



## 600A USER MANUAL

*Designed to improve mobility, safety,  
efficiency and storability.*



**WWW.IVEAMOBILITY.COM**

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## IVEA Diagram & Legend

Item No.	Description
1.	IV Hooks
2.	Hook Rotation Buttons
3.	IV Pole
4.	Top Cap
5.	Pole Adjustment Lever
6.	Main Column
7.	Equipment Pole
8.	Handle Bracket
9.	Handle Height Lever
10.	Handle Release Button
11.	Handle Grip
12.	IV/O2 Tubing Mgmt. Clips
13.	Cord Hooks
14.	Accessory Bracket
15.	O2 Tank Hoop
16.	Catheter Bag Hook
17.	Chest Drain Arm
18.	Power Strip Clips
19.	Brace Bracket /
20.	Foot Pedal
21.	Lock Pin Indicator
22.	Nose
23.	Right Leg
24.	Left Leg
25.	O2 Tank Cup
26.	SureTrek Casters
27.	Caster Lock Lever
28.	Caster Lock Lever



## **INTRODUCTION**

Started by a former RN, Firefly Medical develops transformative patient-care equipment designed to improve the lives of patients and caregivers. The IVEA is award-winning patient-ambulation equipment developed with significant clinician input to improve mobility, safety, efficiency and storability.

The IVEA is ideal for patients who are ready or nearly ready to ambulate. It holds the patient's equipment bedside, eliminating set-up time for ambulation and making it possible for one caregiver to safely ambulate a patient. Easy to use, easy to clean and easy to store, the IVEA provides solutions to multiple challenges caregivers face every day.

This manual provides operating instructions and product information in five main sections:

1. General Considerations
2. Ambulatory Use
3. Bedside Use
4. Storage and Cleaning
5. Troubleshooting and Product Information

Every caregiver who uses the IVEA should read this manual and understand the equipment's proper use. We also recommend that caregivers take time to get a feel for the equipment and how it moves before they use it with patients.

NOTE: In the text, the term "caregiver" refers to nurses, physical therapists, aides, transport personnel and any other healthcare professionals who use the IVEA to provide patient care.

NOTE: All adjustment points, i.e., buttons and levers, appear in blue in the various diagrams and photos and are blue on the IVEA itself.

NOTE: Refer to the IVEA Diagram and Legend on Page 1 for a list of features.

## **SECTION ONE: GENERAL CONSIDERATIONS**

### **1. Indications for Use**

The IVEA is indicated to be used as an infusion stand, a stationary or movable stand intended to hold infusion liquids, infusion accessories, and other medical devices.

### **2. Intended Patient Population and Areas for Use**

- **CLINICAL CONDITIONS FOR USE**

The IVEA is designed for patient populations who are ready or nearly ready to ambulate. Hospital departments where it may be used include, but aren't limited to Medical, Post-Surgical, Oncology, Neuro, Post-Trauma and some Cardiac units. Names for these units may vary from one hospital to the next, but they generally comprise the majority of patient beds in a hospital.

- **PRINCIPLES OF OPERATION**

The IVEA replaces the IV pole entirely, both bedside and during ambulation. It's recommended for use with any patient with supportive equipment. Mobile patients will benefit most from the IVEA, especially those needing ambulatory assistance. The IVEA is designed to organize and secure IVs, infusion pumps, chest tubes, catheter, drainage devices, oxygen, PCAs, tube feedings and other equipment, while offering a stable, ergonomic base to encourage a patient's normal gait and proper posture.

### **3. Contraindications for Use**

The IVEA has no contraindications.

**Caution:** The benefits of the IVEA are unlikely to be fully realized in a situation where the patient is comatose, under general anesthesia, confined to bed rest, unable to ambulate, or receiving short-term care that doesn't require infusions and other supportive therapies.

**Warning:** Patients who require full weight-bearing assistance should not use the IVEA. While the IVEA is designed to help support a patient during ambulation, it's not intended for full weight-bearing activity. Some bariatric patients and

patients who, as a result of their physical limitations, might place excessive weight on the IVEA during ambulation should not use the product.

#### 4. Weight Capacity

The IVEA has a maximum weight capacity of 300 pounds (136 kg). Improper use by patients or caregivers could result in injury and/or damage to the IVEA. Improper uses include but are not limited to:

- Placing full weight on the unit – The IVEA was not designed to support a patient's full weight. Caregivers should use their best judgement to determine whether the IVEA is the proper mobility equipment for a patient.
- Leaning on only one handle – Patients using the IVEA should have both hands on the handles at all times.
- Riding the unit or standing on the legs – This is improper use that could result in injury to the patient and/or damage to the equipment.
- Mounting or placing equipment on the unit that it was not designed to accommodate – The IVEA was designed to hold IVs, infusion pumps, chest tubes, catheter bags, wound vacs, drainage devices, oxygen, PCAs, tube feedings and other equipment designed to be mounted to an IV pole. Do not tie, tape, wire or otherwise suspend from or mount on the IVEA equipment that was not designed to be mounted to an IV pole or that the IVEA was not designed to accommodate.

- IV POLE WEIGHT CAPACITY

The weight capacity for the IV pole fully extended is 11 pounds (5Kg). Extended to half height (20 inches, 51cm), the weight capacity of the IV pole is 22 pounds (10Kg).

#### 5. Technical Data:

Dimensions folded (H x W x L)	12.6 in x 13 in x 50.3 in 320 mm x 330 mm x 1280 mm
Dimensions unfolded (H x W x L)	46.8-84 in x 27.5 in x 28.7-38 in (1190-2140 mm x 700 mm x 730-970 mm)
Height of handle grips	34.6-38 in (880-970 mm)

Weight	31.75 lbs (14.4 kg)
Max. weight capacity	300 lbs (136 kg)

## 6. Warnings

The following warnings and cautions apply to general use of the IVEA within a facility's usual and customary parameters of patient care. These statements are not intended to anticipate or address problems that might result from policy noncompliance or irresponsible decision-making.

- **WARNING! Use of the IVEA is not intended to replace or diminish professional caregiver judgment.** Responsible consideration of a patient's needs and abilities should govern any use of this product.
- **WARNING! Special care should be taken when using the IVEA with patients considered to be at risk for falls.** These patients include, but aren't limited to, those who manifest specific intrinsic and extrinsic factors that may or may not have been identified through a risk assessment.
- **WARNING! Improper use of the IVEA may result in injuries to the patient and/or the caregiver.** Proper care must be taken to follow all instructions and to use the IVEA only as intended.
- **WARNING! Improper and inadequate cleaning of the IVEA after patient use may increase the potential of hospital-acquired infections.** Care must be taken to properly and completely clean the IVEA after each patient use. See Storage and Cleaning for cleaning instructions.
- **WARNING! Pulling back on the IVEA's handles when the caster locks are engaged may result in the product tipping backward.** See Handle Height Adjustment, under Features and Their Proper Use, page 14.
- **WARNING! Relying on the IVEA to raise a patient from a sitting to standing position may result in injury to the patient.** The potential exists for patients who use the IVEA to push themselves to a standing position to tip

the IVEA backward. The caregiver should encourage the patient to use proper hospital protocols when moving from a sitting to a standing position (i.e., from the edge of the bed, from the toilet, etc.). See more information under Features and Their Proper Use, page 14.

- **WARNING! Do not use the IVEA with the Lock Indicator Pin protruding.** If the Lock Pin Indicator protrudes when the IVEA is fully deployed, lift up gently on the foot pedal with your toe until the Indicator is flush with the brace bracket.
- **WARNING! Attempts to ride or mount the IVEA may result in serious personal injury.** The IVEA should not be used for any purpose for which it wasn't designed. Do not stand on the legs, place full weight on the handles, or use the IVEA in any manner inconsistent with proper use.
- **WARNING! Do not ignore the weight parameters of IVEA.** The IVEA has a maximum weight capacity of 300 pounds (136 kg).
- **WARNING! Use caution to avoid possible pinching injury.** Keep fingers, feet and toes away from inner surfaces of the IVEA when collapsing product for storage. Use caution when folding and unfolding the handles to avoid pinching against the main column or portions of the handle bracket.
- **WARNING! Avoid elevating IV bags during ambulation.** Keep the height of the IV bags at least three inches below the patient's chin during ambulation, in order to keep the patient's field of vision clear. See Proper Placement of IV Hooks, under Features and Their Proper Use, page 14.
- **WARNING! Do not modify the IVEA under any circumstances.** If you have questions or concerns about the product, contact Firefly Medical at (970) 472-5323, [www.iveamobility.com](http://www.iveamobility.com). Any modifications to the product will void the product warranty.
- **WARNING!** Do not store or park the IVEA for extended periods in direct sunlight or near heat-radiating devices.

- **WARNING! Do not use the IVEA outdoors or in inappropriate environments.** The IVEA is designed to roll easily and quietly over virtually any indoor surface, over typical gaps between flooring and elevators, and over changes in surface type. It is not intended for outdoor use, or for use across wet floors or in places where there are evident inclines or declines, obstacles or hazards. Use in inappropriate environments may result in patient or caregiver injury or damage to the product.

## 7. Labels and Instructions

- **REMOVABLE CARD WITH HELPFUL HINTS**  
A laminated, lanyard-style card should be attached to the handle bracket eyelet when you receive your IVEA. It refers the user to the IVEA Instructional Video and this online User Manual for operating instructions.
- **NO STANDING ON LEGS**  
A label at the rear of each leg warns against standing on the IVEA.
- **WEIGHT LIMITATION**  
Language embossed on the top surface of the handle bracket states that the IVEA's maximum weight capacity is 300 pounds (136 kg).
- **STANDARD PRODUCT LABEL**  
A product label providing standard manufacturing, regulatory and contact information is mounted on the underside of the right leg of the equipment.
- **IVEA INFO**  
A QR code printed on the IVEA on the right side of the mast below the top cap takes the user to a quick What You Need to Know Guide with basic operating instructions.
- **POWER STRIP LABEL**  
This card affixed to the IVEA equipment pole indicates where a power strip (not included) can be mounted. It contains ordering information for the Tripp-Lite power strip approved for use in patient care areas.
- **REGULATORY SYMBOLS:**



Manufactured in China for Firefly Medical Inc., P.O. Box 2022, Fort Collins, CO 80522.



Refer to User Manual for complete operating instructions, uses, serviceability and warnings. Read all directions before using.



Serial number



Date of manufacture



(P/N) Finished device's part number or reference number



Approved for sale in the European Economic Area

Disclaimer: This document may contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in future revisions of this document. Firefly Medical, Inc. does not accept any liability for the use or direct or indirect misuse of this product.

Firefly Medical, Inc. does not accept any liability or responsibility for damages arising out of the use of or inability to use this product.

## **8. Inspection for Biomedical Department**

- **OUT-OF-THE-BOX INSPECTION**

The IVEA should arrive without obvious visible damage to the product or any of its components. If obvious visible damage has occurred, close up box and contact Customer Service at:

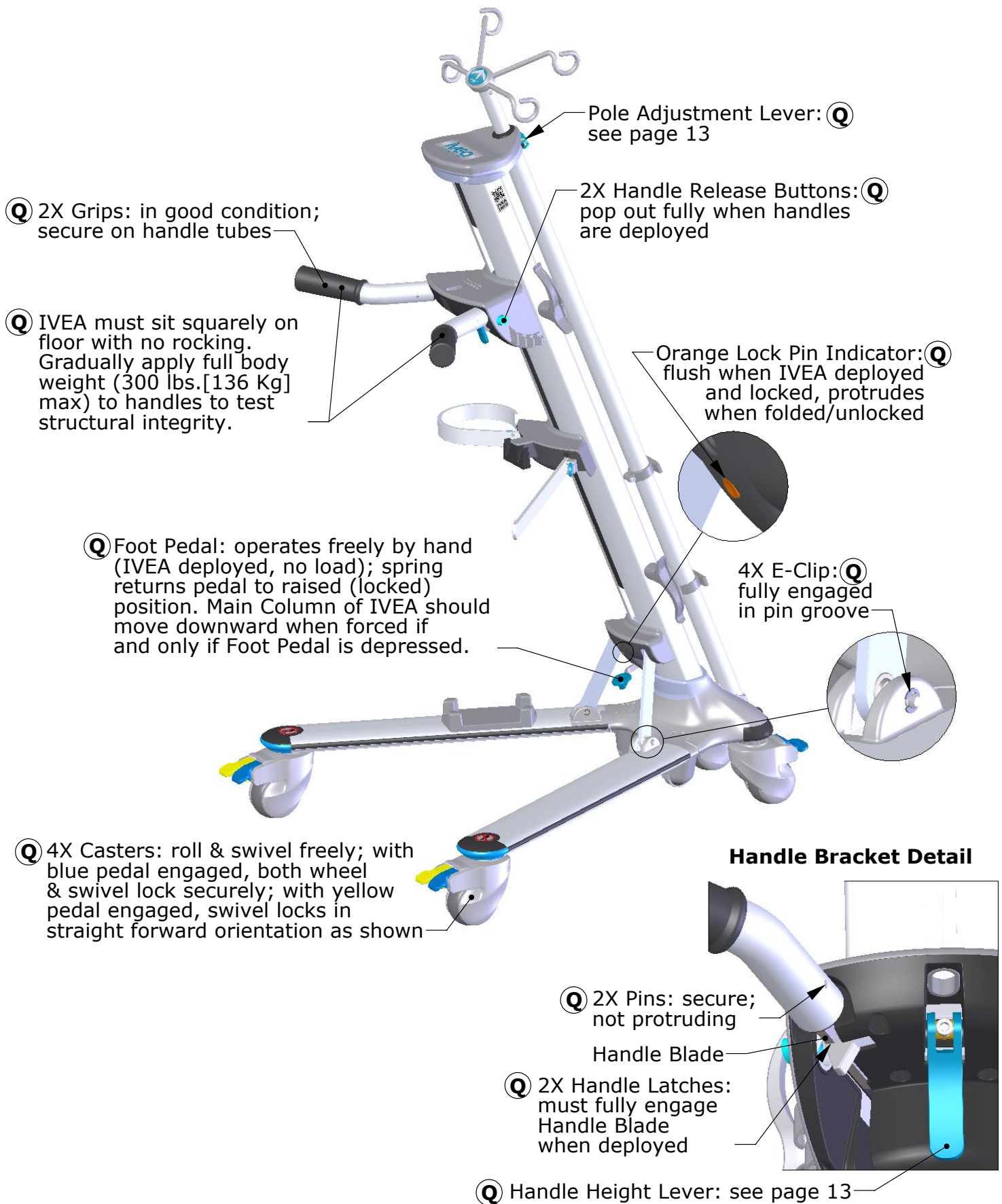
(970) 472-5323, [info@iveamobility.com](mailto:info@iveamobility.com).

Minor assembly is required. Components and Assembly Instructions are included in the product box. Instructions are also available online. The box should include:

- The IVEA
  - Four SureTrek casters
  - IV hook assembly
  - Assembly instructions
  - Instructions to access online User Manual
- QUARTERLY AND ANNUAL INSPECTION AND PERIODIC ADJUSTMENTS  
This section reviews methods for periodic inspection of key components of the IVEA during routine patient use, including how to adjust them as needed.  
(NOTE: It may be necessary to have the Biomedical Department make adjustments).

## IVEA Model 600A Quarterly Inspection Points

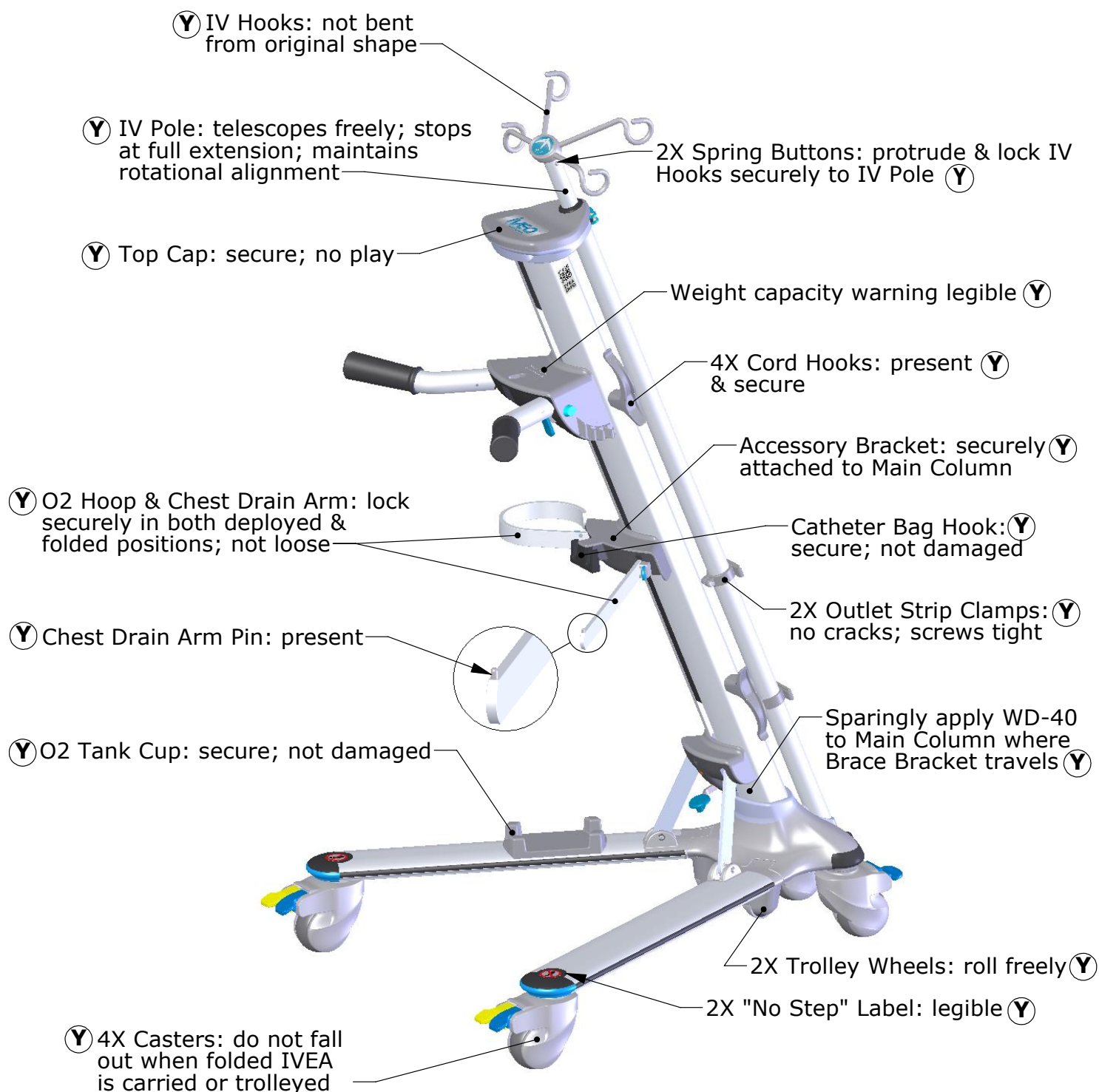
Ⓚ Perform these inspections every 3 months or more frequently.



**Questions? Contact Customer Service: 970-472-5323, [www.iveamobility.com](http://www.iveamobility.com)**

## IVEA Model 600A Annual Inspection Points

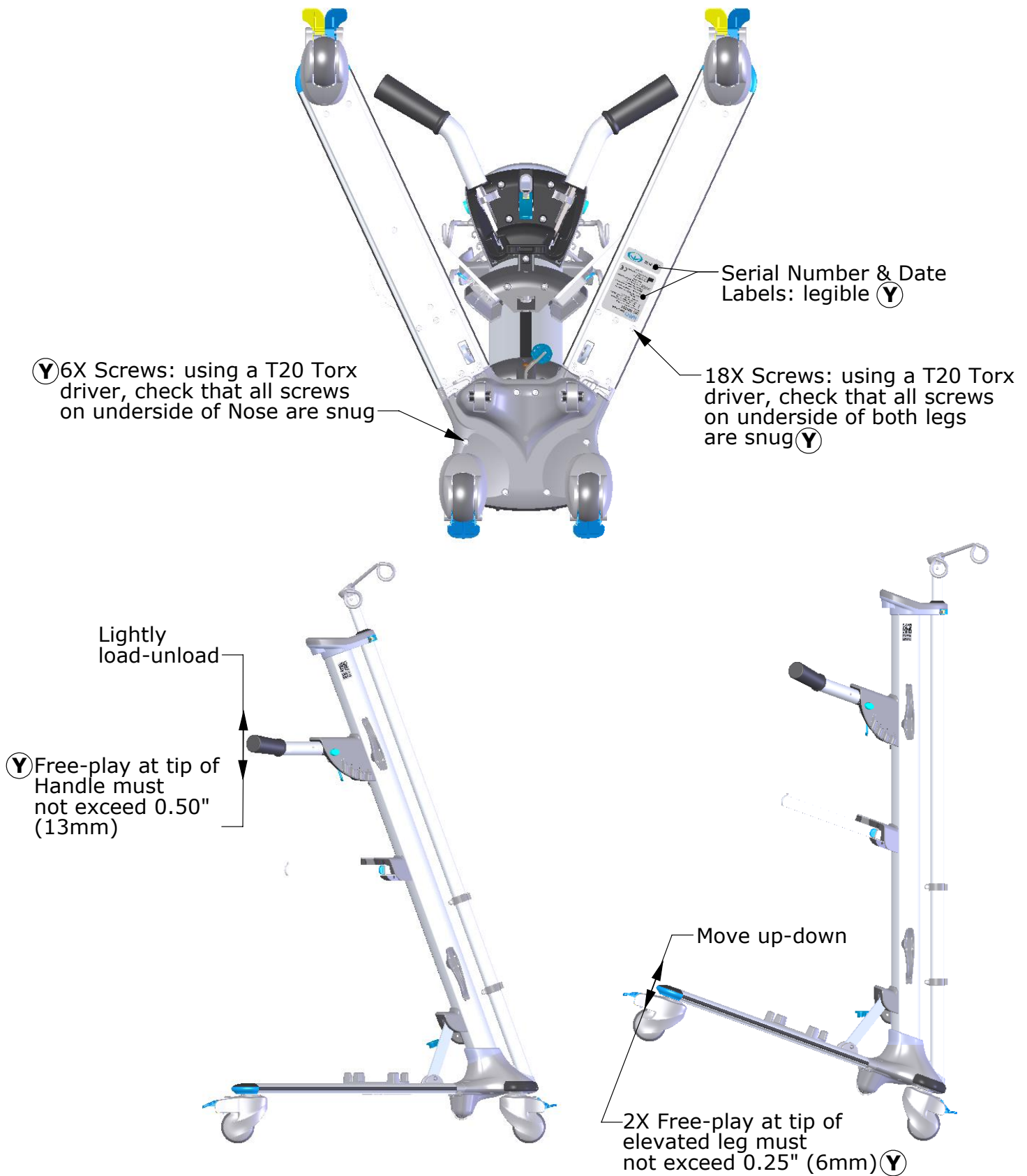
Ⓨ In addition to quarterly inspections, perform these inspections every year or more frequently.



**Continued on next page.**

## IVEA Model 600A Annual Inspection Points

Ⓨ In addition to quarterly inspections, perform these inspections every year or more frequently.



**Questions? Contact Customer Service: 970-472-5323, [www.iveamobility.com](http://www.iveamobility.com)**

**IV Pole Adjustment Lever:** Check to ensure that the IV pole is securely held in place when the pole adjustment lever is closed. To adjust the lever, open it fully. Using a 3mm hex wrench, tighten the socket head screw clockwise no more than 30 degrees at a time, then close the lever and check for adequate clamping force. Repeat as needed (NOTE: Do not over-tighten). Run the IV pole through its entire telescopic range, checking for smooth operation.

**Handle Height Lever:** Check to ensure that the handle bracket is securely held in place when the handle height lever is closed. To adjust the lever, open it partially (**see Photo 1**). Using a 5mm hex wrench, tighten the socket head screw clockwise no more than 30 degrees at a time, then close the lever and check for adequate clamping force. (NOTE: Do not over-tighten).



Photo 1

## 9. Environmental Considerations

The IVEA is designed for indoor use only. Optimal conditions for storage:

- Temperature: 5°F - 122°F (-15°C - +50°C)
- Humidity: 20% - 100%
- Ambient air pressure: 26.6 – 32.5 InHg (900 – 1,100 hPa)

Optimal conditions for use:

- Temperature: 59°F - 104°F (15°C - +40°C)
- Humidity: 20% - 100%
- Ambient air pressure: 26.6 – 32.5 InHg (900 – 1,100 hPa)

## **10. Disposal**

This product should be disposed of in compliance with the institution's biohazard disposal policies. The aluminum components of the IVEA (main column, handles with grips removed, equipment pole, and legs with casters removed) may be recycled.

## **SECTION TWO: AMBULATORY USE**

In this section the assumption is made that the patient is able to safely ambulate either with or without caregiver support.

### **1. Features and Their Proper Use**

This section reviews several product features and provides instructions for use.

Refer to corresponding diagrams, and for additional information, watch the [IVEA Instructional Video](#) on the [website](http://www.iveamobility.com), [www.iveamobility.com](http://www.iveamobility.com).

### **2. Preparation for Use**

- **INSTALLING THE SURETREK CASTER SYSTEM**

Your IVEA 600A includes the SureTrek Caster System. SureTrek is a responsive solution that gives caregivers greater control over patient ambulation. The system features a pedal on each caster that locks each wheel's swivel and rotation and an additional pedal on the two leg casters that locks the leg caster swivel function in a straight-forward orientation.

This gives caregivers the option to secure the IVEA in place; enable the IVEA's tight-turning capability, which is useful in small spaces such as hospital bathrooms; or secure the leg casters in a forward-tracking position for ambulation.

**NOTE:** The SureTrek Caster System is not intended to replace or supersede good caregiver judgment. We recommend that caregivers familiarize themselves with the feel of the SureTrek casters before they use them with patients.

## INSTALLATION

The SureTrek Caster System includes left and right leg casters marked L and R, with blue and yellow pedals (**see Photos 2 - 4**), and two identical nose casters with only blue pedals (**see Photo 5**).



Photo 2



Photo 3



Photo 4



Photo 5

To install the system:

1. Position the collapsed device so that the undersides of the legs face upward.

2. Locate the leg caster marked L on the hex surface. Engage the brake by depressing the blue pedal. Partially insert the caster stem into the end socket of the left leg, which is on the same side as the oxygen tank hoop. Rotate the caster until the notch in the hex is positioned exactly as shown **(see Photo 6)**. The notch should be positioned in line with the leg. The SureTrek tracking system will not work if the notch is improperly oriented. Push the caster fully into place, making sure the hex engages its socket **(see Photos 7 & 8)**.



Photo 6



Photo 7 - Correct



Photo 8 – Incorrect

3. Repeat Step 2 with the right leg caster marked R, making certain the notch is oriented correctly and the hex is fully engaged.
4. Engage the brake of a nose caster by depressing the blue pedal marked ON. Insert the caster stem into a socket in the IVEA nose. Rotate the caster until the hex sides align with the socket, then push fully into place. Note that nose casters do not have orientation notches.
5. Repeat Step 4 with the second nose caster. Release the brakes on all four casters by pulling up on the blue pedals.
6. When all four casters are correctly installed, the deployed IVEA will rest stably on the floor. If not stable, check that all caster hexes are fully engaged in their mating sockets.

**For visual installation and deployment instructions, please watch this [video](#).**

- **CASTER RETENTION ADJUSTMENT**

If a caster is found to be loose fitting in its socket and better retention is desired, a small adjustment to the grip ring can be easily performed as a remedy. With the caster brake function engaged, insert the tip of a small flat-blade screwdriver into the grip ring gap and slightly expand the ring by twisting the screwdriver handle **(see Photo 9)**. Expand only in very small increments, testing the fit in the socket after each adjustment until proper retention is obtained.

**CAUTION:** Wear a work glove to prevent injury, should the screwdriver slip.



Photo 9

- **OPENING THE IVEA FROM STORAGE**

1. Rest the collapsed IVEA on the floor. Lift up the top of the main column with one hand and lightly push down on the rear portion of one leg and then the other, with the other hand **(see Photo 10)**.



Photo 10

2. As the legs begin to drop away from the main column, the IVEA will open on its own. Gently lift the top of the main column and guide the IVEA until it “clicks” into a locked open position.
3. When the IVEA is in a locked open position the Lock Pin Indicator button will be flush with the brace bracket (**see Photo 11a**).



Photos 11a & b

**WARNING:** If the Lock Pin Indicator protrudes, (**see Photo 11b**), the IVEA is not fully deployed. Lift up gently on the foot pedal with your toe until the locking mechanism “clicks” and the Indicator Pin is flush with the brace bracket. Do not use the IVEA with the Indicator Pin protruding.

### 3. Handles

- UNFOLDING HANDLES FOR USE:

1. Grasp each handle by its black grip (together or individually) and pull back and up from the main column, until each handle “clicks” into its locked position parallel with floor (**see Photos 12 and 13**). If a handle doesn’t “click” into place, gently lift it up while gently pushing down against the top surface of the handle bracket.

NOTE: The blue buttons on each side of the handle bracket should pop out completely when handles are fully engaged.

NOTE: Both handles should be in the same locked position, whether folded or unfolded.



Photos 12 & 13

- HANDLE HEIGHT ADJUSTMENT:
  1. To raise or lower the handle bracket, pull the blue handle adjustment lever (**see Photo 14**) out and up, and grasp the handle bracket in the middle (near eyelet) (**see Photo 15**).



Photos 14 & 15

2. While supporting the handle bracket in the middle, gently slide it up or down the main column to the desired position.
3. Secure the handle bracket in place by pushing the handle adjustment lever down and in, to its closed position.

- FOLDING HANDLES AWAY FOR STORAGE OR NON-USE:
  1. Depress the blue buttons on each side of the handle bracket (together or individually) and push each handle down against the main column until it “clicks” into place (**see Photo 16**).



Photo 16

2. When handles are close to the main column, but not fully up against it, they will encounter resistance. This is normal. Continue to push each handle gently and firmly with an open palm to secure it flush with the main column (**see Photo 17**).

NOTE: If handles are not fully secured, they may fall away from the main column when IVEA is folded for storage.



Photo 17

- **PROPER HANDLE HEIGHT FOR AMBULATION**

1. The IVEA was designed to accommodate patients ranging in height from 4'6" to 6'4". Handle height should be adjusted to suit the patient's height. The patient's arms should have a natural bend at the elbows (**see Photo 18**). This promotes a normal walking posture and prevents the patient from putting excessive downward force on the handles.



Photo 18

#### **4. Angled Equipment Pole and IV Pole**

- **ATTACHING INFUSION PUMPS AND OTHER EQUIPMENT WITH CLAMPS**

The equipment pole and IV pole on the IVEA are tilted 20 degrees off vertical but are otherwise similar to a traditional IV pole. The process for securing infusion pumps and other equipment with clamps is the same for both. Secure the pump just below the top cap of the IVEA, on the uppermost part of the equipment pole. Once a pump is properly mounted to the IVEA, it will sit at an upward-facing angle, making it easier to view and adjust (**see Photo 19**). Secure other equipment with clamps on the pole as desired.

NOTE: For guidance on equipment setup, contact Firefly Medical Customer Service at (970) 472-5323 or [info@iveamobility.com](mailto:info@iveamobility.com).



Photo 19

- **RAISING THE IV POLE**

To extend the IV pole on the IVEA, release the blue pole-adjustment lever and extend the pole to the desired height (**see Photo 20**). Close the pole adjustment lever to secure the pole in place. The weight capacity for the IV pole fully extended is 11 pounds (5Kg). Extended to half height (20 inches, 51cm), the weight capacity of the IV pole is 22 pounds (10Kg.)



Photo 20

## 5. IV Hooks

- **PROPER PLACEMENT AND WEIGHT**

During patient ambulation the height of the IV hooks should be at least three inches below the patient's chin, to provide a clear field of vision (**see Photo 21**).



Photo 21

- **ROTATING IV HOOKS AWAY FROM PATIENT**

The IV hook assembly of the IVEA consists of four hooks: two on shorter arms and two on longer arms. Compress the two hook rotation buttons just below the hook assembly to spin the hooks 180 degrees (**see Photos 22 and 23**).



Photos 22 & 23

**Important:** During ambulation the two hooks on longer arms should face outward, at approximately the ten o'clock and two o'clock positions (**see Photo 24**). This configuration provides the optimal position for hanging the IV bags and prevents the bags from colliding with the handles when the hooks are in their lowest position.



Photo 24

- POSITION OF THE IV HOOKS DURING STORAGE

When the IVEA is collapsed for storage, the IV hook assembly should be fully lowered and turned back around so the two hooks on longer arms are in the four o'clock and eight o'clock positions (**see Photo 25**).



Photo 25

## 6. Power Strip Clips

- ADJUSTING THE POWER STRIP CLIPS

Two power strip clips are located on the pump pole and can be individually adjusted anywhere along its length to secure the top and bottom brackets of a third-party power strip (not included) (**see Photo 26**). To adjust each power

strip clamp, loosen and tighten each socket head screw with a 4mm hex key or driver. **Do not overtighten.**

NOTE: Securing power strips with socket head screws provided may help facilities comply with the 2012 editions of NFPA 99 and 101, requiring that portable power strips be permanently affixed to equipment.

NOTE: While power strips of different sizes can be secured to the IVEA, only power strips that meet regulatory guidelines for use in patient-care facilities should be used.



Photo 26

- **MANAGING ELECTRICAL CORDS**

Two sets of cord hooks located on either side of the main column hold electrical cords neatly out of the way to improve organization and reduce tripping hazards. Wind cords for infusion pumps and other devices in a figure-eight pattern for the most secure storage (**see Photo 27**).



Photo 27

## 7. IV Tubing and O2 Tubing Clips

- IV TUBING CLIPS

On each side of the handle bracket are four rigid, semi-circular clips. The three smaller clips on each side are the IV tubing clips. Loop the IV tubing as needed and gently press the loops into the clips to organize them, keep them off the floor, and prevent the patient from getting tangled in them during ambulation **(see Photo 28)**.



Photo 28

- **O2 TUBING CLIPS**

The largest of the four rigid, semi-circular clips, located closest to the main column on each side of the handle bracket is the O2 tubing clip. Press O2 tubing into either or both of these clips to organize and secure it **(see Photo 29)**.



Photo 29

Ensure that all tubing has sufficient slack between the clips and the patient to allow for normal patient activity such as moving in bed, ambulating, sitting on the toilet, etc. Slack may need to be adjusted from one type of activity to another (e.g., providing additional slack while the patient is in bed and less slack during ambulation).

## **8. Accessory Bracket Holding Chest Drain Arm, Catheter Bag Hook and O2 Tank Hoop**

These three features are located midway down the main column. From the perspective of the patient, the chest drain arm is on the right, the catheter bag hook is in the center and the O2 tank hoop is on the left **(see Photo 30)**.



Photo 30

- CHEST DRAIN ARM

The chest drain arm will hold one or two standard chest drainage systems. To use, grasp the chest drain arm with one hand and depress the blue lever. Rotate the arm back and up until it “clicks” into its in-use position (**see Photo 31**).



**Use same action for O2 Hoop.**

Photo 31

To hang a chest drain, suspend it from its hooks on the arm. If two are hung, they should be positioned back-to-back on the arm. Hang chest drain(s) by placing all hooks on the arm, and ensure that they are inside of the small stop pin located on the end of the arm. (Caution: Do not stand on, push down on or place heavy objects on the deployed chest drain arm.)

To return the chest drain arm to its non-use position, remove drainage device(s), depress the blue latch on the arm, and gently lower the arm against the main column until it “clicks” into its fully closed position.

The chest drain arm has a weight capacity of 26 pounds. (12kg).

- CATHETER BAG HOOK

Located at the center of the main column, between the O2 hoop and the chest tube arm is a hook that will hold either a single or double-hook catheter bag **(see Photos 32 and 33)**. This hook is nonadjustable and is designed to securely hold a standard catheter bag below the level of the bladder, during patient ambulation and bedside.



Photo 32 & Photo 33

- O2 TANK HOOP

The O2 tank hoop will hold a standard E-sized (M-24) tank of oxygen. To use, grasp the neck of the hoop with one hand and depress the blue lever. Rotate the hoop back and up until it “clicks” into its in-use position.

Carefully slide the O2 tank through the hoop and position the bottom of the tank inside the cup below the hoop **(see Photos 34 & 35)**. (**Caution: Do not bang the O2 tank on the O2 hoop when lowering the tank into position.** Do not

stand on, push down on, or place any heavy object on the O2 hoop when it's in position.)



Photos 34 & 35

To return the O2 tank hoop to its non-use position, remove the O2 tank, depress the blue lever on the neck of hoop and gently lower it down against main column until it "clicks" into its fully closed position.

## 9. SureTrek Caster System

- NOSE CASTER OPERATION

**To lock caster,** press down on blue pedal marked "ON" with your toe until it clicks. This function prevents the caster from both rolling and swiveling. **To release,** press down on the pedal marked "OFF" (**see Photo 36 & 37**).



Photos 36 & 37

- LEG CASTER OPERATION

1. **To lock caster**, press down on the blue pedal with your toe until it clicks. This function prevents the caster from both rolling and swiveling. **To release**, press the adjacent yellow pedal down until the blue pedal pops up.
2. **For tracking function**, press down on the yellow pedal with your toe until it locks (**see Photo 38**). This function prevents the caster from swiveling and helps control the equipment's direction as it's pushed forward. **To release**, press the adjacent blue pedal down until the yellow pedal pops up.



Photo 38

**IMPORTANT:** Yellow tracking pedals can be depressed with the caster in any swivel orientation. Move the IVEA straight forward, and the tracking system will engage.

NOTE: If the yellow pedals are engaged but the leg casters do not lock in the straight forward position, left and right casters may be reversed, or hex notches may not be aligned correctly. Please review the installation instructions, watch installation [video](#) and confirm proper installation.

**WARNING!** Pulling back on the IVEA's handles may result in the product tipping toward the rear. This potential is increased if the blue pedals on the leg casters of the SureTrek System are engaged, the patient is sitting, and the handles are deployed in a high position. See further information concerning Handle Height Adjustment, page 19.

- PROPER USE

This section describes correct use of the SureTrek Caster System. It assumes that the IVEA has been properly deployed and is being used with an appropriate patient.

### **Ambulation**

SureTrek is designed to limit the tight-turning capability and side-to-side movement of the IVEA during ambulation by locking the swivel feature of the leg casters and engaging them in a forward-tracking position.

The caregiver should be familiar with the feel and action of the SureTrek System before using it with a patient. The caregiver should engage the SureTrek System if he or she determines that the patient's condition warrants use of the system's single-track function.

To engage the SureTrek System, first lock both nose casters. Then press down on the yellow pedals of both leg casters with your toe until they click. The leg casters can be at any orientation to the legs when the yellow pedals are pressed. Unlock the nose casters. Push the IVEA forward until the leg casters move into the forward-tracking position.

Before placing a patient on the IVEA, test the SureTrek System to be sure it's fully engaged by exerting moderate lateral pressure on the IVEA. If the SureTrek System is fully engaged, the leg casters will not move side to side.

## **Bedside**

All four casters lock to prevent wheel rotation during bedside use or in other situations when the patient and equipment are stationary. It is advisable to engage at least one caster lock when the equipment is positioned bedside.

Proper use of caster locks aids patient toileting, getting the patient out of or into bed, getting the patient out of or into a seated position, and keeping the IVEA stationary (e.g., at the bedside).

To assist a patient from sitting to standing or vice versa, first ensure that the handles are at an appropriate height (see Handle Height Adjustment, page 19), and the IVEA is properly positioned to allow for patient and caregiver movements. Lock the two nose casters and steady the IVEA as needed by holding the main column to prevent shifting.

NOTE: Do not allow patients to use the IVEA to push or pull themselves from a sitting to a standing position. Doing so might cause the IVEA to tip backwards. (See Warning on Page 5).

NOTE: Always disengage all blue pedals when moving the deployed IVEA from one position or place to another.

## **Bathrooms and Other Tight Spaces**

When the SureTrek System is engaged, the two nose casters still pivot fully, but maneuverability of the IVEA is limited. For use in tight quarters such as a bathroom, consider disengaging the SureTrek tracking system to restore the IVEA's optimal turning radius.

## **SECTION THREE: BEDSIDE USE**

### **1. Best Position for the IVEA by the Bed**

Assuming the HOB (head of bed) is against the wall, the ideal position for the IVEA is beside the HOB, with the equipment pole facing out and angled slightly away from the HOB, handles folded against the main column, and the leg closest to the bed positioned underneath it (***see Photo 39***).



Photo 39

In this position, the IVEA occupies minimal floor space and infusion pumps are easy for the caregiver to access and read. This position also keeps contents of drainage devices hidden from visitors' view and provides easier access to the patient.

## **2. Engaging SureTrek Casters**

All four casters lock to prevent wheel rotation during bedside use or in other situations when the patient and equipment are stationary. It is advisable to engage at least one caster lock when the equipment is positioned bedside.

## **3. Positioning the IV Pole**

If the patient is unlikely to be getting out of bed, the IV pole can be raised so that IV bags hang higher.

NOTE: Refer to Features and Their Proper Use in this manual and the [IVEA Instructional Video](#) on the IVEA website, [www.iveamobility.com](http://www.iveamobility.com), for instructions on how to properly load patient equipment on the IVEA.

## **SECTION FOUR: STORAGE AND CLEANING**

After patient use, the IVEA should be cleaned in accordance with your facility's protocols. When the IVEA is not in use it folds and stores easily.

NOTE: Always open the IVEA as instructed (see page 17).

## **1. Cleaning the IVEA**

Before cleaning the IVEA, remove all infusion pumps and other equipment from the unit. If a power strip is mounted to the IVEA, disconnect it from any external power source to prevent possible electrical shock.

Remove hair and other debris from caster wheels to ensure proper function. Notify Environmental Services if additional cleaning is required.

DO NOT steam sterilize or EtO (Ethylene Oxide) sterilize the IVEA. DO NOT immerse the IVEA or any of its components to clean.

Use OSHA-compliant and facility-approved cleaning agents to wipe down all exposed surfaces of the IVEA after patient use. Use a disposable wipe or dampen a cloth with cleaning agent to clean the equipment.

To avoid damage to the IVEA, make sure that the wipe or cloth is not oversaturated. Do not spray cleaning agent directly on the equipment.

A cleaning protocol following non-isolation patient use might include the following steps:

1. Wipe down all surfaces with a disinfectant suitable for combating blood-borne pathogens (such as Virex).
2. Use a sponge or cloth, properly-moistened with a non-staining, multi-surface disinfectant (such as Alpha HP) to scrub stubborn or visible contaminants from IVEA.
3. Use an industry-grade disposable product (such as Sani-Cloth Bleach Wipes) to disinfect any gaps, grooves or recessed areas on the product.

NOTE: Additional precautions and cleaning protocols may be required after use by patients classified as "isolation." Refer to your facility's policies for proper cleaning protocols.

## **2. Storage Features and Their Proper Use**

A brief review of the IVEA's storage features is provided in this section. Refer to the photos and explanations to promote proper use. For additional information, watch the [IVEA Instructional Video](http://www.iveamobility.com) on the IVEA website, [www.iveamobility.com](http://www.iveamobility.com).

## **3. Easy-Collapse Foot Pedal for Storage**

### **• CLOSING THE IVEA FOR STORAGE**

1. Make sure that the IV hooks are positioned for storage and the handles, chest drain arm and O2 tank holder are all secured in their non-use position.

2. Gently depress the blue foot pedal at the interior base of the unit (**see Photo 40**).



Photo 40

3. While the foot pedal is depressed, push down gently on the top of main column. The IVEA should close smoothly and gradually. When the IVEA begins to close, remove foot from pedal.
  4. Control the closing action of the IVEA by holding the top of the main column as it closes.
- **OPENING THE IVEA FROM STORAGE**  
Rest the collapsed IVEA on the floor. Lift up the top of main column with one hand and lightly push down on the rear portion of one leg and then the other, with the other hand (**see Photo 41**).



Photo 41

As the legs begin to drop away from main column, the IVEA will open on its own. Gently lift the top of main column and guide the IVEA until it “clicks” into a locked open position.

When the IVEA is in a locked open position the Lock Pin Indicator button will be flush with the brace bracket (**see Photo 42a**).



Photos 42a & b

**WARNING:** If the Lock Pin Indicator protrudes when the IVEA is fully deployed, (**see Photo 42b**), lift up gently on the foot pedal with your toe until the Indicator is flush with the brace bracket. Do not use the IVEA with the Indicator protruding.

#### 4. Trolley Wheels

- LOCATION AND IDENTIFICATION

Two small, fixed wheels are located on the underside of the IVEA behind the front casters. These wheels sit slightly above the floor when the IVEA is in use.

When the IVEA is fully collapsed for storage, these trolley wheels permit the unit to be easily moved without carrying it. With one hand, grasp the handle on the underside of the top cap and lift the front of the IVEA off the ground until the unit balances on the trolley wheels. Then simply wheel the IVEA behind you like rolling luggage (**see Photos 43 and 44**).



Photos 43 & 44

## SECTION FIVE: TROUBLESHOOTING AND PRODUCT INFORMATION

This section should help you troubleshoot common problems with the IVEA. If these suggestions don't resolve your issue, immediately remove the unit from clinical and patient use and contact Firefly Medical Customer Service at 970-472-5323 or [info@iveamobility.com](mailto:info@iveamobility.com).

Problem:	Try this:
Legs will not separate from the main column when opening up the IVEA.	Rest the collapsed IVEA on the floor. Lift up the top of main column with one hand and lightly push down on the rear portion of one leg and then the other, with the other hand. <b>Do not stand unit on end to open.</b>
IVEA will not stay in the open position.	If the IVEA doesn't "click" into a locked position when opened, lift up gently on the foot pedal with your toe until it "clicks" and locks. When the IVEA is in a locked open position the Lock Pin

	Indicator button will be flush with the brace bracket.
IV pole drifts downward once it's raised.	Ensure that the blue pole adjustment lever at the base of the IV pole is pushed firmly closed. If the lever is fully closed and the IV pole still drifts down, the pole adjustment lever may need to be tightened (see page 13).
Handle bracket drifts downward.	Ensure that the blue handle height adjustment lever is pushed firmly closed. If the lever is fully closed and the bracket still drifts downward, the lever may need to be adjusted (see page 13).
Handle height is difficult to adjust.	To raise or lower the handle bracket, open up the handle adjustment lever fully, grasp the bracket in the middle (near eyelet), and while supporting handle bracket, gently slide the bracket parallel to the column to raise or lower.
IVEA will not collapse when foot pedal is depressed.	To collapse the IVEA for storage, gently depress the foot pedal, then gently push the main column toward the floor. The IVEA should collapse smoothly. Control the main column's descent to prevent the unit from "slamming" shut.
Handles will not remain in open position.	Ensure that the blue buttons on each side of the handle bracket are fully extended and the handles lock into place with a "click," before placing weight on the handles.

O2 hoop or chest drain arm will not open or close.	To open or close the O2 tank hoop or chest drain arm, grasp with one hand and depress the corresponding blue lever. Rotate accessory away from the main column and up until it “clicks” into its in-use position.
IVEA will not fully collapse for storage.	Ensure that the handles, O2 hoop and chest drain arm are folded in and locked securely against the main column. Ensure that the IV pole is secured at its lowest position and the pole adjustment lever is completely closed. If a power strip is mounted to the IVEA, make sure cords are wrapped tightly and securely around the cord hooks and not interfering with the handle locks.

## Product Warranty

The IVEA has a two-year limited warranty. For complete warranty information go to <http://www.iveamobility.com/wp-content/uploads/2017/08/FIREFLY-LIMITED-WARRANTY.pdf>.

## Product Information

The IVEA intravenous stand and patient walker is covered by one or more U.S. patents, foreign patents and other pending patent applications. For a partial listing of patents and periodically updated patent marking information, go to <http://www.iveamobility.com/wp-content/uploads/2017/08/Firefly-Medical-Patent-Trademark-Information.pdf>.

For additional regulatory information, product warranty information or assistance, please refer to the Company website at [www.iveamobility.com](http://www.iveamobility.com).

**IVEA Model: 600A**

Firefly Medical, Inc.

320 E. Vine Dr., Suite 305

Fort Collins, CO 80524

(970) 472-5323

[info@iveamobility.com](mailto:info@iveamobility.com)

[www.iveamobility.com](http://www.iveamobility.com)

**Item #M16010 / A**