LineGard™
Always on duty

INSTALLATION AND TESTING PROCEDURE

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IMPORTANT!

THIS DEVICE MUST BE INSTALLED BY A QUALIFIED PERSON WHO UNDERSTANDS ELECTRICAL CIRCUITS.

Please read all the information on this sheet.

WARNING

A Ground Fault Circuit Interrupter (GFCI) is an electrical safety device that under normal use is intended to mitigate electric shock hazard. Use this product only within the specified operating parameters. (Failure to do so may result in bodily injury.) Consult a licensed electrician for assistance on installation and repairs. Do not use this GFCI if it fails to function as instructed. Never attempt to tamper with this device. This GFCI must never be used as a switch to connect or disconnect power. (Power should be disconnected at main power feed or by secondary switch located at the primary feed of GFCI.) This GFCI is not an over-current protection device. (An appropriate fuse or circuit breaker must be used in series at primary power feed.) This GFCI does not provide protection against shocks caused by holding both circuit conductors. This GFCI does not provide protection against electrical shocks generated by the conductors supplying power to the device. Note: primary feed to GFCI is live even when GFCI is tripped. (Power should be disconnected at main service panel before servicing load side of GFCI.)

- Do not use this device to feed power to life support apparatus.
- To minimize nuisance tripping:
  - Do not use on swimming pool equipment installed before 1965 NEC code.
  - Do not use on electric clothes dryers or electric ranges with frames grounded by neutral conductor.
- Installation must comply with local and national electrical codes (NEC).
- During installation, turn power off at the service panel to prevent serious injuries.

What is a GFCI?

A GFCI is a device designed to interrupt power when a ground fault (a current that takes a path to ground) exceeds a predetermined value. This power interruption is quickly accomplished to prevent serious injuries.

Why do we need a GFCI?

The human body is conductive to electricity, and electric shocks can be fatal. Any electrical tool or appliance is a potential shock hazard, especially when used near wet locations; and this is where a GFCI is needed the most. This is why most electrical codes require GFCI protection in kitchens, bathrooms, garages, outdoor outlets, laundry rooms, workshops, etc.

North Shore Safety's GFCI, LineGard®, will offer such pro tection. Its safety scope surpasses its peers to include open supply protection (most receptacle type GFCIs do not sense open neutral condition) as well as dual indication of operating modes, with fault indication or power status.

How does a GFCI operate?

The GFCI constantly monitors the current-balance of the conductors supplying power to the load. When a ground fault occurs - by a leakage or by shock - the imbalance of current is sensed and the GFCI trips when the ground fault exceeds 5 mA +/- 1 mA. The tripping action must be within a fraction of a second to prevent serious injuries.

What a GFCI cannot do:

- Will not protect the circuit's line side.
- Will not protect you when touching two current carrying conductors of opposite polarity (the GFCI sees this as a load).
- Will not protect you when touching a line of another circuit.
- Will not detect overcurrent.

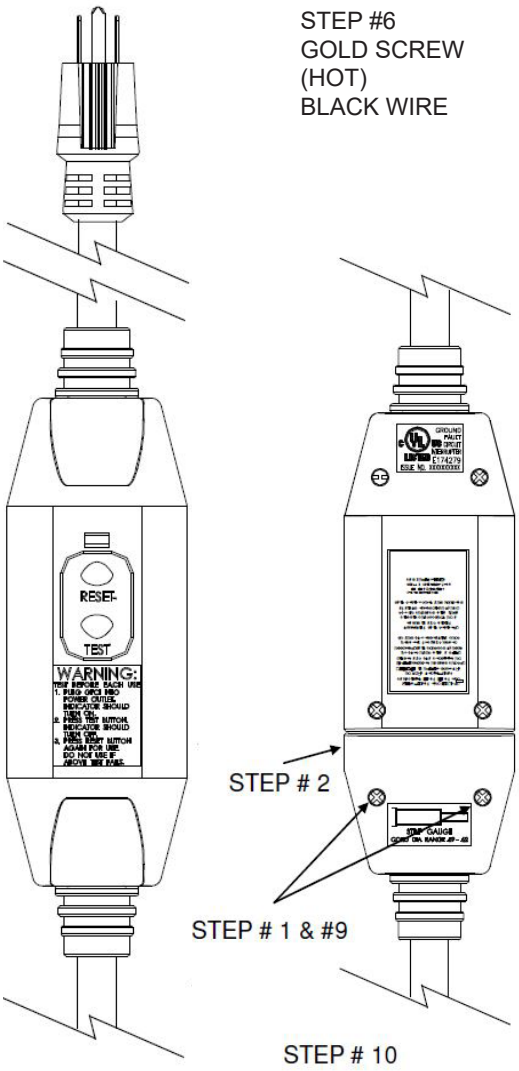
North Shore Safety TWO YEAR LIMITED MANUFACTURER'S WARRANTY

North Shore Safety warrants to the consumer its Line-Gard Ground Fault Circuit Interrupter (GFCI) to be free from defects in materials and workmanship, under normal use and service, for a period of two years from date of purchase. North Shore Safety, at its option, will repair or replace the defective GFCI without charge within 2-years of the date of the product's purchase provided that the defect occurred during normal use. The defective unit must be returned freight prepaid, with a RGA (Returned Goods Authorization) including a description of the problem, and a proof of purchase date to the Quality Assurance Dept. North Shore Safety, Ltd. 7335 Production Drive, Mentor, OH 44060.

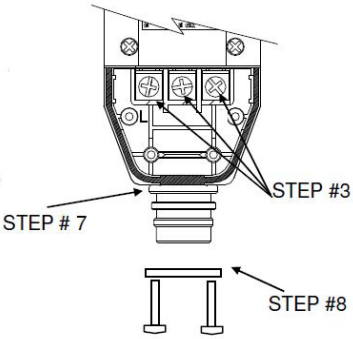
North Shore Safety will not be liable, directly or indirectly, for installation or removal of this device, or for any personal injury, or property damages, or incidental, indirect, or consequential damages of any kind, as a result of a defective device. The exclusive remedy, under this warranty, is the repair or replacement of the defective device. In no case shall North Shore Safety's liability exceed the purchase price. This warranty is void or not covered if this device is found to be: not properly installed, tampered with, not used according to label instructions and ratings, enclosure breached (button cover label, conduit hubs, vent, or lid fasteners), surged, short circuited, or abused.

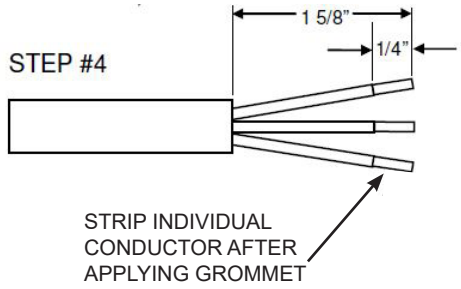
WIRING INSTRUCTIONS

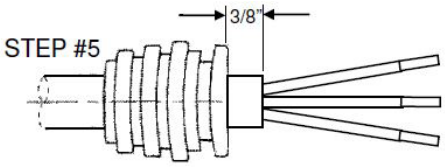
IMPORTANT! THIS DEVICE MUST BE INSTALLED BY A QUALIFIED PERSON WHO UNDERSTANDS ELECTRICAL CIRCUITS.

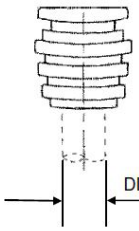


1. REMOVE SCREWS AS SHOWN IN STEP # 1
2. REMOVE COVER TO EXPOSE TERMINAL STRIP (SEE STEP #2)
3. BACK TERMINAL SCREWS OFF TO ACCEPT WIRES
4. PREPARE CABLE TO STEP # 4 DRAWING (SEE NOTE #2 ON ACCEPTABLE CABLE TYPES)
5. APPLY CORD GROMMET (SEE TABLE FOR SIZE): USE OF HAND SOAP WILL ASSIST INSTALLATION
6. INSERT WIRES INTO TERMINAL STRIP AS SHOWN IN STEP #6 (MUST BE CORRECT ORIENTATION) THEN SECURE SCREW TERMINALS TO 8 IN-LBS
7. LOAD CABLE AND GROMMET TO HOUSING SLOT AS SHOWN IN STEP # 7
8. SECURE CORD ASSEMBLY TO HOUSING WITH CABLE STRAIN RELIEF (SEE STEP # 8)
9. REINSTALL HOUSING COVER WITH SCREWS SHOWN IN STEP # 1 AND # 9
10. TEST PER TESTING AND TROUBLESHOOTING PROCEDURE (SEE STEP #10)









GROMMET	DIAMETER	CABLE
A	.32 "	18-3
B	.35"	16-3 &14-3
C	.38"	12-3

NOTE: CORD GAGE SELECTION SHOULD BE IN ACCORDANCE WITH NEC STANDARDS ON CORD GAGE AMPACITY

Testing and Troubleshooting Procedure

1. Apply rated power to GFCI.
2. 2. Press and release RESET button, GREEN LED should turn ON and appear in window above reset button. (For Auto Power-Up model, GREEN LED will automatically turn on and appear in window when power is restored)
3. Press Test Button, GREEN LED (Power) turns off and disappears from window. Press and release reset button, GREEN LED turns on and reappears in window.
4. CHECKING FOR CORRECT WIRING:

   If GFCI is wired to protect a cord receptacle, plug a household lamp into the protected cord receptacle. Press and release the RESET button, lamp should turn on. Press the TEST button. Lamp should turn off. If lamp stays on when pressing TEST button, or if lamp does not illuminate when pressing RESET button, unplug GFCI, check and correct your wiring connections. Repeat steps 1-4. If problem persists, **do not use this GFCI**. Consult a qualified electrician.

   If GFCI is wired to protect equipment, press and release RESET button. Verify that equipment power is on. Press TEST button. Equipment power should turn off. If equipment power does not come on when pressing and releasing RESET button, or if power stays on when pressing TEST button, unplug GFCI, check and correct your wiring connections. Repeat steps 1-4. If problem persists, **do not use this GFCI**. Consult a qualified electrician.

Technical Data

LISTED:	U.L. and c U.L.
RATED SUPPLY VOLTAGE:	120 VAC
RATED CURRENT:	UP TO 15 AMPS OR CABLE RATING
RESET TYPE:	AUTOMATIC OR MANUAL
OPERATING FREQUENCY:	60 Hz
TYPE:	CLASS A
GROUND TRIP CURRENT:	4-6 mA
OVERLOAD CURRENT:	90 AMP 125 VAC
INSULATION VOLTAGE:	1,500 VRMS – 1 MINUTE
ENDURANCE OPERATIONS:	3000 OPERATIONS

NOTE:

1. MANUAL CONFIGURATION SHOULD BE SPECIFIED WHEN AUTOMATIC POWER-UP WOULD CREATE AN UNSAFE CONDITION AFTER RESTORATION OF CIRCUIT POWER.
2. CABLE MUST BE INDOOR / OUTDOOR 3-CONDUCTOR CABLE OF TYPE, ST, SJT, SE, SJE, SO or SJO