



Hemtack

# ENGINEERING CHANGE ORDER

REQUEST DATE	2/24/2023	REQUESTED BY	H. AMEZQUITA	REQUESTED RELEASE DATE	3/3/2023	ECO #	<b>ECO-00088</b>
AFFECTED PRODUCT LINES	ALL CORDLESS CUSTOM ROMAN SHADES						
REASON FOR CHANGE	CHANGE 3MM ROUND PROVISION TO "KEY-HOLE" PROVISION						
DESCRIPTION OF CHANGE	SEE DRAWINGS AND ENGINEERING TEST REPORT ENGREP079 IN PAGE 3-6						
COST IMPACT	N/A						
DOCUMENT / PART NUMBER	OLD REV	NEW REV	DOCUMENT/ PART DESCRIPTION	CHANGE DESCRIPTION	FORM, FIT, OR FUNCTION AFFECTED <small>Yes, or No</small>	PART DISPOSITION <small>(USE AS IS) (REWORK) (SCRAP) (OBSOLETE) (RETURN TO VENDOR) (OTHER)</small>	
MPMI1202			PVC HEAD RAIL CF6 24	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1203			PVC HEAD RAIL CF6 36	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1204			PVC HEAD RAIL CF6 48	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1205			PVC HEAD RAIL CF6 60	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1206			PVC HEAD RAIL CF6 72	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1207			PVC HEAD RAIL CF6 84	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1236			PVC HEAD RAIL CF6 24   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1237			PVC HEAD RAIL CF6 36   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1238			PVC HEAD RAIL CF6 48   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1239			PVC HEAD RAIL CF6 60   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1240			PVC HEAD RAIL CF6 72   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
MPMI1241			PVC HEAD RAIL CF6 84C   HD	ADD KEYHOLE PROVISION (SEE ENGREP079)	NO	USE AS IS	
ADDITIONAL INFORMATION	STARTING PO# 1931359 ( ETD /A: 4/13, 5/03)						
AFFECTED DOCUMENTS / PROCESSES (CHECK ALL THAT APPLY)							
BOM / CONFIG	<input type="checkbox"/>	PRODUCT / PART SPEC	<input checked="" type="checkbox"/>	QC CHECKLIST	<input checked="" type="checkbox"/>	PART DRAWING	<input type="checkbox"/>
ASSEMBLY DRAWING	<input type="checkbox"/>	INSTR SHEET	<input type="checkbox"/>	PROCESS VISUAL AIDS	<input checked="" type="checkbox"/>	WORK INSTRUCTIONS	<input checked="" type="checkbox"/>
ECO APPROVALS ROUTING							
APPROVER	APPROVAL REQUIRED	APPROVER NAME	APPROVAL STATUS	APPROVED ON	NOTES		
PHASE II MANAGEMENT (US - DL)	<input checked="" type="checkbox"/>	T. DAVIDSON	APPROVED	02/24/2023			
PHASE II PROD DEV (US - NY)	<input checked="" type="checkbox"/>	L. HUNT	APPROVED	02/27/2023			
MANAGEMENT (MX)	<input checked="" type="checkbox"/>	L. MONTEJO	APPROVED	03/06/2023			

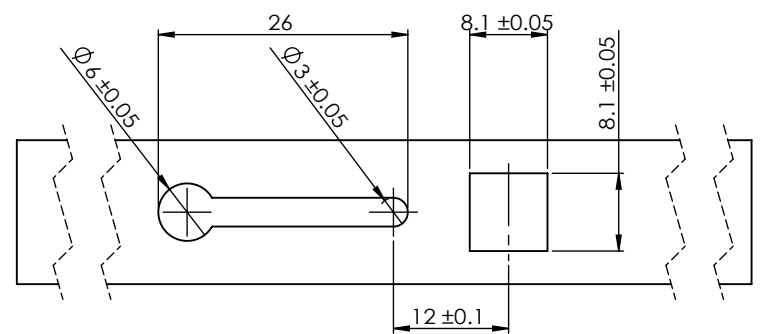
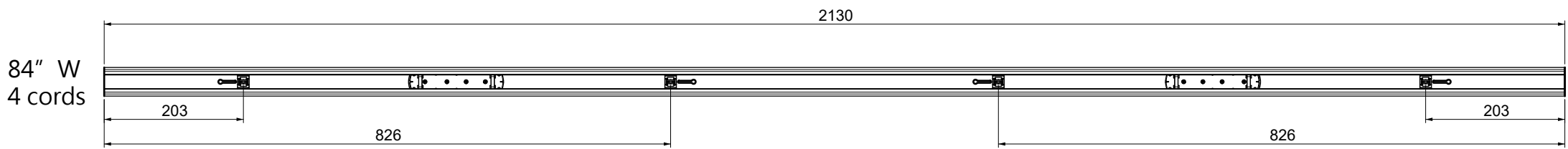
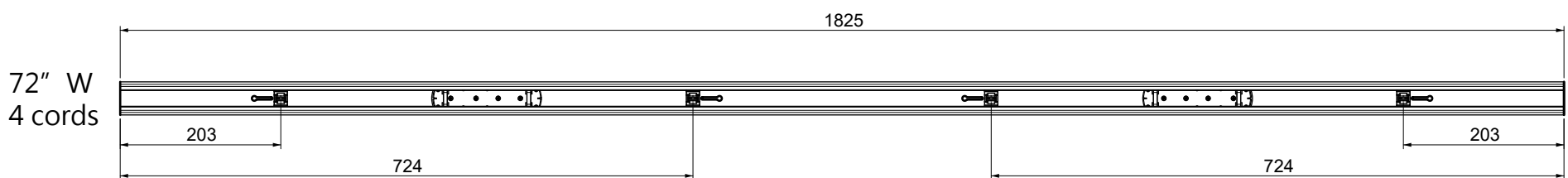
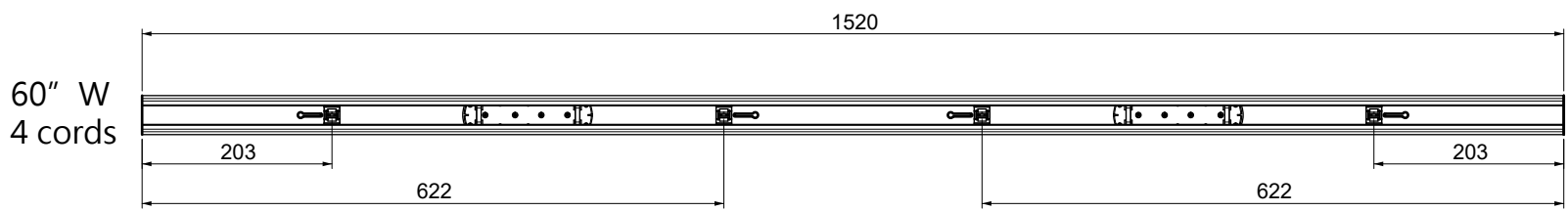
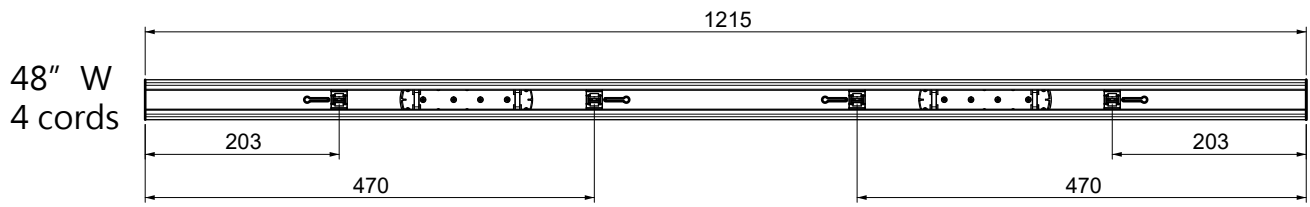
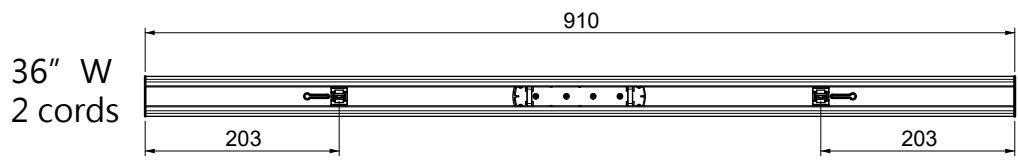
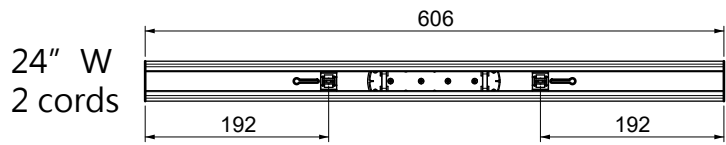
QC / ENG (MX)	<input checked="" type="checkbox"/>	H. AMEZQUITA	APPROVED	02/24/2023	
IT (MX)	<input checked="" type="checkbox"/>	E. CASTELLANOS	APPROVED	03/06/2023	
PRODUCTION (MX)	<input type="checkbox"/>				
MATERIALS (MX)	<input type="checkbox"/>				

**ACTIONS REQUIRED**

BOM / CONFIG	<input type="checkbox"/>	WILL BE MODIFIED BY IT (MX)
PRODUCT / PART SPEC	<input checked="" type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)
QC CHECKLIST	<input checked="" type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)
PART DRAWING	<input type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)
ASSEMBLY DRAWING	<input type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)
INSTR SHEET	<input type="checkbox"/>	WILL BE MODIFIED PHASE II (USA)
PROCESS VISUAL AIDS	<input checked="" type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)
WORK INSTRUCTIONS	<input checked="" type="checkbox"/>	WILL BE MODIFIED QC / ENG (MX)

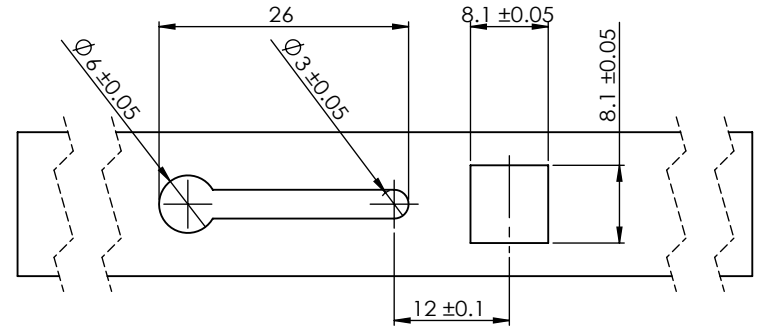
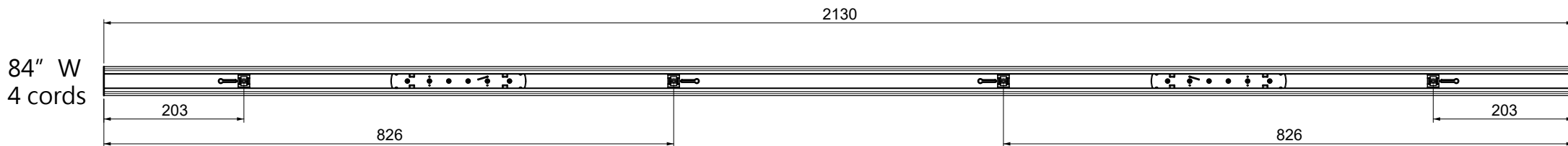
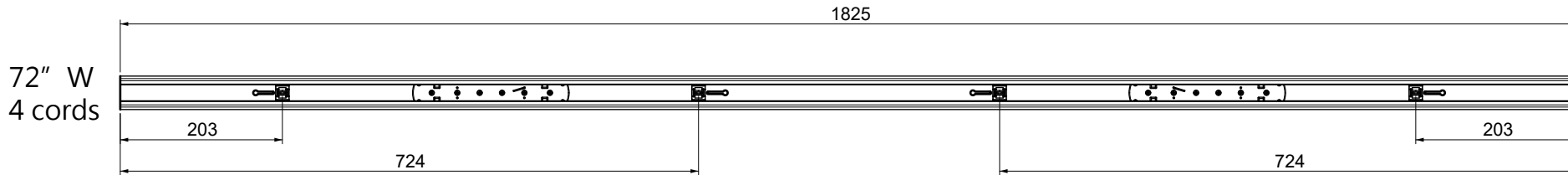
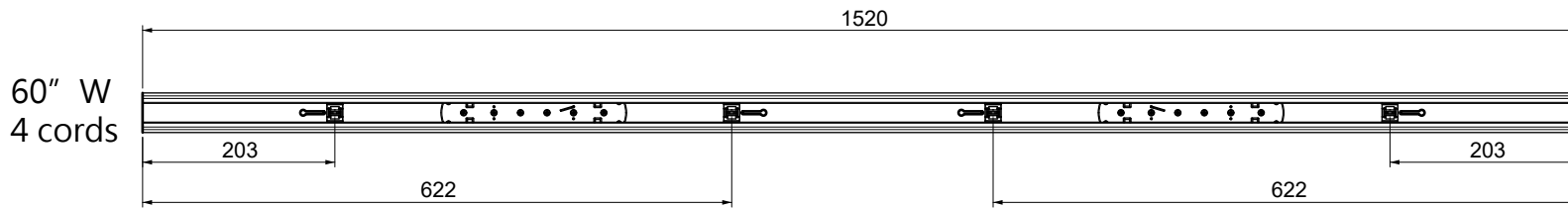
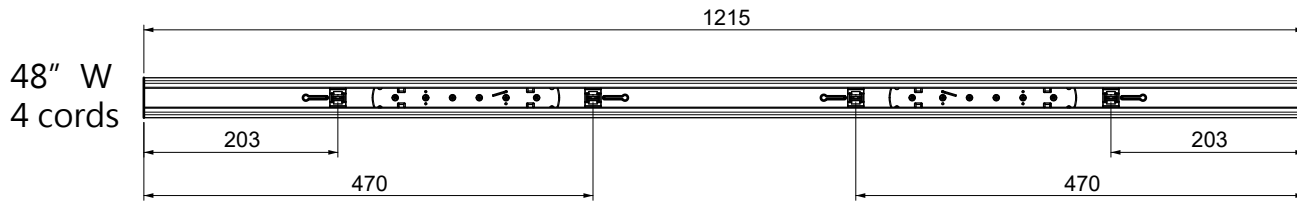
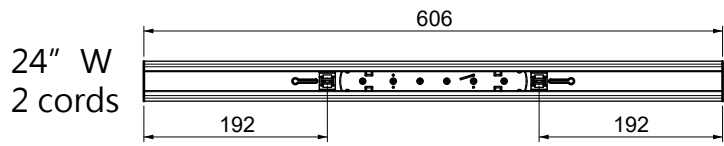
**PICTURES, DRAWINGS, ETC.**

# Regular



轉折器+安全梯帶孔

# HD



轉折器+安全梯帶孔



# ENGINEERING REPORT

REPORT TITLE:	CF6 CORDLESS ROMAN SHADE HRADRAIL WITH KEY HOLE PROVISION FOR SAFETY LACE CORD	REPORT DATE:	01/23/2023
REPORT NUMBER:	ENGREP079	CREATED BY:	Gladys B. Pérez
QA & ENGINEERING APPROVAL	CC:		
Hugo Amezcuita	T. Davidson, L. Hunt, L. Hernandez, M. Chang, H. Amezcuita		

## 1. Background:

We received four samples of CF6 Cordless Headrail for Custom Roman Shades (CRS) with a “key hole” provision for review and testing. The purpose of this test is to determine if this new type of provision facilitates the assembly operation of the safety lace cord (MPMI1426 SAFETY LACE CORD, 15MM HD POLYESTER WHITE) and aluminum clip (MPMI1428 CLIP, ALUMINUM 9 X 3 X 1 MM) on Canada compliant CRS. The “key hole” provision will supersede the current 3.5 mm diameter hole in all CRS cordless headrails originally introduced per ECO-00070 (see photo 1, 2 and 3).

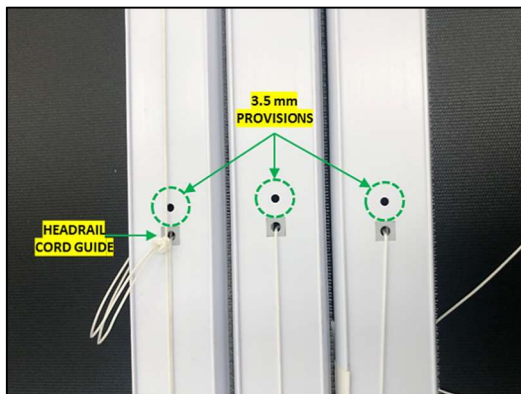


Photo 1. 3.5 mm headrail provisions



Photo 2. New “key hole” headrail provisions

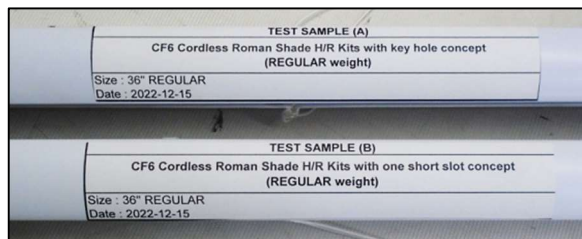


Photo 3. Test Samples

## 2. Analysis:

We focused the test on the assembly steps of the both headrail samples with MPMI1426 SAFETY LACE CORD, 15MM HD POLYESTER WHITE and MPMI1428 CLIP, ALUMINUM 9 X 3 X 1 MM.

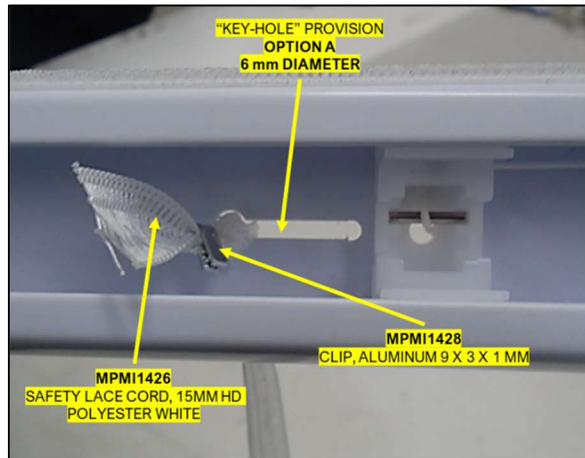


Photo 4. Assembly of option A

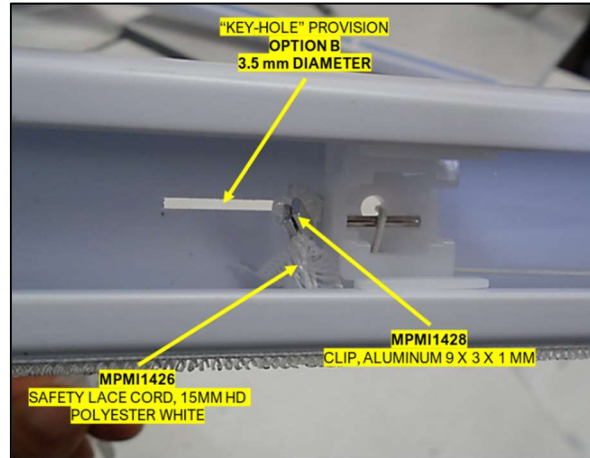


Photo 5. Assembly of option B

See video OPTION A: <https://www.youtube.com/watch?v=e2U0NtepDf4>

See video OPTION B: <https://www.youtube.com/watch?v=SAIYmQIKwyE>

## 3. Conclusion:

We found both options to be easier to assemble than the current 3.5 mm round provision. However, as seen in the video links above, OPTION A does not withstand pulling of the safety lace cord and aluminum clip and slips out of the headrail. On the other hand, OPTION B resulted a much better way of securing the safety lace cord and aluminum clip in place.

During testing, we estimated 15 seconds to introduce the safety lace cord into the current headrail safety lace cord provision and 10 seconds to perform the same step with “key hole” OPTION B.

We conclude that OPTION B is a better option than OPTION A.