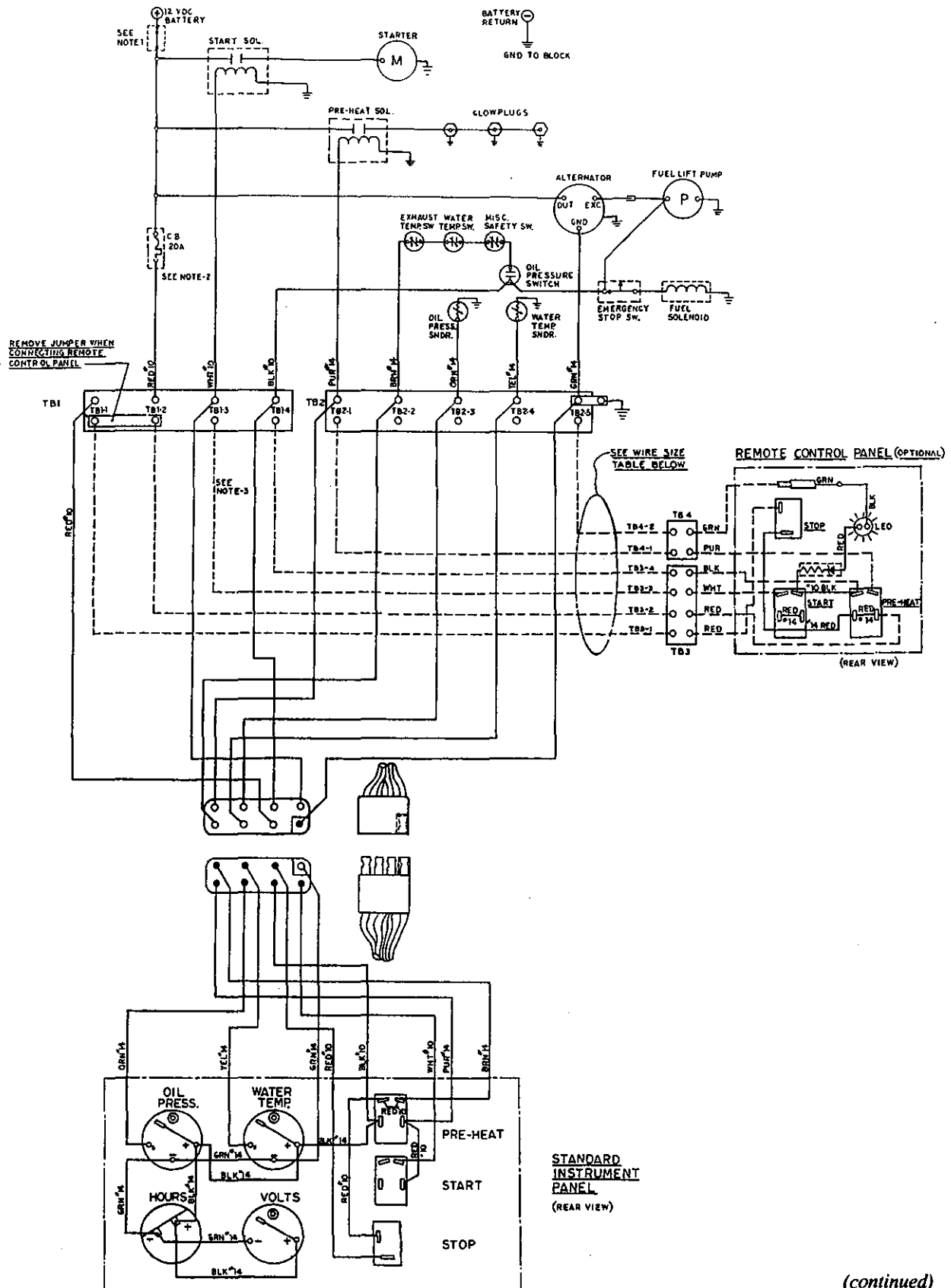


# DC ELECTRICAL SYSTEM

## BT GENERATOR (EARLY MODELS) WIRING DIAGRAM #34651



(continued)

# DC ELECTRICAL SYSTEM

## BT GENERATOR (EARLY MODELS) WIRING DIAGRAM #34651

- ① AN ON-OFF SWITCH SHOULD BE INSTALLED IN THIS CIRCUIT TO DISCONNECT THE STARTER FROM THE BATTERY IN AN EMERGENCY WHEN LEAVING THE BOAT. TWELVE VOLT DIESEL ENGINE STARTERS TYPICALLY DRAW 200 TO 300 AMPS WHEN CRANKING. THE DURATION OF INDIVIDUAL CRANKING CYCLES SHOULD NOT EXCEED 30 SECONDS. A SWITCH WITH A CONTINUOUS RATING OF 175 AMPS AT 12 VDC WILL NORMALLY SERVE THESE FUNCTIONS BUT A SWITCH MUST NEVER BE USED TO MAKE THE STARTER CIRCUIT.
- ② THIS PRODUCT IS PROTECTED BY A MANUAL RESET CIRCUIT BREAKER LOCATED NEAR THE STARTER AND AS CLOSE TO THE SOURCE OF CURRENT AS POSSIBLE. EXCESSIVE CURRENT DRAW ANYWHERE IN THE INSTRUMENT PANEL, WIRING OR ENGINE WILL CAUSE THE BREAKER TO TRIP. IN THIS EVENT MOST GENERATORS WILL SHUT DOWN BECAUSE THE OPENED BREAKER DISCONNECTS THE FUEL SUPPLY. THEREFORE THE BUILDER/OWNER MUST BE SURE THAT THE INSTRUMENT PANEL WIRING AND ENGINE ARE INSTALLED TO PREVENT CONTACT BETWEEN ELECTRICAL DEVICES AND SALT WATER.
- ③ MOST STARTER SOLENOIDS DRAW 15 AMPS. THEREFORE THE VOLTAGE DROP IN THIS CONDUCTOR MUST BE NO GREATER THAN 10% (IN THE PATH FROM THE STANDARD START SWITCH TO ANY REMOTE SWITCHES AND BACK TO THE STANDARD STARTER SWITCH). IF THIS REQUIRES IMPRACTICALLY LARGE CONDUCTORS THEN A RELAY MAY BE ADDED TO CONTROL THE STARTER SOLENOID ITSELF.

### GENERATOR OPERATION

PRE-HEAT: DEPRESS PRE-HEAT SWITCH FOR 15 TO 60 SECONDS AS REQUIRED.

START: DEPRESS BOTH PRE-HEAT AND START SWITCHES (PRE-HEAT ALSO OVERRIDES LOW OIL PRESSURE SHUTDOWN CIRCUIT).

WHEN GENERATOR STARTS RELEASE START SWITCH ONLY. CONTINUE HOLDING PRE-HEAT SWITCH FOR A FEW SECONDS (UNTIL OIL PRESSURE REACHES 20PSI).

STOP: DEPRESS STOP SWITCH UNTIL THE GENERATOR STOPS COMPLETELY.

### ④ WIRING SIZES TO REMOTE CONTROL PANEL

TERMINALS	0-16'	16-20'	20-25'	25-32'	32-40'	40-50'	50-65'
TB1-1 TO TB3-1	#12	#10	#10	#9	#8	#7	#6
TB1-2 TO TB3-2	14	12	12	10	10	9	8
TB1-3 TO TB3-3	12	10	10	9	8	7	6
TB1-4 TO TB3-4	16	16	16	16	16	16	16
TB2-1 TO TB4-1	16	16	16	16	16	16	16
TB2-5 TO TB4-2	16	16	16	16	16	16	16