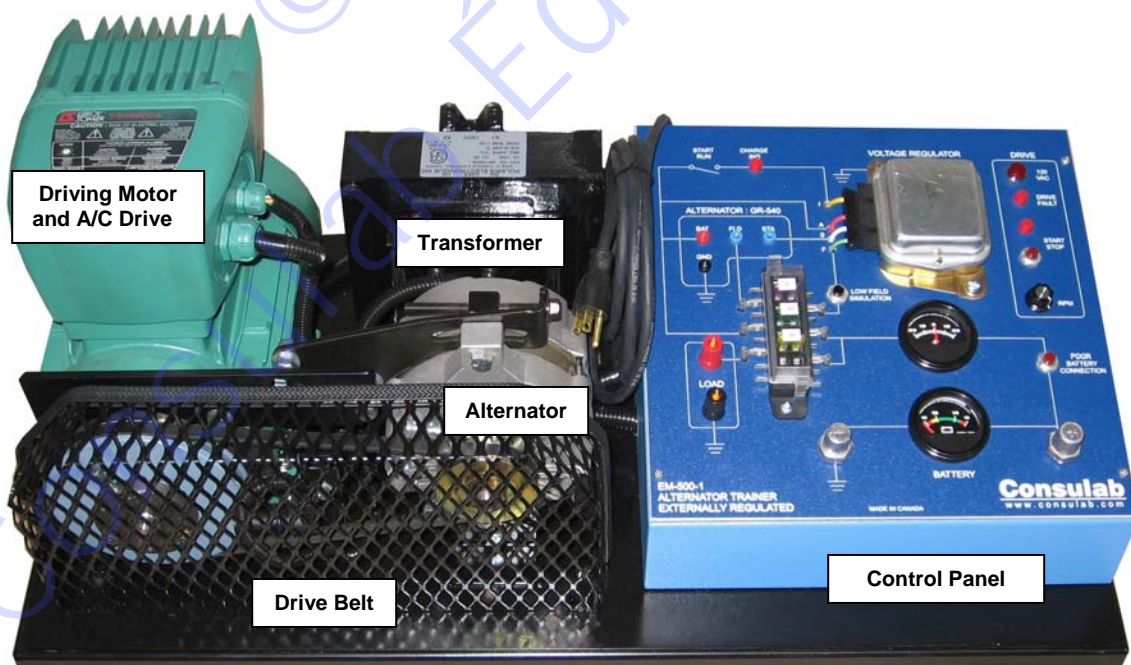


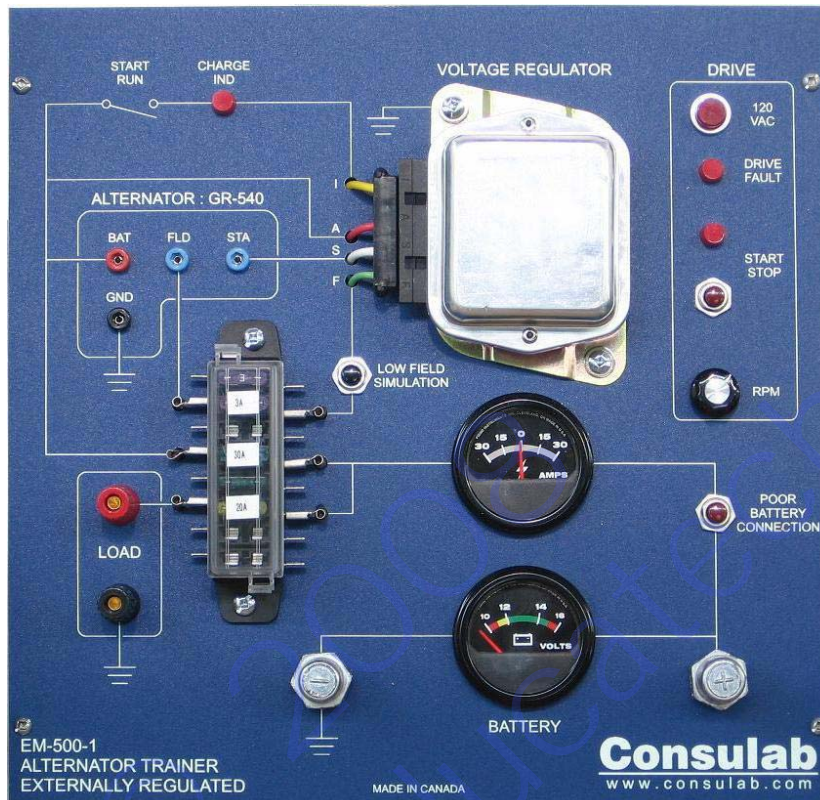
**ALTERNATOR TRAINER
EXTERNALLY REGULATED****DESCRIPTION**

The EM-500-1 trainer is a simulator that allows instructors to demonstrate the operation of automotive charging systems with an external electronic voltage regulator. The synoptic diagram and the layout of all the control and instrumentation units provide clear and simple operation to the user. The trainer is very reliable and equipped with all safety equipment required for demonstration.

The EM-500-1 alternator trainer with externally controlled voltage regulator contains a variable speed drive that modulates alternator input (engine speed) as in an actual vehicle. The alternator has been modified to accommodate a load current of 25A in order to demonstrate the full load charging characteristic and allow the regulator to run at 100% capacity. The student can see how the regulator controls the alternator output as the speed and load vary. After the engine is started and running, the alternator takes over as the source of power and the battery then becomes part of the load on the charging system.



THE EM-500-1 CONTROL PANEL



Battery Connection:	Two stud battery	Alternator Measurements Point:	BAT for battery FLD for field STA for stator GND for negative battery
Load Connection:	Two 4-mm binding posts	Battery Measurements:	10-16V DC battery voltmeter ± 30 A DC Battery ammeter
Fuse Block:	3A filed fuse 30A alternator fuse 20A load fuse	Controls & Indicators:	Drive: 120 VAC lamp Drive fault lamp Ignition start/stop push button Ignition lamp Speed control Charging System: Charge indicator lamp Low field simulation push button Poor battery connection push button
Voltage Regulator:	F-540 external type		
Safety rating:	CSA/UL approved		