ABSTRACT

Developments in the field of automotive repair shop requires each vehicle to check the capacity of the batteries with the manual. Difficulties were obtained when checking batteries manually, the results are displayed just a number, so the only mechanic who knows the condition of the batteries while the ordinary consumer who does not know his condition. For the needs of the motor vehicle repair shop then be made tool indicators to notice the ability or capacity of the vehicle batteries.

The process works this tool is current and voltage coming out from the batteries of the vehicle when given the load on the tool indicators are thus obtained by calculating the voltage of the batteries with the current available power stored in batteries, which can be obtained approximate estimate whether the current and power batteries are still within the limits of tolerance and the LCD will display data from the measurement results in the form of the phrase "Good", "Good and Charge" or "Replace", accompanied by the results of a number of power flow analysis and voltage. Then the data of the measurement results can be stored and displayed back on the LCD.

This tool can detect the voltage with the Voltage Sensor Module b25 with the average error 3.80 % and accuracy voltage 96.20 %. Current with ACS712 Current Sensor Module with the average error 10:07 % and current accuracy 89.93 %. Results from the sensor readings can be displayed on the LCD. Then, the measurement results can be stored in memory and displayed again on the LCD. This tool facilitates the mechanics at the garage workshop vehicles and facilitate the consumers, especially the laity know Accu conditions that will reduce fraud on the part of a mechanical workshop with the help of the LCD display and the tool can be used for all Accu vehicles.

Keywords: Accu, LCD, ACS712 Sensor Module Current, Voltage Sensor Module b25