# **U-MAD® TMA / TRAILER |** NCHRP 350 TL-2 AND TL-3

DAMAGE EVALUATION PROCEDURE







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It is your and your employers' responsibility to comply with all applicable local and national safety codes and standards, including but not limited to the requirements of the U.S. Occupational Safety and Health Administration (OSHA), the National Fire Protection Association (NFPA) (including but not limited to the NFPA 70: National Electrical Code (NEC) and NFPA 70E), and other appropriate governmental and industry accepted guidelines, codes, and standards in their entireties.





#### 1. PURPOSE

1.1. The purpose of this document is to establish a procedure for evaluating damage to a U-MAD cartridge and communicating the repairability.

#### 2. SCOPE

- 2.1. This design procedure applies only to the U-MAD.
- 2.2. This work instruction applies to all people participating in the evaluation and repairability communication of the U-MAD cartridge.

## 3. REFERENCES

750P001 Control of Records

102F001-003 Engineering Product Issue

102W001-002 Engineering Product Issue Reporting 1620207 U-MAD Cartridge Repair Manual

### 4. **RESPONSIBILITIES**

- 4.1. The assigned damage Evaluator of the request has the responsibility for the completion of this process.
- 4.2. Responsibilities of other parties are indicated in the procedure section.

### 5. PROCEDURE

- 5.1. Damage Inputs Damage inputs are provided by the end user directly to Lindsay Corp., their distributor, or to a Certified Repair Facility (CRF) and may consist of:
  - 5.1.1. U-MAD Repair Investigation Form (p.4). (required)
  - 5.1.2. Photographs. (required)
  - 5.1.3. Cartridge Serial Number. (required)
  - 5.1.4. Measurements.
  - 5.1.5. Descriptions/Notes.
  - 5.1.6. Additional Information.

Upon receiving the damage inputs the Evaluator will review the inputs for adequacy. Requests for clarification will be made for any inputs which are not viewed as adequate.

## 5.2. EVALUATOR REVIEW

Once the inputs are received, the Evaluator will determine which level to categorize the damage as outlined in the 1620207 - U-MAD Cartridge Repair Manual. The levels are as follows:

- 5.2.1. Cosmetic Damage Paint and Oxidation.
- 5.2.2. Level 1 Minor dents, tear, and seam separation.
- 5.2.3. Level 2 Larger dents, tears, and seam separation.
- 5.2.4. Level 3 Non-repairable damage.

## 5.3. ENGINEERING REVIEW

In the event the damage level is unclear and cannot be determined during Evaluator review, the Evaluator will need to open an Engineering Product Issue ticket and provide all relevant information of the damaged unit to date. The following steps will need to be taken by engineering:

- 5.3.1. The Engineering Product Issue will then be assigned per 102F001-003 Engineering Product Issue.
- 5.3.2. Engineering will assign an RSP Application Number. RSP Application Number Log located at \\ltsadept01\- Engineering Master Files\Engineering Logs.
- 5.3.3. Engineering will review the provided information and request any additional information, if necessary.
- 5.3.4. Once review is complete, Engineering will send to the Evaluator.



## 5.4. EVALUATION OUTPUTS

The output of the evaluation process is a U-MAD Repair Evaluation Report (p.3) and, if necessary, a Bill of Materials for the components necessary to repair as well as a quotation for the components and shipping. The output is detailed enough to give the following information to stakeholders:

- 5.4.1. Damage level and zone.
- 5.4.2. Repairability.
- 5.4.3. Short reasoning for damage level and zone.
- 5.4.4. Cost for Components necessary for repairs, if applicable.

All Level 2 repairs will need an additional Serial Number Tag (1424020) with the RSP Application Number as that Serial Number. The new Tag will need to be installed on the C-Channel next to the original.

### 5.5. COMMUNICATION OF OUTPUTS

The following outputs will be sent by the Evaluator to the end user, distributor, and/or CRF:

- 5.5.1. U-MAD Repair Evaluation Report (p.3).
- 5.5.2. Quotation for Repair Components and Shipping, if necessary.
- 5.5.3. Name, location, & phone number of nearest CRF, if necessary.
- 5.5.3.1. List of active CRFs in 1620211 List of U-MAD Certified Repair Facilities.
- 5.5.4. Serial Number Tag, if Level 2 repairs required.

Documentation to be controlled per 750P001 – Control of Records.



## **U-MAD Repair Evaluation Report**

<b>Date:</b> MM, DD, YYYY	
Name of Cartridge Owner: (Company)	
Distributor: (Company)	
Cartridge Serial Number: C-XXXX	
Manufactured Date: Month DD, YYYY	
Date of Damage: Month DD, YYYY	
Location of Damage: (Right, Left, Front, Rear, Top, Bottom, Corner, Side, etc.)	
Renair Serial Number: AP#0XXXX	

## **Evaluation:**

After reviewing the photographs of the UMAD damage for a cartridge sent through (Dropbox/E-Mail) by (First Name Last Name) at (Company), it has been determined that the damage sustained on the UMAD cartridge (is/ is not) repairable. It appears the damage is (within/outside) the limits of repair per the UMAD Cartridge Repair Guide, therefore is considered not repairable. (Brief detail of reasoning/explanation.) If you need further assistance on this matter, please contact us.



# **U-MAD** Repair Investigation Form

	repairs of the U-MAD truck mounted attenuating device. Please complete the form and send it to the address provided at the end of this document.  1. Name of Cartridge Owner:   _   _   _   _   _   _   _   _   _							
	2. Serial Number of Cartridge:   _ _ _ _ _ _ _ _ _ _ _ _							
	3. Manufactured Date of Cartridge (mm/dd/yy)://							
	4. Date of damage (mm/dd/yy): / /							
	5. Does the damage show any cracking, tearing, or material separation on the aluminum skin of the cartridg $\Box$ Yes $\Box$ No							
	6. Please indicate the approximate dimensions of the damaged area: max. dimensions length, width, and depth)   _  X   _  X   _  X   _  CM  IN.							
	7. Where is the cartridge damaged? Please mark location(s) of damage on the illustration to the right. Use all views necessary to show the damage to the cartridge.							
	8. What caused the damage to the cartridge? Please describe how the cartridge was damaged. Use another page if necessary BACK LEFT FRONT RIGHT							
	BOTTOM							
	9. Following the review-If damage is deemed repairable, please provide the following information where the Repair Kit and Repair Instructions should be sent							
	Name:    _Phone Number: ()							
;	Shipping Address:							
	I							
	I							
	I							
	10. Where was the cartridge purchased (Selling Agency)?							
	11. Has the cartridge been repaired in the past? Yes No							
	11. Has the cartridge been repaired in the past? ☐ Yes ☐ No  If Yes, When and by who? ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐							
	Please include with this completed form, photos of the damaged U-MAD, showing all sides – top, bottom, front, back, left and right (see illustration in question 7).  Send to Customer Service using one of the following methods:							
il:	or Email:  y Corp info@barriersystemsinc.com							
	Burke St							
naha one	00 a, NE, 68022 U.S.: 1-866-404-5049 Global: 1-402-829-6800 -402-829-6834							



## **Revisions**

Date	ECN	Published ECN	Rev	Description
02/25/2020	37626	37626	Α	Initial Release





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This manual is subject to change without notice to reflect improvements and upgrades.

Please contact Lindsay Transportation Solutions to confirm that you are using the most current installation manual and instructions.

Additional information is available from Lindsay Transportation Solutions. © Lindsay Transportation Solutions