



# Western Instruments Inc.

Established 1965

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## W-FI Field Indicators (Magnetometers)

Western Instruments manufactures 3 models of Disposable Field Indicators;

1. W-FI-10 Intended to be used for Demagnetization and are adjusted during manufacture in a Homogeneous Field.
2. W-FI-20 Intended to check residual fields on small parts, and are adjusted during manufacture for a Surface Field.
3. W-FI-50 Intended to check residual fields on heavy parts, and adjusted during manufacture for a Surface Field.

The Certification Decal, illustrated below, is affixed to the back of every W-FI, and the date of shipment is etched onto the decal. The Certification Decal reads as follows;



"This Magnetic Field Indicator (Magnetometer), as outlined in the *ASNT Handbook (2<sup>nd</sup> Edition, Volume 6)* and Defined in ASTM E 1316, is designed to measure the Relative Intensity of a Magnetic Field before or after Magnetic Particle Inspection. At the time of shipping \_\_\_/\_\_\_/04, the Calibration of this Field Indicator was confirmed to be within +/-5% of the scale value."

The W-FI is intended to be disposable, so when the user's 'Quality Control Procedure' requires the unit to be recalibrated, it can be simply replaced. Western does offer 3 "Verification Fixtures" to measure W-FI accuracy however, as W-FI's can only be verified, the user has two choices, either verify it or replace it. This may seem wasteful, but W-FI's sell for less than the cost of competitive 'Calibrateable Field Indicators' and are priced competitively with Calibration Charges for these Calibrateable units.



W-FI's are priced at;

- W-FI-10 US\$22.50 (Cdn\$35.00)
- W-FI-20 US\$26.50 (Cdn\$45.00)
- W-FI-50 US\$32.50 (Cdn\$55.00)
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Verification Fixtures are priced at;

- W-10 US\$110.00 (Cdn\$150.00)
- W-20 US\$120.00 (Cdn\$160.00)
- W-50 US\$130.00 (Cdn\$170.00)

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## Instructions

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- Hold the W-FI so the Arrow points toward the surface of the Work Piece. Laying the unit flat on its back is not correct.
- Do not expose W-FI's to AC Magnetic Fields.
- W-FI's are delicate Instruments, not Hockey Pucks.
- When performing Demag with a Reversing & Decaying DC Field, pull the W-FI as far away as possible. A typical arm length is satisfactory.
- "Pinning" the pointer in a strong field will affect the accuracy of a W-FI.
- Field Orientation can be measured by placing a W-FI flat on it's back, and rotating it until the maximum field is measured. At the maximum reading, the direction of the field is parallel with the instrument pointer (not the arrow).

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## Verification

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- Verification Fixtures are available for each of the 3 models of W-FI's.
- To verify the accuracy of a corresponding W-FI, simply place it in the fixture as illustrated, with the arrow lined up to the indicator line on the fixture.
- Each Verification Fixture has a Certification Decal affixed to the front on the Case, Indicating the date of Field Confirmation.
- It takes just seconds to verify the accuracy of a W-FI.