

**FEATURES**

- Fully automated testing
- Measures more than 50 different alternator parameters
- Checks all types of alternators and regulators
- Checks all voltage regulator terminals and functions such as computer control, soft start delay, feedback to the car's on board computer
- A 10HP computer controlled variable speed motor
- A computer controlled electronic load bank 6-32V, 250A
- Self diagnostic and calibration

**ALT-99R** is designed to provide rebuilders with a detailed test of the alternators in a short time. The user friendly environment makes the setup and test procedure as simple as pressing a button. The machine not only tests the product to a preset limit, but has a diagnostic system built in. If the unit does not pass the test a press of a key will give the operator a detailed explanation as to why the unit did not work. This eliminates the guess work by the operators and even unskilled persons can operate the tester and make diagnostics of the alternators and voltage regulators.

The alternator tester **ALT-99R** contains a specialized computer with a digital display, keyboard, variable speed drive motor, battery simulator and programmable electronic load. During the automatic test the computer controls the motor driver and load to verify the alternator and voltage regulator according to pre-programmed specifications. For a precise voltage regulator check, the car's on board computer and connection problems are also simulated. Cut-in (turn on) speed, soft start delay, LCR (Load Control Response) function, feedback signal to the on board computer, tachometer output frequency, the rectifier's voltage drop and reverse diode leakage, the voltage regulator saturation voltage, stator voltage and many other parameters are also measured. When the test is complete, the computer verifies all parameters and prints a report. If the unit is no good, diagnostic messages are shown. The total test and print time can vary from 40 to 55 seconds, depending on the type of voltage regulator. The test computer can save information for 1000 test procedures or part codes. Special software for statistical analysis is available too. For reliability tests and engineering analysis a special long time test mode is included.

Tester is supplied with built in label printer (24 pin)(fig A), built in RS232C serial interface for data exchange or SPC programming and test plugs for most popular applications

The tester is available in many working voltages (120 to 480V at 50/60 Hz).

## **SPECIFICATION SUMMARY**

- Programmable variable speed alternator drive system, 10HP, 3PH (15HP for ALT-99H)
- Alternator shaft speed up to 8000 RPM
- Computer controlled load bank 6-32V, 0-250A @ 12V, 0.1V resolution (500A for ALT-99H)
- Programmable for 1000 different alternator numbers with more than 90 parameters
- Built in battery simulator 6-32V
- Built in label printer for performance curves and measured parameters
- Built in test of all voltage regulator terminals
- Special mode to identify voltage regulator terminals
- Capable of checking new computer controlled alternators
- Main test parameters, ranges and accuracies:

Output voltage	0-50 $\pm$ 0.15%
Stator voltage	0-50 $\pm$ 0.15%
Output current	0-300A, $\pm$ 0.15%
Field current	0-10A, $\pm$ 1%
Alternator speed	0-10000 RPM, $\pm$ 1%
Alternator leakage	0-100mA $\pm$ 1%
Feedback voltage	0-50V (0-100% PWM) $\pm$ 0.15%
Output power	0-10000W $\pm$ 0.3%
- Measure turn on speed, ripple voltage, pulley size, input power, voltage regulator instability, torque and coefficient (option) etc.
- Alternator temperature 25-200°C  $\pm$ 1% (option)
- Test modes:
  - Manual
  - Automatic performance scan (semiautomatic mode)
  - Compare with original unit (GO/NO GO test)
  - Multiple parameters test
  - Long test (up to 3 hours)
  - Voltage regulator identify test
  - Special modes (edit data base, communication, diagnostic)
- RS232C serial interface for data transfer from one machine to another or to a Personal Computer
- Self diagnostic after power on and special diagnostic mode
- Built in calibration program



fig. A

