



NOTES;

1. THE TEST FIXTURE DESCRIBED ABOVE USES A LATCHING RELAY CONFIGURED TO TEST A BATTERY WITH A LOAD THAT APPROXIMATES THE AIRCRAFT'S BATTERY ONLY ENDURANCE REQUIREMENTS. AN ARRAY OF AUTOMOTIVE LAMPS ARE COMBINED TO ACHIEVE THE DESIRED TEST CURRENT.

SET THE ELECTRIC CLOCK TO 12:00. CONNECT TEST FIXTURE TO BATTERY UNDER TEST. PRESS THE 'START' BUTTON.

LAMPS WILL ILLUMINATE AND THE CLOCK BEGINS TO RUN. WHEN THE BATTERY VOLTAGE DROPS BELOW ~11 VOLTS, THE RELAY WILL DROP OUT, BATTERY LOAD IS REMOVED AND THE CLOCK STOPS. IF THE OPTIONAL CHARGER/MAINTAINER IS CONNECTED, A BATTERY RECHARGE CYCLE WILL BE INITIATED.

AFTER AN INTERVAL DETERMINED BY THE SIZE OF THE CHARGER, THE BATTERY IS READY FOR RETURN TO SERVICE.. THE ELECTRIC CLOCK WILL CONFIRM WHETHER OR NOT THE BATTERY MEETS YOUR DESIGN GOALS FOR BATTERY-ONLY ENDURANCE.

2. THE DRAWING SHOWS TWO METHODS FOR CALIBRATING THE TEST CUTOFF VOLTAGE. THE LM431 IS A VERY PRECISE DEVICE CONFIGURED TO SHUT THE TEST DOWN AT 11.0 VOLTS WITH THE 1% RESISTORS SHOWN. OPTIONALLY, THE BUILDER MAY USE A 500 OHM POTENTIOMETER AND 5% RESISTORS TO CONFIGURE AN ADJUSTABLE TRIP POINT OVER THE RANGE OF ~10.1 TO 12.4 VOLTS.
3. ALL RESISTORS 5%, 1/4W UNLESS OTHERWISE NOTED.