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1. Revision History

Rev	Issued	Created By	Released By	Change Description
-	22May15	RH	CF	Initial revision
A	6Dec19	RH	BR	<ul style="list-style-type: none"> • Cover Page: Replaced Program Name with Sales Order • 4.1 Required Equipment: Added disposable gloves • 4.2 Packing Procedure: Minor grammatical changes. Added wearing gloves when handling CSD. Removed taking a picture prior to closing lid. • 5.1 Required Equipment: New. • 5.2 Unpacking Procedure: Added wearing gloves when handling CSD.

2. Introduction

This procedure details how to properly pack and unpack the Canisterized Satellite Dispenser (CSD) to minimize the risk of damage during shipping and handling. This procedure shall be completed each time that the CSD is packed or unpacked.

A Pelican case is the typical shipping container. CSDs shall only be shipped in these containers. Doing otherwise without PSC's approval will void the CSD warranty.



Figure 2-1: Typical 3U and 6U CSD shipping container

3. Warning

The corners of the CSD's -Z mounting flange may yield if carelessly impacted. Do not allow a corner of the CSD to impact a surface. This is especially important if the CSD has a heavy payload installed. See the figure below. When placing the CSD on a surface always lay it down flush with an external face.

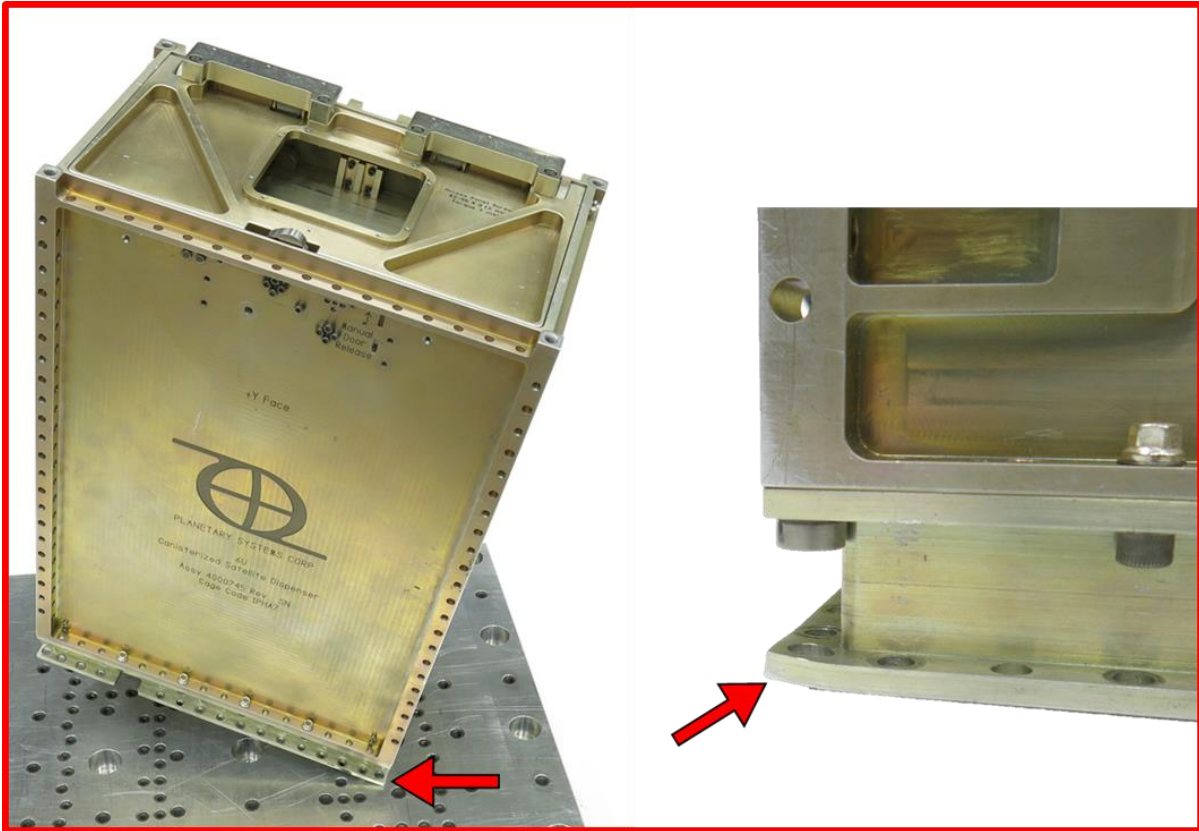


Figure 3-1: Corners of -Z mounting flange may yield from excessive impact

4. Packing the CSD

The packing person shall be familiar with PSC document 3000257 *CSD Operating Procedure* prior to executing this procedure.

4.1 Required Equipment

Item	Quantity	Check
CSD	1	
Bagged Separation Electrical Connector	AR	
Pelican Case (3U/6U: model 1560 or larger, 12U: model 1620 or larger)	1	
Plastic resealable bag (for documentation, 9"x12" recommended)	1	
Antistatic Bag (to enclose CSD, min recommended sizes 3U: 18"x24", 6U: 24"x24", 12U: 24"x30")	1	
Kapton Tape (to seal antistatic bag)	AR	
Cable Tie (to redundantly latch shipping container closed)	2	
Scissors or similar (to trim cable ties)	1	
Disposable rubber gloves (nitrile, latex or similar)	1 pair	

4.2 Packing Procedure

Step	Description	Date & Initials	Notes
1	Record CSD part number, revision, and serial number on the first page of this document.		
2	Ensure CSD Door is closed. Refer to 3000257 for instructions.		
3	If a payload is installed in the CSD tape a note to the CSD indicating such.		Is a payload installed in the CSD?
4	While wearing gloves, place CSD in an appropriately sized antistatic bag. Tightly wrap bag around CSD and secure with Kapton tape. Leave courtesy strips at the end of each piece of tape to assist unpacking. See Figure 4-1. Note: The CSD is not static sensitive.		



Figure 4-1: Bagged CSD

Step	Description	Date & Initials	Notes
5	Open Pelican case and place CSD on foam. Orientation shall be with CSD's -Y (bottom) face up. Gradually remove the Pick-N-Pluck foam until the CSD slides into the Pelican case. Remove an extra strip of foam to allow room for the CSD's Door Stops which protrude from the +Z face of the CSD. See Figure 4-2.		
6	Place bagged CSD inside Pelican case with -Y (bottom) face up.		
7	Is a Separation Electrical Connector also being shipped not attached to the CSD? If so remove a few pieces of Pick-N-Pluck foam to form a small recess for the Connector. Place the bagged Connector in the recess. See Figure 4-2.		Is a separate Separation Connector being shipped? _____



Figure 4-2: Pelican case Pick-N-Pluck foam removal



Figure 4-3: Bagged CSD and Separation Connector in case

Step	Description	Date & Initials	Notes
8	Tape the <i>Appendix A: Procedure Label</i> to the bagged CSD.		
9	Place all necessary documentation in a resealable bag and place on top of CSD.		
10	Close Pelican case and secure by installing cable ties in the security loops. Trim excess length.		



Figure 4-4: Pelican case secured with cable ties

5. Unpacking the CSD

The unpacking person shall be familiar with PSC document *3000257 CSD Operating Procedure* prior to executing this procedure.

5.1 Required Equipment

Item	Quantity	Check
Scissors or similar (to remove cable ties)	1	
Disposable rubber gloves (nitrile, latex or similar)	1 pair	

5.2 Unpacking Procedure

Step	Description	Date & Initials	Notes
1	Remove the bagged Separation Connector if packed. See section 4.2 step 7 and Figure 4-3.		
2	Remove the bagged CSD from the Pelican case. Be cautious of the CSD's corners per Section 3.		
3	While wearing gloves, remove the CSD from the antistatic bag.		
4	The CSD is now ready for operation IAW PSC document <i>3000257 CSD Operating Procedure</i> (available at www.planetarysystemscorp.com). Operating the CSD before receiving training from PSC shall void the warranty.		

Appendix A: Procedure Label

Read enclosed document
3000266A CSD Pack-Unpack Procedure
prior to removing the CSD.