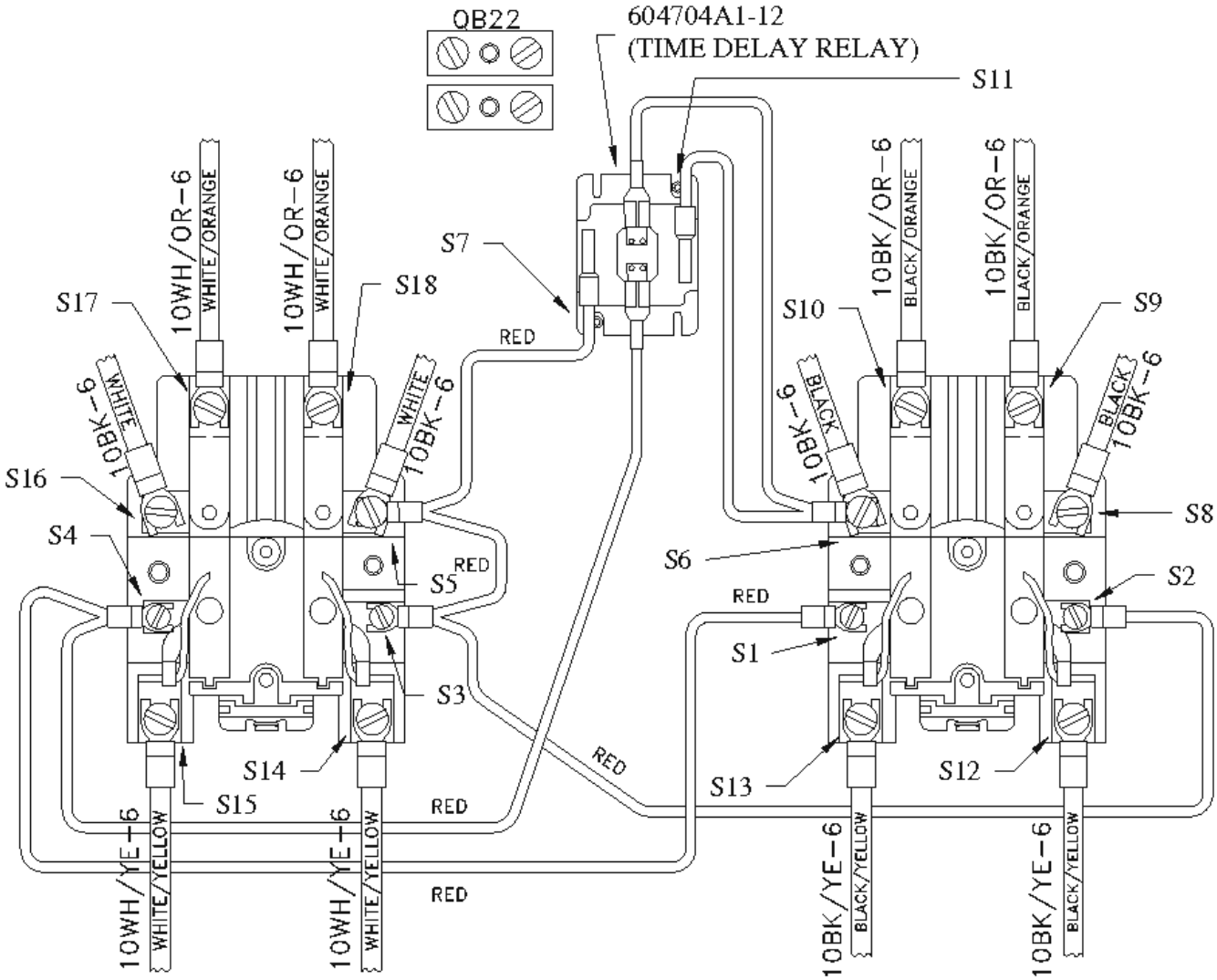

(note: image quality improves during printing process)

TROUBLE SHOOTING AND REPAIR OF ES3030G

THIS SHOULD ONLY BE DONE BY A QUALIFIED ELECTRICIAN!!!

The following is a list of common problems that occur at the installation and field operation. Reference parts and wiring diagram.

I. POWER CONTACTORS WILL NOT OPERATE FOR GENERATOR

A. Are the power leads hooked up to the two solid white and two solid black leads? If the power leads are hooked up, measure the voltage between the solid white and black leads. It should read between 110 to 130 VAC. It takes approximately 30 to 40 seconds for the time delay relay to energize.

B. Check the red jumper leads. See wiring diagram. Make sure all wires are securely

fastened. **This should be done with the power off.**

C. To check relay coils, **be sure all power sources are off.** Remove red jumper wire from S1. With continuity or ohm meter, check between screw S1 & S2, you should have continuity or ohm resistance. If not, you have burned out coil and relay needs to be replaced. Repeat the same test for screws S3 & S4. If coils check ok, go to next procedure.

D. To check time delay relay, **be sure all power sources are off.** With continuity or ohm meter check between screws S5 & S6. You should read continuity or ohm resistance. If not it means time delay relay needs to be replaced.

II. NO SHORE POWER

A. Are the shore power leads securely fastened to the two white w/orange stripe and two black w/orange stripe leads? With a load turned on, measure the voltage between the wires white w/orange stripe and black w/orange stripe leads (S17, S18 & S10, S9).

This should measure between 110 to 130 VAC. If no voltage, check power supply. If power is ok, check power between two white w/yellow stripe and two black w/yellow stripe. This should read between 110V to 130V. If no voltage go to step B.

B. With power off, check relay contacts and be sure they are in their normal closed condition and not stuck in the open position. Also check to see if the contacts are not pitted. If any of the above is correct, replace relay(s). If the relays check good, go to C.

C. Check the connections to the power panel. These are the two white w/yellow stripe and two black w/yellow stripe leads (S14, S15 & S13, S12). You should get a volt reading of 110 to 130 VAC. If no voltage, repeat step B and check wiring to the shore cord.

III. RELAYS HUM OR CHATTER WHEN IN OPERATION

A. This may be caused by dust or moisture in the relays. Make sure all power sources are off. Using an air hose with a light rag over the end of the hose to prevent moisture from being blown into the relays, blow out the relay enclosure.

B. Low voltage on the main power source will make the relays chatter if 95 volts or below. Check voltage at screws S5, S6, S8, S16 and red control wires to be sure they are secured.

IV. TO REPLACE & INSTALL RELAYS (Disconnect all power sources)

A. **Disconnect all power source leads and load leads.** Remove total enclosure from the RV. If only replacing one relay, disconnect the wires on that relay and drill the rivets out of that relay from the back side. If replacing both relays, remove wire at S6, S7, S11 and drill out four rivets that hold the relays from the back side. This will allow the wires to stay on the relay and be easier to duplicate the wiring on the new relays. Install the new relay(s) with rivets of the same size removed. Replace wires according to wiring diagram.

Part #	Description	Quantity
QB22	GROUND BAR	2
604704A1-12	TIME DELAY RELAY	1
ES201-14RE	CONTROL WIRE	1
ES202-14WH/RE	CONTROL WIRE	1
ES203-14BK/RE	CONTROL WIRE	1
20241-83	110V AC DPDT RELAY	2
10BK-6	MAIN POWER WIRES	2
10WH-6	MAIN POWER WIRES	2
10BK/OR-6	INVERTOR POWER WIRES	2
10WH/OR-6	INVERTOR POWER WIRES	2
10BK/YE-6	LOAD POWER WIRES	2
10WH/YE-6	LOAD POWER WIRES	2
ES204-16RE	COIL CONTROL WIRES	4
GO TO WWW.ESCOUSA.NET/STORE TO ORDER!		

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