

# Product Information Bulletin

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### Revision Record

#### MANUAL, PRODUCT INFORMATION BULLETIN | Part # 399545, Rev N

Revision	Description	Date
A	Initial Release	March, 2008
B	Added to General Safety Considerations	December, 2008
C	Section 3.0, change to ISO 9001 compliant; remove France from Worldwide Site Directory; update to current style guide standards	October, 2009
D	Section 5.0, update to ETS-Lindgren Worldwide Site Directory	May, 2010
E	Added Calibration Services Plus!; updated Worldwide Site Directory; added Equipotentiality symbol	April, 2011
F	Updated ETS-Lindgren Worldwide Site Directory	January, 2012

Revision	Description	Date
G	Removed physical addresses from the ETS-Lindgren Worldwide Site Directory; updated to current style guide standards	September, 2012
H	Updated template/icons	March, 2015
I	Skip "I" per style guide	July, 2015
J	Remove specific webpage references in Calibration section. Removed obsolete addresses from the ETS-Lindgren Worldwide Site Directory	February, 2016
K	Fixed copyright date	April, 2016
L	Updated addresses in the ETS-Lindgren Worldwide Site Directory	January, 2017
M	Updated addresses in ETS-Lindgren Worldwide Site Directory; added more hazard label information	November, 2017
N	Updated safety, warranty, support information	September, 2021

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# TECHNICAL SUPPORT

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Contact ETS-Lindgren Technical Support for assistance with:

- Technical Product Information
- Technical Documentation
- Warranty Service
- Troubleshooting

**+1.512.531.2609 or Toll Free US +1.800.749.1460**

**[technical.support@ets-lindgren.com](mailto:technical.support@ets-lindgren.com)**

Also see the [ETS-Lindgren Global Site Directory](#), page 23.

## **Product Documentation**

For specific product manuals, scan here



Or visit [ets-lindgren.com/get-manuals](https://ets-lindgren.com/get-manuals)

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# SAFETY AND REGULATORY INFORMATION








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This product and related documentation must be reviewed for familiarization with safety markings and instructions prior to operation. These marks indicate the presence of potential hazards. Read all safety instructions before attempting to install, operate, or perform maintenance on any equipment. Instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to meet in connection with installation, operation, or maintenance.

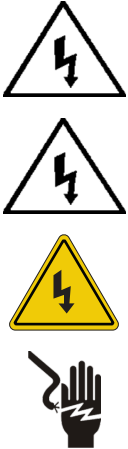

## **Symbol Definitions and General Explanations**



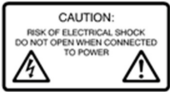
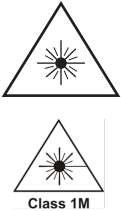

Following are general explanations of symbols and their meanings. Symbols may apply in multiple situations.

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Symbol	Definition
	<p><b>Note:</b> Denotes helpful information intended to provide tips for better use of the product.</p>
     	<p><b>CAUTION:</b> Denotes a hazard. Failure to follow instructions could result in minor personal injury and/or property damage. Included text gives proper procedures.</p> <p><b>AND/OR</b></p> <p><b>CAUTION:</b> This instrument is shipped with a three wire power cable, in accordance with international safety standards. When connected to an appropriate power line outlet, this cable grounds the instrument cabinet.</p> <p><b>AND/OR</b></p> <p><b>CAUTION:</b> Before performing any maintenance, disconnect the fiber optic cables from the unit and turn off power. When disconnecting fiber optic cables, apply the included dust caps to the ends to maintain their integrity. Before connecting fiber optic cables, clean the connector tips and in line connectors. Before attaching in line connectors, clean them with moisture free compressed air.</p> <p>Failure to perform these tasks may result in damage to the fiber optic connectors or cables.</p>

Symbol	Definition
	<p><b>WARNING:</b> Denotes a hazard. Failure to follow instructions could result in <b>SEVERE</b> personal injury and/or property damage. Included text gives proper procedures.</p> <p><b>AND/OR</b></p> <p><b>WARNING:</b> No operator serviceable parts exist inside. Refer servicing to qualified personnel. To prevent electrical shock, do not remove covers.</p> <p><b>AND/OR</b></p> <p><b>WARNING:</b> The battery charger incorporates parts, such as a switch and relay that potentially could produce sparks or arcs.</p>
	<p>Indicates a hazardous situation which, if not avoided, will result in death or serious injury.</p>
	<p><b>Refer to Manual:</b> When product is marked with this symbol, see the instruction manual for additional information. Download it from <a href="http://ets-lindgren.com">ets-lindgren.com</a> or contact ETS-Lindgren Customer Service.</p>
	<p><b>ONLY QUALIFIED PERSONNEL</b> should operate or service this equipment.</p>

Symbol	Definition
	<p><b>High Voltage:</b> Indicates presence of hazardous voltage. Unsafe practice could result in severe personal injury or death.</p> <p><b>AND/OR</b></p> <p><b>WARNING:</b> This is a Safety Class I product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor, inside or outside the instrument, is likely to make the instrument dangerous. Intentional interruption is prohibited. DO NOT defeat the earth grounding protection by using an extension cable, power cable, or autotransformer without a protective ground conductor.</p>
	<p><b>Protective Earth Ground (Safety Ground):</b> Indicates protective earth terminal. You should provide uninterruptible safety earth ground from the main power source to the product input wiring terminals, power cord, or supplied power cord set.</p> <p><b>AND/OR</b></p> <p><b>BEFORE POWER IS APPLIED TO THIS INSTRUMENT, GROUND IT PROPERLY</b> through the protective conductor of the AC power cable to a power source provided with protective earth contact. Any interruption of the protective (grounding) conductor, inside or outside the instrument, or disconnection of the protective earth terminal could result in personal injury.</p>

Symbol	Definition
	<p><b>EQUIPOTENTIALITY:</b> Identifies the terminals, when connected together, to bring various parts of a system to the same potential, not necessarily being the earth (ground) potential, e.g. for local bonding.</p>
	<p><b>CONTACT ETS-LINDGREN PRIOR TO SERVICING:</b> Servicing (or modifying) the unit by yourself may void your warranty. If you attempt to service the unit by yourself, disconnect all electrical power before starting. There are voltages at many points in the instrument that could, if contacted, cause personal injury. Only trained service personnel should perform adjustments and/or service procedures upon this instrument. Capacitors inside this instrument may still be CHARGED even when instrument is disconnected from its power source.</p>
	<p><b>CAUTION:</b> Uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any parts inside this unit.</p>
	<p><b>LASER HAZARD:</b> Laser power up to 150 mW at 830 nm may be accessible at the fiber connector of the laser. However, the laser beam itself is not hazardous as the interlock ensures that the exposure time will be less than 30 ms.</p> <p><b>AND</b></p> <p><b>LASER WARNING:</b> Denotes a laser (class 1M) is part of the operating system of the device.</p>
	

Symbol	Definition
	<p><b>STAY CLEAR</b> of moving components during operation of equipment.</p>
	<p><b>MOVING BOOM:</b> Keep clear during tower operation. A falling boom can cause serious injury.</p>
	<p><b>HEAVY OBJECT:</b> Unassisted lifting can cause injury. Mechanical assistance is required.</p>
	<p><b>NEVER ROCK OR TILT:</b> Tipping or rocking may cause serious injury or death.</p>
	<p><b>RISK OF FIRE:</b> Keep combustible and other materials that can burn away from surface.</p>
	<p><b>SURFACE MAY BE HOT:</b> Allow to cool before handling. Contact may cause burn. Allow to cool before moving or servicing. Keep combustible and other materials that can burn away from surface.</p>
	<p><b>ROOM TEMPERATURE:</b> Allow this system to adjust to room temperature before touching.</p>
	<p><b>GLOVES:</b> Wear gloves to protect from extreme temperatures when handling product.</p>
	<p><b>KEEP HANDS CLEAR:</b> Moving parts can crush and cut.</p>

Symbol	Definition
	<p><b>Moving Gears:</b> Do not stick hand in or near machine during operation.</p>
	<p><b>Pinch Points:</b> Keep hands clear during operation.</p>
	<p><b>ELECTROSTATIC DISCHARGE (ESD):</b> Observe precautions for handling electrostatic sensitive devices. ESD protection required.</p>
	<p><b>WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE:</b> (European Union) At end of useful life, this product should be deposited at an appropriate waste disposal facility for recycling and disposal. Do not dispose of with household waste.</p>
	<p><b>RECYCLABLE PRODUCTS:</b> This product includes rechargeable batteries. At end of useful life, please recycle the used batteries, or dispose of them safely and properly. Many cities collect used batteries for recycling or disposal. You may contact your local waste disposal agency for information on battery recycling and disposal.</p>
	<p><b>FRAGILE:</b> Handle with care.</p>
	<p>For indoor use only; do not expose to rain.</p>



# RECEIVING YOUR ORDER

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## Unpacking and Acceptance

1. Upon delivery of your order, inspect the shipping container(s) for evidence of damage. Record any damage on the delivery receipt before signing it. In case of concealed damage or loss, retain the packing materials for inspection by the carrier.
2. Remove the product from its shipping container(s). Save the container(s) and any protective packing materials for future use.
3. Check all materials against the packing list to verify that the equipment you received matches what was ordered. If you find any discrepancies, note them and call ETS-Lindgren Customer Service for further instructions.

Make sure you are satisfied with the contents and condition of your order prior to placing the product into service.

## Service Procedures

To return a system or system component for service:

1. To obtain a Service Request Order (SRO), contact ETS-Lindgren Customer Service: Call +1.512.512.2609 and press 1 for Sales & Calibration.
2. Briefly describe the problem in writing. Give details regarding the observed symptom(s) or error codes, and whether the problem is constant or intermittent in nature. Please include the date(s), the service representative you spoke with, and the nature of the conversation. Include the serial number of the item being returned.
3. Package the system or component carefully. If possible, use the original packing materials or carrying case to return a system or system component to ETS-Lindgren at the following address:

### **ETS-Lindgren**

Attn: Service Department  
1301 Arrow Point Drive  
Cedar Park, TX, USA 78613  
Phone: +1.512.531.6400

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# CALIBRATION SERVICES

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## **Annual Calibration**

For reliable and repeatable long term performance, annual recalibration of your measuring device by an ETS-Lindgren experienced technician is recommended. See Service Procedures on page 17 for the steps to return your measuring device for calibration.

The ETS-Lindgren calibration team will calibrate most any type or brand of measuring device. For more information about our calibration services, visit our website at [ets-lindgren.com](https://ets-lindgren.com) or call +512.531.6400.

## **ETS-Lindgren Calibration Lab**

- Expert calibration for any brand of EMC antenna
- Cutting edge test equipment
- Proprietary software for superior calibration accuracy
- NIM traceable equipment and ISO 9001 compliant processes
- Average turnaround time: 10 days
- Options for product repair, rush delivery, and electronic data delivery
- Exceptional customer service with prompt, attentive response

## **Calibration Services Plus!**

Calibration Services Plus!™ is a customized, optional program to help you expertly maintain your test and measurement assets. It is designed to address the challenges of managing the calibration and repair of test and measurement components, including scheduling and planning to ensure peak performance. Additional information is available at [ets-lindgren.com](https://ets-lindgren.com)

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# WARRANTY

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For warranty information, contact ETS-Lindgren Technical Support at

**+1.512.531.2609 or Toll Free US +1.800.749.1460**

**[technical.support@ets-lindgren.com](mailto:technical.support@ets-lindgren.com)**

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# ETS-LINDGREN GLOBAL SITE DIRECTORY

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<b>Corporate Headquarters</b>	
<b>Cedar Park, Texas:</b>	+1.512.531.6400
<b>Toll Free US:</b>	+1.800.749.1460
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<b>Minocqua, Wisconsin:</b>	+1.715.356.2022
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