Environmental Containment Unit™

Generation Four Owner's Manual

Modular, Scalable, Multi-Purpose Containment

- Ceiling and Side Wall & Corridor Projects
  - Construction Anteroom/Air lock-Class 4 ICRA
    - Temporary Vestibule with Controlled Ingress/Egress Points
      - Emergency Isolation Surge Response

Lenexa, Kansas 913.789.9590 info@hepacart.com

Dear Customer,

Thank you for your purchase of the Environmental Containment Unit™–ECU4™ by Mintie LLC. The ECU4™ is the only portable, collapsible containment product that protects health care and other sensitive environments from harmful airborne particulates during construction and maintenance activities, or when creating short-term infectious isolation areas during a bioterrorism event or other public health emergency.

The ECU4™ has been clinically tested for use in health care environments and meets all CDC and CSA containment standards. Your satisfaction as a customer is extremely important to us. If you have any questions that are not answered by this instruction manual, or if you would like to offer feedback on the ECU4,™ please contact us at (800) 9-MINTIE (800-964-6843), or by email at support@mintie.com.

Best Regards,

Kevin Mintie
Chief Executive Officer

LIMITED PRODUCT WARRANTY

Mintie LLC. warrants to the original purchaser that each part of the Environmental Containment Unit ECU4™ (ECU4™) to be free from defects in material or workmanship for a period of twelve (12) months after the date of original purchase. This warranty applies only for normal and expected uses, as determined by the manufacturer and explained and demonstrated in the accompanying instruction manual. This warranty shall be void if the product has not been registered with Mintie LLC.

REMEDY LIMITATION

Mintie LLC.'s obligation and liability under this warranty is limited to the repair or replacement (at its option) of the product or its parts, after its own review and examination. This will be purchaser's exclusive remedy under this limited product warranty. Mintie LLC. will not be liable for incidental or consequential damages even if its attempts to repair the defects fails, but in such case (or if Mintie LLC elects not to repair or replace) the purchaser will be entitled only to a refund of monies paid to Mintie LLC. for the ECU4™.

This warranty shall be void as to any product which has been altered or modified in any manner. This warranty does not apply to damages caused by any force of nature, to accidental or deliberated damage of the product, or to use of the product that does not conform with the product instructions.

EXCLUSION OF ALL OTHER WARRANTIES

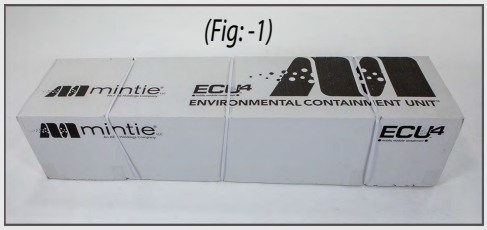
THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED PRODUCT WARRANTY SET FORTH ABOVE. MINTIE TECHNOLOGIES, INC. DISCLAIMS ANY WARRANTY OF ANY OTHER KIND, INCLUDING WITHOUT LIMITATION, ANY WARRANTY THAT THE GOODS ARE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE

WARNING! CASE IS GREATER THAN SEVENTY FIVE (*75 LBS*) POUNDS

UNPACKING THE ECU4™

1. *Your ECU4 is packaged in a large white box containing 2 inner boxes. (Fig:1)*
2. *One inner box contains the reusable envelope, cover bag and strap. (Fig: -2)*
3. The second box contains the frame, top truss (boxed) and memory foam (boxed). *(Figs: -3)* NOTE: Save the upper truss box for top truss storage placed in the cover bag front pouch.
4. The Sidewall Access Flange optional accessory contains the Side Access flange, a one-foot cuff flange, 2 roles of self - adhesive Velcro rolls and a duffel storage bag. *(Fig: -4)* NOTE: the one foot cuff can integrate two ECU4 side x side to expand footprint.
5. The Corridor Flange optional accessory contains the flange, 2 roles of self adhesive Velcro rolls and a duffel storage bag. *(Fig: -5)*
6. The 5-foot Cuff contains the envelope, 4 metal support truss and 8 corner support locks and a storage bag. *(Fig. 6)*
7. Mobile Platform optional accessory and optional Tow Cart providing ease of use mobility for ICRA required containment. *(Figs. 7)*

(Fig: -1)



(Fig: -2)

(Figs: -3)

(Figs: -3 Foam box and 2 Upper Folding top truss')

Accessories Flange Kits

(Fig: -4) Sidewall Access Flange Kit

(Fig: -5) Corridor Flange Kit

(Fig: -6)) Five Foot Cuff Flange Kit

Mobile Platform (MP4)

Tow Cart to Caddy a NAM)

INITIAL SET UP

Part A: Initial Set Up of ECU4™ Frame

1. With ECU4™ frame removed from box, set base of the unit on the floor as shown. Remove foam blocks (Figs: A-1)
2. Place your hands on the two corner posts above locking collar plastic sliders with rings to start unfolding the frame. (Fig: A-1) CAUTION: Do not grasp Outer Legs below plastic sliders during opening of ECU4 Frame to prevent accidental pinching of fingers.
3. While standing on one end of the two shorts sides of the frame, step down on lower end truss locking it into place. (Fig: A-2).
4. Remove the cotter pins holding the long side lower truss in their storage position to each corner post and and lower each long side truss to the floor and secure with pins. (Figs: A-3, A-4)
5. Finish by pushing up on each Plastic Slider to lock the frame in the fully deployed position (you will hear an audible click). (Fig: A-5)
6. Place the two top truss pieces onto the corner post caps and swing the folding short arms securing them with the push button pin latch to the gray holds to finish the frame deployment. (Figs: A-6)
7. Remove the self adhesive memory foam from the inner box, peal the protective adhesive shield and apply to top edge of the upper truss pieces. (Figs: A-7)


(Figs: A-1)

(Fig: A-2)

(Figs: A-3)

(Figs: A-3)

(Fig: A-4)

(Fig: A-5)

(Fig: A-6)

(Fig: A-6)

(Fig: A-6)


(Fig: A-7)

Part B: Attachment of ECU4 Containment Envelope to Frame

1. *Unfold ECU4 containment envelope and place inside opened ECU4 Frame.*
   On each corner at the top of the ECU4 envelope there are 4 Velcro cuffs.
   Position and attach the Velcro cuffs on the post above the locking corner slides as in (Fig. B-1) using the following guide to manage envelope length v ersus ceiling heights:
   For ceiling heights above 10'6" Use top loop
   For ceiling heights approximately 9' Use top and second loop from top
   For ceiling heights approximately 8' Use top, second and third loop from top
   For ceiling heights below 7'8" Use bottom loop position all four above corner locks
2. *Attach the remainder of the white Velcro loops along edges of ECU4 envelope to Outer Legs of the ECU4 frame to the floor. (Fig. B-2) NOTE: This is advised to be done once the unit height is adjusted.*
3. *Attach Velcro cuffs to each of the four floor trusses. (Fig. B-3). Note: envelope should be stored on the frame with only the Velcro loops attached above the four locking slider corner w/ring pulls as in (Fig: B-1).*
4. *Secure the top edge of the envelope to the upper folding truss. The envelope has a sewn in Velcro loop and the upper truss has Velcro Hook applied to the inside edge of the truss. (Fig: B-4)*

(Fig. B-1)

(Fig. B- 2)

(Fig. B-3)

(Fig. B-4)

Visual Neg. Air Ind.

2 Pass Port

4 Window

Zip Access-Ceiling

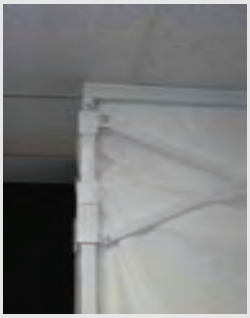
Deployment

A. Raise and Position ECU4

1. *Position ECU4 directly in front of door, wall or ceiling area to be accessed.*
2. *Stand on one of two short sides of the ECU4 unit, and place foot on the foot pedal of end floor truss.*
3. *Grasp Outer Legs and simultaneously lift upward until left and right Height Adjustment Ratchet Pins engage in the appropriate set of holes. They are spaced in one inch increments. Repeat step on the opposite end for a one man deployment. They are spaced in one inch increments. (Fig.11-1)*
4. *From this position, lift ECU4 until foam strips make contact with ceiling tile and slightly compress Upper Folding Frame contacting the ceiling. Depress the handles in to eliminate mechanical actions of the hole punches for easy final adjustment to the ceiling. (Fig. II-2) Ensure that all four Height Adjustment Ratchet Pins are engaged in their respective holes. Note: To ensure level engagement with ceiling, be sure that Upper Folding Frame is flush against ceiling tile frame. If two persons are deploying the ECU4, complete steps 2-4 simultaneously from each end of the unit. (Fig. II-3)*
5. *To adjust the door height and envelope depending on ceiling height adjust the Velcro loops on ech corner post above/below locking corner collars. This will pull up the envelope and raise the doorway.*
6. *Finalize deploying the unit by wrapping the Velcro loops on corner posts and bottom truss. (Fig.II-5)*

(Fig. II-1)

(Fig. II-2)



(Fig. II-3)

(Fig. II-4)

Adjust envelope height by positioning Velcro loops on corner posts above or below locking corner (Fig: 11-4). 4-loops above in short ceilings, 1 or 2 above in tall ceilings.

(Fig. II-5)

B. Integrating a NAM for Class III ICRA Negative Pressure to ECU4

1. The ECU4 has two ports; a 12.5" duct port and a 3.5" utility port for power cord, hoses, etc. The port flange system is interchangeable on either narrow end of the unit. *(FIG. II-6A)*
2. To attach the HEPA negative air machine, remove the internal Velcro seal and insert flex duct into the port. *(FIG. II-6B)*
3. Tighten the draw strings to seal port around the NAM flex duct to ensure a tight seal. *(FIGs. II-7)*
4. Open pressure relief vents, as needed, located inside envelope, beneath windows on both cargo doors, and the non-Flange side door. *(FIG. II-8)* Turn on HEPA-Filtered negative air machine on. As the air pressure inside the unit lowers, the sides of the unit will begin to be drawn in.

(FIG. II-6A)

(FIG. II-6B)

(FIGs. II-7)

(FIG. II-8)

ECU4™ APPLICATIONS

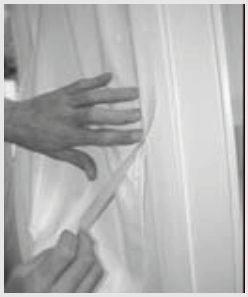
Part I: Construction/Maintenance & the Sidewall Access Flange Accessory

A. Anteroom for Construction Projects and Surge Isolation Response
& B. Construction — Wall Containment Projects

To use the ECU4 as an entry/exit air lock chamber for construction areas: providing Class 4 ICRA containment.

1. Open ECU4 according to previous instructions and position against the construction area doorway to deploy the ECU4 to a door threshold. Adjust the units height to secure against ceiling according to previous instructions.
2. Remove a wide cargo door and zip (Optional) Sidewall Flange accessory in it's place. Roll up door and stow using hanging Velcro straps on either inside or outside of unit. (Doors may be detached and reattached as necessary). *(Fig. I-A-1)* Apply the self adhesive Velcro (rolls provided) to the door frame; making a box frame including the threshold floor of the doorway. NOTE: This is best done by applying 4 separate pieces onto each frame side and floor, the four pieces meeting at each corner.
3. Apply the sewn in edge of the Sidewall Access Flange to the Velcro installed on the doorway. Start in the middle of the door frame top and work your way into each of the corner folding excess envelope if any onto itself *(FIG.1-A-2)*. Repeat the process on the floor, outwards to each corner. Next, from the bottom corners work upward applying the Velcro to each long side frame, stop about chest high. Apply Velcro at each top corner of the door frame working down until meeting Velcro you installed up from each bottom corner of door frame. Fold over excess envelope onto the sewn in second layer of Velcro of the flange to attach folds. If they do not meet, tape these folded edges onto themselves and to the doorway with Polyken or other tape.
4. From inside the ECU4 open the 12.5" negative air port by opening the Velcro Flap.
5. Attach HEPA negative air machine by inserting flex duct into the 12.5" port on exterior of unit. Attach the opposite end of duct to the intake manifold of the HEPA NAM with a clamp.
6. Tighten the draw strings to seal port around the flex duct and/or HEPA vacuum hose. The 3.5" port for cord and hose access. *(Fig. I-A-3)*
7. Open pressure relief vents, as needed, located inside envelope, beneath windows on both short doors, and the non-flange side door. Turn on HEPA unit on. Verify Negative Pressure.
8. Follow established infection procedures for entry and exit of containment areas.
9. Seal return vents of the surge converted room
10. Apply isolation placards in the ECU4 pouches provided on the doors.
11. The Flange can also be used to contain sidewall penetrations when applied to walls. *(Fig. I-A-4)*

(Fig. I-A-1)



(Fig. I-A-2)

(Fig. I-A-3)

Anteroom/Airlock

(Fig. I-A-4)

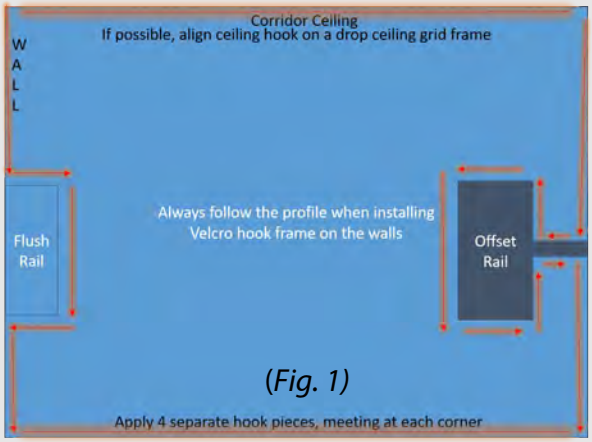
ECU4™ APPLICATIONS

Part II: Escalating Surge Response with Corridor Accessories

INITIAL SETUP, Corridor Flange

The edge of the Corridor Flange has a sewn in loop Velcro. This will be installed against the role of Hook Velcro applied to the walls, ceiling and floor.

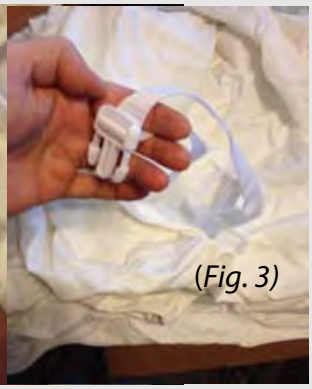
1. Installing the Hook Frame in the Corridor: Measure the four surfaces separately where the installed hook frame will be installed.(both walls, ceiling and floor). ***Cut to length four separate runs of the hook Velcro*** that will make up the frame for the flange. For installation where bumper rails are installed on the walls (*Fig. 1*)
2. Position the ECU in desired position to the Velcro frame installation. The flange extends 20 inches out from the ECU assembly.
3. Unzip and remove the wide - side door of the ECU4 unit where the Corridor Flange is to be installed.
4. Zip the Corridor Flange into the wide - side door of the ECU4 unit making sure the logo is facing you and oriented so it is right side up.
5. Locate the support straps and adjustable buckles on the external top of the flange and secure them to the upper truss assembly of the ECU4, adjusting them as tight as possible to help support the flange. *(Figs. 2,3, 4, & 5)*
6. Make sure Corridor Flange is centered, begin connecting the Corridor Flange across the ceiling working your way out from the middle to the corners, stopping about six to eight inches from the corner. Finding the corner of the ceiling edge of the flange, apply it to the corner and work back in to center, folding any excess material onto itself eliminating the excess. *(Fig. 6)*

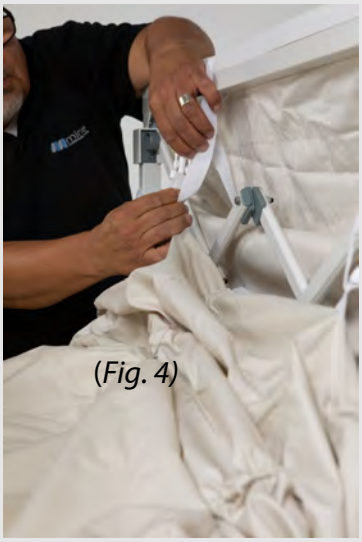


(Fig. 1)

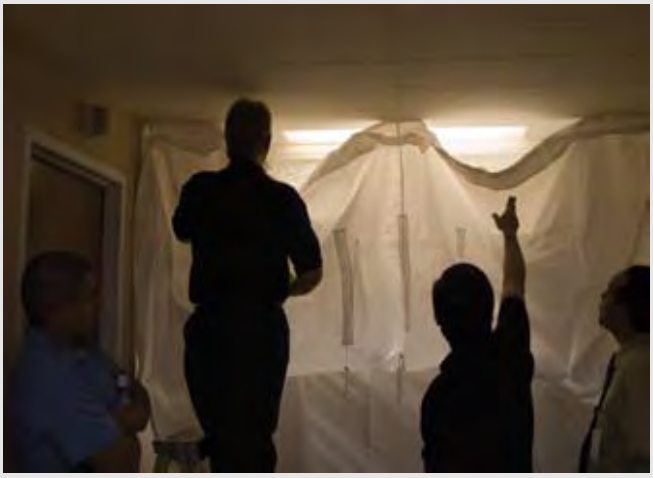

(Fig. 1)


(Fig. 2)


(Fig. 3)


(Fig. 4)


(Fig. 5)


(Fig. 6)

Part II: Escalating Surge Response with Corridor Accessories
INITIAL SETUP, Corridor Flange- Continued

7. Start at the corners on the floor; begin connecting the Corridor Flange edge up the wall. Follow the profile if you have bumpers installed on the wall. Connect the envelope up to 5- to 6 feet. *(Fig. 7, Step 7-both sides)* NOTE: This will vary depending on ceiling height, taller ceilings will generally require you to install step 7 higher up the wall.
8. Stop and reverse, applying the edge from the top corner meeting the ceiling, working dowward until you meet the flange you installed up the wall. Fold over excess material onto the extra Velcro patch to secure the fold over material. If the patches do not match up use Polyken tape to secure the fold and then to the door frame. *(Fig. 7, Step 8-both sides)*
9. Locate the center of the floor edge of the flange and begin connecting the Corridor Flange across the floor working your way out from the middle to the corners, stopping about eight to twelve inches from the corner. Finding the corner of the ceiling edge of the flange, apply it to the corner and work back toward the material you connected, folding any excess material onto itself toward the corner. tape as necessary. *(Fig. 7, Step 9-both sides)*
10. Tape the entire floor edge down onto the floor, carpet or tile for secure egress and to eliminate trip hazard. *(Fig. 8) NOTE: Frame pictured in this image is a demonstration prop.*
11. Locate the 3 sets of Draw String located in the flange material above the door entrance. Cinch these tight to pull material upward to provide clearance and easier egress. *(Figs. 8 & 9)*

(Fig. 7-Steps 6-9)

(Fig. 8) Tape floor edge


(Fig.9)

ECU4™ APPLICATIONS

Part II: Escalating Surge Response with Corridor Accessories
INITIAL SETUP, Corridor Bundle w/5Foot Cuff

The 5 foot cuff paired with two ECU4 and Corridor Flange provides a non-ambulatory controlled ingress/ egress airlock across a corridor for escalating a response to an emergency surge isolation need occurs. The 5 -Foot Cuff accessory kit includes, one envelope enclosure, 4 support truss and 8 corner post locks to deploy the truss'.

1. Place the two ECU4 units 5 feet apart , wide cargo doors facing each other.
2. Remove the wide-side doors facing each other and store.
3. Spread the 5 foot cuff out. Identify the bottom with reinforced floor. (Logo oriented)
   Identify the support loops on each edge of the envelope, both sides top and bottom edges of the envelope. Slide the 4 white support poles through the loops. *(Figs.1, 1A & 1B)*
4. Install the 8 structure supports on the ECU2 frames facing each other; above the corner locking slides and at the bottom of the corner poles. Wrap around each pole, applying pressure, then push the metal pin to secure. *(Figs. 2, 2A & 2B)*

(Fig.1)

(Fig. 1A)

(Fig. 1B)

(Fig.2)

(Fig.2A)

(Fig.2B)

Part II: Escalating Surge Response with Corridor Accessories

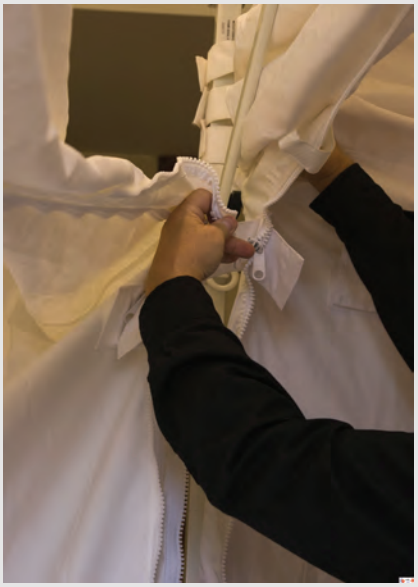
INITIAL SETUP, Corridor Bundle w/5Foot Cuff -Continued

5. Install the four pole in the structure supports; install top and then bottom supports *(Figs. 3, 3A &3B)*
6. Zip together each end of the 5 - Foot Cuff into the wide-side doors of the ECU4 envelopes leaving the cuff doors in place at each end. (Figs.4 & 4A)

(Fig.3)

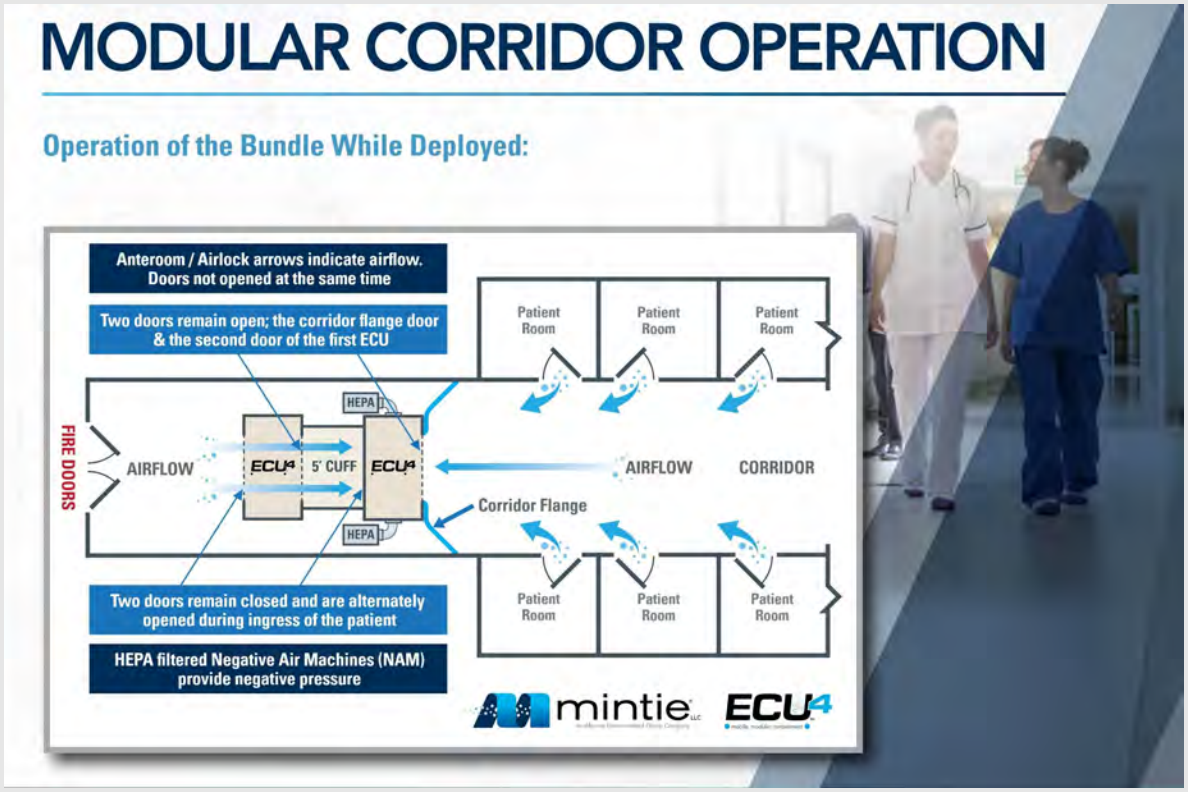
(Fig. 3A)

(Fig.3B)



(Fig. 4)

(Fig.4A)



LOWERING/COLLAPSING THE ECU4 - AND STORING ENVELOPE IN PLACE

1. Grasp both height adjustment release levers located on each side of the ECU4 frame, depressing them with your thumbs and pulling downward simultaneously and lower until unit reaches the floor. Do this on both ends of the unit in succession. (Figs. III-1)
2. Detach ECU4 top edge of envelope from Velcro on Upper Folding Frame.
3. Detach all Velcro loops along corner posts from the floor up to the locking ring pulls sliders of ECU4 and floor truss wraps. (Fig. III-3) Do not detach Velcro straps attached to ECU4 frame above the corner post sliders; these remain in place for storage with the envelope in place.


(Figs. III-1)

(Fig. III-2)

(Fig. III-3)

Leave Loops for storage

4. Remove Upper Folding Frame by depressing both push pin latches, gently disengage short end of Upper Folding Frame and pushing them inward toward each long side piece. (Figs. 12 next page detail).
5. Facing long side, grasp corners of Upper Folding Frame and lift upward. Repeat for second piece. Be careful to avoid placing fingers, etc. between ends of short beams at center hinge points. (Figs. 12 next page detail).
6. Disengage all four locking slider one at a time by pulling white Release Ring to release tension on unit. Slowly push down the Slider just past where the Release Ring catches. (Figs 9. next page detail)
7. Remove the long side truss secure pins and place the long truss back into storage position securing them to each corner post with push pins. (Review FIGs. 5 next page detail).
8. Pull release pins of the two end floor truss; and the frame is ready to articulate closed. (Fig 6 next page detail).
9. Face long side of ECU4, grasp two opposite corner posts above plastic sliders and slowly draw inward. Do not grasp outer legs below sliders as this may result in pinched fingers. Be careful to not force the Outer Legs together quickly, as the Upper Trusses may encounter excessive force as they contact the collapsed ECU4 envelope. **If you encounter any resistance when closing the unit, check to confirm all four corner sliders have been disengaged as well as the Longside Lower Truss and that the two Shortside Lower Trusses are raised at the center point off the floor.**
10. Place the bottom most loop located closest to the floor at each corner and wrap around corner post above locking corners (Fig,III-7). This will help distribute the envelope evenly for storage; pull some envelope to the top before closing fully to avoid the bunching of envelope at the bottom. Wrap unit with Velcro belt, replace the storage cover and put the top truss in the front pouch. (Figs. III-8)


(Figs. III-7)


Figs. III-8)

Unlocking the Frame to Collapse and Store

Follow these steps for unlocking the 4 frame components

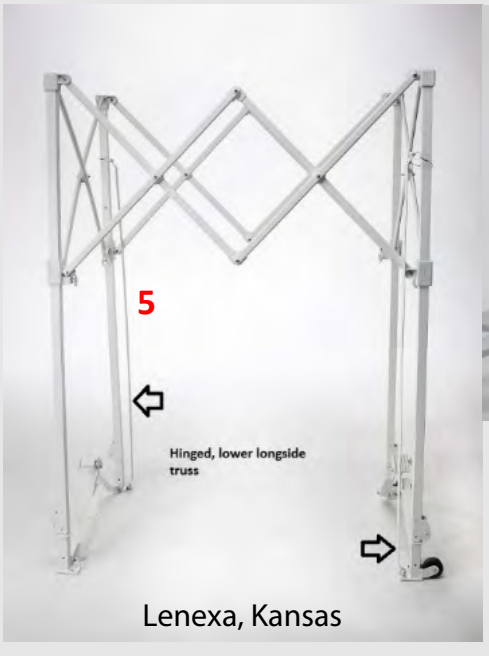
A) (12) Upper Folding Frame (UFF), Push the release pins on opposing corners to unlock the frame swing the narrow ends in to fold them closed, then lift each off the top of the frame to remove them.

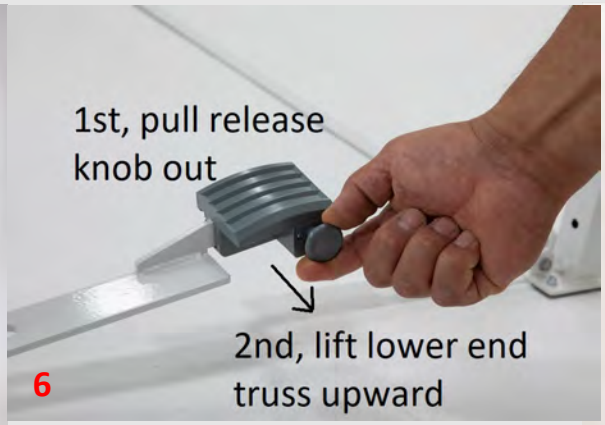
B) (9) Plastic slide locks, Pull the ring pins outward to release the four corner Locks. The corner posts should slump inward slightly.

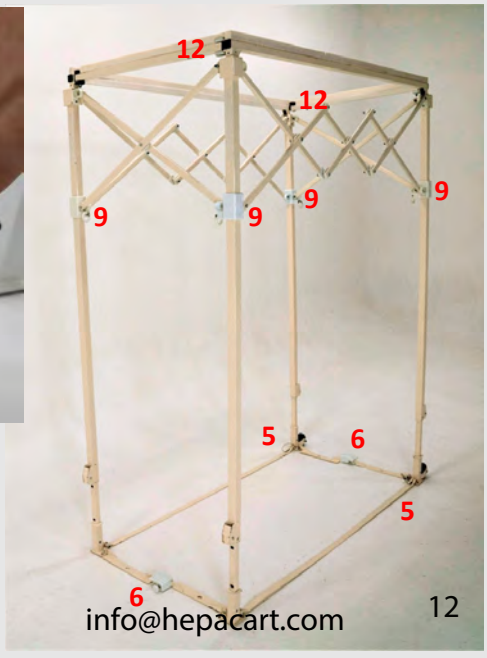
C) (5) Lower Truss Assy, Long Side, Remove the tethered cotter pins to release the long truss and attach them to the opposite corner post with the tether to secure them.

D) (6) Lower Truss Assy, Short Side, Pull the knob towards you in the center push plate and lift to unlock the two truss'.

E) Standing at one end apply inward pressure on the two corner posts to articulate the frame closed. **CAUTION:** If the frames does not start to close, confirm all points are unlocked. Using undue force could cause damage to the frame.







Using the ECU4™ to Create Airborne Infectious Isolation Rooms
Frequently Asked Questions

Why is the ECU4™ the best choice for creating short-term airborne infectious isolation of patients and casualties of a bioterrorism event or other public health care emergency?

1. Safety and CDC compliance. According to the information provided by the Centers for Disease Control and Prevention (CDC) in the Guidelines for environmental infection control in health-care facilities (MMWR, Vol. 52, June 6, 2003), the safest way to create airborne infectious isolation for patients is through the use of a negative-pressure anteroom configuration. Many health care facilities do not have adequate isolation room capacity for emergency situations, and the ECU4™ quickly and safely resolves this challenge by creating a negative air lock between a standard medical/surgical room and the corridor that provides a barrier to prevent contaminated particulates from leaving the room and entering the corridor.
2. Speed and ease of use. The ECU4™ offers a more timely, flexible and cost-effective alternative to building fixed anterooms by providing a portable, collapsible solution that can be deployed quickly within the facility or conveniently distributed throughout the region. The ECU4™ safely converts a standard patient room into a short-term isolation unit in minutes. From a collapsed position, it can be set up easily and attached to the patient room door frame. Connecting a HEPA-filtered negative air machine completes the process.
3. Multiple benefits and cost-efficiency. The ECU4™ is a multifunctional containment tool that can provide a cost-effective solution for the entire health care organization. Unlike some emergency response equipment, the ECU4™ doesn't have to sit idle in a corner of a storage space. It has been designed to be used by the maintenance, engineering, and construction staffs and trades to safely contain airborne particulates when performing dust producing activities in patient-occupied areas. Everyday usage not only lowers the cost of purchase and increases the return on investment, but also reinforces training and improves emergency response capability.

How does the ECU4™ compare to other portable technologies that are placed inside the patient room?

The ECU4™ is the safest method of providing short-term airborne infectious isolation because it simultaneously protects the patient, caregiver and general patient population from infectious airborne particulates. By positioning the ECU4™ immediately outside an infectious patient room, three advantages are created. First, the two doors of the anteroom enable one to remain closed at all times, thus preventing infectious airborne particulates from escaping. Second, the negative air pressure source in the anteroom will redirect the airflow of both the hospital corridor and the patient room into the anteroom, creating a functional air lock. Finally, an anteroom provides a protected area for caregivers to don and remove personal protective equipment (PPE), such as gowns, masks, etc. Portable air scrubbers placed inside an infectious patient room may allow airborne infectious particulates to escape the draw of the machine, either through disturbances in the airflow, such as an ambulatory patient, or when a caregiver enters or exits the room. This method does not provide a separate area to protect the caregiver and external environment when donning or removing PPE. There is an additional risk that portable air scrubbers may create a positive pressure environment in the patient room if the return air vent is blocked off to prevent recirculation of airborne infectious particulates throughout the hospital. Alternatively, if the discharge (typically over 500 cfm) is ducted into a return air duct designed to handle much less volume one of two problems will result: (1) the back pressure may cause the unit to circulate much less air or (2) the extra pressure may push air into surrounding areas, causing the pressure relationship of these areas to change. The ECU4™ avoids these hazards as well as prevents the alternative need to discharge air to the outside to create the negative pressure environment. The exterior envelope of the building should never be breached to duct a device to the outside, a procedure which can cause moisture, insects and unsightly problems, and in some states may be prohibited by code.

Is it safe to recirculate HEPA-filtered air back into the hospital?

Yes. The CDC EIC Guidelines expressly permit recirculating HE PA filtered air in patient-populated hospital areas. ("Guidelines for Environmental Infection Control," MMWR, Vol. 52, June 6, 2003, 12) A typical hospital corridor is filtered at 80% efficiency; much lower than when filtered through a HEPA filter, which captures 99.97% of all airborne particulates. HEPA-filtered air is of same quality as that used in bone marrow transplant rooms, cardiac and orthopedic operating rooms. The ECU4™ isolates airborne infectious contaminates and filters them through HEPA-filtered negative air equipment, after which the air can be safely recirculated back into the hospital corridor. This system eliminates the need to have the filtered air ducted into an existing return air or exhaust system, as required when using a portable negative air machine inside the patient room.

How does the ECU4™ protect the health care worker in the room?

As with all isolation rooms, the ventilation system does not kill the microorganisms, and health care workers should always wear PPE while in a room with infectious or suspected infectious patients. The ECU4™ provides an area apart from the infectious isolation where the caregiver can don or remove PPE. When exiting the room into the ECU4™ the health care worker will need to briefly wait for the ECU™ to purge the air of particulate before removing the mask and protective outerwear. Typically, it will take only a few seconds for the volume of air to be scrubbed through the HEPA filter.

Does the ECU4™ need to be tested with a pressure device after it is initially set up?

Yes. The CDC EIC Guidelines require every isolation room to have its pressurization checked before a patient is placed in the room, and then daily when the room is occupied by an infectious patient. This test can be accomplished using a flutter strip, smoke tube, or a handheld manometer.

How does the ECU4™ meet the new CDC Environmental Guidelines for Infection Control in Health Care Facilities?

The CDC recommends the use of airborne infectious isolation rooms, preferably with an anteroom, for person with diagnosed or suspected airborne infectious diseases. The ECU4™ is a short-term anteroom, and functions in the same way as a permanent installation anteroom, with a HEPA-filtered negative air machine replacing the air intake grill. When using the ECU4™ to convert a standard room into a short-term isolation unit what must I do to the return air inlets? To keep any infectious particulates from entering into the return air system and being recirculated back into the general air stream, the patient room return air grills will need to be blocked off with a nonporous material or covered with a HEPA filter medium. The use of HEPA filters will depend on the volume of supply air into the room. If the supply volume is too great, either the negative air machine exhaust volume will need to be increased or the return grilles will need to be covered with the HEPA so some air is being exhausted from the room. This is a condition that should rarely exist as the negative air machine exhausts over 425 cubic feet per minute.

Will the ECU4™ violate the NFPA's Life Safety Code referenced by the Joint Commission and Centers for Medicare and Medicaid Services?

No. The ECU™ is only 31.31" wide and in a standard 8'0" corridor there will still be plenty of room to maneuver beds, gurneys, environmental service equipment, crash carts, etc. Given the short-term nature of the solution, and the wheels on the ECU,™ moving it will not be a problem in times of crisis or special needs. The health care organization will need to implement interim life safety measures and have an action plan to move the ECU™ in the event of a fire. The ECU™ containment envelope material is constructed using a poly fabric ripstop that is FR rated, tested U.S. ASTM E 84 flame-resistant standards.

Cleaning your ECU4

With most ECU's, 90 percent of the activities will require vacuuming the interior with a HEPA vacuum to remove the dust and debris of the project. Your ECU has two ports on the narrow side of one end of the envelope. The smaller port (shown) is a vacuum port.

Should the unit need to be decontaminated, our first recommendation would be to utilize UV disinfection. Additionally, any quaternary disinfectant your facility uses or a five percent bleach solutiuon can be utilized. Sponge application for saturation or wipes work best.

Mintie also manufactures disposable envelopes that interchange on your existing frame.

- Great for Dirty work like Fire Caulking, throw them away when you are done.
- Investment Protection for your reusable envelopes
- Need to be in a clinical area but the containment was not serviced, DE is your answer.
- Counter measure to provide a standard against units from contractors that you are not confident in; eliminate the risk in your critical environments and go DE!

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ECU4 Generation Frame Parts

NOTE: Each of the 4 legs is different. Please refer to the detailed photos to ensure that you order the correct leg. *Generation 4 parts are not compatible with prior generation frames.

(1) Leg Assy w/ Wheel, Right
(Outer Leg w/ one-piece Pull-Pin, complete with Outer Leg Cap and Spring Insert Assembly, with Right Inner Leg with Wheel)

MECU4LAWRWH --(ECU4)

(2) Leg Assy, Right
(Right Outer Leg w/ one-piece Pull-Pin, complete with Outer Leg Cap and Spring Insert Assembly, with Right Inner Leg)

MECU4LARWH --(ECU4)

(3) Leg Assy w/ Wheel, Left
(Left Outer Leg w/ one-piece Pull-Pin, complete with Outer Leg Cap and Spring Insert Assembly, with Left Inner Leg w/ Wheel)

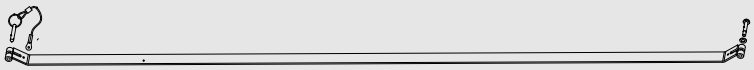
MECU4LAWLWH --(ECU4)

(4) Leg Assy, Left
(Left Outer Leg w/ one-piece Pull-Pin, complete with Outer Leg Cap and Spring Insert Assembly, with Left Inner Leg)

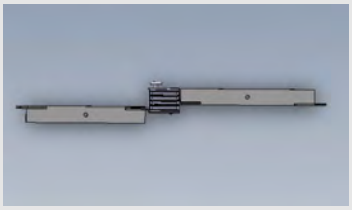
MECU4LALWH --(ECU4)

(5) Lower Truss Assy, Long Side ECU (Box pair)
(Includes both lower trusses, long side of ECU, with hinge pin

MECU4LTALSWH --(ECU4)



(6) Lower Truss Assy, Short Side ECU
(Includes both lower trusses, short side of ECU, with Over Center Bracket)



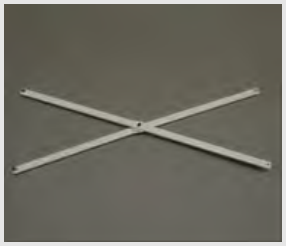
MECU4LTASSWH --(ECU4)

(7) Upper Truss Assy, Long Side ECU
(Double pair of crossed trusses, long side of ECU including 4 spacers)

MECU4UTALSWH --(ECU4) Specific to Gen. 4

(8) Upper Truss Assy, Short Side ECU4
(Single pair of crossed trusses, short side of ECU4, including 4 spacers)

MECU4UTASSWH --(ECU4) Specific to Gen. 4



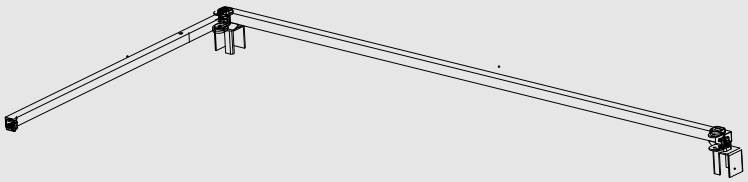
(9)
Plastic slider piece MECU4UTSPWH --(ECU4) Specific to Gen. 4

(10) ECU Foam Kit
MECU4UTFKWH --(ECU4)

Specific to each Gen.

(11) Plastic Top Cap
MECU4UTTCWH --(ECU4)

(12) Upper Folding Frame (UFF), Boxed Pair
MECU4UFFWH --(ECU4), Specific to Gen. 4
Includes foam kit



(13) Frame Wheels

ECU-CC-W
ECU-4-W Specific to Gen. 4

ECU4 Generation Frame Diagram