



- BT1 Battery
- CR1 Reverse Current Diode
- E1 Electric Choke
- E2 Fuel Pump (When Used)
- E3 Spark Plug
- G1 Generator
- K1 Start Solenoid Relay
- K2 Stop Relay
- K3 Two-Step Voltage Regulator Relay
- K4 Gas Solenoid (When Used)
- M1 Charge Ammeter
- R1,R2,R3. Resistor
- S1 Start-Stop Switch
- S2 Breaker and Cap Assembly
- T1 Ignition Coil

FIGURE 3-1. TYPICAL SCHEMATIC FOR NB

MCKK (SPEC D) AND NH (SPEC A THROUGH C) MODELS

This description refers to an NH generator set, but applies for the most part to the Spec D MCKK generator set as well. See Figure 3-2.

STARTING

When switch S1 is moved to START, battery negative (-) is connected through switch S1, closed K4 contacts, and start disconnect relay assembly K4 terminals 6 and 7, to start solenoid relay K1. The N.O. contacts of K1 are closed to connect B+ to the choke, and to connect B+ to the series field windings of the generator and stop relay K2. K2 closes its N.O. contacts to connect B+ to the two-step voltage regulator relay K3, to the fuel pump or gas valve E2 (if used), and to ignition coil T1 and breaker points assembly S2.

IGNITION

The generator acts as a motor and cranks the engine. If ignition voltage and fuel are present, the engine starts and reaches rated speed. Generator DC output, after reaching 10 to 11 volts, energizes the transistor in start disconnect relay K4 assembly, which connects ground to start disconnect relay K4. K4 remains energized during genset operation, holding its N.O. contacts closed to keep stop relay K2 energized, and providing voltage for the ignition circuit and battery charging through ammeter M1. The N.C. contacts of K4 are opened at this time, breaking the start signal from switch S1 and start solenoid K1. Optionally, another set of K4 contacts are closed, connecting B+ to the choke and its heating element (when used).