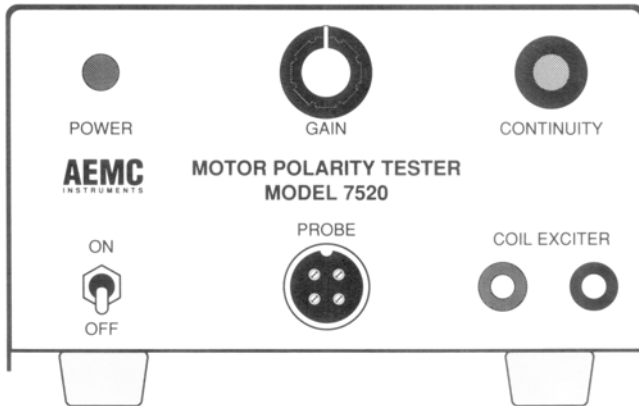


Motor Polarity Tester Model 7520

USER MANUAL



Receiving Your Shipment

Upon receiving your shipment, be sure that the contents are consistent with the packing list. Notify your distributor of any missing items. If the equipment appears to be damaged, file a claim immediately with the carrier and notify your distributor at once, giving a detailed description of any damage. Save the damaged packing container to substantiate your claim.

Packaging

The Motor Polarity Tester Model 7520 is shipped with power cord and instruction manual.

Description

The Model 7520 is used during inspection to detect the polarity of magnetic fields in motor and gyro windings. This motor polarity tester allows the user to do away with costly and unreliable battery and compass methods currently used to perform the same task. It also removes the margin of error in measurement caused by reverse magnetized compasses. The Model 7520 is equipped with a polarity-indicating probe, and enables the user to see north, south, and nullified polarities. The Model 7520 will also quickly identify open or shorted windings.

Specifications

Power: 120 V AC 50/60 Hz

Dimensions: 7.5 x 5.25 x 3.25" (19.05 x 13.34 x 8.26 cm)

Weight: 2.5 lbs. (1.13 kg)

Fuse Protection: 1 A 250 V slow blow

Exciter Output:

Short Circuit Current, 50 mA Max*

Open Circuit Voltage, 16.5 V Max*

* (@ 120 V AC linepower)

Control & Connector Identification

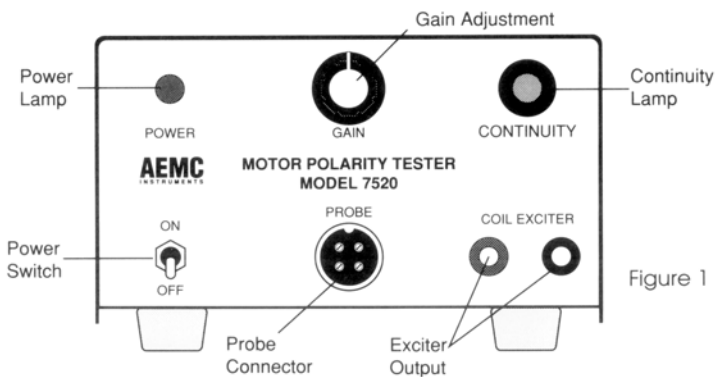


Figure 1

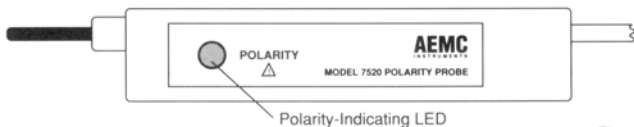


Figure 2

Repeatability

When connecting a certain type of coil assembly to the Model 7520 for the first time, the operator should document the way in which the coil's start and end wires are to be connected to the exciter output jacks. *This is very important.* If the operator does not connect like coils to the Model 7520 the same way every time, the result will be a lack of repeatable polarity readings from one coil assembly inspection to the next.

Operation

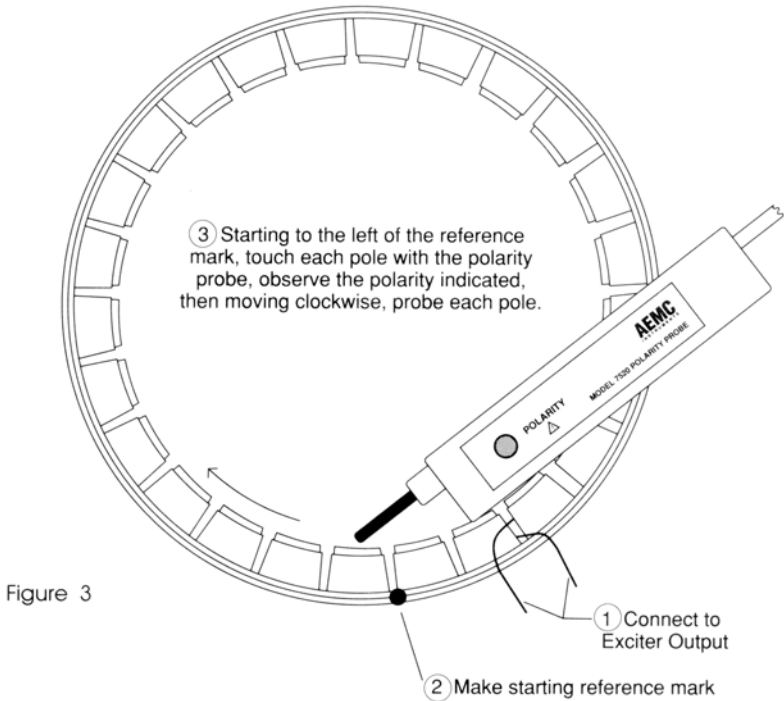
The Model 7520 is designed to allow the user to test coils using the “right hand rule” principle: “If the fingers of the right hand are curved around a coil in the direction of current flow, the thumb will point to the north pole of the coil.”

However, most small motor windings are too small or inaccessible once installed into the stator to apply this principle directly. The Model 7520 allows the user to probe small multiple pole coil assemblies to determine the polarity of each pole separately.

If the start wire of a string of coils is connected to the red coil exciter output jack and the finish wire is connected to the instrument's black output jack, all coils that exhibit a north polarity will cause the polarity LED to glow green. All coils that exhibit a south polarity will cause the polarity LED to glow red.

- Turn the Model 7520 ON and connect the start wire of the coil to be tested to the red exciter output.
- Connect the finish wire to the black output connection.
- Adjust the GAIN control until the polarity LED glows when the probe comes in contact with an active pole.

The best way to inspect a quantity of like coils is to mark a starting point on each coil in the same spot. Then, starting to the left of the mark, probe each pole for a polarity indication (see Figure 3).



Some coils are wound in such a way that the inspector will find poles with nullified fields. To easily distinguish a null from a north or south pole, adjust the GAIN control on the front panel until the polarity probe LED shows no color when the probe is moved to a null pole. This will cause the probe to be uninfluenced by poles on either side of the nullified pole.

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INSTRUMENTS

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