

# FEATURES

- Heavy Duty Lightning Surge Protection 1200 Volts at 1100 Amps
- · Heat-sinked Rectifier Rated at 90 Amps
- Double Sealed both Exterior and Interior Completely Waterproof and Weatherproof
- Each Wire Lead is 6 ft (15.24cm) in Length
- Designed Using Latest Advanced Technology
- · Built-in Self-reseting Fuse Protection
- Ruggedized PVC Enclosure
- Red Marker Designates Postive Wire Lead
- Highly Visable to Maintenance Personnel
- Compact Footprint 7.5" x 2.2" dia.
- Designed to be Ideally Compatible with t-Boss 7400
- · Easily mounted to crosstie using staples or clamps
- Two-year Limited Warranty

#### BENEFITS

- Heavy duty lightning surge protection provides substantially greater reliability and service life
- Heavy duty rectifier diode easily handles high-level track driver currents when track current limit resistor is at or near minimum Ohms setting
- Extra wire length available when track connections require offset due to joint bars or other obstructions
- Exceptionally reliable, efficient and cool operation even at maximum rated current
- xr-1200HD Ring-10 Terminator yellow enclosure is highly visable to track maintenance personnel when performing track maintenace activities
- Double-sealed enclosure prevents entry of moisture and other contaminants that will degrade performance or cause catistrophic failure

### The xr-1200HD Heavy Duty Ring-10 Terminator - Designed for Reliability in Harsh Environments

**HEAVY DUTY**<a href="mailto:ring-10">ring-10</a> terminator

## HOW IS THE XR-1200HD RING-10 TERMINATOR DIFFERENT?

For starters, Genesis provides a two-year limited warranty on the xr-1200HD. This is a bold statement of our confidence that the xr-1200HD will survive almost anything that comes along, even in harsh environmental circumstances.

Genesis has employed the latest technology in the design of the xr-1200HD. This technology wasn't available, even several years ago, when other ring-10 diodes were designed. We have learned from our experiences with the t-Boss 7400 Track Driver and the t-Rx7100 Shunt Augmenter how to protect the track side of our products from nearby lightning strikes, and the xr-1200HD Ring-10 Terminator is no exception.

And if you have Genesis products in service on your railroad, you may have never returned anything to us for warranty repairs or replacement. But if you have, you know our warranty comes with no arguments and minimal conditions. We simply repair or replace and get it back to you promptly.

#### WHY USE THE XR-1200HD RING-10 TERMINATOR?

The Genesis xr-1200HD Ring-10 Terminator is designed for exceptional reliability using technology that enables efficient, cool operation. Because heat is a major contributor to electronic component failure, reliability is significantly improved. Also, a heat-sinked 90 Amp 1200 Volt rectifier diode is used to ensure cool, reliable operation and a long service life.

Conservative and industry proven design techniques are employed with the xr-1200HD to guard against damage caused by lightning and voltage surges. Circuit protection is further improved by a self-resetting fuse that limits otherwise excessive input currents that could damage the internal electronic circuitry.

Double-sealing of the xr-1200HD Ring-10 Terminator electronics is accomplished by enclosing in a ruggedized air and liquid tight PVC enclosure and by also sealing the internal electronics using industry accepted methods.

#### ORDERING INFORMATION

#### dual dc-dc converter

- Each 2.2 VDC 2 Amp output can easily drive low resistance track circuits that use 0.5 Ohm track relays
- Regulated outputs unaffected by changes in battery input voltage or load conditions (built-in resistor will change output voltage according to load if adjusted to more than 0 Ohms)
- Built-in track current limit resistors eliminates cost of resistors, wiring, mounting and required space
- Exceptionally reliable, efficient and cool operation even at full load or with outputs short-circuited
- LED indicators provide "at-a-glance" status of input and outputs
- Low input voltage shutdown eliminates "on/off hunting" when input voltage is near operating threshold
- Robust lightning, surge protection and self-resetting fuses provide significant improvement in reliability
- Mounting options include wall, DIN rail, B or P-150 relay types
- Compact footprint enables significant space savings
- Plug-in connector wiring requires no soldering, lugs or tools
- 3-year limited warranty

DIN Rail (35mm) os-Boss dcx2 Installation

#### signal override system

- Malfunctioning crossing signal can be disabled safely and easily by untrained railroad personnel
- ISLAND ONLY operation provides protection while train is in crossing (if island train detection is functioning properly)
- TEST WITH GATES UP mode allows highway traffic movement through crossing while signal maintainer visually inspects flashing lamp units
- Critical inputs utilize multi-break force-guided switch contacts and supervisory circuits for determining the vital output to the XR relay or crossing control unit.
- Safeguard to prevent unintentional disabling of signals requires two separate in-sequence switch position settings to disable signals
- Keyswitch can prevent unauthorized disabling of signals
- Built-in warning flasher can power exterior indicator used for warning train crews that crossing signal is disabled
- Plug-in connector wiring requires no soldering, lugs or tools
- 3-year limited warranty



#### acdc track driver

- Capable of driving four separate track circuits
- XP Option provides additional voltage and power for track circuits that are long or otherwise difficult to drive
- Maintainer can see "at a glance" the status of battery input power and each track output
- Circuit breaker input protection eliminates fuses and possibility of using inappropriate fuse size or type
- Heavy-duty drive electronics and internal surge protection yields greater reliability
- Easily mounted enclosure takes up minimal space
- Easy to wire connector requires wire stripping only no terminals to crimp
- Plug-in connector ensures quick error free hook-up
- Input battery voltage monitoring eliminates indecisive signal operation and "gate pumping" at marginal battery
- 3-year limited warranty

t-Boss 7400 XP (extra power) female mating connector included ......p/n 10041-1000XP



# precision solid-state flasher

- Ultra-reliable
- Drives wide range of relay coil resistances
- Easy mounting and hookup
- Operates reliably even when battery voltage is very low
- No change in flash rate or duty cycle when input voltage changes
- No change in flash rate or duty cycle with light or heavy load
- 3-year limited warranty





