



Enclosure Bed System Model ECATS 2000L



Operation Manual

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CAUTIONS AND WARNINGS—BED

- CAUTION:** ROTATING PARTS. KEEP FINGERS AND ARMS CLEAR OF BED WHEN MECHANISM IS MOVING.
- CAUTION:** PINCH POINTS. KEEP OBJECTS AWAY FROM THESE AREAS WHILE BED IS IN MOTION.
- CAUTION:** ELECTRICAL HAZARD MAY OCCUR IF BED IS PLUGGED INTO INADEQUATE POWER SUPPLY. MAKE SURE TO USE A 115 VOLT, 3 PRONG, GROUNDED OUTLET WITH A CAPACITY OF AT LEAST 15 AMPS.
- CAUTION:** KEEP FEET CLEAR OF CASTERS. MAKE SURE CASTERS ARE LOCKED BEFORE TRANSFERING PATIENTS.
- CAUTION:** MAKE SURE THAT THE CORDS FROM THE CONTROL MODULE AND PENDANT ARE PROPERLY POSITIONED BEFORE OPERATING THE BED. DO NOT ALLOW EITHER CORD TO GET CAUGHT IN THE MOVING PARTS OF THE BED.
- CAUTION:** POSSIBLE FIRE HAZARD WHEN USED WITH OXYGEN ADMINISTERING EQUIPMENT OTHER THAN NASAL, MASK, VENTILATOR TUBING, OR 1/2 BED LENGTH TENT DEVICE.
- WARNING:** THE MATTRESS SHOULD NOT HAVE ANY GAP GREATER THAN TWO INCHES FROM THE SIDE RAILS TO PREVENT A PERSON OR BODY PARTS FROM FALLING BETWEEN THE SIDE RAILS AND THE MATTRESS.
- WARNING:** KEEP ALL OBJECTS OUT FROM UNDER BED. CERTAIN PARTS UNDER THE BED RAISE AND LOWER WHEN THE BED IS IN MOTION.
- WARNING:** DO NOT PLACE ARMS OR HEAD INTO FRAME WHILE OPERATING. STAND CLEAR OF THE BED FRAME BEFORE OPERATING.
- WARNING:** DO NOT OPERATE THIS DEVICE IF THE POWER CORD OR ANY OF THE CORDS COMING FROM THE CONTROL MODULE ARE CUT, FRAYED OR LOOSELY CONNECTED.
- WARNING:** DO NOT SERVICE THE BED WITHOUT FIRST DISCONNECTING THE POWER CORD.

CAUTIONS AND WARNINGS—ENCLOSURE

CAUTION: THE ECATS2000L SAFETY NET ENCLOSURE SYSTEM IS NOT RECOMMENDED FOR THE FOLLOWING PATIENT POPULATIONS:

- HIGHLY AGGRESSIVE PATIENTS
- VIOLENT PATIENTS
- NEUROLOGICALLY DISTURBED PATIENTS

CAUTION: THE ECATS2000L IS NOT TO BE USED AS A CONTAINMENT DEVICE FOR VIOLENT PATIENTS OR CRIMINALS.

WARNING: ALWAYS APPLY LOCKING RINGS TO THE ZIPPER TABS AT THE HEAD AND FOOT ENDS OF THE BED TO ENSURE PROPER CLOSURE OF THE UNIT.

WARNING: ALWAYS KEEP ALL FOUR SIDES ZIPPED.

WARNING: ALWAYS APPLY LOCKING RINGS TO THE ZIPPER TABS OF THE DOUBLE ZIPPERS ON ALL SIDES.

WARNING: ALWAYS ENSURE THAT THE ECATS WARNING LABEL IS SECURED TO THE FRAME AT THE FOOT END OF THE BED AS PICTURED:



WARNING: ALWAYS KEEP THE HOSPITAL BED SIDE RAILS IN THE UP POSITION TO ELIMINATE ANY GAPS BETWEEN THE MATTRESS AND THE VINYL COVER OF THE ENCLOSURE.

WARNING: KEEP THE ZIPPERED COMFORTER ZIPPED TO VINYL SIDES AT ALL TIMES.

WARNING: ANY BROKEN ZIPPERS MAY COMPROMISE THE SAFETY OF THE PATIENT. REMOVE PATIENT AND CALL FOR SERVICE IMMEDIATELY.

WARNING: ALWAYS ASSESS PATIENT AT REGULAR INTERVALS.

WARNING: NEVER LEAVE PATIENT IN BED WITHOUT COMPLETE CLOSURE AND LOCKING OF THE UNIT.

INTRODUCTION

The ECATS bed enclosure system is a complete system designed for use as a nursing tool, to assist in the care of patients with special needs. This system is intended for special-needs patients where the use of conventional restraints is contraindicated.

Carefully engineered for maximum patient safety, the ECATS bed system is designed to minimize any possible gaps between the mattress, side rails, and frame of the bed, while maintaining a profile that fits easily through a standard facility door. Properly used, the ECATS enclosure system can improve patient safety, reduce falls and injuries, and generally serve as a valuable tool to the nursing service.

The ECATS system should only be used to ensure the physical safety of the patient and caregivers. The system is intended for use as assistance to, and not as a replacement of, complete and adequate nursing care and supervision.

RECEIVING INSTRUCTIONS

The bed and accessories may be shipped to you on a pallet. Before opening this container, visually inspect the package for any signs of freight damage. If damage is detected, do not accept the shipment without making a notation on the shipping invoice, briefly describing the damage, and file a damage claim with the freight company.

Carefully remove the bed and the associated parts from the packaging. Inspect all parts to make sure there is no internal damage. If internal damage is noticed, contact the freight company immediately to file a damage claim report.

Carefully open all packing and verify that all components on the packing slip have been received. If anything is missing, notify the dealer from whom you obtained the bed.

**ALL ITEMS RECEIVED SHOULD BE CHECKED AGAINST
THE PACKING SLIP TO VERIFY THAT YOU HAVE RECEIVED
ALL COMPONENTS IN GOOD CONDITION.**

ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS FOR ENCLOSURE

- 1) Open shipping package and make sure all necessary items are included.
- 2) It is assumed that the aluminum tube frame is already installed and covered with foam tubing cushions. If not, please contact Camtec.
- 3) Install the four corner post covers. They cover the foam tubing and zip closed. The zippers should be turned to the outside corner of the bed.
- 4) Install the two cross tube covers.
- 5) Install the two side tubing covers. Smooth out all the covers and make sure the zippers are turned to the outside corners of the bed.
- 6) Locate a corner cushion cover. The corner cushions are located between the side tubes and the corner posts, or they run from the head and foot ends. Hand fold the corner cushion cover in half diagonally, from the notched corner to the opposite notched corner. The hook and pile closure end slot goes around the intersection of the tube frame. The notched sides go to the corner tube and the side tube. When you get the shape worked out, slip in the foam cushion. Then fasten the zippers around the corner tube and the side tube. Repeat this on the other 3 corners. Smooth out the corner cushions.
- 7) Locate the top and end section. Unfold the ends and place this on top of the enclosure frame. Please note that the foot end has the two zippered openings for access to patient tubing.
- 8) Locate the left side section. This references the patients left side while in the bed. Make sure the baggy portion of the side section is to the patient's head, or fowler. Zip the top edge of the left side section to the side of the top and end section. Place the mattress pan cover portion on the mattress pan.
- 9) Locate the right side section. Make sure the baggy portion of the side section is to the patient's head, or fowler. Zip the top edge of the right side section to the side of the top and end section. Place the mattress pan cover portion on the mattress pan.
- 10) Unzip the patient side openings and place on top of the top and ends cover to get them out of your way. Arrange the mattress pan cover of both side sections together and zip the two sections together. Arrange the fowler portion and the knee gatch portion of the cover so that these parts will move with the bed.
- 11) Zip the side and end sections together. Press the Hook and pile closure tabs in place to hide the zipper. Make sure the patient opening will zip closed. Smooth the exterior surface of the enclosure.

ASSEMBLY INSTRUCTIONS (Cont.)

- 12) Unzip and reopen the patient side openings. Place the mattress in place. Locate the comforter, mattress cover over the mattress. The ends of the comforter, mattress cover have nylon straps that are tied around the corner tubes. The comforter, mattress cover zips to the side and end covers. After the comforter, mattress cover is zipped in place, secure the nylon ties. All zippers should now be closed.
- 13) Place the slip sheet over the comforter, mattress cover. Hook and pile closure the slip sheet into place, covering all interior zippers.
- 14) Test the bed by articulating all the mattress surfaces. Smooth out the enclosure.
- 15) Check all interior surfaces to make sure of patient safety. Make sure all internal enclosures are secure.
- 16) If a portion of the enclosure needs to be removed for cleaning or replaced, reverse the steps above.

SPECIFICATIONS

The ECATS2000L is designed to pass through a 40" door opening. The frame is designed to support a safe working load of 450 lbs.

Weight Capacity 450 lbs.

Overall Width 39"

Overall Length 88"

Overall Height Lowest position 56" - Highest position 78"

Mattress Pan 34 x 86"

Pan Height Lowest position (from floor)7.9" - Highest position 30"

Power Requirements 115 VAC 60Hz 10.5 AMP

Bed Weight with Side Rails, Enclosure system & Mattress
375 lbs.

Motor Duty Cycle for Intermittent Operation: 1 minute ON / 10 minutes OFF

Head Fowler Adjustable up to 20 degrees

Foot/Knee Gatch Adjustable up to 5 degrees

Side Rails 2/3 length, 2 position swing type

Casters Diameter: 3" Width: 2"
Tread Guards: Non-marring

Options

OPERATION

Three Function Hand Pendant Operation

Each bed is equipped with a pendant type hand control as standard equipment. Each control function (head, knee and bed) has two clearly identifiable switches for up and down travel. The controls are designed to prevent damage to the motor in the event that both the up and down functions are activated simultaneously.

The **HEAD** up and down buttons cause the head of the bed (Fowler) to raise and lower.

The **BED** up and down buttons cause the height of the bed to raise and lower.

The **FOOT (Knee Gatch)** up and down buttons cause the lower portion of the legs to be raised and lowered.



Caster Lock System Operation



There are eight casters (four pairs.) One caster of each pair is total locking.

The lock mechanism is applied to each caster separately.

To apply the lock on the locking casters, depress the pedal on each caster as you are facing the bed.

CLEANING AND MAINTENANCE

CLEANING

Before cleaning any portion of the bed, disconnect the power cord from the wall outlet

1. Using standard cleaning procedures, wipe down the frame of the bed. Be sure to wear appropriate protection for the type of materials being used. Clean the canopy and netting with a soft brush and standard cleaning materials.
2. Use cleaning detergents sparingly around the pendant controller, electronic controller and the motors.

PERIODIC INSPECTION AND MAINTENANCE

(See Customer Check List on pages 17 & 18)

The amount of maintenance required by the bed will be dictated by its use. As a minimum the unit should be periodically inspected every 6 months.

1. After a week or two of usage, check all the bolts to be sure that none of them have worked loose and that all pins are in their normal location and securely fastened. Check all welds. Check all zippers and hook/loop fasteners for proper function.
2. Put light machine oil on all pivot points every 6 months.
3. Check all electrical connections for tightness.
4. Check all electrical wiring for fraying, kinking and or deterioration.

IF ANY DISCREPANCIES ARE NOTED DURING INSPECTION, THEY MUST BE CORRECTED BEFORE CONTINUED USE OF THE BED.

CAMTEC support department can provide additional assistance to repair or troubleshoot any problems.

DIAGNOSTIC AND REPAIR

PROBLEM	POSSIBLE CAUSE	SOLUTION
No functions operate	No power to unit	Check that the power cord is plugged into receptacle and switch is on. Check cord for breaks.
Power is on but no functions operate	No power to receptacle. Switch not turned "ON"	Check for power to receptacle Turn switch "ON"
	Electrical cords not properly plugged into module	Check all electrical cords, pins and connections
	Bad pendant	Replace pendant
	Bad module	Replace module
Two motors operate "OK" One motor will not operate	Bad pendant	<u>Isolate the Problem</u> Interchange motor connections on control module. Swap connections on the module so that problem motor is plugged into a motor connection on the module that is working. If the problem motor now operates and the motor that was Ok now does not operate, it indicates either the control module or the pendant is faulty. Replace as required.
	Bad control module	
	Bad motor	
	Bad wiring	

If the above does not resolve the problems, call the factory for further assistance at 1-800-866-1156. Have the serial number of the bed and, make the phone call from as close to the bed as practical.

The factory is open Monday through Friday from 8:30 AM to 5:00 PM Eastern time.

PARTS MANUAL

ECATS 2000 L

PARTS LIST

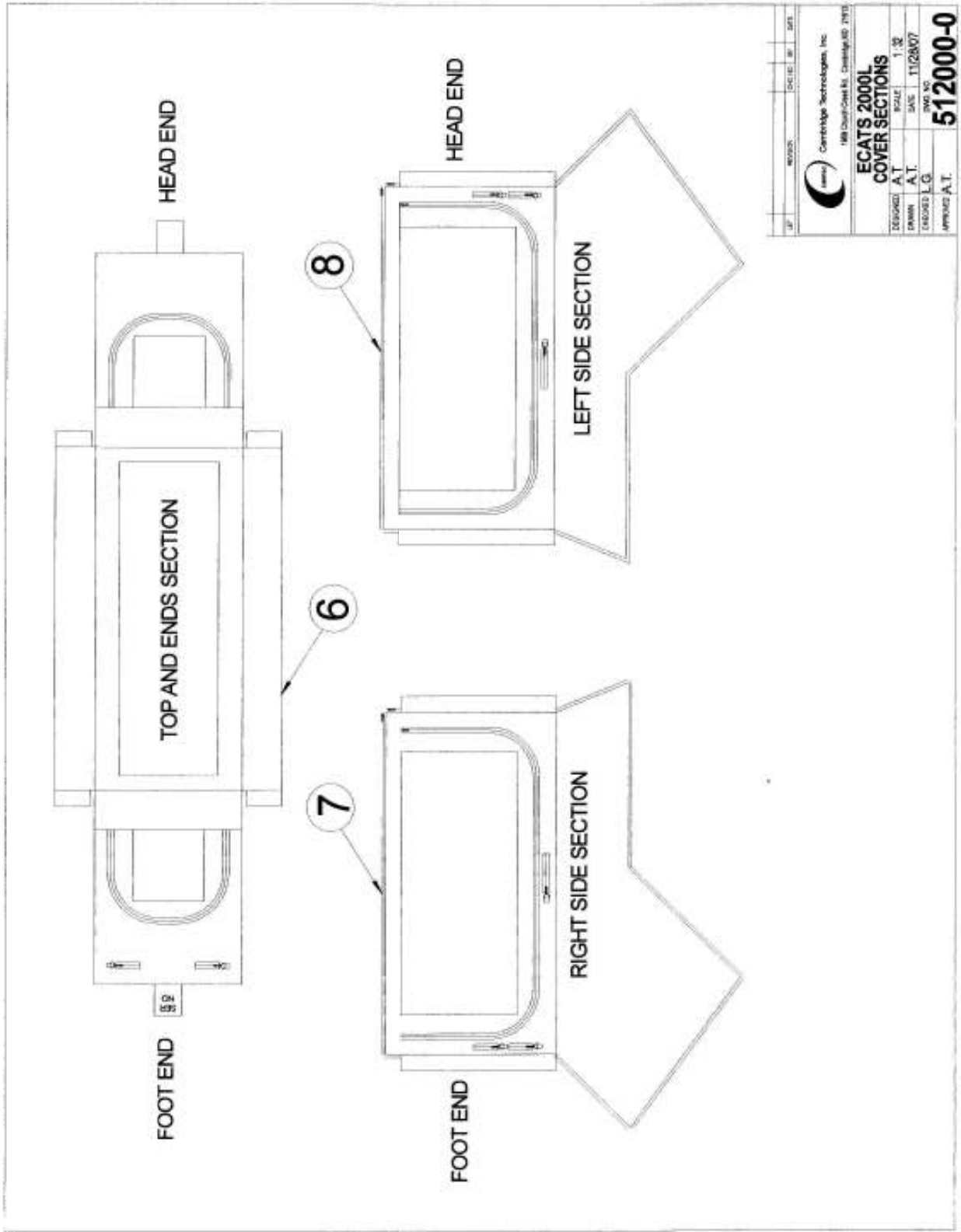
ITEM	PART NO.	DESCRIPTION	QU.
1	904020-0	CORNER POST COVER	4
2	904021-0	CROSS TUBE COVER	2
3	904022-0	SIDE TUBE COVER	2
4	904023-0	CORNER CUSHION COVERS	4
5	904024-0	CORNER CUSHION FOAM LINER	4
6	904025-0	ENCLOSURE TOP AND END SECTION	1
7	904026-0	ENCLOSURE RIGHT SIDE SECTION	1
8	904027-0	ENCLOSURE LEFT SIDE SECTION	1
9	904028-0	MATTRESS	1
10	904029-0	COMFORTER, MATTRESS COVER	1
11	904030-0	SLIP SHEET	1
12	904031-0	SIDE RAIL COVERS	2

PARTS MANUAL

ECATS 2000 L

DRAWING LIST

DRAWING NO.	DESCRIPTION
512000-0	COVER SECTIONS
512000-1	ENCLOSURE PARTS
512000-2	ENCLOSURE LOCATIONS

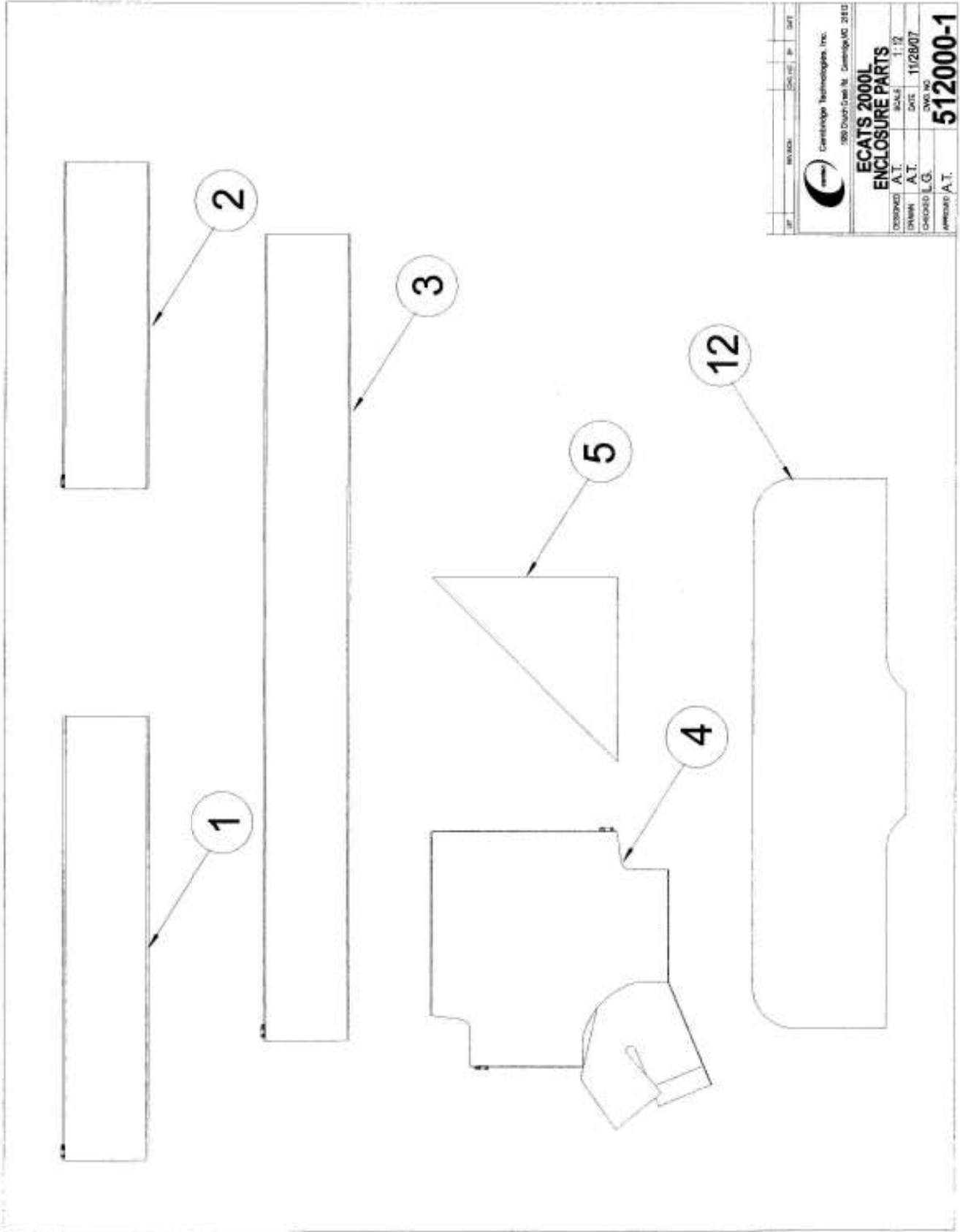


REV	REVISION	DATE


Cambridge Technologies, Inc.
188 Chestnut St., Cambridge, MA 02139

**ECATS 2000L
COVER SECTIONS**

DESIGNED	A.T.	SCALE	1:32
DRAWN	A.T.	DATE	11/28/07
ENGINEER	L.G.	DWG NO.	
APPROVED	A.T.	512000-0	

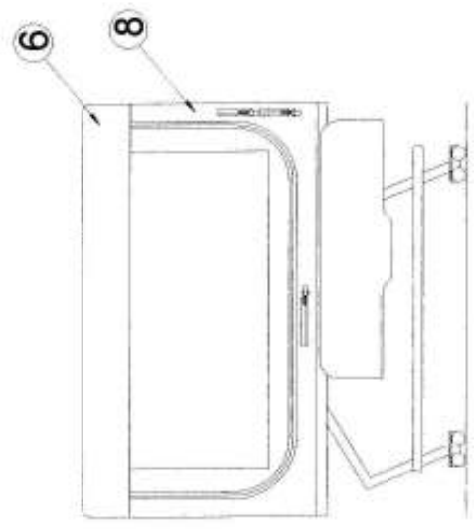
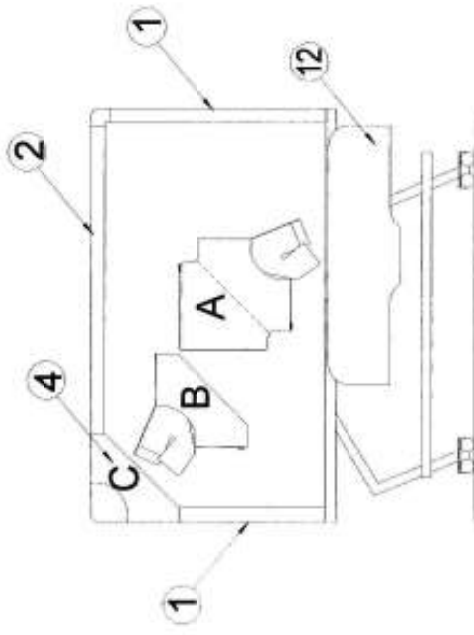


REV	REVISION	DATE	BY

 Cambridge Technologies, Inc.
 380 Church Street St. Cambridge, MD 20710

ECATS 2000L
ENCLOSURE PARTS

DESIGNED A.T.	SCALE	1:1
DRAWN A.T.	DATE	11/28/07
CHECKED L.G.	REV NO	
APPROVED A.T.	512000-1	




LET	REVISION	DATE	BY	DATE
 Cambridge Technology, Inc. 988 Church Hill Rd., Cambridge, MA 02143				
ECATS 2000L				
ENCLOSURE LOCATIONS				
DESIGNED	L.R.	SCALE	1:24	
DRAWN	L.R.	DATE	X	
CHECKED	L.G.	DWG. NO.	512000-2	
APPROVED	A.T.			

Customer Check List

S/N Bed _____

Date _____

	Initial	Date										
1. Verify what options are on the bed:												
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; border: none;">Other</td> <td style="width: 30%; border: none;">Pads</td> <td style="width: 10%; border: none;"><input style="width: 80%;" type="text"/></td> <td style="width: 10%; border: none;">Mattress</td> <td style="width: 10%; border: none;"><input style="width: 80%;" type="text"/></td> </tr> <tr> <td colspan="5" style="border: none;"><input style="width: 100%;" type="text"/></td> </tr> </table>	Other	Pads	<input style="width: 80%;" type="text"/>	Mattress	<input style="width: 80%;" type="text"/>	<input style="width: 100%;" type="text"/>						
Other	Pads	<input style="width: 80%;" type="text"/>	Mattress	<input style="width: 80%;" type="text"/>								
<input style="width: 100%;" type="text"/>												
2. Verify and record the S/N												
3. Check Head Operation with pendant												
4. Check Foot operation with pendant												
5. Check the Bed Elevation operation with pendant												
6. Check casters Function: Brake _____ Rotation _____												
7. Inspect the hardware to ensure that components fit securely												
8. Inspect all enclosure zippers for smooth function across the entire length.												
9. Inspect netting and panels to ensure there is no dirt or damage												
10. Check to ensure that the Electrical components are secure												
11. Check to ensure strain relief on the Power and Control Box Cables												
12. Check to ensure that the ECATS warning label is attached at the foot end of the enclosure.												
												
13. Check the operations of all accessory options noted in _____												
14. Check to ensure that the side rails function properly and _____												
15. **Measure and record the Leakage Current value should be less than 250 microamperes (UL 60601-1) <small>(Use Calibrated Model LT544D-20 Digital Safety Analyzer)</small>												
Measured Value _____												
16. **Measure and record Line Grounding Resistance. Value should read equal to or less than 0.1 OHMS as measured between the ground wire in the line cord and the bed frame.												
Measured Value _____												
17. Visually inspect the bed for paint or assembly defects; touch up as needed												

Customer Check List (continued)

	Initials	Date
24. Lubricate all pivot points with a light machine oil. (This should be done approximately every 6 months.)		

Comments

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Inspector Signature _____	Date _____
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Notes