## 12 V BATTERY CHARGER 500 R6 0.2 LM350 LED R3 230 **TO 12V** BATTERY Q1 2N2905 LM301A 1N457 0.1 µF 1000 pF START

Fig. 11-1

## **Circuit Notes**

This circuit is a high performance charger for gelled electrolyte lead-acid batteries. Charger quickly recharges battery and shuts off at full charge. Initially, charging current is limited to 2A. As the battery voltage rises, current to the battery decreases, and when the current has decreased to 150 mA, the charger switches to a lower float voltage preventing

overcharge. When the start switch is pushed, the output of the charger goes to 14.5 V. As the battery approaches full charge, the charging current decreases and the output voltage is reduced from 14.5 V to about 12.5 V terminating the charging. Transistor Q1 then lights the LED as a visual indication of full charge.