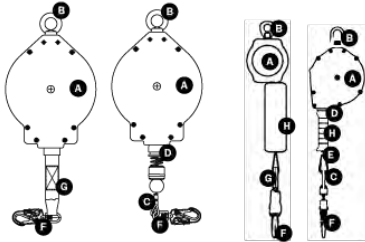


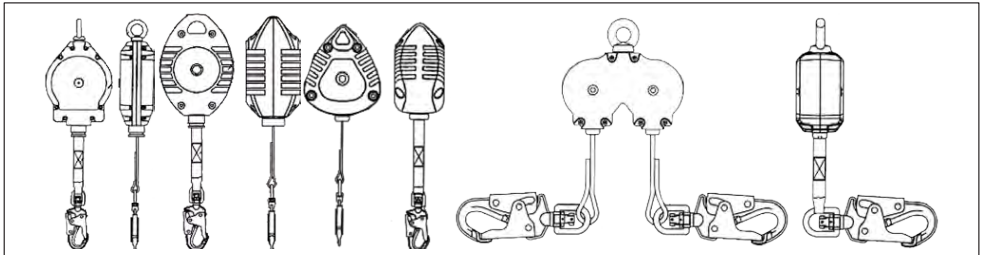
SELF-RETRACTING LIFELINES - INSTRUCTION MANUAL

THESE INSTRUCTIONS APPLY TO THE FOLLOWING MODEL(S):

C7000 C7001 C7002 C7003 C7004
 C7005 C7020 C7021 C7100 C7201
 C7202 C8000 C8001



- A Case/Housing
- B Anchorage Eye
- C Galvanized Wire Rope (Cable)
- D Impact Indicator
- E Snout
- F Swivel Steel Snap Hook
- G Webbed Lifeline
- H Shock Absorber



MaltaDynamics.com

800-494-1840

405 Watertown Road, Waterford, OH 45786



CE 0120
EN 360:2002

This manual must be read and understood in its entirety and used as part of your fall protection training program as required by OSHA 1926 and State and local regulatory agencies. This instruction manual is intended to meet industry standards required by and ANSI Z359.2007 and should be used as part of an Employee Fall Safety training program as required by OSHA. User must read and fully understand the limitations and proper use of the equipment, and be properly trained by employer prior to use per OSHA 29 CFR 1910.66, 29 CFR 1926.503, and applicable local standards. NOTE: This *User Instruction Manual* is not to be removed except by the user of this equipment. Current *User Instruction Manuals* must always be available to the user. Read and understand these instructions before using equipment. *Do not discard these instructions.*



Misuse or failure to follow warnings, instructions and limitations on the use of this equipment may result in serious personal injury or death. For further instructions about proper use, refer to supervisor or contact
 Malta Dynamics.

Materials and Construction

Webbing Materials

- Constructed with high tenacity polyester; breaking strength >5000 lbs tensile strength

Cable Materials

- 7X19 Galvanized Steel (3/16" diameter)

Connector Materials

- Galvanized Steel

Housing Materials

- Aluminum
- High-Impact Resistant Polymer

Purpose

Malta Dynamics Self-Retracting Lifelines are devices used to safely expand the working area where a harness with a six-foot lanyard is not adequate. A Self-Retracting Device (SRD) such as a self-retracting lifeline, is designed to reduce the shock load to the body of a worker by limiting the distance of a fall. The SRD allows complete freedom of movement. An SRD is one component of a Personal Fall Arrest System (PFAS). PFAS normally include a full body harness, anchorage connector (such as a carabiner and an SRD.)

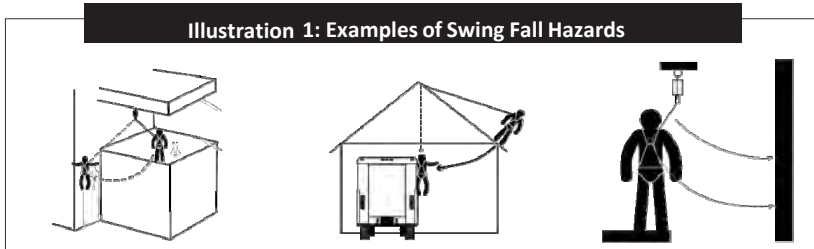
The Self-Retracting Lifeline (SRL) may be used in a stationary or mobile manner. As a stationary device, the SRL should be mounted to an approved, fixed anchorage connector overhead. The SRL extends as the user moves away from the anchor point, and retracts as the user moves back toward the anchorage point. An SRL used in a mobile manner should travel on a steel cable, rope or fixed rail, travelling from one anchorage connector to another.

Self-Retracting Lifelines may include a swivel eye anchorage, self-locking swivel snap hook with impact indicator, and 3/16" wire cable or webbing, carabiner and tag line.

Instructions for Use

- **▲ WARNING:** Do not alter or intentionally misuse this equipment.
- Personal Fall Arrest System (PFAS) MUST limit the average arrest force to 900 lbs. (4kN) or less.
- Employees shall be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components before using a PFAS.
- Inspect all Personal Fall Arrest System equipment for wear, damage, and other deterioration prior to each use. Remove defective equipment from service immediately.
- Thoroughly evaluate and plan all elements of Fall Protection System(s) before using this equipment. Make sure that your Personal Fall Arrest System is appropriate for your needs and facility. Calculate fall clearance and swing fall clearance. The amount of clearance required is dependent on the type of connecting subsystem, the anchorage location, and other factors. When calculating distance, be sure to consider:
 - Deceleration Distance
 - Movement of harness attachment (D-ring)
 - Free Fall Distance
 - Height of the worker (how tall is the worker?)
 - Elevation of Anchorage Connector

- Connecting Subsystems length
 - D-ring connector length
 - Length of Full Body Harness stretch
- Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize potential for swing falls by working as close to the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls significantly increase the amount of clearance required. See Illustration 1.



- Users must have a rescue plan and the means to implement it. This plan must provide prompt employee rescue or assure that employees have the ability to rescue themselves in the event of a fall.
- Store this equipment in a cool, dry, and clean environment that is out of direct light when not in use to prevent UV degradation.
- This equipment must be removed from service immediately if a fall is incurred.

Limitations for Use

- **▲ WARNING:** Do not use this equipment if you are unable to tolerate the impact of a fall arrest. Age and fitness can seriously affect your ability to withstand a fall. Consult with a physician if in doubt. Minors, pregnant women, and anyone with a history of back and/or neck problems must not use this equipment.
- **▲ WARNING:** Use caution when employing this equipment around machines, electrical hazards, chemical hazards and sharp edges or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.
- Use only with compatible components of subsystems. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.
- Self-Retracting Lifelines are designed for a single user with combined weight - including clothing, tools, etc. - within weight capacity range 130 lbs. to 310 lbs.
- Use only with structures capable of supporting static loads required for Personal Fall Arrest Systems (PFAS). Anchorages used for PFAS must be capable of sustaining static loads in the direction permitted by the PFAS of at least: 3,600 lbs. with certification of a qualified person; or 5,000 lbs. without certification. When more than one PFAS is attached to an anchorage, the strengths stated above must be met independently at and for each anchorage location.
- Do not expose this equipment to chemicals or harsh solutions that may have a harmful effect.
- User must not use or install equipment before receiving proper training from a Competent Person, as defined by OSHA 29 CFR 1926.32(f).
- Only Malta Dynamics shall make repairs or alterations to the equipment.

- All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications.

Connector Compatibility Limitations

Malta Dynamics equipment must be coupled only to compatible connectors that are suitable to your application. Ensure all connections are compatible in size, shape and strength. Ensure all connectors are fully closed and locked. OSHA 29 CFR 1926.502 prohibits the use of snap hooks to engage to objects unless the following requirements are met:

- Snap hook must be a locking type snap hook.
- Snap hook must be explicitly designed for such a connection. “Designed for” means that the manufacturer of the snap hook specifically created the snap hook to be used to connect to the equipment in question.

Use of a non-locking snap hook can result in rollout (a process by which a snap hook or carabiner unintentionally disengages from another connector or object to which it is coupled. ANSI Z359.0- 2007). Malta Dynamics connectors (snap hooks and carabiners) are designed to be used only as specified in each product’s user’s instructions.

Avoid the following types of connections:

- Connection of two (or more) snap hooks or carabiners to one D-ring.
- Connection of a snap hook back to its integral lanyard.
- Direct connection of a snap hook to horizontal lifeline.
- Connection in a manner that results in a load on the gate. NOTE: *Large throat opening snap hooks should not be connected to standard size D-rings or similar objects, as such use will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on structural elements such as rebar or cross members that are not shaped in such a way that they may capture the gate of the hook.*
- False engagement connections, where protruding features of the snap hook or carabiner may catch on the anchor and seem to be fully engaged to the anchor point. Always confirm engagement.
- Connection to snap hooks or carabiners.
- Direct connection to webbing lanyard, webbing loop, rope lanyard or tie-back (unless the manufacturer’s instructions for both the lanyard and connector specifically allow such a connection).
- Connection of a snap hook to a D-ring, rebar, or other connection point of improper dimensions in relation to the snap hook dimensions or configurations that could cause the snap hook keeper to be depressed by a turning motion of the snap hook, or such that snap hook or carabiner will not fully close and lock, or that roll-out could occur.
- **Illustration 2** depicts examples of inappropriate connections:

Illustration 2: Inappropriate Connections



Connecting Component Limitations

- A Competent Person must ensure the compatibility of all connections and that of the system.
- Do not use the system if any connector does not lock or if any other component in the system does not operate properly.
- Allow sufficient safe clearance in the event of a Free Fall.
- System must be rigged to limit the total Free Fall Distance according to the type of system, and in compliance with ANSI and OSHA directives.
- Do not use if any part of the system appears to be damaged.
- Do not use a body belt for fall arrest applications.

Performance

Each Self-Retracting Lifelines have an average arresting force of 900 lbs (4kN) when statically tested in accordance with the requirements of the ANSI Z359.14:2014 standard.

Model/ Part #	Description (Materials & Size)	Lifeline Length	Max Arrest Distance	ANSI Z359.14 Class
C7000	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner, Snout & Tagline	20 ft.	54 in.	B
C7001	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner	30 ft.	54 in.	B
C7002	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner	50 ft.	54 in.	B
C7003	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner, Snout & Tagline	100 ft.	54 in.	B
C7004	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner, Snout & Tagline	10 ft.	54 in.	B
C7005	Impact Resistant Polymer Housing, Polyester Webbing, Steel Snap Hook & Swivel	11 ft.	54 in.	B
C7020	Aluminum Housing, Polyester Webbing, Steel Snap Hook Twin SRL	6 ft.	54 in.	B
C7021	Aluminum Housing, Polyester Webbing, Steel Universal Rebar Hook Twin SRL	6 ft.	54 in.	B
C7100	Impact Resistant Polymer Housing, Polyester Webbing, Steel Snap Hook, & Steel Carabiner	6 ft.	54 in.	B
C7201	Impact Resistant Polymer Housing, Polyester Webbing, Swivel Top with Steel Carabiner; Steel Snap Hook on Bottom	11 ft.	54 in.	B
C7202	Impact Resistant Polymer Housing, Polyester Webbing, Swivel Top with Steel Carabiner; Steel Universal Rebar Hook on Bottom	11 ft.	54 in.	B
C8000	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner, Steel Snap Hook & Tagline	20 ft.	54 in.	B
C8001	Impact Resistant Polymer Housing, Steel Cable, Steel Carabiner, Steel Snap Hook & Tagline	30 ft.	54 in.	B

Applicable Standards:

Refer to national standards, including ANSI Z359.1, and local, state and federal (OSHA 1910.66, appendix C, 1926.500) requirements for more information on personal fall arrest systems and associated components.

Capacity:

Malta Dynamics Self-Retracting Lifelines are designed for use by an individual person with a combined weight (worker, clothing, tools, etc.) of 130 lbs. minimum to no more than 310 lbs. maximum. No more than one person may be connected at one time.

Anchorage Strength:

In accordance with ANSI Z359.1, any anchorage selected for **Personal Fall Arrest Systems must meet all** anchorage strength requirements. Anchorages used for PFAS must be capable of sustaining static loads in the direction permitted by the PFAS of at least: 3,600 lbs. with certification of a qualified person; or 5,000 lbs. without certification. When more than one PFAS is attached to an anchorage, the strengths stated above must be met independently at and for each anchorage location. Avoid potential swing fall hazards and obstructions.

Free Fall:

Maximum free fall distance allowed for use in a Personal Fall Arrest System is 6 ft. Do not work above the anchorage level to avoid increased Free Fall Distance. Avoid slack in the line and do not lengthen the Self-Retracting Lifeline by connecting a lanyard or other snap hook directly to the retractable. Do not use this device at or below the level of your feet. Using it thus will increase your free fall distance beyond the allowable limits set by OSHA and exceed the capabilities of this device to safely arrest a fall.

Fall Arrest Forces:

The Personal Fall Arrest System must limit fall arrest forces to 900 lbs. (4kN). Deceleration distance shall not be allowed to exceed 42 in.

Swing Falls:

Self-Retracting Lifelines should be used in a vertical position only. Minimize swing fall by working as directly below the anchorage point as possible. Worker movement should remain within 30 degrees maximum deflection of the lifeline from the vertical line directly below the anchorage point. (**Illustration 3**). Do not permit a swing fall if injury could occur.

Sharp Edges:

Avoid working where sharp edges may contact lifeline. Provide sufficient protective padding where avoiding sharp edges is not possible. Malta Dynamics energy absorbing device may be required to reduce impact force on the entire system.

Corrosive Environment:

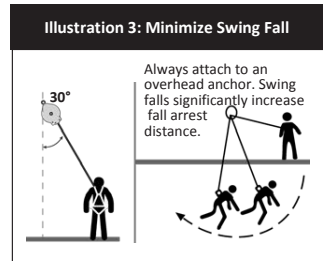
Extensive exposure to environments where corrosion may occur will damage metal parts in the Self-Retracting Lifeline. Use caution when working around corrosive compounds such as ammonia, sewage, fertilizers, sea water or other corrosives.

Chemical Hazards and Heat:

Use extreme caution in environments containing acid or caustic chemicals, particularly at elevated temperatures, as chemical damage that can impair the functionality of the Self-Retracting Lifeline (SRL) is difficult to detect. Periodic replacement of the SRL is recommended to ensure safety. Do not use SRL in high temperature environments. Protect SRL if used near welding, metal cutting, or similar activities. Hot sparks and slag can damage SRL and impair functionality.

Electrical Hazards:

Use extreme caution to avoid contact with high voltage power lines. Both web and wire cable model Self-Retracting Lifelines may conduct electricity. Moisture absorbed by the lifeline can provide a path for electrical current to flow, resulting in potential electrical shock.



Locking Speed:

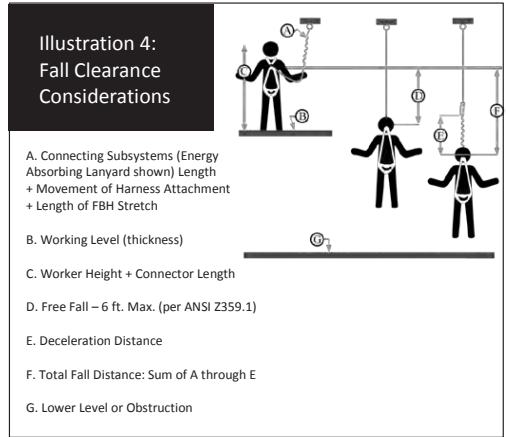
Use extreme caution when working on low-pitched roofs where a worker may slide, rather than fall. A clear path is required to ensure positive locking of the Self-Retracting Lifeline.

Fall Clearance:

Consider the following when calculating fall clearance. Clearance required is dependent on the following factors:

- Elevation of Anchorage
- Connecting Subsystem Length
- Deceleration Distance
- Free Fall Distance
- Worker Height
- D-ring / connector length
- Movement of Harness Attachment Element
- Length of Full Body Harness (FBH) Stretch
- Working Level

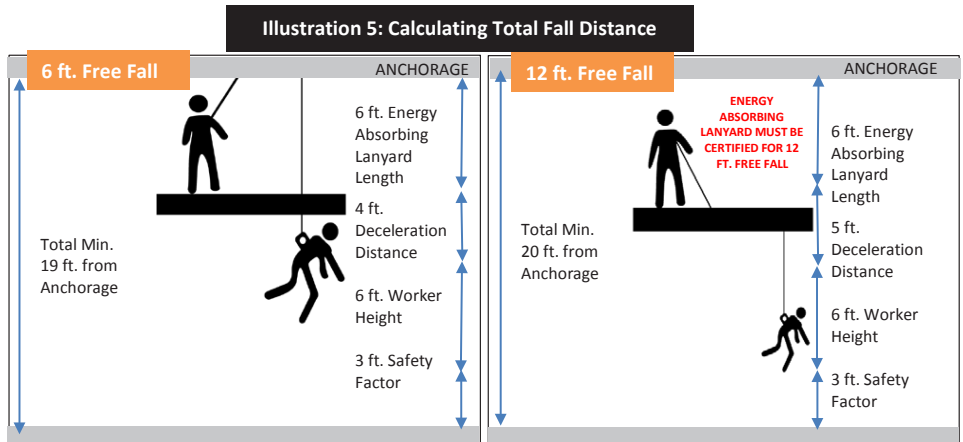
See **Illustration 4**.



If there is a risk of a fall or if the only anchorage point is below the attachment points on the harness, it is essential to use a lanyard provided with an energy absorber. Before using a shock absorbing lanyard, ensure that there is sufficient fall clearance below the user to prevent any collision with the structure or the ground.

Calculating Total Fall Distances:

Total Fall Clearance below worker is calculated from Anchorage Connection. Free Fall Distance + Working Level + Energy Absorber + Deceleration Distance + Worker Height + Connector Length + Safety Factor. Ensure that the total fall distance is clear of obstructions and equipment. Avoid potential contact with a lower level. See **Illustration 5**.



Horizontal Systems and Tripods:

Ensure the support structure and/or horizontal system components are compatible if using Self-Retracting Lifeline in conjunction with a horizontal system, tripod or davit arm. Horizontal systems must be designed and installed under the supervision of a qualified engineer.

Training

Employers are responsible for providing training to any employee who may be exposed to fall hazards in order to enable the employee to recognize and reduce fall hazards. Training must be conducted by a Competent or Qualified Person. Trainer and trainees must not be exposed to fall hazards during the training course.

Inspection

Record all observations and results of each inspection in your Hog Tracker account or inspection log. **If inspection reveals any defect, inadequate maintenance, or unsafe condition, remove Full Body Harness from service immediately.**

After a Fall:

Remove Self-Retracting Lifeline (SRL) from service immediately after a fall has occurred. Inspect the impact indicator on the snap hook of the SRL; look for an exposed red color band. Do not reset the impact indicator. SRL with a webbed lifeline requires additional inspection of the shock pack, looking for deformation, elongation or other signs of the shock pack being torn or deployed.

Self-Retracting Lifeline (SRL) must be inspected by a Competent Person a minimum of twice per year (every six months). If the SRL is exposed to extreme or severe conditions, more frequent formal inspections may be required. Record the results of each formal inspection in your Hog Tracker account or inspection log.

User Inspection

Self-Retracting Lifeline (SRL) should be inspected by the user before each use, using the inspection procedures below (**Illustration 6**). In addition, unit should be fully examined and inspected to ensure:

- Markings are legible
- Components are free from corrosion, bending, cracks, dents or deformity
- SRL is clean and free of dirt, oil, mold, mildew and contaminants

Inspection Procedure

- Step 1:** Inspect for loose screws and bent or damaged parts.
- Step 2:** Inspect housing for distortion, cracks or other damage. Ensure swivel eye is not damaged or distorted. Swivel eye must turn freely.
- Step 3:** Ensure lifeline extends and retracts fully without hesitation or creation of slack in the line.
- Step 4:** Ensure device engages (locks up) when lifeline is jerked (tugged) sharply.
- Step 5:** Inspect wire cable lifelines for cuts, kinks, broken wires, bird-caging corrosion, welding splatter, chemical damage or severe abrasion. Check all thimbles and other areas for excessive wear, including cracks or separation of metal components.
- Step 6:** Inspect webbed lifelines for frayed strands, broken webbing, burns, cuts and abrasions. Look for heat damage, paint build-up, corrosion and chemical damage indicated by discoloration.



Illustration 6: Inspection

Step 7: Inspect all snap hooks and connectors for damage; ensure secure, locking engagement

Cable Inspection Considerations:

User must be aware of the potential for damage or deterioration that may occur while in use.

Crushing: Cable may get crushed or bent while in general use, resulting in unsafe condition for use.

Cutting: Movement over sharp edges or other objects while cable in under tension can damage or break strands, resulting in an unsafe condition for use.

Abrasion: Normal wear can result in abrasion. Pay particular attention to outer strands, which are most susceptible to abrasion. Extreme abrasion results in an unsafe condition for use.

Kinking: Deformation in the cable causes the lifeline to appear bent or kinked, and results in an unsafe condition for use.

Corrosion Damage: Use extreme caution to avoid potential damage when using a Self-Retracting Lifeline in an environment where corrosive compounds, welding or high heat may exist. Corrosion damage can cause cable to crack. Working in a corrosive environment requires increased inspection frequency to ensure corrosive damage does not impact the performance of the SRL.

Arc or Heat Damage: Welding or high heat may fuse cable wires and change the strength characteristics of the wire and cable as a whole. Periodically examine the SRL if it must be used in these types of environments.

Cleaning and Maintenance

Cleaning

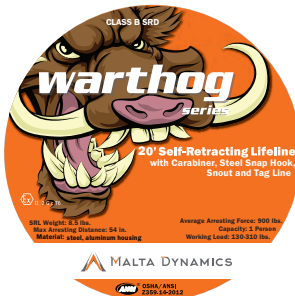
Wipe off all surface dirt. Store in clean, dry area, away from heat and areas where chemical vapors may exist. Avoid storing in direct light to prevent UV degradation.

Maintenance

Do not attempt to disassemble or repair. **Only Malta Dynamics or entities authorized in writing by Malta Dynamics shall make repairs, authorized maintenance or alterations to the equipment.**

Product Labels

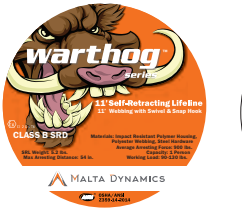
The following labelling is affixed to product and must not be removed:



C7000



C7004



C7005

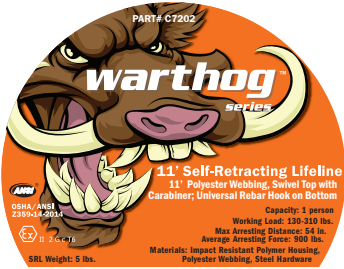


C7020

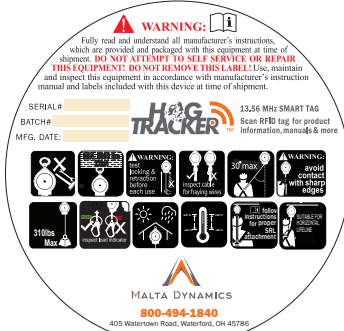


C7021





 MALTA DYNAMICS
Class B SRD



C7202



 MALTA DYNAMICS



C8000



 MALTA DYNAMICS



C8001

Inspection Log

Date of Manufacture: _____ Model Name/#: _____

Serial #: _____ Date of First Use: _____

INSPECTION DATE	ITEMS NOTED	CORRECTIVE ACTION	APPROVED BY



Warranty

THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Equipment offered by Malta Dynamics is warranted against factory defects in workmanship and materials for a period of one year from date of installation or first use by the original owner. LIMITED REMEDY: Upon notice in writing, Malta Dynamics will repair or replace all defective items at Malta Dynamics's sole discretion. Malta Dynamics reserves the right to require that the defective item be returned to its plant for inspection before determining the appropriate course of action. Warranty does not cover equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of Malta Dynamics. Malta Dynamics shall be the sole judge of product condition and warranty options. This warranty applies only to original purchaser and is the only warranty applicable to this product. Please contact Malta Dynamics customer service department at 800-494-1840 for assistance. LIMITATION OF LIABILITY: IN NO EVENT WILL MALTA DYNAMICS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.



MALTA DYNAMICS

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