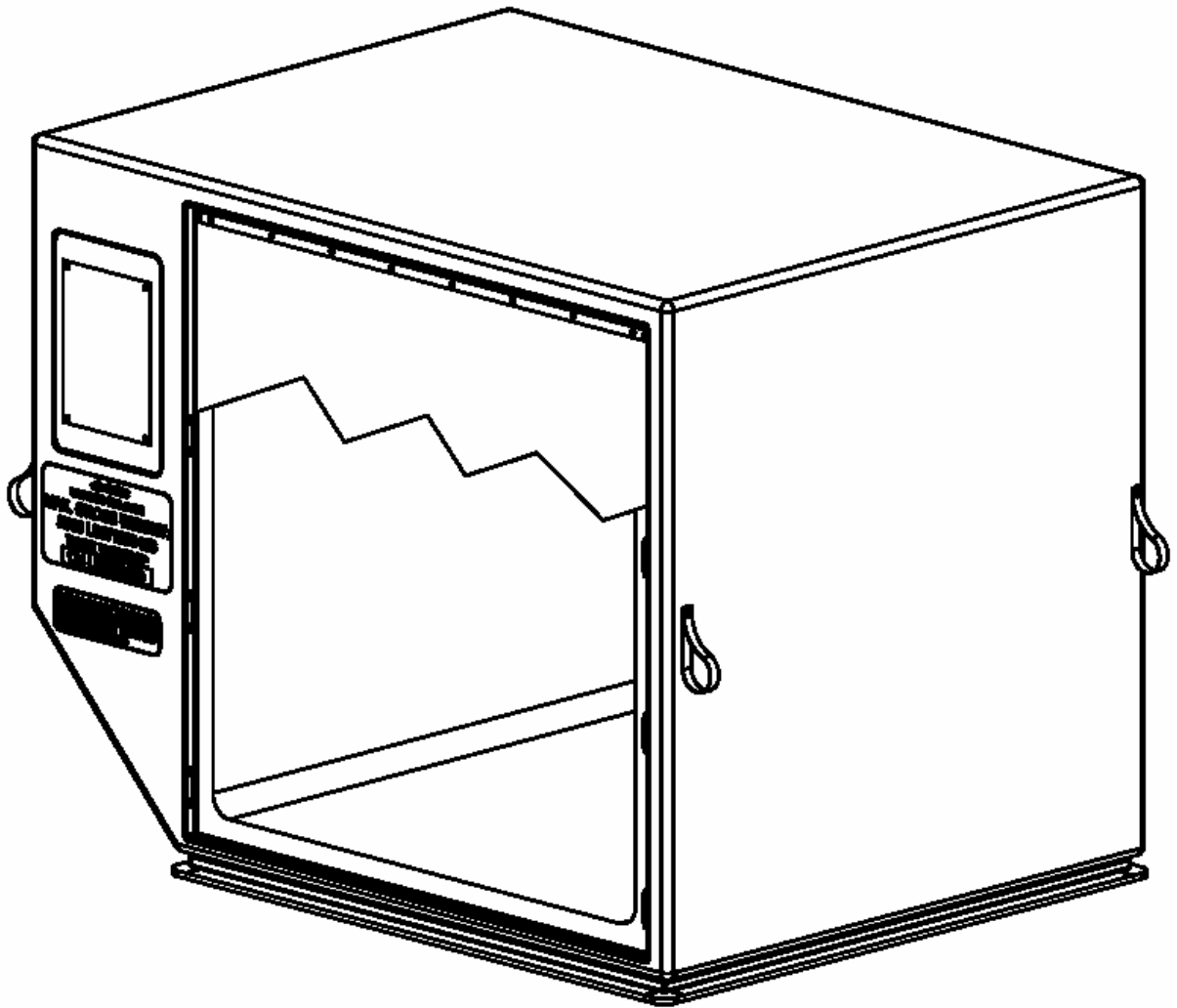





CS-09 Product Manual



 Integrated Technologies Inc.		Title:	CS-09 PRODUCT MANUAL		
Custodian:	Quality Manager	Doc ID:	G08-0004	Rev:	-
Prepared By:	 Brian Coxon, Dir. Engineering	Approved By:	 Matt Williams, Asst Quality Manger		

Revision History		
Revision	Date	Description
-	8/6/06	Initial Release

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1 INTRODUCTION

This manual contains information regarding the Intec Model CS-09 unitized loading device. The manual provides instructions for operation, maintenance and repair of the container assembly.

2 REFERENCED DOCUMENTS

WI20-0014 CS-09 (ULD) Container Replaceable Component Installation

G08-0003 Guidelines for UV Protection & Painting on ProWall Parts

3 PRODUCT DESCRIPTION

The DuraWall-ULD™ container (Model CS-09) is designed with an advanced, lightweight thermoplastic structural material system that is formed into a continuous shell. The unique composition of continuous-fiber fiberglass and thermoplastic matrix is extremely rugged and demonstrates excellent impact resistance with good mechanical characteristics. This material system is based on Intec's ProWall® technology, which has excellent resistance to acids, bases, and standard aircraft solvents such as de-icing fluid, jet fuel, and hydraulic fluid.

The CS-09's container design is based on many years of experience building both military and commercial air and ground containers. The container is designed to meet the requirements of Federal Aviation Regulation (FAR) Part 21, sub part TSO-C90c, NAS 3610 revision 10 for type 2K2C, and meets the thermal requirements of FAR 25.853-(a) Appendix F; horizontal burn rate not to exceed 2.5 inches per minute. This container classification is intended for use on B747, B767, B777, DC 10, MD-11, L-1011, A300, A310, and A330/A340 aircraft.

3.1 Dimensions

The CS-09 container's overall dimensions are defined in the following schematic:

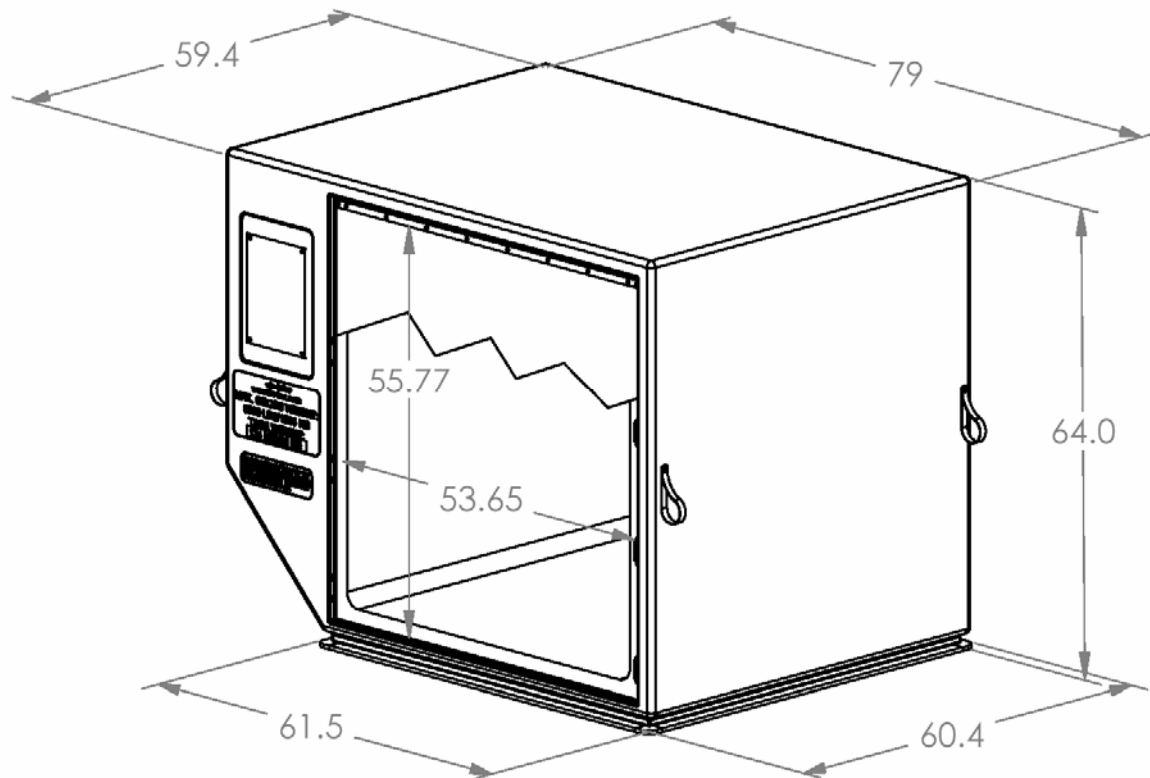


Figure 1: CS-09 Dimensions

3.2 Parts List 2383-0100-0001

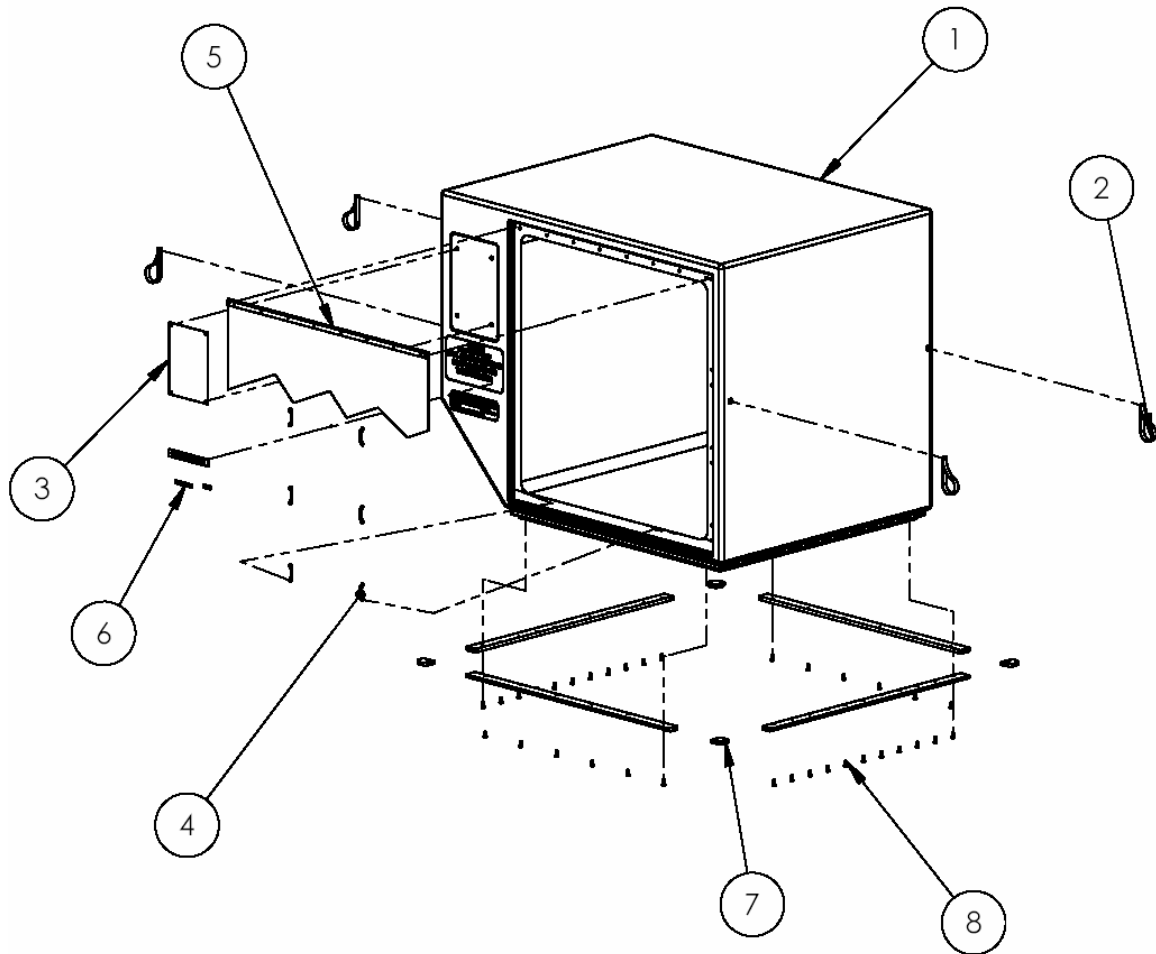


Figure 2: CS-09 Assembly, 2383-0100-0001

Table 1: List of Materials

Item	QTY	Part Number
1	1	2383-0100-0100 Container Shell
2	4	2383-0100-0123 Strap Handle Assembly
3	1	2383-0100-0124 Document Pouch Assembly
4	6	2383-0100-0125 Footman Assembly
5	1	2383-0100-0126 Curtain Assembly, O-Ring and Hook
6	1	2383-0100-0127 Label Assembly
7	1	2383-0100-0128 Bumper Assembly
8	34	3/8"NCx1.25" Button Head Socket Bolt, SS

3.3 Parts List 2383-0100-0002

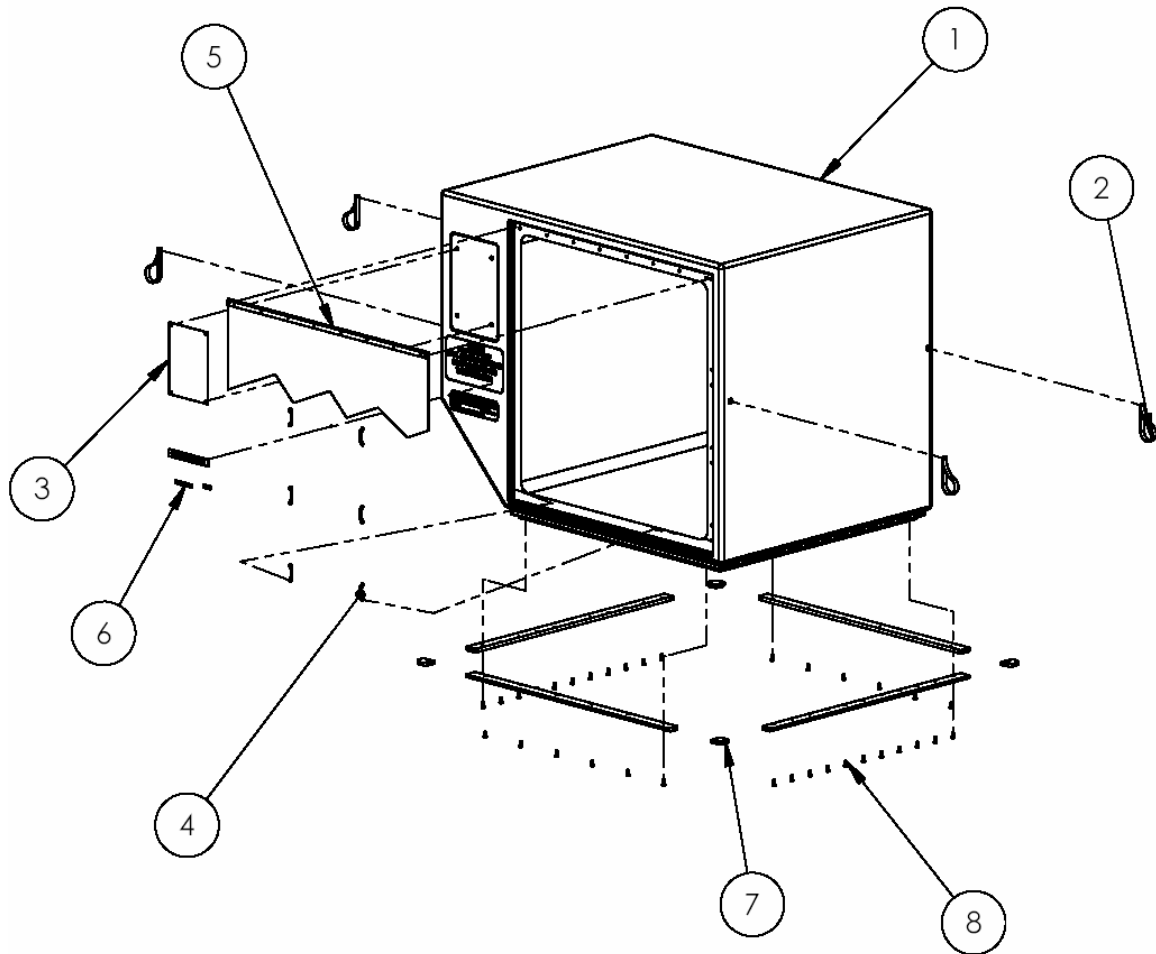


Figure 3: CS-09 Assembly, 2383-0100-0002

Table 2: List of Materials

Item	QTY	Part Number
1	1	2383-0100-0100 Container Shell
2	4	2383-0100-0123 Strap Handle Assembly
3	1	2383-0100-0124 Document Pouch Assembly
4	6	2383-0100-0125 Footman Assembly
5	1	2383-0100-0129 Curtain Assembly, Velcro
6	1	2383-0100-0127 Label Assembly
7	1	2383-0100-0128 Bumper Assembly
8	34	3/8"NCx1.25" Button Head Socket Bolt, SS

4 OPERATIONS

4.1 Operational Limits

4.1.1 *Load Limits*

The CS-09 container is designed to meet TSO-C90c and NAS-3610 revision 10 (type 2K2C) load requirements and has a maximum gross weight of 3,500 lbs. The actual gross weight limits for this container, in a given airplane, are determined in compliance with FAR 25 and listed in the Approved Weights and Balance Manual for that airplane

4.1.2 *Damage Limits*

Damage limits are categorized as major and minor.

Major defect or damage: Damaged or missing items that may affect the airworthiness or safe operation of a container and its ability to meet the requirements of TSO C90c.

Examples of major defect or damage include:

- Loose or missing bumper bolts
- Spun out bumper AVK fasteners
- Loose or missing footman or footman attachment hardware
- Loose or missing curtain attachment hardware
- Fastener pullout through the container shell
- Perforation or punctures not categorized as “minor” (see below)

Containers identified as having major damage need to be repaired to original safe operation and airworthiness standards before use. Guidance for dealing with major damage is given in Section 5.3.

Minor defect or damage: Damaged or missing items that do not affect the airworthiness or safe operation of a container and its ability to meet the requirements of TSO C90c.

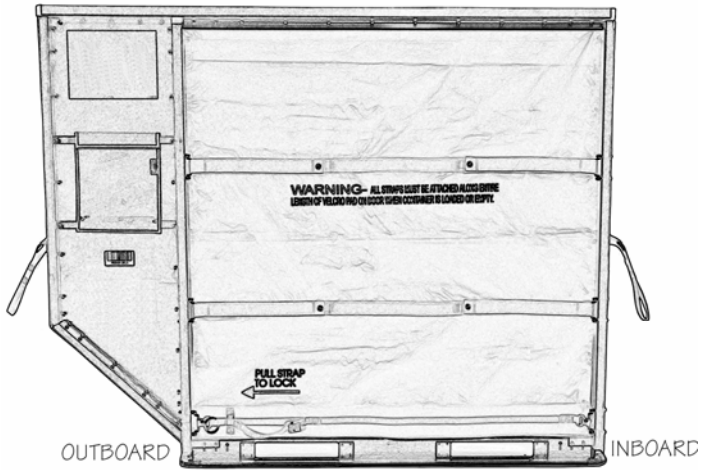
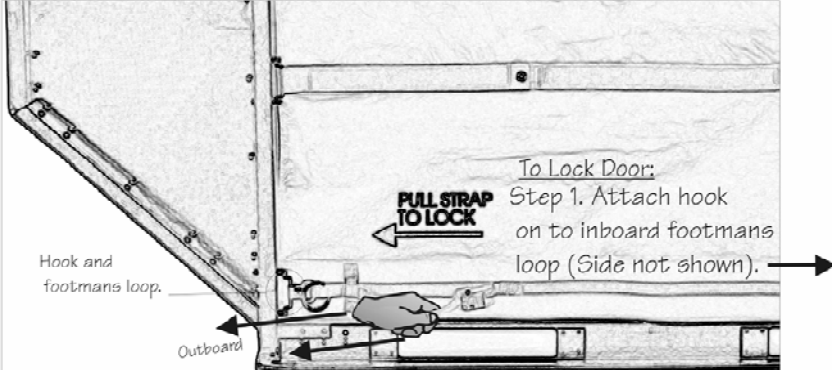
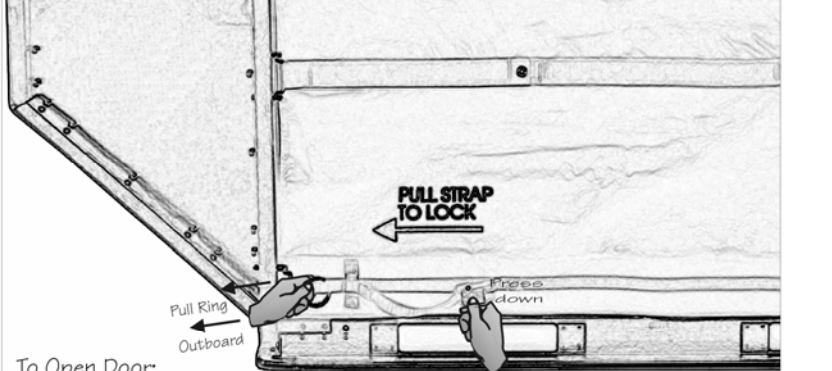
Perforation or punctures less than 4 inches in diameter, happening on a flat wall, and more than 3 inches from any corner are considered “minor” as long as the transported cargo can be contained. Guidance for dealing with minor damage is given in Section 5.2.

Examples of minor defect or damage include:

- Loose or missing document holder
- Loose or missing handle straps
- Small tears in curtain less than 4”

4.2 Handling

4.2.1 Curtain Operation

<p>PN 2383-0100-0126 Curtain Assembly, O-Ring and Hook</p>	
<p>Closing and Locking the Curtain:</p>	 <p>To Lock Door: Step 1. Attach hook on to inboard footmans loop (Side not shown).</p> <p>Step 2. Attach hook on to outboard footmans loop (O-ring side).</p> <p>Step 3. Pull strap away from the door as directed in the direction of the arrows.</p>
<p>Unlocking and Opening the Curtain:</p>	 <p>To Open Door: Step 1. Press down buckle thumb tab, Step 2. Pull O-ring & hook away from the outboard door post. Step 3. Now remove hook from inboard door post.</p>

<p>PN 2383-0100-0129 Curtain Assembly, Velcro</p>	<p>All straps must be fastened along the entire length of the Velcro pads when the container is loaded or empty</p>
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4.2.2 Non Aircraft Transportation

CS-09 containers are designed to be transported using standard container handling and safety guidelines. Corner straps are for hand use only; do not use the straps as tie downs or for lifting.

4.2.3 Aircraft transportation

CS-09 containers are designed to function in designated aircraft using industry standard safety and handling procedures. Corner straps are for hand use only; do not use the straps as tie downs or for lifting

4.3 Storage

4.3.1 Stacking

CS-09 containers are designed to allow empty containers to be stacked up to 3 units high, provided the stacking surface is flat and level and the area is protected from wind gusts and weather that could blow them over. Corner straps are for hand use only; do not use the straps as tie downs or for lifting.

When lifting an empty container with a forklift:

- Fold the soft curtain assembly up out of the way
- Place the fork tines inside the container and lift the roof. Care must be taken not to damage the inside lip of the doorway by placing approx. 4"x 4" wooden blocks or equivalent between the fork tines and the top of the container.

4.4 Maintenance

Containers should be regularly inspected for damage and loose or missing hardware.

4.4.1 Cleaning

Containers can be cleaned using most commercially available non abrasive cleaners.

4.4.2 UV Protection

To increase the longevity of ProWall ULD containers they should be protected from UV exposure by using paint or by applying a UV protective coating such as 303 Aerospace Protectant. For the latest information on guidelines for painting and UV protection of ProWall containers visit the Intec website at www.in-tec.com.

5 REPAIR

5.1 Replaceable Components

Installation instructions are provided as part of the replacement component package.

Table 3: Replaceable Components

Part Number		Description	Installation Procedure	
2383-0100	-0128	Bumper Assembly	WI20-0014	Appendix A
	-0101	End Bumper		Appendix B
	-0102	Side Bumper		Appendix C
	-0103	Corner Bumper		Appendix D
2383-0100	-0126	Curtain Assembly, O-Ring and Hook	WI20-0014	Appendix E
	-0106	Curtain, O-Ring and Hook		Appendix F
	-0129	Curtain Assembly, Velcro		Appendix G
	-0130	Curtain, Velcro		Appendix H
	-0105	Curtain Bar		Appendix I
2383-0100	-0125	Footman Assembly	WI20-0014	Appendix J
	-0123	Strap Handle Assembly		Appendix K
	-0124	Document Pouch Assembly		Appendix L

5.2 Minor Repair (Field)

Containers must be inspected prior to making repairs to identify the extent of damage. Container structure damage meeting the “minor” criteria in Section 4.1.2 may be repaired by the use of a patch kit and thermal welding techniques. Patch kits and detailed repair instructions are available for purchase.

If electric power is not available for repair, an alternative method is to pop rivet a patch over the affected area and seal the edges with temporary sealing tape until a proper repair can be attempted. Adhesive backed aluminum tape has been used successfully for this application. Wide tape is best to ensure good adherence.

5.3 Major Repair (Depot)

For major damage, notify Intec as soon as possible for guidance on repair options. Please provide as much information as possible (container serial number, photos of affected areas, etc.) to promote fast and accurate assessment. Possible techniques for repair of major damage include mechanically fastened and thermoplastic welded patches.

6 WARRANTEE

Warrantee details:

Integrated Technologies, Inc. warrants this product against defects in materials and workmanship to the original purchaser, under normal use and conditions, for a period of one (1) year from the date of original purchase.

If there is a defect we will, at our option, either repair the defective container with new or refurbished replacement parts, or replace the defective container or part if we are unable to restore the container to good working order. This limited warrantee does not apply to: (1) damage caused by direct lightning strike, fire, accident, act of war or aggression, or other hazards (2) misuse, neglect, casualty, or improper installation, (3) repairs done or attempted with a material or process not authorized/approved by Intec, (4) improper use, maintenance, or modification to the containers, or (5) any other cause outside our control.

The warranties and remedies set forth above are exclusive and in lieu of all others, whether oral or written, expressed or implied. We specifically disclaim any and all implied warranties. In no event shall Integrated Technologies, Inc., subsidiaries, or affiliates, be responsible for direct, special, incidental, or consequential damages resulting from any breach of warrantee, or under any other legal theory, including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, repairing, or reproducing and products or materials stored in or used with the containers.

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