add a proper size spade connector to wire and connect to IG + terminal on BIRD module, unless splicing into a 2 way WAGO connector as previously noted.

- On the 2023-5 model year Frelander/Leprechaun 26/260 DS and 29/298 KB floor plan models, the yellow/black wire can be connected to the BIRD-909 module directly (no splice needed). All other floor plans will need a length of wire added. If the isolator solenoid on the 26DS/260DS & 29KB/298KB models cannot be found in the dinette, it will be behind a black plastic cover in the exterior storage compartment located below the dinette (in front of the entrance door).

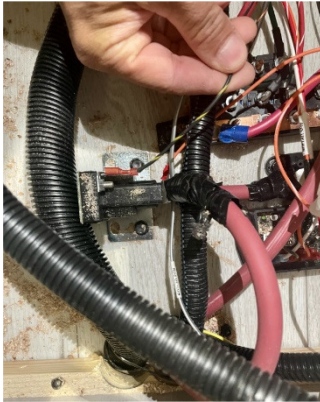


Fig. 1

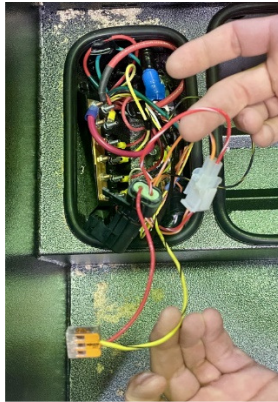


Fig. 2

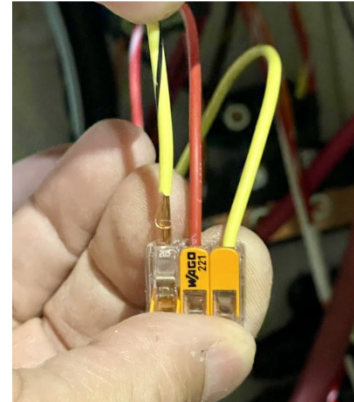


Fig. 3

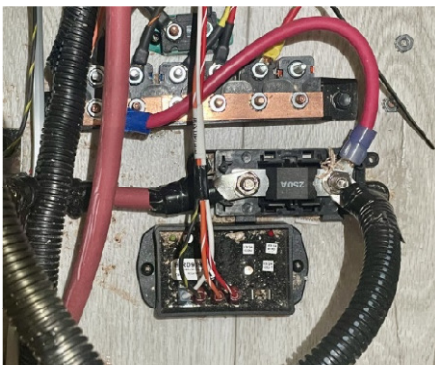


Fig. 4

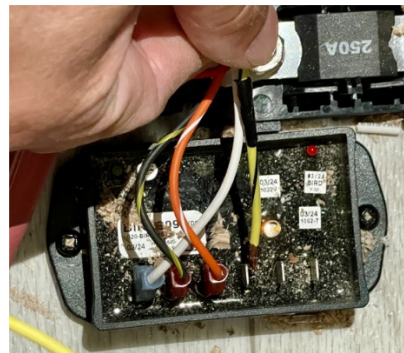


Fig. 5

Bird-909 Location Addendum

22/220XG – Behind monitor panel/ power center @ entry way.

23/230FS – Behind battery disconnect switch/power center @ entry door.

26/260DS – For 2021-2, the BIRD is in rear dinette base (BIRD) and the isolator is in compartment in front of entrance door. For 2023-5, both are in the rear dinette base.

26/260MB – Behind monitor/switch panels in entry area.

27/270QB – Behind power center.

29/298KB – For 2021-2, the BIRD is in rear dinette base (BIRD) and the isolator is in compartment in front of entrance door. For 2023-5, both are in the rear dinette base.

31/319MB – Located between TV riser and the kitchen base cabinet end; likely on the floor behind the fireplace, if equipped, or behind cabinet storage access panel. If not on the floor, it may be up near the countertop mounted on the wall.

311FS – Located behind battery disconnect/power center in entry way.

330DS – Located in kitchen base cabinet behind access panel near sidewall.

340BH – Located behind access panel below the furnace vent in rear drivers' side bedroom cabinet.

321DS – Behind battery disconnect switch, access panel in exterior storage compartment behind the entrance door.