



Vehicle Restraint Installation Manual

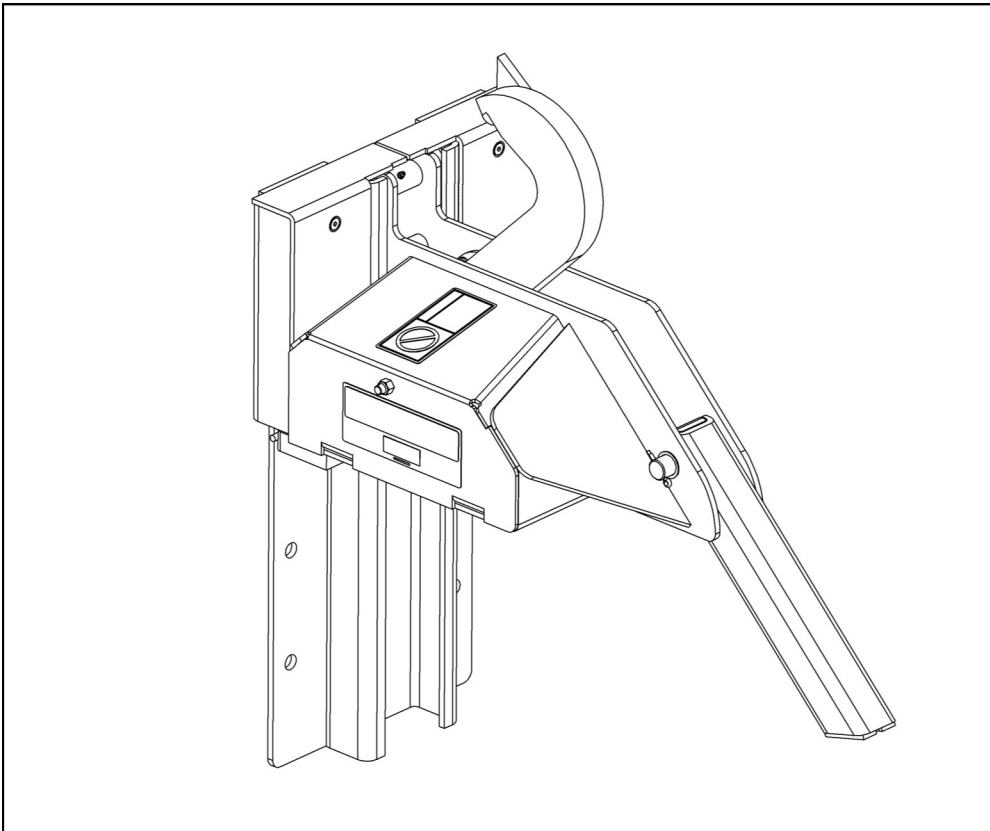



TABLE OF CONTENTS


	PAGE
SAFETY WARNINGS	3
PARTS IDENTIFICATION	4
INSTALLATION INSTRUCTIONS	4
WARRANTY	11

SAFETY WARNINGS

You will find the safety alerts DANGER, WARNING, CAUTION or IMPORTANT used throughout this manual. Their meaning is listed below:

 DANGER
This is the highest level statement. Failure to follow the listed instructions will most likely result in severe injury or death.

 CAUTION
The statements used with this level of warning deal with a safe operating procedure. If the procedure is ignored the possibility of personal injury may exist.

 WARNING
This is a statement of serious hazard. Failure to follow the listed instructions could place the individual at risk of serious injury or death.

IMPORTANT
IMPORTANT is used to draw attention to a procedure that needs to be followed to prevent machine damage.

Be certain to follow the installation instructions in this manual; improper installation of the Lock & Load Vehicle Restraint could result in serious injury or death.

READ AND FOLLOW THE OPERATING INSTRUCTIONS IN THE OWNER'S MANUAL PRIOR TO OPERATING THE LOCK & LOAD VEHICLE RESTRAINT. Do not use the Lock & Load vehicle restraint if it is not working properly.

INSTALLATION INSTRUCTIONS

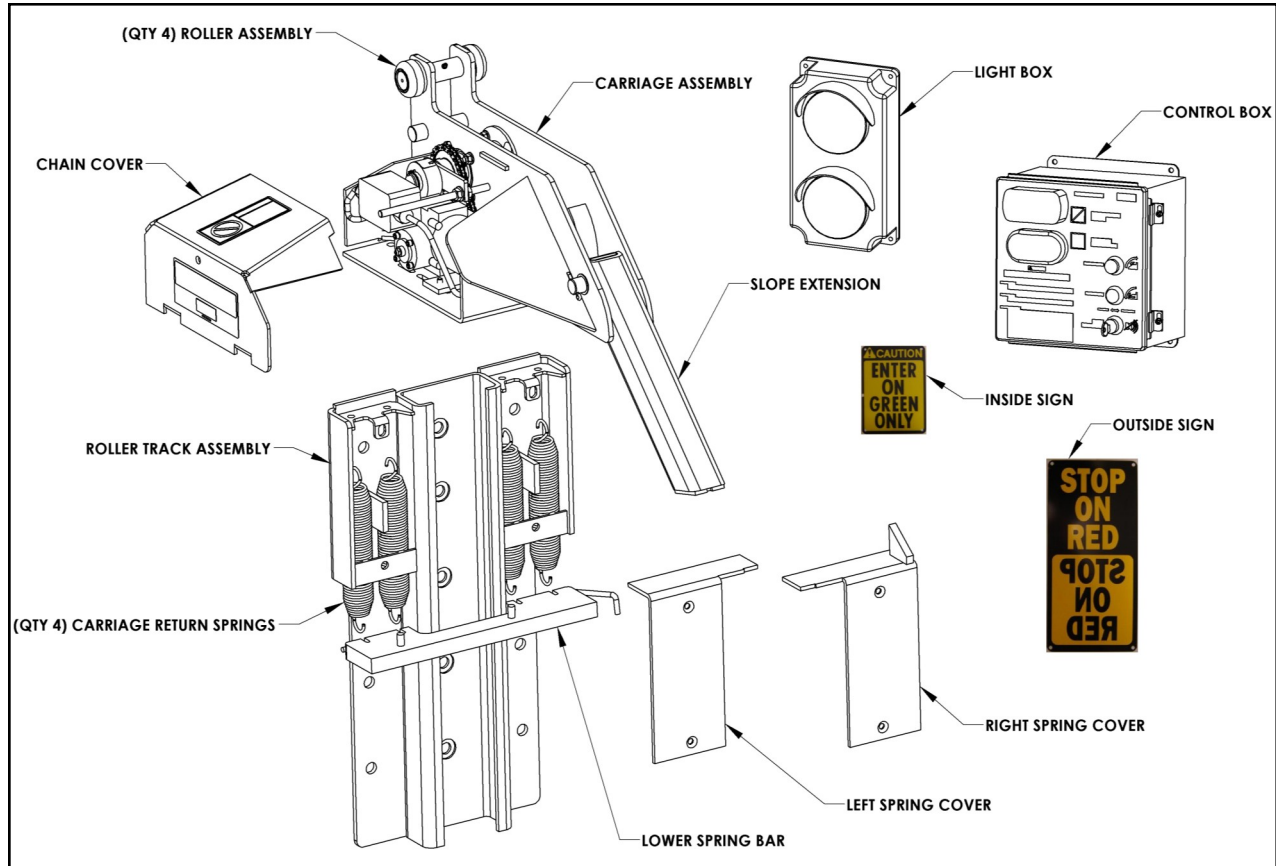


FIGURE A —PARTS IDENTIFICATION

IMPORTANT

A 4" thick bumper is required regardless of whether or not there is a leveler. **DO NOT** install a Lock & Load vehicle restraint on docks without 4" thick bumpers. For thicker bumpers consult factory.

INSTALLATION INSTRUCTIONS

A Lock & Load vehicle restraint may be installed on docks with or without levelers; consult NOVA for proper application.

Follow the simple installation procedures below:

- Inspect Lock & Load vehicle restraint parts.
- Install roller track plate.
- Install Lock & Load vehicle restraint into roller track plate.
- Install electrical components.
- Install safety & instruction signs.
- Test operation.

DANGER

Post safety warnings and barricade work area, at dock level and at ground level, to prevent unauthorized use of the dock position.

INSPECT LOCK & LOAD PARTS

Open packaging and inspect all parts and materials — see Figure A above. Immediately report any damage or missing materials to factory. Review the component assemblies to determine their correct locations.

INSTALLATION INSTRUCTIONS *continued*

INSTALL ROLLER TRACK PLATE

Install roller track plate onto dock face at specified location by welding to an embedded steel plate or by using the fifteen (15) concrete anchors provided in conjunction with welding to pit steel and a leveler frame. Refer to Figures B and C.

If you have questions, contact NOVA Technical Support at (800) 236-7325.

IMPORTANT

The roller track plate must be plumb with dock face. If not, use and weld (6) shims 2" wide x 25 5/8" long. If shims are over 1/2" thick use longer anchors. If shims need to be 1" thick or more, contact NOVA.

If the dock face is not perpendicular, contact NOVA Technical Support at (800) 236-7325.

The carriage roller track cannot be bent or deformed. Straighten or replace if necessary.

NOTE: Trim roller track plate, as necessary, up to a maximum of 5" from the bottom.

NOTE: Some mechanical dock levelers have an adjusting nut access hole in the leveler front subframe. If the Lock & Load vehicle restraint roller track interferes with the access hole, the track plate must be cut to allow access.

NOTE: Some levelers are slightly recessed within the pit and thus require a shim to be inserted between the roller track plate and the leveler front subframe and welded in place.

IMPORTANT

Fifteen (15) concrete anchors are provided with each Lock & Load vehicle restraint. An anchor must be installed in each roller track plate hole except for those plug-welded to embedded steel.

ANCHOR INSTALLATION INSTRUCTIONS

1. Put roller track plate in place.
2. Drill hole of 5/8" diameter and minimum of 4-5/8" deep. Clean out hole.
3. Insert anchor and drive flush with roller track plate, making sure that the threaded wedge is inserted first. Do not disassemble anchor prior to installation.
4. Install all anchors and torque to 100 ft-lbs. See figure B.

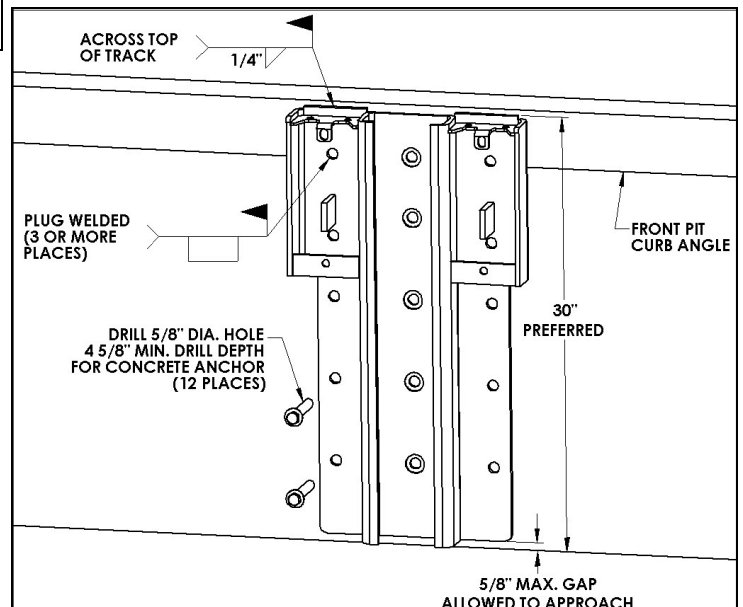


Figure B—Anchoring Roller Track Plate

INSTALLATION INSTRUCTIONS *continued*

INSTALL VEHICLE RESTRAINT INTO ROLLER TRACK PLATE



CAUTION

Use lifting device (e.g. crane, jack) when lifting carriage (approx. 110 lbs.). Lifting by hand may cause back injury.

- Attach the four (4) springs to the lower spring bar.
- Pull springs upward and slide over top spring mount on the track roller plate.
- Install right and left spring cover with clip nuts and flat head screws provided.
- Slide the carriage assembly into the roller track. Refer to Figure E.
- Position and bolt the lower spring bar to the bottom of the Lock & Load vehicle restraint carriage.
- Install the motor cover and spring covers.
- Install slope extension.

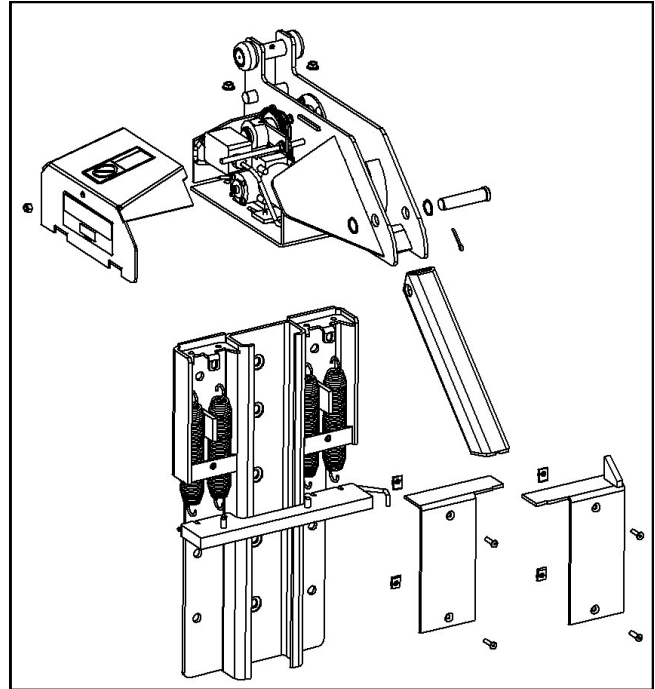


FIGURE E

INSTALLATION INSTRUCTIONS *continued*

INSTALL ELECTRICAL COMPONENTS

DANGER

Make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

If the incoming electrical power for the Lock & Load vehicle restraint is taken from a nearby electrical appliance, e.g., overhead door opener, verify that the amperage is in accordance with local and federal codes.

The Lock & Load vehicle restraint 1/10 HP motor requires 120V, single phase power, 60 Hz power and 10 amps of current to operate properly.

Two (2) Lock & Load vehicle restraints can be connected into one (1) 20 amp branch circuit breaker per the 1999 National Electrical Code Paragraph 430-53.

If you have questions, contact NOVA Technical Support at (800) 236-7325.

IMPORTANT

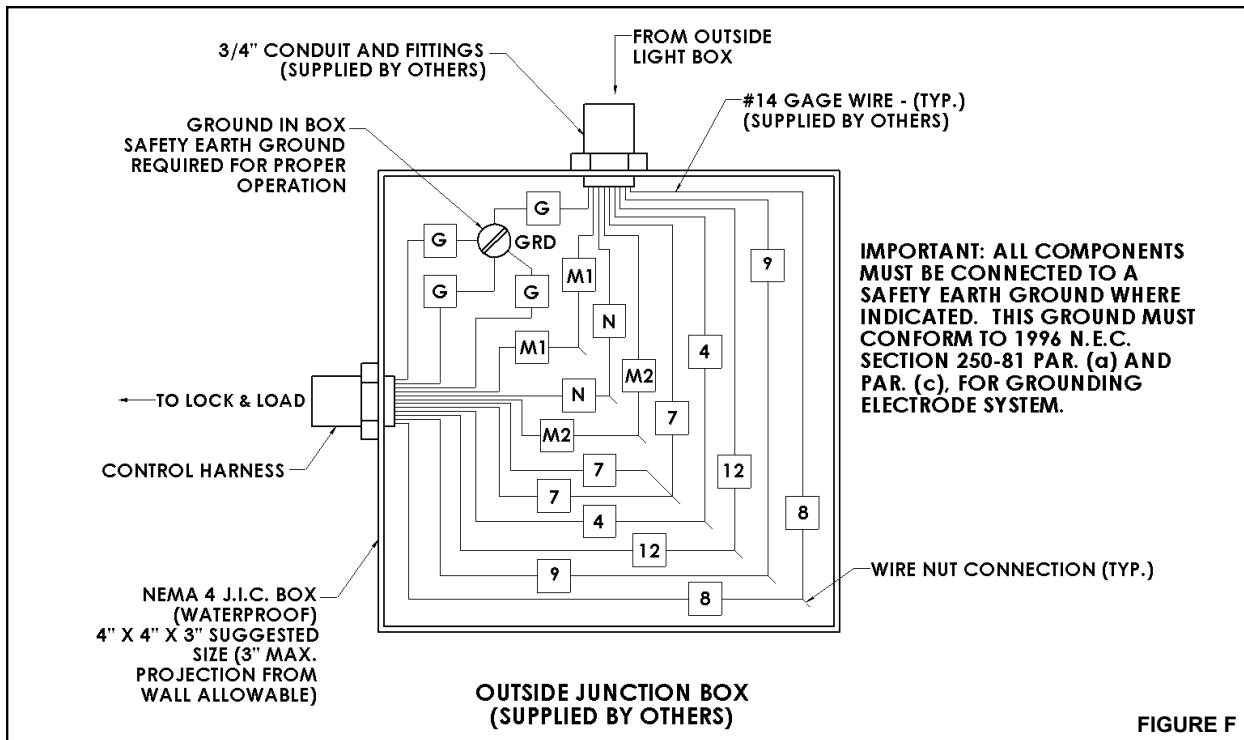
Where indicated, all components must be connected to a **SAFETY EARTH GROUND** that conforms to the 1999 National Electric Code Section 250-50 section (a) or section (c) for a grounding electrode system.

The Lock & Load vehicle restraint assembly includes a 63" long flexible wiring harness, the control box with lights and the outside signal light box. The outside junction box, conduit fittings and wire are provided by others; be sure to use a qualified installer utilizing quality materials. Refer to Figures F and G.

Refer to Figure H, page 10 for component location information. Electrical schematics for wiring information can be found inside the control box.

CONTROL BOX INSTALLATION GUIDELINES - TEMPERATURE CONTROLLED APPLICATIONS.

1. Route the conduit to enter through the side or bottom of the enclosure. If the conduit could fill with water, a drip leg may be needed.
2. Seal the conduit in any location where the conduit crosses over temperature zones that could produce condensation.
3. Install spacers between the wall and enclosure to provide temperature insulation and air flow.



INSTALLATION INSTRUCTIONS *continued*

INSTALL ELECTRICAL COMPONENTS *continued*

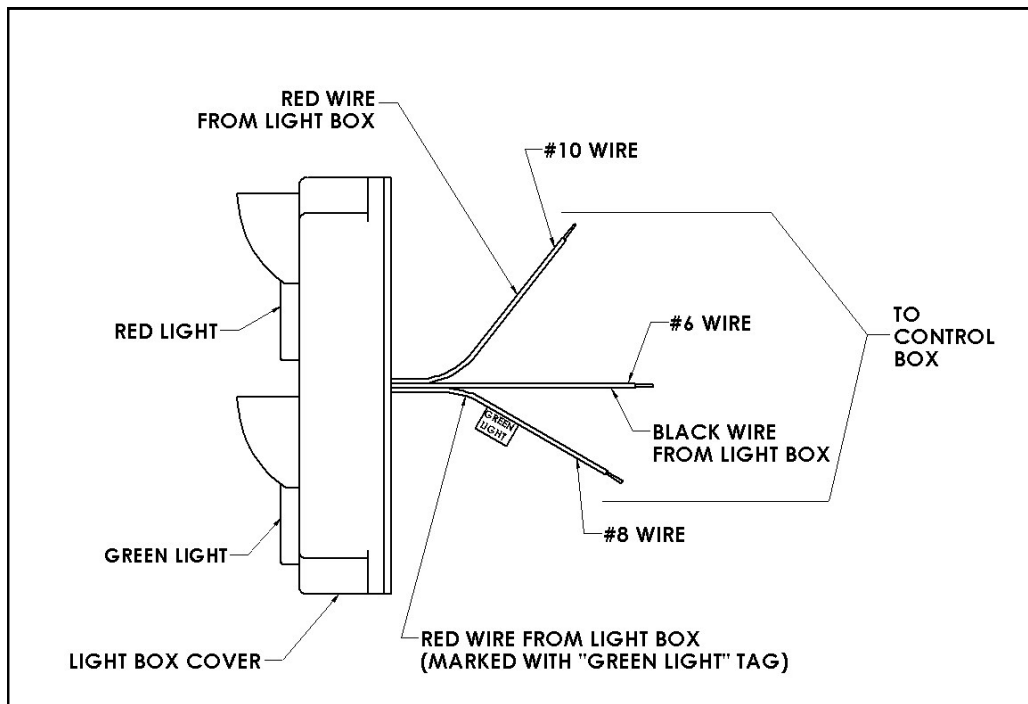


FIGURE G—OUTSIDE LIGHT BOX WIRING

INSTALLATION INSTRUCTIONS *continued*

INSTALL SIGNAGE

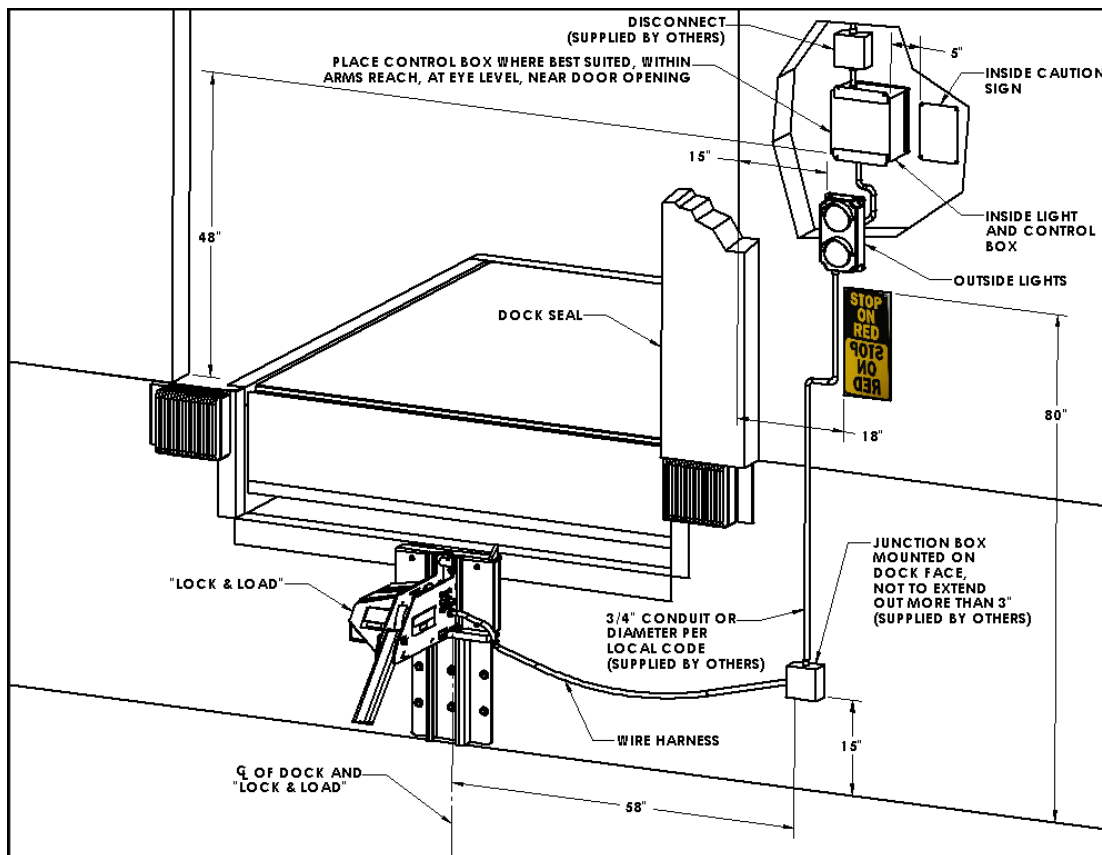


FIGURE H—SUGGESTED COMPONENT LOCATION

There is one (1) driver warning sign and one (1) inside operator sign supplied with each Lock & Load vehicle restraint. (*Mounting hardware supplied by others.*) Mount both outside signs on the right side of the Lock & Load vehicle restraint. The mirror-image sign is usually mounted above the lower sign and near the outside signal lights. (Mirror-image permits the truck driver to read sign from truck mirror.) Mount the inside sign next to the control box. Install all signs provided.

NOTES:

- Some docks may have dock/truck seals or shelters which are larger than standard. The outside light, sign location, and mounting should be studied before proceeding to avoid interference.
- If necessary, signs may be trimmed for fit. However, DO NOT cut or eliminate sign letters or words.

- Attach signs with concrete anchors or screws. Do not use nails.
- NEVER put conduit in front of signs. A clear view must be maintained at all times of both exterior signs and the single interior sign.

TEST OPERATION

Follow Operating Procedure in Owners Manual. Instruct dock workers on operating procedures.

WARRANTY

NOVA TECHNOLOGY INTERNATIONAL, LLC. warrants the NOVA LOCK & LOAD to be free of defects in material or workmanship under normal use for a period of one year from the date of shipment. This warranty does not cover any failure to properly maintain the product. This warranty is the only one given by NOVA TECHNOLOGY INTERNATIONAL, LLC. and is in lieu of all guarantees and warranties expressed or implied by anyone other than NOVA TECHNOLOGY INTERNATIONAL, LLC. including those of fitness for a particular purpose and merchantability. In order for warranty claims to be honored the products must have been properly installed, maintained and operated within their intended function and not otherwise abused.

If your NOVA LOCK & LOAD is defective in material or workmanship and you notify NOVA TECHNOLOGY INTERNATIONAL, LLC. Within one year of the date of shipment, NOVA TECHNOLOGY INTERNATIONAL, LLC. will, at its option, repair or replace the defective component(s) at no cost to you. NOVA TECHNOLOGY INTERNATIONAL, LLC. will not be responsible for or pay for loss of time, inconvenience, loss of the use of the product, or property damage caused by this product or its failure to work, or any other incidental or consequential damages. NOVA TECHNOLOGY INTERNATIONAL, LLC. reserves the right to change specifications or make product improvements without notice or obligation.



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