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**KAR INDUSTRIES CORP.**

**SPECIFICATIONS**

**SERIES K-800**

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# KAR INDUSTRIES GENERATOR/ALTERNATOR/REGULATOR TEST BENCH

## GENERAL SPECIFICATIONS FOR SERIES K-800

### SPECS DATED 1/1/2006

1. GENERAL OPERATIONS. TESTERS SERIES K-800 IS USED TO OPERATIONALLY TEST 6, 12, 24, 32 AND 36 VOLT, NEGATIVE AND POSITIVE GROUND ALTERNATORS, GENERATORS AND REGULATORS.
2. GENERAL CONSTRUCTION.
  - 2.1 All wires are color coded for identification.
  - 2.2 Utilities required not provided by Manufacturer:
    - 2.2.1 Equipment operates on 208/230-460 VAC 3 Ph, 50 or 60 Hz
    - 2.2.2 Mounting system (Vise) operates manually
    - 2.2.3 Batteries required are: Two (2) 6 volt, one (1) 8 volt and one (1) 12 volt

**Note: Batteries not supply by Manufacturer.**
  - 2.3 All non stainless parts of the console and console bench are given a primer coat of factory-applied rust inhibitor paint
  - 2.4 All switches, meters and indicator lights are labeled as to their function
3. GENERATOR/ALTERNATOR/REGULATOR TESTER.
  - 3.1 The tester includes a console bench made of 16 AWG steel with storage area under the test unit: Two side openings and hinged front doors with magnetic latches and handles. The storage area will accommodate the required batteries as well as other accessories and manuals.
  - 3.2 Motor:
    - 3.2.1 Twenty 20HP minimum also available 25HP, 30HP with a Nema TEFC 254  
Frame insulation class B. As requested by costumer.
    - 3.2.2 The drive pulley accommodates V belts 3/8" through 5/8" wide.
    - 3.2.3 Drive belt tension, manually adjusted.
    - 3.2.4 The motor direction, clockwise or counter-clockwise, is reverse through a power inverter, which runs the variable speeds from 0 to 6000 rpm, speeds could be different as requested by customer.

3.3 Load

3.3.1 Resistive load operates according to the following table at any RPM:

AMPS AT 12V	AMPS AT 24V
10	20
20	40
40	80
60	120
80	160
100	200
150	300
200	400
250	500
300	600

**Note: These loads specs can be adjusted depending on buyer requirements at no extra cost to buyer.**

3.3.2 Tester is able to withstand specified load for a minimum of one (1) hour. A light will glow while the load is **ON**.

3.3.3 Equipment can be tested over a range from 0 to 6000 RPM clockwise or counter-clockwise.

**Note: Higher RPM can be provided at no extra cost to buyer if so desired.**

3.4 Power Control:

3.4.1 Toggle switch mounted on the control panel supplies power to motor, meters and cooling fans.

3.4.2 Power to tester can be left for indefinite periods (without running the motor) without adverse effects.

3.4.3 A light glows when the tester is **"ON"**.

3.5 Control switches:

3.5.1 An **"A - B"** field circuit selector switch determines testing of alternator/generator field system (Positive or Negative).

3.5.2 Full field switch allows full field-testing of externally-regulated alternators.

3.5.3 Field rheostat is adjustable from OFF to a dead short (IE. Infinitive resistance to zero resistance). Fuse protected and mounted on the control panel.

3.6 **"NO CHARGE"** indicator light is mounted on the control panel for internal regulator alternators.

- 3.7 Meters: The following meters are mounted on the control panel.
- 3.7.1 Output digital voltmeter (+/- 0-99.9 VDC).
  - 3.7.2 Output digital ammeter (+/- 0-500 ADC).
  - 3.7.3 Field ammeter digital (+/- 0-20 ADC).
  - 3.7.4 Auxiliary voltmeter digital (+/- 0-99.9 VDC).
  - 3.7.5 Diode Trio condition meter (Analog ).Green and Red scale.
  - 3.7.6 Ripple voltage meter (Analog ). Green and red scale.
  - 3.7.7 RPM meter digital. No adjustment necessary to calibrate RPM based on pulley diameter.
- 3.8 Alternators plugs adaptors provided for most type of alternators.
- 4.0 Mounting system (Vise). All models of K-800 series is provided with a manually operated vise. Air vise provided at extra cost.
- 4.1 The mounting system is a universal vise capable of accommodated generators and alternators of all sizes: Up to 12" in diameter and 15" in length.
  - 4.2 The mounting system of five pins (1/4", 5/16", 3/8", 7/16" and 1/2") to accommodated alternators of different sizes, from foreign made units to domestic heavy-duty units. The pins are use for alternators with mounting ears. Generators and alternators without such feature can be mounted directly on the "V" block and secure using the top screw clamp. Special adapters for alternators could be made as requested by by\buyer at no extra cost.
  - 4.3 A special vise will be constructed, at no cost to the buyer, for alternators or generators, which are larger than described in paragraph 4.1.
- Note: If this option is selected, buyer will provided a sample of the alternator/generator to be tested to Kar Industries.**
- 5.0 **Documentation and training.**
- 5.1 **The tester includes detailed operating and wiring instructions with safety guidelines.**
  - 5.2 **Kar Industries will provided on-site installation bur buyer must provided electrical connections according to local codes and standards.**
  - 5.3 **Training of operators will be provided to a maximum of three (3) operators for a maximum of three (3) days. This only to the Eastern States. Buyers outside the specified area or requiring more than three (3) days or three (3) operators should specify their requirements to negotiate possible additional expenses.**
  - 5.4 **Upon purchase of the tester and upon requested, Kar Industries will provided.**

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5.4.1 **Fully annotated and reference schematics and wiring diagram.**

5.4.2 Layout of major components illustrating their locations.

5.4.3 List of all major components annotated to show source (Manufacturer's name), manufacturer's part name and number.

5.5 Two (2) sets of the above documentation are provided free of charge.

6.0 Other

6.1 All required or requested attachments except batteries, or as specified above are provided at no extra cost.

6.2 The tester is warranted buy Kar Industries against defect in workmanship or materials under normal use for one (1) year after the date of purchase unless specified below.

6.2.1 All motor parts are warranted buy the motor manufacturer for one (1) year.

6.2.2 All electronics parts are warranted for one (1) year after date of purchase.

6.2.3 All parts under warranty and requiring repair parts must be shipped prepaid to Kar Industries.

6.2.4 This warranty does not apply to damage resulting from improper wiring by buyer, alterations, and misuse of tester or accidents at buyer site.