

# AMXDmax<sup>®</sup>

ADVANCED MISSION EXTENDER DEVICE



## User & Maintenance Guide



Omni Medical Systems  
[www.OmniAMXD.com](http://www.OmniAMXD.com)

# Warranty

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## **Warranty**

Omni warrants its system to the original purchaser, against defects in material and workmanship for a period of one year from the date of original purchase. Omni will, at our option, replace or repair defective parts without charge. Omni will, replace or repair any part found to be defective upon inspection by Omni. The purchaser will be responsible for freight to Omni. Omni will be responsible for freight, via UPS Ground, to purchaser after repairs. This warranty does not apply in the event of misuse or abuse or failure by the user to maintain the system in accordance with Omni instructions or as a result of unauthorized alteration or repairs. Damage occurring during transit is not covered by this warranty. No other warranty expressed or implied shall apply and in no event shall Omni be liable for consequential economic damage or consequential damage to property.

## ***Omni Medical Systems Disclaimer***

Buyer assumes all risk and liability whatsoever from the installation and use of Omni products. Omni products are sold as bodily fluid collection and storage devices and should not be relied upon as protection from bodily fluids exposure to the body, clothing or other items such as flight deck. Omni assumes no liability for injury, loss, incidental or consequential damages in the event of an accident.

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## Important Safety Information

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Before using the AMXDmax<sup>®</sup> System in a mission setting, familiarize yourself with the components and operation of the system. **Practice** using the AMXDmax<sup>®</sup> in a chair or flight simulator before using it in an aircraft.

1. Always follow instructions when operating the device.
2. The batteries must be fully recharged at least once every 12 months.
3. The batteries must be left in fully charged state when they are not going to be used for more than 2 months.
4. Do not submerge Control Unit under water.
5. Do not use liquid cleaners (bleach, vinegar, alcohol, ammonia, etc.) or aerosol cleaners. Clean using a warm water (or a solution of 3% hydrogen peroxide) and a damp cloth.
6. Use only the type of power supply provided with the AMXDmax<sup>®</sup> System.
7. Do not attempt to service this product yourself, as opening or removing covers may damage the device and void your warranty.
8. Refer all servicing to qualified **Omni Medical Systems** service personnel.
9. Refer all servicing to **Omni Medical Systems** service personnel under the following conditions:
  - When the power-supply cord or plug is damaged.
  - If the product does not operate normally contact product dealer.
  - If the product has been dropped or damaged in any way.
  - When the product exhibits a distinct change in performance.
10. All servicing should be done by an Omni certified service technician. Unauthorized component substitutions may result in fire, electric shock, or other hazards.
11. This product should be kept away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.

# System Components

## Control Unit Kit



## Collection Bag



## Undergarments



## Male Cup



## Female Pad



## Quickstart

### AMXDmax Personal Aircrew Flight Equipment

The AMXDmax is a fully automatic, hands free bladder relief system designed for use in fixed and rotary wing aircraft. The system was designed to allow pilots to be hydrated during mission (in accordance with mandatory regulation for aircrew of military aircraft) and to remain fully clothed and secure in their seat harness at all times.

#### How Does The AMXDmax Work?

The AMXDmax system is simple to use. Worn discretely beneath the flight suit, the collection **cup** or **pad** contain sensors that will detect urine once the user begins to urinate. The external control unit will automatically activate, evacuating the urine from the cup or pad and into the attached collection bag.

*Cup and Pad worn discretely beneath the flight suit.*



# Quickstart

## Male System Operation Procedure Overview

### Don the System

1. Don the **Boxer Briefs**.
2. Connect the removable hose to the cup. Insert the cup into place within the briefs.
3. Insert the penis through the hole in the **Briefs**, into the cup via the **Foam Ring**.
4. Don the rest of the flight ensemble. If using the **TSC**, connect the hose to the inside TSC port. If not, make sure that the cup hose is accessible via the flight suit's zipper.

### Before Take Off

1. Ensure that the control unit is fully charged (all green lights)
2. Ensure that the cup hose is accessible.
3. Ensure that the collection bag drain is closed.

### System Operation

1. Before urinating, connect the hose to the control unit.
2. The system is now **activated**, and will **automatically** drain urine into the collection bag as soon as the aircrew begins to urinate.
3. The system can remain connected for the duration of the flight.

## Female System Operation Procedure Overview

### Don the System

1. Don the **Female Undergarment**.
2. Connect the removable hose to the front of the pad. Place the Pad into the undergarment with the hose exiting from the front. Use the adhesive strip on the underside of the pad to secure it to the undergarment. **See page 27 for the proper positioning of the pad.**
3. Don the rest of the flight ensemble. If using the **TSC**, connect the hose to the inside TSC port. If not, make sure that the cup hose is accessible via the flight suits.

### Before Take Off

1. Ensure that the control unit is fully charged (all green lights)
2. Ensure that the pad hose is accessible.
3. Ensure that the collection bag drain is closed.

### System Operation

1. Before urinating, connect the hose to the control unit. ***The Air Pump will activate and begin to inflate the pad.***
2. Allow the system **90 seconds to inflate the pad** in order to create a seal.
3. The system is now **activated**, and will **automatically** drain urine into the collection bag as soon as the aircrew begins to urinate.
4. Disconnect the system after use to allow the pad to deflate.

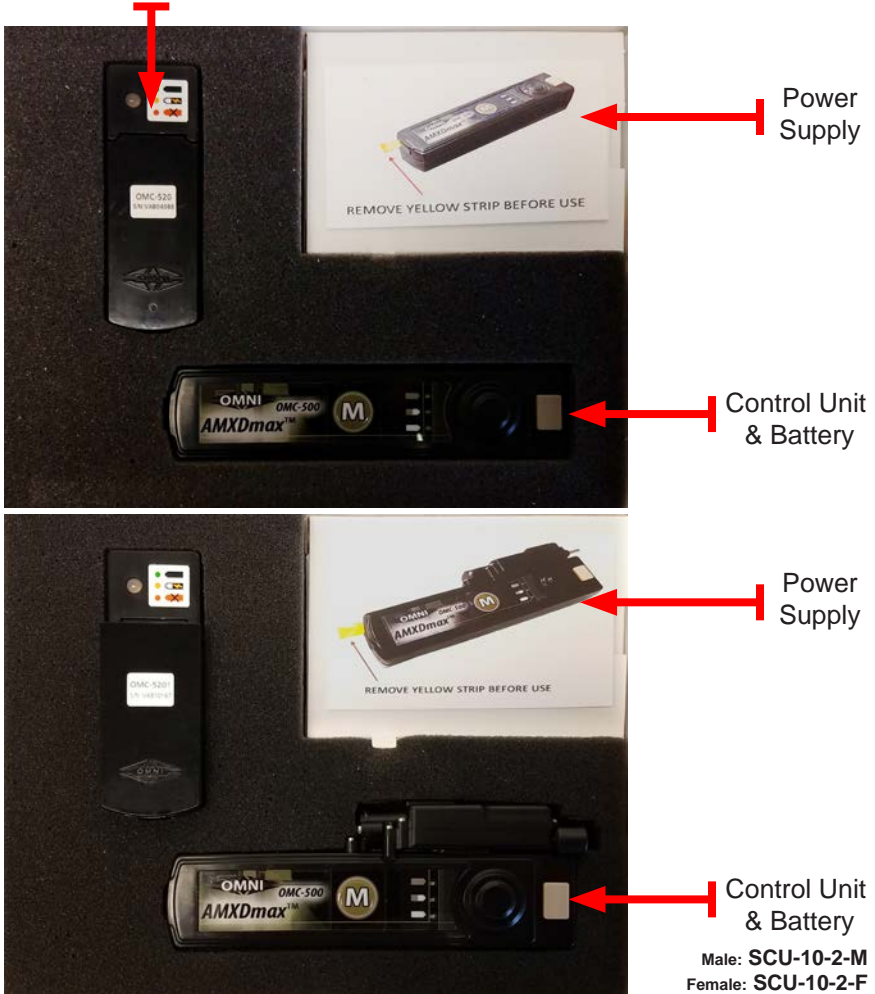


# Control Unit Kit

## Kit Contents

- 1 Control Unit (Male or Female)
- 1 Charger
- 2 Battery Packs
- 1 Wall Power Adaptor
- 1 User Manual
- 1 USB Flash Drive

### Battery & Charger

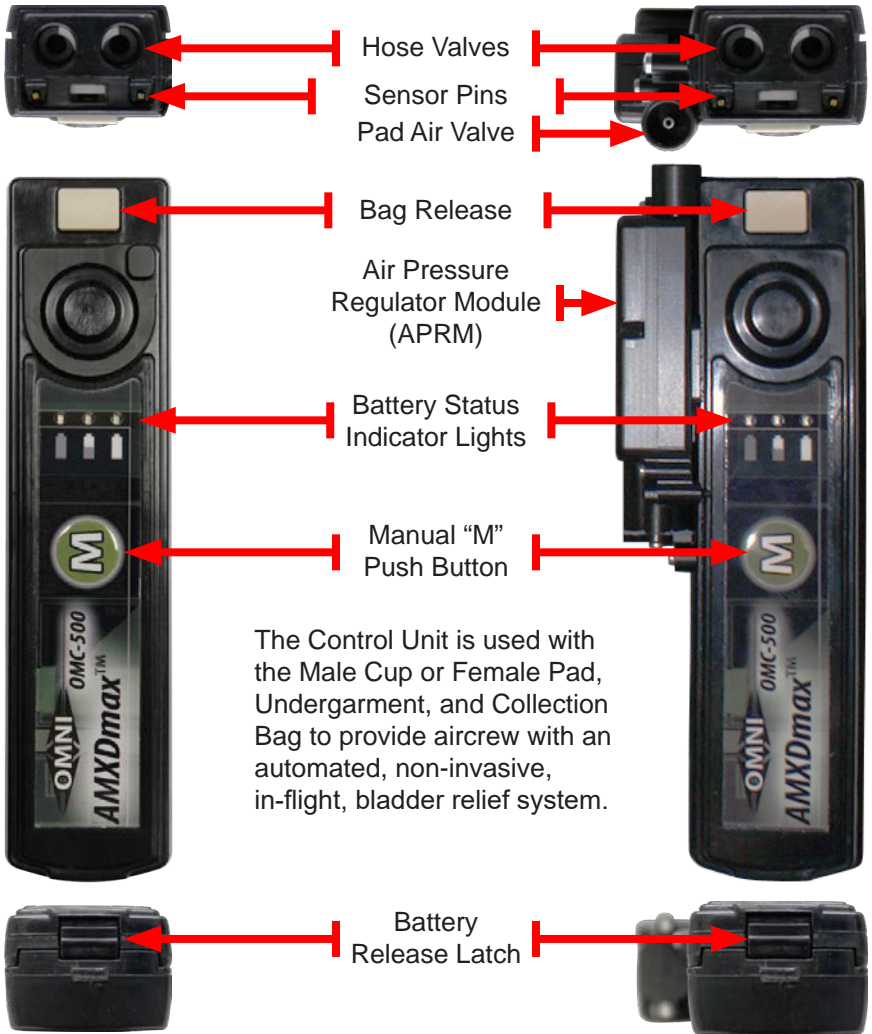




# Control Unit

Male Unit

Female Unit



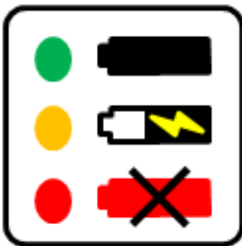
The Control Unit is used with the Male Cup or Female Pad, Undergarment, and Collection Bag to provide aircrew with an automated, non-invasive, in-flight, bladder relief system.

Male: OMC-500-M  
Female: OMC-500-F

# Charger

The battery charger only for use with the AMXDmax® rechargeable battery packs. It must only be used with the supplied power supply which has an input range of AC100-240V 50/60Hz.

Battery Status Indicator Light



## Battery status indicator lights

- A solid **GREEN** light indicates that the battery is charged
- A flashing **YELLOW** light indicates that the battery is charging
- A flashing **RED** light indicates that the battery needs service

RBP-ECU

## Batteries

**DO NOT submerge batteries in water.**  
**DO NOT leave batteries discharged.**

### Standard Rechargeable Battery

Fully charged, the battery lasts for up to 12 uses within a 12 hour period.

**Long Term Storage:** Battery must be fully recharged and left charged every 12 months.



GSA: SCU-RBP-2-1  
DOD: SCU-RBP-2



GSA: SCU-RBP-2-2  
DOD: SCU-RBP-2

### Optional 9V Battery Pack

Sold Separately



Battery pack that uses disposable **9V Lithium** batteries. Capacity is 2 times that of the standard rechargeable battery

**DO NOT use the 9V Battery Pack with the battery charger**

GSA: SCU-ABP-2  
DOD: SCU-ABP-2

# Starter Kits and Supply Kits

## Starter Kits

 CSK-2-M-1   
CSK-2-M-2

Omni Medical Systems

### MALE CSK Control Starter Kit

This kit includes:

- 1 Control Unit
- 2 Rechargeable Batteries
- 1 Charger w/ Power Adaptor
- 3 Disposable Male Cups
- 1 Hose
- 1 Undergarment
- 2 Collection Bags
- Training Video & User Manual



www.omnimedicalsys.com Made in USA

 CSK-2-F-1   
CSK-2-F-2

Omni Medical Systems

### FEMALE CSK Control Starter Kit

This kit includes:

- 1 Female Control Unit
- 2 Rechargeable Batteries
- 1 Charger w/ Power Adaptor
- 3 Female Pads
- 1 FPH Hose
- 2 FG Undergarment
- 2 Collection Bags
- Training Video & User Manual



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See GSA for Options

## Supply Kits

 CSK-B-M 1   
CSK-B-M 2

Omni Medical Systems

### MALE CSK-B-M Monthly Supply Kit

This kit includes:

- 1 Collection Unit (Male Cup)
- 1 Collection Bag



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 CSK-B-F-1   
CSK-B-F-2

Omni Medical Systems

### FEMALE CSK-B-F Monthly Supply Kit

This kit includes:

- 2 Female Pads
- 2 Collection Chambers



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See GSA for Options

## Male Cup w/Removable Hose

The Male Cup w/Removable hose has a slimmer profile than the standard cup, as well as a removable hose which attaches to the bottom of the cup. It is designed for optimal use in all aircraft, including aircraft with the 5-point harness. The cup is reusable, at the user's discretion, for up to **20 flights** or **30 days** with proper cleaning.



# Female Pad

The Female Pad is safe, sanitary, and shaped to fit like a female sanitary pad. The non-invasive pad has an integrated **urine sensor** for automatic operation. The pad inflates to provide a **leak proof seal** between the pad and the body. It has a soft, non-woven **fabric cover** to provide comfort. The pad is reusable, at the user's discretion, for up to **5 flights** or **15 days** with proper cleaning.



Size 1: IFP-15-1-2-12  
IFP-15-1-2-18  
IFP-15-1-2-24

Size 2: IFP-15-2-2-12  
IFP-15-2-2-18  
IFP-15-2-2-24

## Female Pad w/Removable Hose

The Female Pad w/Removable hose is an inflatable urethane pad design based on a sanitary pad. It is designed for optimal use in all aircraft, including aircraft with the 5-point harness. The pad is disposable, and can be detached from the hose and disposed of.

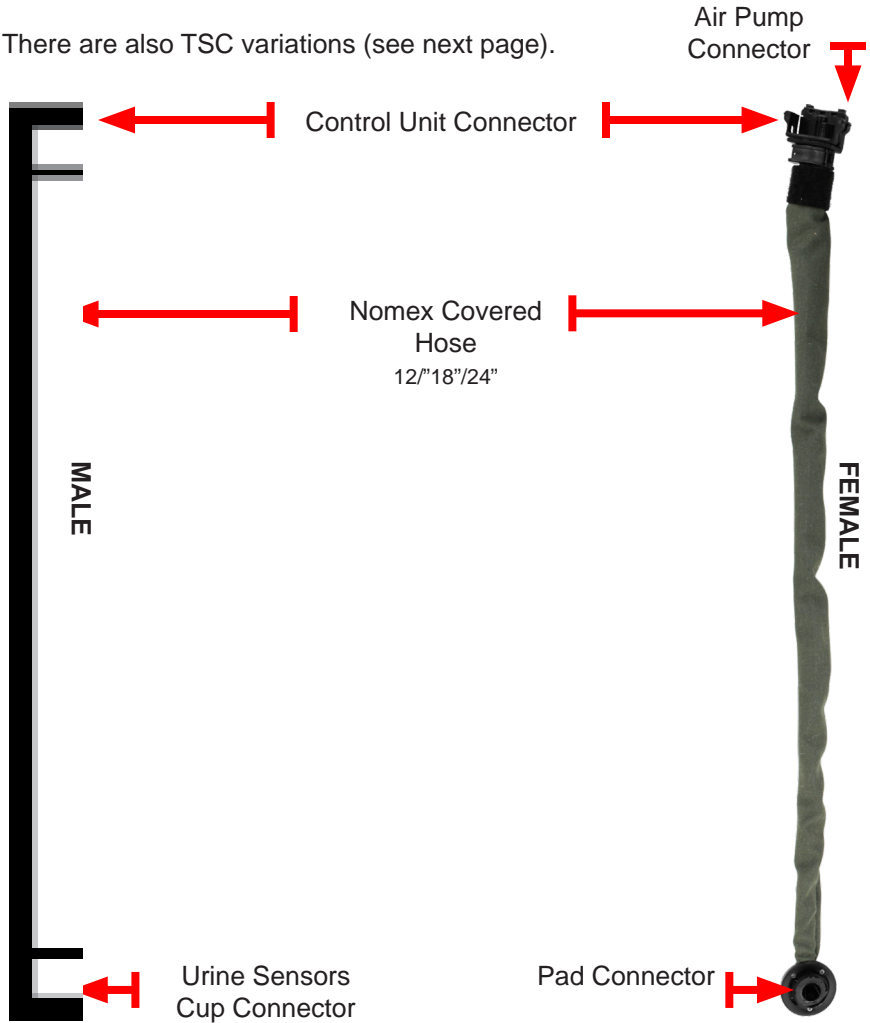




# Male Cup and Female Pad Removable Hoses

The removable hoses connect the removable cup and pad to the control unit. They are reusable for 25 flights.

There are also TSC variations (see next page).



RHA-21B-2-18-M  
RHA-21B-2-24-M

RHA-21B-2-18-F  
RHA-21B-2-24-F

# Collection Bag

The Collection Chamber Unit (Bag) is manufactured from durable, medical-grade urethane. It has a **standard capacity of 1200mL**. While **not recommended**, in an **emergency it can withstand up to 2200mL**.

Control Unit  
Connection Clip



Air Vent  
Odor Proof  
Hydro Block

Drainage Valve  
Clockwise to tighten

Filled with 2.2L

Filled with 1.2L



**DO NOT OVERFILL THE COLLECTION BAG**

The Collection Bag has a 1000mL over-capacity emergency factor

**CB-10-2-RU**

# Undergarment

The undergarments are used to hold the Cup or Pad in place. They should be sized for a snug fit. They are **machine washable**.

## Male Undergarment



## Female Undergarment



## Male System Overview

The Male System consists of the Male Cup, Control Unit, and Collection Bag, and are connected together as demonstrated. These are the only components required on a mission. Additional batteries and bags may be taken as needed.



## Female System Overview

The Female System consists of the Female Pad, Control Unit, and Collection Bag, and are connected together as demonstrated. These are the only components required on a mission. Additional batteries and bags may be taken as needed.



## Charging the System

The battery pack **must be charged prior** to the first use.  
It make take up to 2.5 hours.



Connect a **Rechargeable Battery** to the **Charger**.



Connect the cord from the **Power Supply** to the **Charger**



A solid **GREEN** light indicates that the battery is charged



A flashing **YELLOW** light indicates that the battery is charging



A flashing **RED** light indicates that the battery is completely discharged. If it does not change to yellow after an hour, the battery may need service.

## Donning the Male System



Feed the hose of the **Male Cup** through the hole in the inside cup pocket and out through the front of the undergarment.



Insert the **Male Cup** into the cup pocket on the inside of the Undergarment.



Align the foam ring with the large hole inside the Undergarment.

Fasten the pocket shut with the Velcro strip.

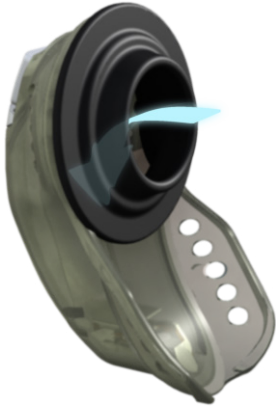


Attach the hose to the front of the undergarment using the Velcro loop.

*The Cup may also be inserted into the Undergarment while being worn*



## Donning the Male System



After the cup has been placed into the boxerbriefs, insert the Male Anatomy **through the foam ring** of the cup while donning the boxerbriefs.

The boxerbriefs should be a comfortable, snug fit to properly hold the Male Cup in place. Ensure that the hose can be retrieved through the bottom zipper after donning flight gear.



After entering the aircraft, but **before securing the harness**, retrieve the hose and zip the flight suit to capture the hose. **Ensure that the hose is not kinked, crimped or pinched.**



Once seated in aircraft, adjust the cup for comfort and ensure that the tip of the cup is **down and between the legs**.

## Donning the Male System (Removable Hose)



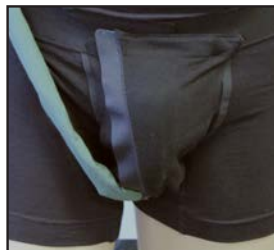
### Attach Hose

Attach the black cup connector. Ensure that the hose snaps securely in place. Rotate hose for desired location.



### Insert Cup

Place the cup into the garment pocket and insert the male anatomy through the foam ring. Secure the pocket.



### Position Hose

The hose exits the garment at the bottom, and can be positioned as desired.



### Alignment Flaps

If necessary, the alignment flaps can be cut off and discarded to provide a more comfortable fit.

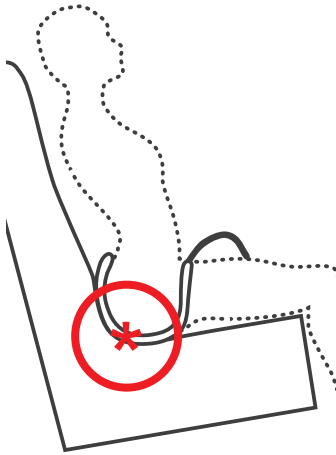


### Connect to System

Leave hose accessible via garment zipper or other access point. Connect to AMXDmax Control Unit and Bag for use.

Depending on which provides a better fit, future supplies can be ordered with or without flaps as desired.

## Donning the Female System

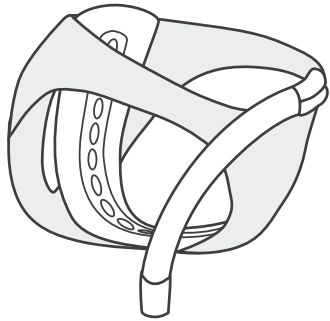


Prior to use, locate the **gold sensor** in the **Female Pad**. When seated in the ejection seat, the **Center Gold Sensor MUST BE located at the lowest point**.

The location of the sensor is critical for the AMXDmax® System to function properly.

*It is very important that this be determined on the ground, prior to flight.*

Place the **Female Pad** into the undergarment with the hose in the front and to the right. Use the **adhesive strip** located on the underside of the Female Pad to secure it to the undergarment.



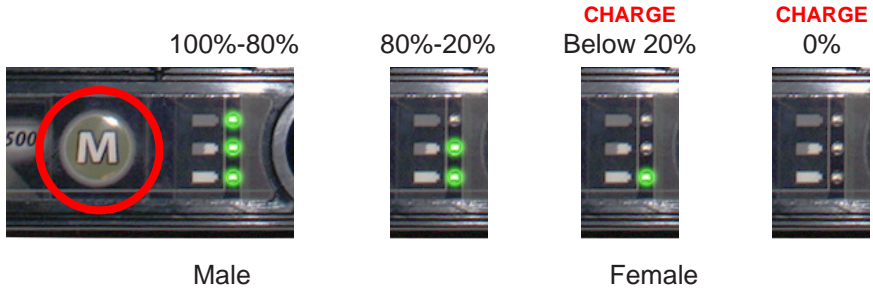
Attach the Hose to Velcro strip on the front of the Female Undergarment. Ensure that the hose can be retrieved through the bottom zipper after donning flight gear.

After entering the aircraft, but **before securing the harness**, retrieve the hose and zip the flight suit to capture the hose. **Ensure that the hose is not kinked, crimped or pinched.**

Once seated in aircraft, adjust the pad for comfort and **ensure that the sensor is at the lowest point of aircraft seat.**

## Prepping the System

Press the “M” push button for 1 second and release to display the battery charge status. Recommended to start mission with fully charged battery.



Slide the Control Unit onto the Collection Bag clip.  
There will be an audible click when the connection is made.



The AMXDmax® with battery weighs less than 4 oz, and is considered man or woman wearable.

Roll the Control Unit up in the Collection Bag and store in an available pocket that is accessible during flight.

## Male System Operation

The Male System is designed to allow the user the option of connecting the Cup Hose to the Control Unit at the **beginning of flight** and **remain connected for the mission duration**. Alternatively, the user may remove it from storage and connect it each time he needs to relieve his bladder.

To connect the Cup Hose to the Control Unit:



Align hose connector with clip and slide it into place.



When connected, there will be an audible click, and the control unit will beep twice.



When the user begins to relieve his bladder, the sensors in the Male Cup **automatically detect** urine and activate the Control Unit pump, transferring the urine from the cup and into the Collection Bag, keeping the user dry.

At the end of mission, pinch the sides of the hose connector and slide it away from the Control Unit.



## Female System Operation

The Female System is designed to allow the user to connect the Pad Hose to the Control Unit prior to bladder relief. Once connected, the user **must wait** at least **90 seconds** for the pad to inflate and creating a **leak proof seal** against the body. Once inflated, the system will automatically activate when the user begins to relieve her bladder.

To connect the Pad Hose to the Control Unit:



Align Air Hose Connector with clip and slide into place.

When connected, there will be an audible click, and the control unit will beep twice.



The Female Pad will inflate, taking at least 90 seconds to complete.

Once the pad has inflated, the user can begin to relieve her bladder. Remain firmly seated, pressed against the pad during use. **DO NOT** raise the body up from the pad while in use.

The sensors in the Female Pad **automatically detect** urine and activate the Control Unit pump, transferring the urine from the pad and into the Collection Bag, keeping the user dry.



After using, press the Manual button (pg. 7) for 5 seconds to remove any residual liquid. Pinch the sides of the hose connector and slide it away from the Control Unit to deflate pad.





## After Mission

Male



Female



To remove the Control Unit from the Bag, press the release button and slide the unit away from the clip.



Remove battery from control unit and recharge.



Drain collection bag.

Either dispose of Collection Bag and Male Cup or Female Pad, or clean for reuse. See Care and Maintenance (pg 24) for Cleaning instructions, or visit [www.OmniAMXD.com](http://www.OmniAMXD.com) to view the AMXDmax® Instructional Video





# Care, Maintenance and Storage

## **WARNING:**

**NEVER SUBMERGE THE ENTIRE CONTROL DEVICE**

### **Cleaning**

1. Attach all three components (Control Unit, Cup and Bag) of the AMXDmax® system together.
2. Fill Male Cup or Female Pad with warm water OR a solution of 3% Hydrogen Peroxide. The Control Unit should turn on automatically. If the system does not automatically turn on, press and hold the “M” button. Repeat this process twice.
3. Once all the water is pumped out of the Cup or Pad and into the Bag, move the Bag around to rinse it on the inside.
4. Open the drainage valve and empty the bag.
5. REMEMBER TO CLOSE THE VALVE AFTER DRAINING.
6. Submerge the connector end of the Control Unit in into warm water. DO NOT submerge past the release button.
7. Press and hold the “M” push button for 5 seconds, then remove the Control Unit from the water and hold the button for an additional 5 seconds to dry out the Control Unit pump.
8. DO NOT USE BLEACH, VINEGER, OR HEAVY DETERGENTS.

### **Storage**

1. *Short Term Storage:* Always fully recharge batteries before storing.
2. *Long Term Storage:* The batteries must be recharged and left fully charged every 12 months.
3. Always store the AMXDmax® Control Unit in a dry place with temperatures between 0F and 150F (4°- 38° C).
4. Keep the AMXDmax® system away from heat, humidity or harmful chemicals and avoid long term exposure to sunlight.

### **Maintenance Tips**

Omni recommends that the Male Cup, Female Pad, Control Unit, and Bag are cleaned daily to maintain their functionality.

### **Disposal**

The Male Cup, Female Pad, and Collection Bag can be disposed of in any trash receptacle.

# Troubleshooting

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## **Having trouble?**

Try these simple tips, email us at [support@omnimedicalsys.com](mailto:support@omnimedicalsys.com) or call 1 (802)497-2253.

### **The Control Unit does not start ...**

1. Check that the battery is charged by pressing the “M” button.
2. The unit should beep twice and flash battery status indicator lights.
3. If the Control Unit does not emit an audible beep or does not display a green light, remove the battery and replace with a charged battery.
4. If the battery fails to charge, please contact an Omni Medical Systems service technician.

### **The Control Unit doesn't automatically start pumping ...**

1. Disconnect and re-connect the Male Cup or Female Pad connector to the Control Unit.
2. The Control Unit should beep twice .
3. If the Control Unit does not emit an audible beep, press and hold the “M” button to activate the pump. If the user needs to manually operate the pump by pushing the “M” button, this indicates the cup or pad is not automatically sensing urine, and needs to be replaced.
4. If the battery status indicator shows that the battery is charged and the Control Unit fails to start pumping, please contact an Omni service technician.

### **The charger indicator light is not working ...**

1. Check that power supply is plugged in and is securely connected to the charger.
2. Remove and connect the rechargeable battery to the charger.
3. If the charger indicator light is not lit, please contact an Omni service technician.

# Technical Specifications

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## **Control Unit**

### **Device Specifications**

Flow rate	1.5 ± 0.1 LPM (–10F to 122F) 1.2 ± 0.1 LPM (above 122F)
Operation charge	12 Relief Cycles on one battery

### **Environmental Specifications**

Power	7.6V DC, 750mA
Weight	3 oz.
Dimensions	5”L X 1.2”W X 1”H
Maximum Noise Level	65 dB at 1 meter

## **Rechargeable Battery**

### **Device Specifications**

Chemistry	Lithium Polymer
Voltage	7.2V
Capacity	350 mAh
Charge Cycles	500
Storage	See page 24

### **Environmental Specifications**

Weight	1 oz.
Dimensions	2.4”L X 1.2”W X 0.5”H

## **Charger for Lithium Polymer Battery**

### **Device Specifications**

Battery Chemistry	Lithium Polymer
Charging Voltage	8.4 V
Charging Current	350 mA
Charging Time	2.5 hours
Dimensions	2.3’L X 1.2’ w X .5” H
Wall Pack	Input ~ 100-240VAC (50/60Hz), 0.30A Output ~ 12V DC, 500mA

## Reordering

The AMXDmax® is available direct from:

**Omni Medical Systems**

**GSA**

GSA - VA Contract Number: 36F79718D0358

MFG & DOD PTN	PRODUCT NAME
CSK-2 (Specify Male)	MALE STARTER KIT
CSK-2 (Specify Female)	FEMALE STARTER KIT
IMCR-2	COLLECTION UNIT (Male Cup)
IFP-15-(1/2)-2-(12/18/24) IFP-16-(1/2)-2-(12/18/24)	COLLECTION UNIT (Female Pad)
CB-(10/12/16)-2 CB-10-2-RU-(12/16/20) CB-10-2-LR-(6/10) (Specify Style & Capacity)	COLLECTION CHAMBER UNIT (Bag)
MG-1 MG-2	MALE GARMENT (Size 1 / Size 2)
FG-1 FG-2	FEMALE GARMENT (Size 1 / Size 2)
SCU-RBP-2	BATTERY PACK RECHARGEABLE
SCU-ABP-2	BATTERY PACK DISPOSABLE
ESC-35-2	ANTI-EXPOSURE/CHEM BIO SUIT ADAPTER (TSC / Through Suit Connector)

**Contractor:** Omni Measurement Systems, Inc.

**CAGE CODE:** 1UW92

**Sales contact:** Sales@OmniMedicalSys.com

**TO ORDER:** Phone: 802-497-2253 Fax: 802-497-3601

Visit our website at [www.OmniAMXD.com](http://www.OmniAMXD.com)

# Notes

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# Notes

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**To re-order supplies please contact:**

Omni Medical Systems  
808 Hercules Drive Colchester, VT 05446  
Phone: 1(802)497-2253  
Fax: 1(802)497-3601  
[www.OmniMedicalSys.com](http://www.OmniMedicalSys.com)  
[www.OmniAMXD.com](http://www.OmniAMXD.com)