PARKER RESEARCH CORP.

–OPERATING INSTRUCTIONS–
MODEL B300, B300S & B48
CONTOUR PROBES

BULLETIN 215-1
SEPT 2013

PARKER RESEARCH CORP. •
NONDESTRUCTIVE TEST METHODS, SYSTEMS, INSTRUMENTS
BOX 1406, DUNEDIN, FLORIDA, U.S.A. 34697
PHONE: (727)796-4066 FAX: 1 (727)797-3941

The B300, B300S and B48 Contour Probes are rugged high performance instruments for Magnetic Particle inspection to accepted Nondestructive testing standards. Certain operating procedures and safety precautions should be observed.

INSTRUMENT DESCRIPTION: Basically, the Contour Probe is an electromagnet producing a strong magnetic field. Placement of the two poles (legs) upon ferrous metal provides a path for the intense magnetic field to pass from one pole to the other. The part completes the flux path and becomes highly magnetized. Models B300, B300S and B48 produce strong constant AC fields. All Parker Contour Probes are designed with flexible legs that allow the field to be "focused" at a precise area of inspection. The maximum leg spacing is 12 in. (304.8mm). All 300 series Contour Probes come equipped with a 10' (3.048 m) power cord.

The B300 is for use on 115VAC 50-60 Hz, single phase grounded power source. Using an approved GFCI is recommended.

The B300S is for use on 230VAC 50-60 Hz, single phase grounded power source. The B300S is sold without a power cord plug. Only locally approved plugs should be used and installed by certified personnel. Using an approved GFCI is recommended.

The B48 is for use on a 42-48 VAC 50-60 Hz, single phase grounded low voltage power source. The B48 is sold without a power cord plug. Only locally approved plugs should be used and installed by certified personnel. Using an approved GFCI is recommended.

SPECIFICATIONS

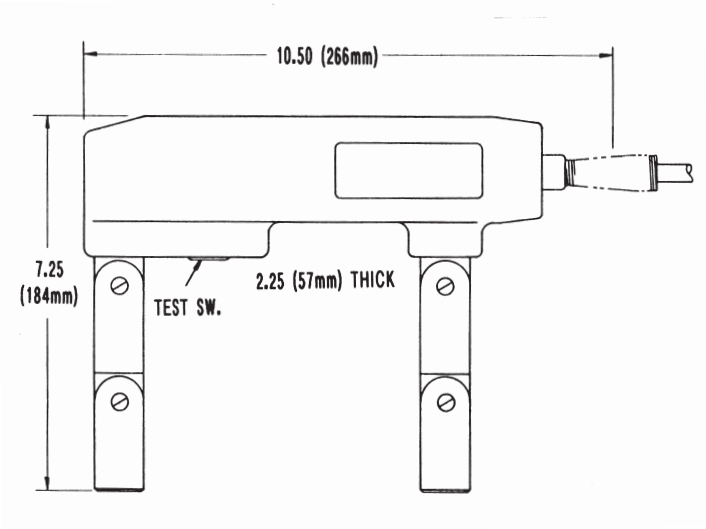

FIG. 1

MODEL	POWER REQUIREMENTS	FIELD	WEIGHT
B300	115 VAC 50-60 Hz 6 AMPS	AC	7 lb (3.18 kg)
B300S	230 VAC 50-60 Hz 3 AMPS	AC	7 lb (3.18 kg)
B48	42-48 VAC 50-60 Hz 6.5 AMPS	AC	7 lb (3.18 kg)

GENERAL SAFETY RULES

Please read all instructions. Failure to follow all instructions listed below may result in injury. If the equipment is used in a manner other than as specified in these operating instructions, the protection provided by the equipment may be impaired. Always wear eye protection.

DO NOT OPERATE unit from a DC power source.

Do not abuse the power cords. Never carry the instrument by the cord or attempt to unplug the instrument using the cord. Always operate the instrument with the standard installed cord. Changing or using a damaged cord can increase the risk of electrical shock. The cord should be checked periodically for any damage.

Do not position the instrument such that it would be difficult to operate the disconnect device (plug) on the end of the power cord.

The outside housing should remain intact and solid. Any damage, chipping, or separating exposing internal wires is a hazard. Instruments should not be used in this condition. The outside housing should be periodically checked for damage.

⚠ **Duty Cycle:** The 300 series are designed for a 50% duty cycle, or approximately two minutes on and two minutes off. Continuous operation may cause overheating and damage the Contour Probe.

Operating Environment: Temperature: 32° to 104°F (0° to 40°C). Relative humidity: 10% to 95%, non-condensing

Shipping and Storage Environment: Temperature: 40° to 140°F (4.44° to 60°C). Relative humidity: 5% to 95%. Vibration and shock: As encountered in normal shipping and handling with no degradation.

General Cleaning
The outside surface of the instrument can be periodically wiped clean with a clean cloth and a mild general purpose cleaner. Avoid using cleaners such as lacquer thinner, or mineral spirits that could damage the outside housing.

Never attempt field service. All 300 series Contour Probes should be returned to the factory for repairs.

OPERATION: Connect the instrument plug into a Grounded power outlet of proper voltage. Place the Contour Probe legs upon the work surface with the suspected defect at right angles to the legs (Good contact will produce the best results). Push the test switch to energize the instrument. Lightly dust or float dry magnetic inspection powder over the area being inspected. Defect indications will be revealed in a direction shown on figure 2. Turn the Probe 90 degrees from the first test and repeat the process. This method may also be utilized when applying a wet medium. Check all procedures and standards for further details involving inspection specifics.

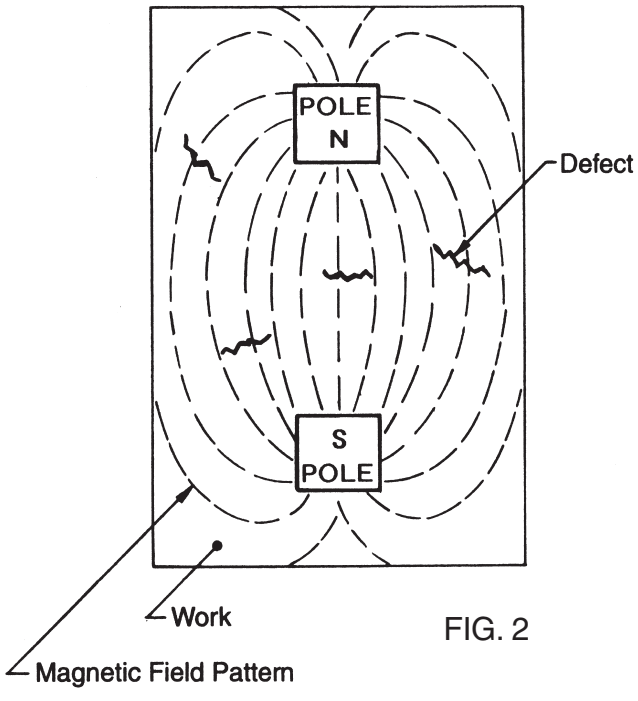

FIG. 2