XTIRPA XLT Mast System / Davit Arm
15 ft (4.6 m) to 25 ft (7.6 m) x 6 ft (1.83 m) for PPE

ANSI
AS/NZS
CSA
OSHA
# TABLE OF CONTENTS

1. **THE XTIRPA SYSTEM** ........................................................................................................... 5
   1.1 About ................................................................................................................................. 5
   1.2 Accreditation ...................................................................................................................... 5
      1.2.1 Laboratory .................................................................................................................. 5
      1.2.2 Qualification .............................................................................................................. 5
   1.3 Capacity, Limitations, & Design ...................................................................................... 6
   1.4 Warranty ............................................................................................................................ 7

2. **SYMBOLS** ............................................................................................................................. 8

3. **SAFETY REQUIREMENTS** ..................................................................................................... 9
   3.1 Training ............................................................................................................................. 9
   3.2 Planning for Use ............................................................................................................... 9
   3.3 Rescue, Evacuation, & Fall Arrest .................................................................................. 9
   3.4 Ground Clearance .......................................................................................................... 10
   3.5 Connecting Components ............................................................................................... 10
      3.5.1 ANSI Z359.18-2017 Type D, CSA Z259.15-2017 Class AD, and OSHA 1910.66 10
      3.5.2 AS/NZS 5532-2013 - Freefall Arrest ......................................................................... 11
      3.5.3 EN 795-2012 ............................................................................................................. 11

4. **INSTALLATION** ..................................................................................................................... 12
   4.1 Installation of the System with an Anchored Base ........................................................ 13
   4.2 Installation of the System with a Mobile Base .............................................................. 15
   4.3 Installation of Self-Retracting Lifeline or Winch on Top Anchorage Point .................. 18
   4.4 Installation of Self-Retracting Lifeline or Winch on Bottom Anchorage Point .......... 21
   4.5 Installation of Self-Retracting Lifeline or Winch on Rail Anchorage Point ................ 23

5. **OPERATIONS** ....................................................................................................................... 24
   5.1 Height Adjustment of the System .................................................................................... 24
   5.2 Adjustment of the Orientation of the Mast System/Davit ............................................ 26
   5.3 Anchorage Points ............................................................................................................ 28

6. **INSPECTION, MAINTENANCE, & STORAGE** ................................................................. 29
   6.1 Inspection ......................................................................................................................... 29
      6.1.1 Frequency .................................................................................................................. 29
      6.1.2 Process ....................................................................................................................... 29
      6.1.3 Corrective Action ....................................................................................................... 29
      6.1.4 Inspections Log .......................................................................................................... 29
   6.2 Maintenance ....................................................................................................................... 29
   6.3 Storage ............................................................................................................................... 29

7. **COMPONENTS** ................................................................................................................... 30

8. **APPENDIX** .......................................................................................................................... 31
   8.1 Ground Clearance Calculation ....................................................................................... 31
      8.1.1 XTIRPA XLT Work Area Calculation ...................................................................... 32
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1.2 XTIRPA XLT Work Area Table</td>
<td>33</td>
</tr>
<tr>
<td>8.2 Markings</td>
<td>34</td>
</tr>
<tr>
<td>8.3 Maintenance and Inspection Log</td>
<td>35</td>
</tr>
<tr>
<td>8.4 Registration Limited Warranty Form</td>
<td>36</td>
</tr>
</tbody>
</table>
1. THE XTIRPA SYSTEM

1.1 About

The XTIRPA system is an anchorage connector system. It is part of a personal protection equipment (PPE) system for use in travel restraint, fall arrest, rescue, work positioning, rope access, and confined space access. It is intended to act as a personal support structure or anchor point for these uses.

⚠️ WARNING

Unauthorized modification, non-appropriate use, inadequate maintenance, and the replacement of parts with non-originals, may result in personal injury or death and in the manufacturer disclaiming the warranty and any liabilities.

An instruction manual and all relevant additional information must be provided upon purchase of the XTIRPA system and are not to be removed except by the user of the system.

Insure that the following additional information is also provided by the manufacture or authorized distributors:

- Technical drawings
- Installation instructions

Follow all applicable national standards and best work practices as well as state, provincial, and federal laws when using this anchorage connector system. If this system is resold, it is essential that the manual and all supporting documentation are provided in the destination language. Contact the manufacturer INNOVA Public Utility Products Inc. for any questions concerning the use, maintenance, and installation of XTIRPA systems.

1.2 Accreditation

The accreditation of the anchorage connector system was performed by the laboratory listed below.

1.2.1 Laboratory

Testing and accreditation was conducted by the following laboratory:

Produits Services Publics Innova Inc.

Head office:
1040 boulevard Industriel,
Granby, Quebec, Canada
J2J 1A4

1.2.2 Qualification

The laboratory has been assessed by the Bureau de normalisation du Québec (BNQ) and conforms with the requirements of ISO/IEC 17025:2005. Accredited laboratory numbers: 821
1.3 Capacity, Limitations, & Design

The manufacturer attests that this anchorage connector system has been tested in compliance with the requirements of:

- ANSI A359.7-2019
- CSA Z259.12-2016

The manufacturer’s scope of approval extends to all components and parts listed in this manual. The manufacturer’s scope of approval does not extend to the anchorage and substrate to which the anchorage connector is attached. The manufacturer attests that this XTIRPA system anchorage connector meets the requirements of:

- ANSI Z359.18-2017 - Type D
- AS/NZS 5532-2013 - Freefall Arrest
- CSA Z259.15-2017 - Class AD
- CSA Z259.16-2015 - Counterbalanced system
- OSHA 1910.66

The type and class of approval may be found on the marking, which is provided in the appendix. All XTIRPA systems are designed to operate for 10 years provided that they operate within design limitations and are maintained, inspected, and stored according to this manual. The XTIRPA system is one of the lightest and most ergonomic anchorage connector systems of its kind on the market. Davits, masts, and barricades are made of 6061-T6 aluminum. Some larger davits may be made of HSS A-500. The bases are made of either SS 304, SS 316, galvanized 44 W, or galvanized 50 W. The pulleys are made of acetal.

Technical specification of this product:
- Manufacturer: .................................. INNOVA Public Utility Products Inc.
- Brand: ........................................... XTIRPA
- Model: ........................................... IN-8020
- Name: ........................................... XTIRPA XLT mast system/davit arm 15 ft (4.6 m) to 25 ft (7.6 m) x 6 ft (1.83 m) for PPE
- Minimum breaking strength (MBS): .... 18 kN
- Maximum arresting force: ............... 6 kN
- Working load restriction: ................. 360 lb (164 kg)
- Maximum simultaneous users: .......... 1
- Minimum service temperature:
  - ANSI Z359.18-2017 Type D: .......... -10 °F (-25 °C)
  - CSA Z259.15-2017 Class AD:......... -31 °F (-35 °C)
- Maximum service temperature: .......... 130 °F (54 °C)

It is imperative that the user is aware of operating the system beyond its temperature limitations. The equipment may become frozen together. Do not operate the equipment beyond the service temperature indicated in this manual or on the markings. Users must always ensure the free movement of components of the system as originally intended.

⚠️ WARNING

This system is not designed to operate with more simultaneous users than intended. A user is defined as the individual that is physically connected to the anchorage connector.

⚠️ WARNING

This system cannot be used simultaneously to transport equipment when users are physically connected to the anchorage connector.
1.4 Warranty

The XTIRPA system offered by the manufacturer, INNOVA Public Utility Products Inc., is warranted against manufacturing defects in workmanship and materials for a period of two (2) years from the date of shipment of the product, which only covers the original purchaser of the XTIRPA system. The manufacturer will promptly repair or replace all components or parts found to be defective. The manufacturer reserves the right to elect to have any alleged defective part returned to its plant for inspection before making a repair or replacement.

Only components or parts found to be defective by the manufacturer, at its sole discretion and upon any inspection requested and performed by the manufacturer, will either be repaired or replaced by the manufacturer.

All claims must be forwarded in writing to the manufacturer, immediately upon discovery by the owner, and must be accompanied by a copy of the proof of purchase of the original purchaser. The manufacturer will issue a claim number and give specific instructions to be followed for claim procedures and the return of the defective part(s), if so requested by the manufacturer. The owner will collaborate with the manufacturer and its representatives to allow inspection of any alleged defective part. All shipping costs to return defective components and parts to the manufacturer’s plant are payable by the owner. The cost of shipping replacement components or parts are payable by the manufacturer.

This warranty does not cover equipment damage resulting from any cause other than a manufacturing defect in workmanship or materials, including, without limitation, damage resulting from abuse, lack of maintenance, improper handling or storage, voluntary damage, vandalism, accidental damage or damage resulting from impact or collision, damage in transit, damage caused by fire, explosion, chemical, toxic or corrosive vapors, substances or environments, water, normal corrosion and rust, storms, hail, and other acts of God, war or insurrection, acts of terrorism or other damage beyond the control of the manufacturer. This warranty applies only to the original purchaser, is the only one applicable to the XTIRPA system, and is in lieu of all other warranties, expressed or implied. Without limiting the generality of the foregoing, the manufacturer will not be liable or responsible for any other costs, damage or claims whatsoever, including for any special, incidental, indirect, or consequential damage at all such as, but not limited to, damage for loss of profit or expected revenue, for business interruption, for personal injury, for failure to meet any duty including of good faith or of reasonable care, for negligence, and for any other pecuniary or other loss whatsoever, arising out of or in any way related to the use of or inability to use the XTIRPA system, even in the event of the fault, tort (including negligence), strict liability, breach of contract or breach of warranty, and even if the manufacturer has been advised of the possibility of such damage. The manufacturer hereby disclaims all other warranties and conditions, either express, implied or statutory, including, but not limited to, any implied warranties or conditions of merchantability, fitness for a particular purpose or application, and of lack of negligence or lack of workmanlike effort.

IMPORTANT: The user must complete and return the Limited Warranty registration form for each product. Ensure that the purchase date of the XTIRPA system from either the manufacturer or the authorized service center is indicated.
2. SYMBOLS

**WARNING**
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

- Read and understand the manual for this system before use.
- Maximum permissible users of the system at once.
- System equipment must be installed by a qualified individual according to the instructions of the manufacture.
- Perform a visual inspection prior to use according to the instructions in the manual. Do not use the system if there is doubt regarding safe use.
- Maximum permissible arresting force (MAF).
- Ensure that the position pin is installed prior to use. Failure to do so may result in injury.
- The system may be used to raise and lower users.
- Utilize in conjunction with components approved by the manufacture.
- Component is unlocked and not safe for use.
- Component is locked and safe for use.
- Maximin torque moment for base.
3. SAFETY REQUIREMENTS

3.1 Training

Prior to use, all users must have received training on this anchorage connector system and must have read and understood this manual. A training program on the use of this system must be set up on the part of the owner for all who intend to use the system. Moreover, users must also undergo periodic renewed training. Consult the manufacturer, authorized service center, or a component person for assistance in setting up a training program.

**CAUTION**

Users of this system must understand the instructions, capacity, limitations, maintenance and consequences of improper operation of the system, and be properly trained prior to use according to OSHA 29 CFR 1910.66 and 1926.503, or applicable local standards.

3.2 Planning for Use

Always work in teams of at least two (2) people when using this anchorage connector system. A minimum of one (1) person should act as a spotter, overseeing the proper use of the system, while the user(s) of the system is(are) physically connected to the anchorage connector. The maximum number of simultaneous users for this system is indicated in section "1.3 Capacity, Limitations, & Design" on page 6. The spotter of the anchorage connector should also be responsible for reeling the line, ensuring the proper load requirement of the system is respected, advising the user(s) of possible harness entanglement, ensuring that the proper connecting components are used, performing all prior visual inspection, and ultimately ensuring safe use of the system.

Wear all appropriate additional work safety equipment such as, but not limited to, a hard hat, protective eyewear, leather gloves, protective clothing, work boots, flashlights, and respiratory devices if needed.

Install and secure all high visibility indicators and other precautionary devices when using the anchorage connector system. Moreover, advise bystanders and vehicle operators within the work area before use.

3.3 Rescue, Evacuation, & Fall Arrest

A rescue plan must be put in place prior to the use of the system. A rescue plan does not simply include advising local emergency services upon the arrest of a fall that a rescue is required. A rescue plan must take into consideration that an arrested fall may place a user in a precarious situation for an extended amount of time before rescue, which may cause further injuries and/or death. It is imperative that all necessary delays in the execution of a rescue are taken into account when creating a rescue plan, in order to reduce further injuries for those involved in an arrest fall requiring rescue.

**WARNING**

If the system has arrested a fall or been damaged, it must be removed from service. Clearly mark or tag the fall arrest system as "UNUSABLE". It must subsequently be inspected and serviced as according to section "5. OPERATIONS" on page 24.
The user must have a rescue plan and the means at hand to implement it. The plan must take into account the equipment and specific training necessary to affect prompt rescue under all foreseeable conditions. If the rescue is from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z117.1 must be taken into account. It is recommended to provide a means for user evacuation without the assistance of others. This will usually reduce the time to get to a safe place and reduce or prevent the risk to rescuers.

### 3.4 Ground Clearance

Consult the appendix for information concerning ground clearance calculations. When using a shock-absorbing lanyard, keep the amount of slack between the anchorage/anchorage connector system and the harness at a minimum to reduce the free fall distance and the impact force to the user. Make certain that enough clearance is available in all potential fall paths to prevent striking an object. The amount of clearance needed depends upon the type of connecting components being used, and the location of the anchorage or anchorage connector system.

**WARNING**

Do not exceed the allowable free fall distance or exceed the maximum fall arresting force of connecting components.

### 3.5 Connecting Components

#### 3.5.1 ANSI Z359.18-2017 Type D, CSA Z259.15-2017 Class AD, and OSHA 1910.66

According to ANSI Z359.18-2017 Type D and CSA Z259.15-2017 Class AD, connectors such as D-rings, snap hooks, and carabiners must be rated to a minimum of 5000 lbf (22 kN). Connector gates must be rated to a minimum of 3600 lbf (16 kN). Connecting hardware must be compatible in size and shape so as not to inadvertently cause their gate mechanisms to open. Non-compatible connectors may accidentally disengage. Verify the compatibility of the connecting snap hook or carabiner with a harness D-ring or anchorage connectors. Use only self-closing, self-locking snap hooks and carabiners with the harness. When using a snap hook to connect to an anchor or when the coupling components of the system together is certain, accidental disengagement (rollout) will not occur. Rollout is possible when interference between a snap hook and the mating connector causes the snap hook’s gate or keeper to accidentally open and release. Rollout occurs when a snap hook is snapped into an undersized ring such as an eye bolt or other non-compatibly shaped connectors. Do not use snap hooks or connectors that will not completely close over the attachment object. Do not make knots in a lanyard. Do not hook the lanyard back onto itself. Snap hooks and carabiners must not be connected to each other. Do not attach two snap hooks into one D-ring. Always follow the manufacturer’s instructions supplied with each system component.

Lastly, ensure that all equipment used in conjunction with the XTIRPA system, such as lanyard wire rope or ropes, are in proper working order. Do not use if the following defects are present: fraying, crushing, severing, unlaying, kinking, knotting, roping, broken or pulled stitches, broken or pulled wires or multiple broken wires, excessive elongation, chemical attacks, excising soiling, abrasion, alteration, and excessive wear.
Do not rely on touch or sound to verify proper and connecting components. Visually verify that gates and keepers are closed before use.

3.5.2 AS/NZS 5532-2013 - Freefall Arrest

Equipment used in conjunction with AS/NZS 5532-2013 - Freefall Arrest should conform to the AS/NZS 1891 series and the AS/NZS 4488 series standards.

3.5.3 EN 795-2012

Equipment used in conjunction with EN 795 should conform to EN 362. According to EN 795, all connecting components to anchorage connector systems, including hooks, snap hooks, and D-rings must be able to withstand a minimum load of 5000 lbf (22 kN). Any full-body harness used in conjunction with XTIRPA systems should conform to EN 361.
4. INSTALLATION

The use of the XTIRPA system in areas where environmental hazards exist may require additional precautions in order to limit the possibility of personal injuries and damage to the system. Environmental hazards may include, but are not limited to: excessive heat, fire, smoke, chemicals, oils, corrosive environments, proximity to high voltage power lines, excessive moisture, explosion, toxic gases, water and/or the risk of flooding, and the risk of falling debris.

Prior to the installation, consult with the manufacturer or authorized distributors to determine the optimal installation process and setup of the base for your application. Follow all relevant technical installation and bolting instructions provided by the manufacture.

The installation or removal of this system may require the use of another anchorage connector system in order to limit exposure to fall hazards.

⚠️ WARNING

The system must be installed on a stable and level surface and must not be installed on any soft surfaces, including but not limited to, sand, grass, gravel, and rocks. All fixed bases must be anchored and torqued to the ground by anchoring bolts approved by the manufacturer.

⚠️ WARNING

Users are advised to avoid environmental hazards. More frequent inspections are required when working in the presence of environmental hazards. Refer to section "5. OPERATIONS" on page 24 for additional information.
4.1 Installation of the System with an Anchored Base

01

The installation of an anchored floor adapter (IN-5040) must be done in accordance with section "4. INSTALLATION" on page 12.

02

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to section &quot;4. INSTALLATION&quot; on page 12 for installation details.</td>
</tr>
</tbody>
</table>

Verify that the self-retracting lifeline and winch bracket (A5039-39) are installed. If necessary, install the bracket on the mast system/davit (IN-5039) using the four (4) nuts and bolts provided with the bracket (A5039-39).

03

With the help of the available lifting equipment, lift the mast system/davit (IN-5039) using the two (2) lifting points on the mast system/davit (IN-5039).

04

Before inserting the mast system/davit (IN-5039), apply approximately 16 oz (454 ml) of all-purpose grease -0.4 °F to 257 °F (-18 °C to 125 °C) around the base of the mast system/davit (IN-5039) and approximately 2 oz (57 ml) on the interior surface of the floor adapter (IN-5040).
Insert the mast system/davit (IN-5039) into the floor adapter (IN-5040).

Lubricate the system until the mast system/davit (IN-5039) rotates easily using the grease nozzles.
4.2 Installation of the System with a Mobile Base

Using the eight (8) nuts, washers and bolts provided with the system, install the floor adapter (IN-5040) on the mast base (A5039-12) in the position indicated below:

A) Edge position.
B) Central position.

With a torque wrench, apply 200 ft-lb (271 N·m) of torque to the eight (8) nuts.

Verify that the self-retracting lifeline and winch bracket (A5039-39) are installed. If necessary, install the bracket on the mast system/davit (IN-5039) using the four (4) nuts and bolts provided with the bracket (A5039-39).

With the help of the available lifting equipment, lift the mast system/davit (IN-5039) using the two (2) lifting points on the mast system/davit (IN-5039).

Before inserting the mast system/davit (IN-5039), apply approximately 16 oz (454 ml) of all-purpose grease -0.4 °F to 257 °F (-18 °C to 125 °C) around the base of the mast system/davit (IN-5039) and approximately 2 oz (57 ml) on the interior surface of the floor adapter (IN-5040).
Insert the mast system/davit (IN-5039) into the floor adapter (IN-5040).

Lubricate the system until the mast system/davit (IN-5039) rotates easily using the grease nozzles.

Using the available lifting equipment, move the entire system to the desired location. Follow the installation instructions in section "4. INSTALLATION" on page 12.

Level the mast base (A5039-12) using the base’s integrated level.
Place the eight (8) concrete blocks (A5039-16) onto the base, according to the position of the floor adapter (IN-5040). The lifting ring on the concrete block (A5039-16) should be used to maneuver the block.

**WARNING**

Use only concrete blocks approved by the manufacturer.

A) Edge position.
B) Central position.
4.3 Installation of Self-Retracting Lifeline or Winch on Top Anchorage Point

01

Install a self-retracting lifeline or winch onto the bracket (A5039-39). Verify that the compatible mounting plates are used for the installation. Use the locking pin, provided with the bracket (A5039-39), to lock the self-retracting lifeline or winch.

02 Release the pin by pulling on the ring, situated on the lower edge at the back of the mast system/davit (IN-5039), to unlock and release the cable guard.

03 Raise the cable guard.

04 Release the pin by pulling on the ring, situated on the lower edge at the front of the mast system/davit (IN-5039), to unlock and release the cable guard.
05

Raise the second cable guard.

06

Insert and thread the cable of the self-retracting lifeline or winch cable up to the first pulley, situated on the back edge of the mast system/davit (IN-5039).

The top and bottom brackets will protrude to either the left or right side. Insure that the cable path is maintained on the respective side of the bracket when passing the cable over the pulley.

The path of one cable may not cross the path of another cable.

07

Thread the cable of the self-retracting lifeline or winch cable as far as the second pulley, situated on the front edge of the mast/davit.

08

Insert and thread the cable of the self-retracting lifeline or winch cable as far as the second pulley, situated on the front edge of the mast system/davit (IN-5039).

Insure that the cable path is maintained on the respective side of the bracket when passing the cable over the pulley.

The path of one cable may not cross the path of another cable.
Once the cable has been threaded through, lower both cable guards to secure the self-retracting life-line or winch cable.
4.4 Installation of Self-Retracting Lifeline or Winch on Bottom Anchorage Point

01 Install the bottom bracket (A5039-27) on the mast system/davit using the four (4) nuts and bolts provided with the bracket (A5039-27).

02 Install the self-retracting lifeline or winch onto the bottom bracket (A5039-27). Verify that the compatible mounting plates are used for the installation. Use the locking pin, provided with the bracket (A5039-27), to lock the self-retracting lifeline or winch.

03 Release the pin by pulling on the ring, situated on the lower edge at the back of the mast system/davit (IN-5039), to unlock and release the cable guard.

04 Raise the cable guard.
05 Release the pin by pulling on the ring, situated on the lower edge at the front of the mast system/davit (IN-5039), to unlock and release the cable guard.

06 Raise the second cable guard.

07 Insert and thread the cable of the self-retracting lifeline or winch cable as far as the first pulley, situated on the back edge of the mast system/davit (IN-5039). The top and bottom brackets will protrude to either the left or right side. Insure that the cable path is maintained on the respective side of the bracket when passing the cable over the pulley. The path one a cable may not cross the path of another cable.

08 Thread the cable of the self-retracting lifeline or winch cable as far as the second pulley, situated on the front edge of the mast/ davit.
Insert and thread the cable of the self-retracting lifeline or winch cable as far as the second pulley, situated on the front edge of the mast system/davit (IN-5039).

Insure that the cable path is maintained on the respective side of the bracket when passing the cable over the pulley.

The path of one cable may not cross the path of another cable.

Once the cable has been threaded through, lower both cable guards to secure the self-retracting lifeline or winch cable.

4.5 Installation of Self-Retracting Lifeline or Winch on Rail Anchorage Point

Install the self-retracting lifeline on the rail system located below the mast system/davit (IN-5039).
5. OPERATIONS

⚠️ WARNING
Section "3. SAFETY REQUIREMENTS" on page 9 must be carefully read and followed. Failure to do so may result in personal injury and / or death.

⚠️ WARNING
Prevent swing falls and impact from objects in or adjacent to the fall path. Always remove obstructions below the work area to ensure a clear fall path. Keep work areas free from debris, obstructions, trip hazards, spills or other hazards which could impair the safe operation of the fall protection system. DO NOT use the system unless a competent person has inspected the workplace and determined that identified hazards can neither be eliminated nor exposure to them prevented.

Work directly under the anchorage/anchorage connector whenever possible. The free fall distance and the potential for swing falls increase when not working directly under the anchorage/anchorage connector. An approved full-body harness is the only acceptable body-holding device that can be used in a fall arrest system.

⚠️ WARNING
This system must not be used while under the influence of drugs or alcohol.

5.1 Height Adjustment of the System

01

Remove the pin from the locking mechanism situated on the mast system/davit (IN-5039).

02

Lower the handle on the locking mechanism to unlock.
Adjust the height of the mast system/davit (IN-5039) using the crank.

In order to ascertain the safe and optimal height for using the system, refer to the “Work Zone” table in section "8.1.1 XTIRPA XLT Work Area Calculation" on page 32.

When the mast system/davit (IN-5039) has been adjusted to the desired height, raise the handle of the locking mechanism.

Place the pin back into the locking mechanism in order to secure it.

⚠️ **WARNING**

The locking pin must be inserted and secured prior to any use.
5.2 Adjustment of the Orientation of the Mast System/Davit

To orient the mast system/davit (IN-5039) in the desired direction, start by removing the pin from the handling arm.

01

Lower the handling arm.

02

Using the handling arm, turn the mast system/davit (IN-5039) to the desired direction.

03

If required, the working direction may be limited by using the two (2) pins on the floor adapter (IN-5040).

04
05 Raise the handling arm when the desired direction of the mast system/davit (IN-5039) has been reached.

06 Replace the pin in the handling arm.
5.3 Anchorage Points

The anchorage points of this system are listed below. These points have been tested and accredited for the maximum number of simultaneous users listed in section "1.3 Capacity, Limitations, & Design" on page 6 and on the markings.

![Rail anchorage point]

- Top anchorage point
- Bottom anchorage point
6. INSPECTION, MAINTENANCE, & STORAGE

6.1 Inspection

6.1.1 Frequency
All XTIRPA systems and their components are designed to operate for 10 years. It is critical that all required inspections are performed for the warranty to be honored. A visual inspection of the anchorage connector system and its components must be performed prior to use. Moreover, a yearly inspection must also be performed by a competent person familiar with the assembly of the anchorage connector system.

CAUTION
More frequent inspections are required when working in the presence of environmental hazards.

6.1.2 Process
Ensure that all components of the XTIRPA system are free of excessive scratches to the base material, chips, dents, cracks, excess dirt, corrosion, deformation, excessive wear, and/or stress. Verify that all relevant parts and / or components, including pins, marking and straps are present. Verify that all nuts and bolts are sufficiently torqued and that all labels are clear and legible. Lastly, verify that all consumable components such as foot pads are not sufficiently worn. Replace if required and do not use if any of the listed issues are present.

6.1.3 Corrective Action
Tag, quarantine, and ensure that the anchorage connector system cannot be used until serviced and repaired. Contact the manufacturer, authorized service center, or a component person for assistance with servicing and repairing.

6.1.4 Inspections Log
A yearly inspection of the XTIRPA system and its components must also be performed and logged in the maintenance and inspection logbook attached to the appendix of this manual. This inspection must be performed by a competent person familiar with the assembly of the XTIRPA system.

6.2 Maintenance
Periodically clean the exterior of all system components using water and mild detergent. Verify that labels are clean and readable. New labels can be obtained upon request. Consult the manufacturer, authorized service center, or a competent person for assistance with performing maintenance.

6.3 Storage
Store in a clean and dry environment which is out of direct sunlight. Avoid proximity to environmental hazards that may damage the anchorage connector system. It is recommended to store the product and its components in a storage bag which can be acquired from the manufacturer or authorized service centers.
### 7. COMPONENTS

<table>
<thead>
<tr>
<th>#</th>
<th>Parts #</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>IN-5039</td>
<td>XTIRPA XLT mast system/davit 4.6 m (15 ft) to 7.6 m (25 ft)</td>
<td>1</td>
</tr>
<tr>
<td>02</td>
<td>A5039-39</td>
<td>Self-retracting lifeline and winch bracket (right-sided)</td>
<td>1</td>
</tr>
<tr>
<td>03</td>
<td>A5039-27</td>
<td>Self-retracting lifeline and winch bracket (left-sided) (optional)</td>
<td>1</td>
</tr>
<tr>
<td>04</td>
<td>A5039-12</td>
<td>Mast base for adjustable davit</td>
<td>1</td>
</tr>
<tr>
<td>05</td>
<td>IN-5040</td>
<td>Floor adapter for mast system/davit 15 ft x 25 ft x 6 ft</td>
<td>1</td>
</tr>
<tr>
<td>06</td>
<td>A5039-47</td>
<td>Transport structure</td>
<td>1</td>
</tr>
<tr>
<td>07</td>
<td>A5039-16</td>
<td>Concrete block 406 kg (895 lb)</td>
<td>8</td>
</tr>
</tbody>
</table>
8. APPENDIX

8.1 Ground Clearance Calculation

- Length of the lanyard + carabiner
- Extended length of the absorber
- Distance between harness buckle and feet = 5’ (1.5 m)
- Minimum safe distance = 3.3’ (1 m)
8.1.1 XTIRPA XLT Work Area Calculation

\[ L = \text{Length of lanyard + carabiner + extended length of the absorber} \]

\[ \geq 6 \text{ ft (1.8 m)} \]

\[ V \]

\[ \leq 30^\circ \]

\[ 5 \text{ ft (1.5 m)} \]

\[ \geq 3.3' (1 \text{ m}) \]

L = Length of lanyard + carabiner + extended length of the absorber
### 8.1.2 XTIRPA XLT Work Area Table

<table>
<thead>
<tr>
<th>ft</th>
<th>V</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>4.1</td>
<td>4.5</td>
</tr>
<tr>
<td>5.0</td>
<td>5.1</td>
<td>5.4</td>
</tr>
<tr>
<td>6.0</td>
<td>6.1</td>
<td>6.3</td>
</tr>
<tr>
<td>7.0</td>
<td>7.1</td>
<td>7.3</td>
</tr>
<tr>
<td>8.0</td>
<td>8.1</td>
<td>8.2</td>
</tr>
<tr>
<td>9.0</td>
<td>9.1</td>
<td>9.2</td>
</tr>
<tr>
<td>10.0</td>
<td>10.0</td>
<td>10.2</td>
</tr>
<tr>
<td>11.0</td>
<td>11.0</td>
<td>11.2</td>
</tr>
<tr>
<td>12.0</td>
<td>12.0</td>
<td>12.2</td>
</tr>
<tr>
<td>13.0</td>
<td>13.0</td>
<td>13.2</td>
</tr>
<tr>
<td>14.0</td>
<td>14.0</td>
<td>14.1</td>
</tr>
<tr>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
</tr>
<tr>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
</tr>
<tr>
<td>17.0</td>
<td>17.0</td>
<td>17.0</td>
</tr>
<tr>
<td>18.0</td>
<td>18.5</td>
<td>18.6</td>
</tr>
<tr>
<td>19.0</td>
<td>19.7</td>
<td>19.8</td>
</tr>
<tr>
<td>20.0</td>
<td>20.9</td>
<td>21.0</td>
</tr>
<tr>
<td>21.0</td>
<td>22.2</td>
<td>22.2</td>
</tr>
<tr>
<td>22.0</td>
<td>23.4</td>
<td>23.5</td>
</tr>
<tr>
<td>23.0</td>
<td>24.7</td>
<td>24.8</td>
</tr>
<tr>
<td>24.0</td>
<td>26.0</td>
<td>26.1</td>
</tr>
<tr>
<td>25.0</td>
<td>27.3</td>
<td>27.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>m</th>
<th>V</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.6</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>0.9</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
</tr>
<tr>
<td>1.5</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>2.1</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>2.4</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>2.7</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>4.6</td>
<td>4.6</td>
<td>4.6</td>
</tr>
<tr>
<td>4.9</td>
<td>4.9</td>
<td>4.9</td>
</tr>
<tr>
<td>5.2</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>5.8</td>
<td>5.8</td>
<td>5.8</td>
</tr>
<tr>
<td>6.1</td>
<td>6.1</td>
<td>6.1</td>
</tr>
<tr>
<td>6.4</td>
<td>6.4</td>
<td>6.4</td>
</tr>
<tr>
<td>6.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>7.3</td>
<td>7.3</td>
<td>7.3</td>
</tr>
<tr>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
</tbody>
</table>

**APPENDIX**
8.2 Markings

**S5039-020**

- **Identification**: XTIRPA
- **Model Number**: S5039-020
- **Serial Number**: S5039-015

**Product Specifications**

**Materials**
- Steel

**Working Load Limit**
- 360 lb (164 kg)
- ≤ 1350 lbf (6 kN)

**Minimum Service Temperature**
- ANSI Z359.18-2017 Type D: -10 °F (-25 °C)
- CSA Z259.15-2017 Class: AD: -31 °F (-35 °C)

**Working Load Limit**: 360 lbs (164 Kg)

**Minimum Breaking Strength**: 15 kN

**Minimum Service Temperature**:
- ANSI Z359.18-2017 Type D: -10 °F (-25 °C)
- CSA Z259.15-2017 Class: AD: -31 °F (-35 °C)

**Materials**: Steel

**XLT MAST-DAVITARM**

- Standards:
  - ANSI Z359.18-2017 Type D
  - AS/NZS 5532-2013 - Freefall Arrest
  - CSA Z259.15-2017 Class: AD
  - OSHA 1910.66

- **Working Load Limit**: 360 lb (164 kg)
- **Minimum Breaking Strength**: 15 kN
- **Minimum Service Temperature**:
  - ANSI Z359.18-2017 Type D: -10 °F (-25 °C)
  - CSA Z259.15-2017 Class: AD: -31 °F (-35 °C)

**ENGLISH**

**Standards**:
- ANSI Z359.18-2017 Type D
- AS/NZS 5532-2013 - Freefall Arrest
- CSA Z259.15-2017 Class: AD
- OSHA 1910.66

**Working Load Limit**: 360 lb (164 kg)

**Minimum Breaking Strength**: 15 kN

**Minimum Service Temperature**:
- ANSI Z359.18-2017 Type D: -10 °F (-25 °C)
- CSA Z259.15-2017 Class: AD: -31 °F (-35 °C)

**Materials**: Steel

**Series Number Label**

- **Product Serial Number**: IN-5039
- **Product Number**: S2001-005
- **Manufacturing Date**: EN-5039
- **Manufacturing Batch Number**: 005

**INNOVA Public Utility Products Inc.**

1040 Boul. Industriel
Granby, QC, Canada J2J 1A4

www.xtirpa.com

Made in Canada
## MAINTENANCE AND INSPECTION LOG

**Product:** ____________________________________________________________

**Purchasing date:** _______________________

**Model number:** ________________________ **Serial number:** ______________________

**Manufacturing date:** _______________________

**Date of next inspection:** ________________________ **Date of 1st use:** ______________________

<table>
<thead>
<tr>
<th>INSPECTION DATE</th>
<th>LABELS</th>
<th>CORROSION</th>
<th>STRUCTURAL DAMAGE</th>
<th>WELDING</th>
<th>PINS &amp; HARDWARE</th>
<th>OTHER (specify)</th>
<th>CORRECTIVE ACTION TAKEN (if required)</th>
<th>INSPECTED BY:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMMENTS:**

__________________________________________________________

*Any failure to follow the Manufacturer's instructions contained in the Instruction and safety manual, including with regard to the inspection and maintenance of the XTIRPA system and of components and parts thereof, will cause warranty to become null and void and may result in serious injury or death of the user, for which the Manufacturer disclaims all warranties and liabilities whatsoever, user, owner and purchaser of the XTIRPA system waiving all claims, rights and recourses against Manufacturer and derived therefrom.

Manufactured by: INNOVA Public Utility Products Inc. 1040 boul. Industriel, Granby, Quebec, Canada J2J 1A4

Tel: (450) 777-1240 Fax: (450) 372-9936
This warranty applies only to the original purchaser and is the only one applicable to the XIRPA System, and is in lieu of all other warranties, expressed or implied. The purchaser has to complete and return to INNOVA Public Utility Products Inc., all information within thirty days of purchase. Otherwise limited warranty will be void, if the product is not registered.

Register now: Mail or fax this registration form or visit our web site and register online.
Mail: INNOVA Public Utility Products Inc., 1040, boul. Industriel, Granby J2J 1A4
Fax: (450) 372-9936
Web site: www.xirpa.com

Model number: Purchasing date:
Serial number: Manufacturing date:

Company: Phone:
Street address: Fax:
City: State: E-Mail:
Zip:
Name: Do you wish to be on Innova’s mailing list
Position: for new product literature: YES [ ] NO [ ]

*Any failure to follow the Manufacturer's instructions contained in the Instruction and safety manual, including with regard to the inspection and maintenance of the XIRPA system and of components and parts thereof, will cause warranty to become null and void and may result in serious injury or death of the user, for which the Manufacturer disclaims all warranties and liabilities whatsoever, user, owner and purchaser of the XIRPA system waiving all claims, rights and recourse against Manufacturer and derived therefrom.

Manufactured by: INNOVA Public Utility Products Inc. 1040 boul. Industriel, Granby, Quebec, Canada J2J 1A4 Tel: (450) 777-1240 Fax: (450) 372-9936