



MALTA DYNAMICS

Permanent Roof Anchor

Instruction Manual - A6302



Permanent Roof Anchor INSTRUCTION MANUAL

These instructions apply to the following model(s):
A6302 - Permanent Roof Anchor

Manual Revision Code:
MD-PRAUIM170725

A copy of this manual must be available to users at all times. Visit www.MaltaDynamics.com for the latest user instruction manual based upon date of manufacture.

A6302



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UNDER PENALTY OF LAW

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 ANSI Z359.1-2007 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.

When used in accordance with instruction specifications, this product meets or exceeds all applicable OSHA 1926 and ANSI A-10.32-2012 standards for fall protection. Applicable standards and regulations depend on the application,



along with some state-specific regulations. Consult regulatory agencies for more information on personal fall arrest systems and associated components.

NOTE: This *User Instruction Manual* is not to be removed except by the equipment user. Current *User Instruction Manuals* can be found online at www.MaltaDynamics.com. Read and understand these instructions before using equipment. *Do not discard User Instructions.*

WARNING

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 a supervisor or contact Malta Dynamics at 1-800-494-1840.

MATERIALS AND CONSTRUCTION

- Stainless Steel Body with Stainless Steel Fasteners
- Alloy Steel D-Rings

PURPOSE

Malta Dynamics Permanent Roof Anchor is intended for use as part of a Personal Fall Arrest System (PFAS) or Fall Restraint System to help limit the forces associated with fall arrest.

Personal Fall Arrest System (PFAS): The Permanent Roof Anchor can be used as part of a Personal Fall Arrest System, which includes a full body harness, lanyard, rope grab, and lifeline. Maximum permissible free fall is six feet.

Fall Arrest & Fall Restraint: The Permanent Roof Anchor can be used as part of a Personal Fall Restraint System to prevent workers from reaching fall hazards. These systems typically include a full body harness, lanyard, rope grab, and lifeline. No vertical free fall is permitted.

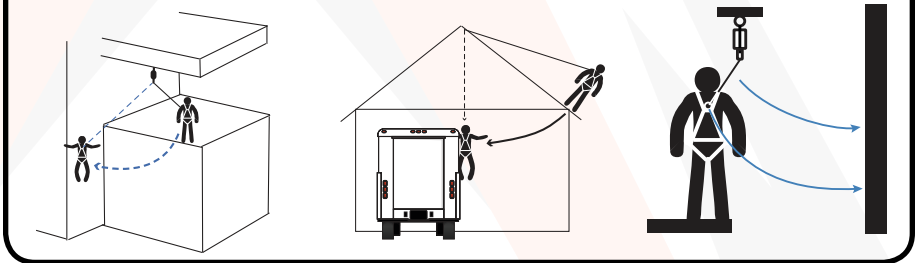
INSTRUCTIONS FOR USE

WARNING

Do not alter or intentionally misuse this equipment.

- Malta Dynamics Permanent Roof Anchors which meet ANSI Z359.1-2007 are intended to be used with other components of a Personal Fall Arrest system that limit maximum arrest forces to 900 lbs. (4 kN) or less.
- Employees shall be trained in accordance with OSHA 29 CFR 1910.66 requirements (safe use of system and components).
- Malta Dynamics Permanent Roof Anchors are only to be used with wood roofs.
- Inspect equipment for wear, damage, and other deterioration prior to use. Remove defective components immediately.
- Users must have a written rescue plan in place and the means to implement it. Remove equipment from service immediately after a fall occurs.
- Evaluate and plan all elements of fall protection system(s) before use. Ensure that your system is appropriate for your application. Calculate fall and swing fall clearances. The amount of clearance required is dependent on the type of connecting subsystem (rope grab, lanyard), the anchorage location, and the amount of stretch in the lifeline. When calculating distance, be sure to consider:
 - Deceleration Distance
 - Movement of harness attachment element (D-Ring)
 - Free-Fall Distance
 - Worker height (how tall is the worker?)
 - Elevation of Anchorage Connector
 - Connecting Subsystems Length
- **Swing Falls** occur when the anchorage point is not directly above the fall point. The swing force of striking an object may cause serious injury or death. Minimize potential for swing falls by working as close to the anchorage point as possible. Swing falls significantly increase the amount of clearance required.

Illustration 2: Examples of Swing Fall Hazards



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

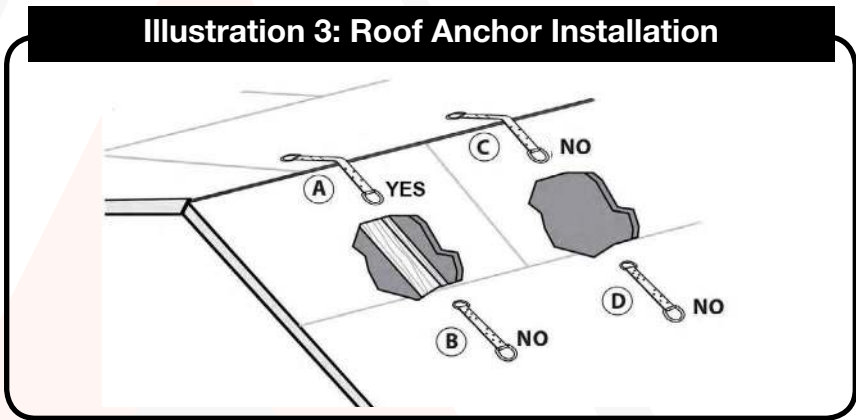
Use caution when employing this equipment around machines, electrical hazards, chemical hazards, and sharp edges or abrasive surfaces, as contact may cause equipment failure, personal injury, or death.

- Use only with compatible components of subsystems. Substitutions or replacements made with non-approved components may jeopardize compatibility of equipment and affect system safety and reliability.
- Malta Dynamics Permanent Roof Anchors are designed for a single user only. To maintain ANSI compliance, the ANSI working capacity range is 130 lbs. to maximum 310 lbs. including clothing, tools, etc.
- The maximum roof pitch that the Malta Dynamics Permanent Roof Anchor can be used for is 12/12 pitch.
- Use only with structures capable of supporting static loads required for fall arrest or restraint system as follows:
- **Fall Arrest:** Anchorages used for PFAS must be capable of sustaining static loads in the directions permitted by the personal fall arrest system of at least: 3,600 lbs. with certification of a qualified person; or 5,000 lbs. without certification. When more than one personal fall arrest system is attached to an anchorage, the strengths stated above must be met independently at and for each anchorage location. The Malta Dynamics Permanent Roof Anchor is to be used as a single-use anchorage connector and not to be used with a horizontal lifeline.
- **Fall Restraint:** The restraint system must be attached to an anchorage capable of sustaining static loads of at least 3,000 lbs. in the directions permitted by the system. When more than a restraint system 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 equipment.

Figure 1 and Illustration 3 Depict Roof Anchor Installation Details:

Figure 1: Roof Anchor Installation Details				
Anchor Type: follow instructions defined for the roof anchor type outlined below.	Install through Sheathing into Truss		Install through Sheathing into Truss	
	Roof Location A. On Ridge	Roof Location B. On Field	Roof Location C. On Ridge	Roof Location D. On Field
Malta Dynamics Dual-D Permanent Roof Anchor	YES	NO	NO	NO



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 an ANSI-style locking model.
- Snap hook must be explicitly designed for such a connection, meaning that the manufacturer of the snap hook specifically designed it to connect to the equipment in question.

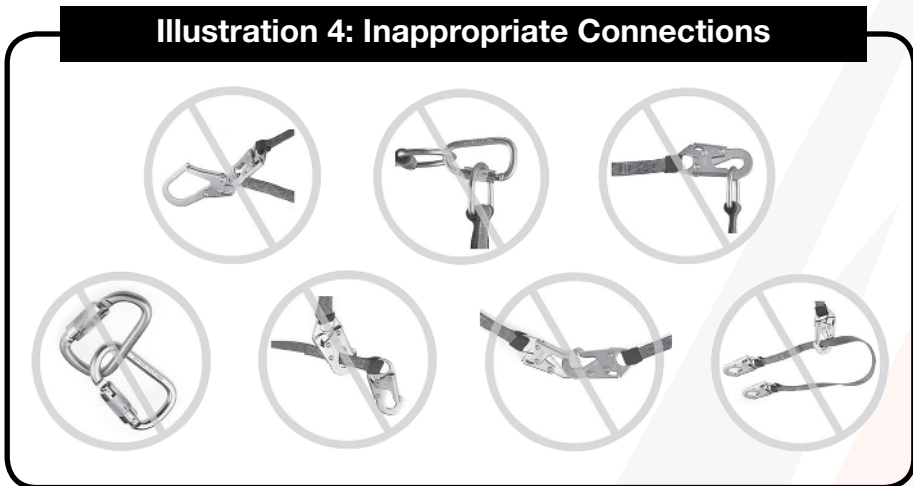
Use of a non-locking snap hook can result in roll out (a process by which a snap hook or carabiner unintentionally disengages from another connector or the object to which it is coupled [ANSI Z359.0-2007]). Malta Dynamics' connectors are designed to be used only as specified in each product's user instructions.



Avoid the following types of connections:

- Two or more snap hooks/carabiners attached to one D-Ring;
- A snap hook connected directly to a horizontal lifeline;
- A snap hook connected to its integral lanyard;
- 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. This could 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 to capture the gate of the hook*);
- False engagement connections (protruding features of the snap hook or carabiner may catch onto the anchor and seem fully engaged to the anchor point but are not). **ALWAYS confirm engagement.**
- 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);
- A snap hook connected to a D-Ring, rebar, or other connection point with improper dimensions or configurations that could cause the snap hook keeper to become depressed by the turning motion of the snap hook, or such that the snap hook or carabiner will not fully close and lock, or that roll-out could occur.

Illustration 4, depicts examples of inappropriate connections:



ANCHORAGE CONNECTORS

Anchorage Connectors shall be marked to identify:

- The materials of construction;
- Proper method of coupling to anchorages or reference to separate instructions specifying the same or both;
- The need to avoid contact with sharp edges and abrasive surfaces;
- Inspection requirements;
- Warnings about use with incompatible connectors;
- Stability and compatibility limitations for anchorages;
- Limitations concerning physical hazards such as thermal, electrical, and chemical sources .

PERFORMANCE

Each Malta Dynamics Permanent Roof Anchor has a minimum tensile breaking strength of 5,000 lbs. (22.2 kN) when statically tested in accordance with the requirements of the ANSI Z359.1; 2007 standard.

Model/ Part #	Body Material	D-Ring Material	Length	Approximate Weight	Standard
A6302	Stainless Steel	Alloy Steel	17"	1 lb.	ANSI Z359.1-2007

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.

INSTALLATION

Before Use:

Review all warnings and read instructions carefully when selecting a mounting location. Permanent Roof Anchors are intended to be installed on roofs and wood structures with wood members and sheathing. The roof structure anchor location must be capable of supporting a minimum of 5,000 lbs. tensile load or *shall be designed, installed, and used as follows: (i) as part of a complete personal fall arrest system which maintains a minimum safety factor of two; and (ii) under the supervision of a "qualified person" per OSHA 1926.502.*

Before installing the Permanent Roof Anchor, carefully inspect all components to assure that the equipment is in proper operating order:

- Check equipment for missing or damaged parts;



- Inspect trusses, rafters, and structural members for decay, rot, or other defects before installing.

Installation Requirements:

Follow the guidelines outlined below to properly install Malta Dynamics' Permanent Roof Anchor (A6302):

- Inspect all equipment before installing. Do not continue installation if there are any signs of damage, defects, or missing components.
- Inspect carefully for any signs of cracks, dents, or deformities in the metal. Inspect for bending, the roof anchor legs should be flat. Welds or rivets should be securely attached and be free from cracks.
- Select a mounting location for the roof anchor that meets or exceeds the requirements outlined in the INSTALLATION section.

Note: Select installation sites that minimize swing fall hazards and limit the free-fall distance to less than six feet.

- If installing into existing residential roofing made from asphalt shingles, shake, or tile, you will need to remove one to two pieces of the ridge cap to install the Permanent Roof Anchor.
 - Apply caulk to nail heads before re-installing the ridge cap for added protection. Only the D-Ring portion of the anchor should be exposed once installation is complete.
 - The Malta Dynamics Dual-Ring Permanent Roof Anchor is designed for permanent installation on the roof ridge, on top of the sheathing, and over a truss. Drive in all eight (8) 16d x 3.5" nails. **(See Figure 1 and Illustration 3).**
 - Center the Permanent Roof Anchor on the ridge of the roof framing assembly. Position the anchor on the roof so that the 8 nail holes along the center of the legs are centered directly over the middle of the roof framing member. The roof anchor must be positioned over the top of the previously secured roof sheathing (do not attach directly to rafter or truss).
 - All holes in the bracket are to be filled with 16d common nails and nails must be installed without splitting the timber or protruding through side of members. Edge distance, end distances and spacing must be sufficient to prevent splitting of the wood, and must conform to design requirements under the current edition of the Section 11.15 National Design Standard (NDS), Chapter 23 of the International Building Code (IBC) in addition to all other applicable codes. Nails must meet the requirements of ASTM F1667.
- Note:** Move Malta Dynamics Permanent Roof Anchor as needed or install additional anchors. Additional anchors must be installed no more than 8' apart and a minimum of 6' from the roof's edge.

Anchorage Strength:

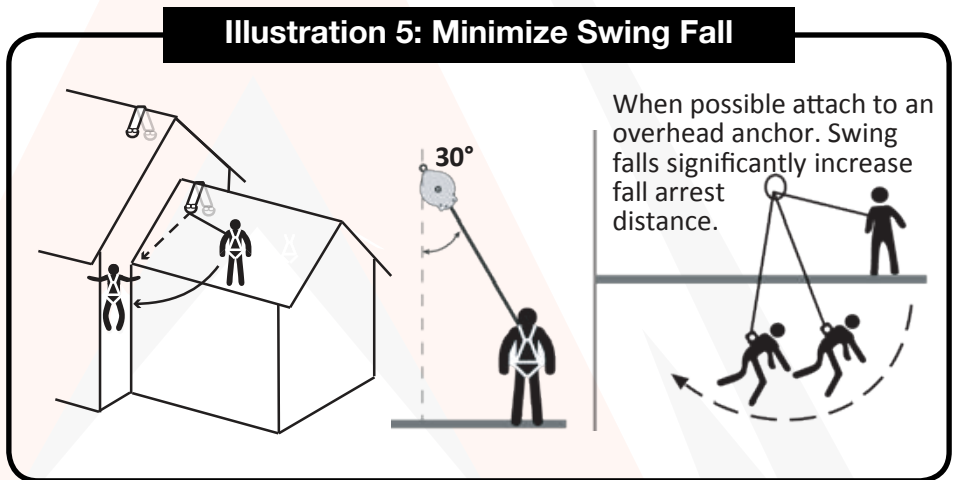
In accordance with ANSI Z359.1, any anchorage selected for **Personal Fall Arrest Systems must meet all** anchorage strength requirements. Anchorages used for PFAS must be capable of sustaining static loads in the direction permitted by the PFAS of at least 3,600 lbs. with certification of a qualified person or 5,000 lbs. without certification.

It is the responsibility of the building owner to ensure that the material to which the anchor is installed has the capacity to support the anchor and associated loads. Per OSHA 1926.500 and 1910.66-Anchorage used for attachment of personal fall arrest systems (PFAS) shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lb per user attached, or be designed, installed and used as a part of a complete FAS which maintain a safety factor of at least two and is under the supervision of a qualified person. The structure must be capable of meeting these anchorage requirements. This includes but is not limited to roof sheathing to framing member and roof framing to wall connections as well as wall and building stability.

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.

Swing Falls:

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 5, below**). Do not permit a swing fall if injury could occur.



Free Fall:

Maximum free-fall distance allowed for use in a Personal Fall Arrest System is two feet. Do not work above the anchorage point 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 foot level. Using it at or below foot-level 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 should not be allowed to exceed 48 inches.

Fall Clearance:

Ensure sufficient clearance exists in your fall path to prevent striking an object during a fall. The clearance required is dependent upon the subsystem and lifeline properties.

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 6.**)

Sharp Edges:

Avoid working where your lifeline, lifeline subsystem, or other system components will be in contact with, or abrade against, unprotected sharp edges. Do not loop a lifeline around small diameter structural members.

Rescue:

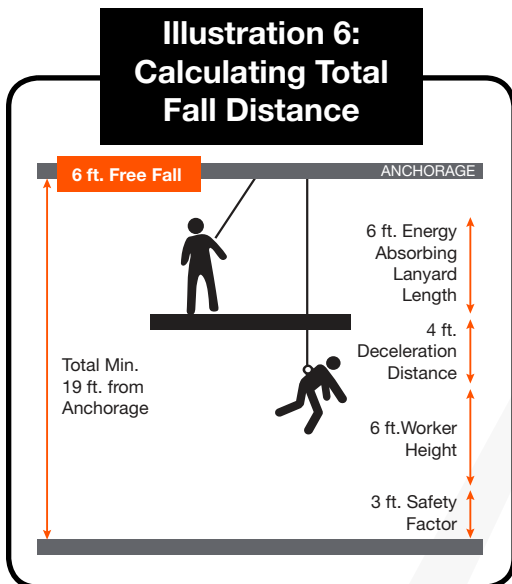
Users must have a written rescue plan and the means to implement it. This plan must provide prompt employee rescue or assure that employees have the ability to rescue themselves in the event of a fall.

After a Fall is Incurred:

Components which have been subjected to fall arrest forces must be removed from service immediately.

General Use Considerations:

Avoid work where a lifeline may cross or tangle a lifeline of another worker. Do not allow lifeline to pass under worker's arms or between worker's feet.



Making Connections:

- **See Illustration 4.** When using a hook to connect components to an anchorage, Ensure roll-out cannot occur when using a snap hook to connect components to an anchorage. Use self-locking snap hooks and carabiners to reduce the possibility of roll-out.
- Follow manufacturer's instructions for all system components.

TRAINING

Employers are responsible for providing training to all employees who may be exposed to fall hazards in order to teach them to recognize and reduce those hazards. Training must be conducted by a competent or qualified person. Trainer and trainees must not be exposed to fall hazards during training courses.

INSPECTION

Note: Keep all instructions available for reference. Record the date of first use. Record all observations and results for each inspection in your inspection log. If inspection reveals any defect, inadequate maintenance, or unsafe conditions, remove Permanent Roof Anchor from service immediately.

Any equipment that has been subjected to the forces of a fall arrest must be removed from service immediately.

Note: Equipment must not be altered in any way, including to attempt or make a repair. Only the manufacturer or entities authorized in writing by the manufacturer may make repairs to this product.

- Inspect equipment for missing or damaged components; parts must be free from corrosion, chemical attack, alterations, excessive heating, or extreme wear.
- All markings must be legible and attached to the equipment.
- Ensure D-Rings work correctly and move freely.
- Inspect equipment carefully for evidence of distortion, sharp edges, burrs, cracks, worn parts or corrosion.

If inspection reveals any defective condition, remove from service immediately.

FREQUENCY

All equipment must be inspected prior to each use according to the manufacturer's instructions. Annual inspections must be performed by a Competent Person, as



defined by OSHA. All equipment should be inspected by a Qualified Person on a regular basis.

MAINTENANCE & CLEANING

Cleaning and maintenance are not required for this specific product. If inspection reveals any defect, remove from service immediately.

Repairs to the Permanent Roof Anchor can only be made by a Malta Dynamics' Fall Protection representative or an entity authorized by Malta Dynamics. Contact us for all maintenance and repair needs or to inquire about a return at 1-800-494-1840.

PRODUCT LABELS

The following labels are affixed to the product and must not be removed:

 MALTA DYNAMICS Model: A6302 Permanent Roof Anchor User: (1) Person Max. Max Capacity: ANSI Capacity Range 130-310 lbs. Material: Stainless Steel (INSPECT BEFORE USE) MFG DATE: XX/XX/XXXX BATCH#: XXXXXXXXXXXX 800-494-1840 210 13th Street, Malta, OH 43758 www.MaltaDynamics.com	 WARNING: All persons using this equipment must read, understand and follow all instructions before using. Improper use of this equipment may result in serious injury or death. USE & INSTALLATION: Attach anchor with 16d x 3.5" nails, only one per pre-punched hole. Ensure all nails enter support structure. Use all holes. Ensure that no material or debris interferes with the action of the lifeline and is not in any contact with any sharp edges, hazardous objects, or abrasive surfaces. Anchor must be installed free from any thermal, electrical, and chemical sources. Mount a minimum of 6ft. from any edge. Support structure must be capable of supporting a 5000 lb. static load or meet the requirements of OSHA's 1926.502 two to one safety factor. Connection to anchor must only be made with a double locking carabiner or double locking snap hook. Please refer to instructions for proper method of coupling anchorages. Do not use incompatible connectors. Please refer to manual for examples. Fall protection system must include shock absorber or retractable to limit force to 900 lbs. or less. COMPLIANCE: OSHA 1910.66 & 1926.502, ANSI Z359.1-2007 DO NOT REMOVE THIS LABEL
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Illustration 7: Suitable Load Direction on Roof Anchors



INSPECTION LOG

Date of Manufacture: _____ Serial: _____
Model Name/Number: _____ Date of First Use: _____

Inspection Date	Items Noted	Corrective Action	Approved By

WARRANTY

The following warranty is made in lieu of all warranties or conditions, whether expressed or implied. This includes 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 to be returned to its plant for inspection before determining the appropriate course of action.

This 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 the 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 ANY LEGAL THEORY ASSERTED.





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