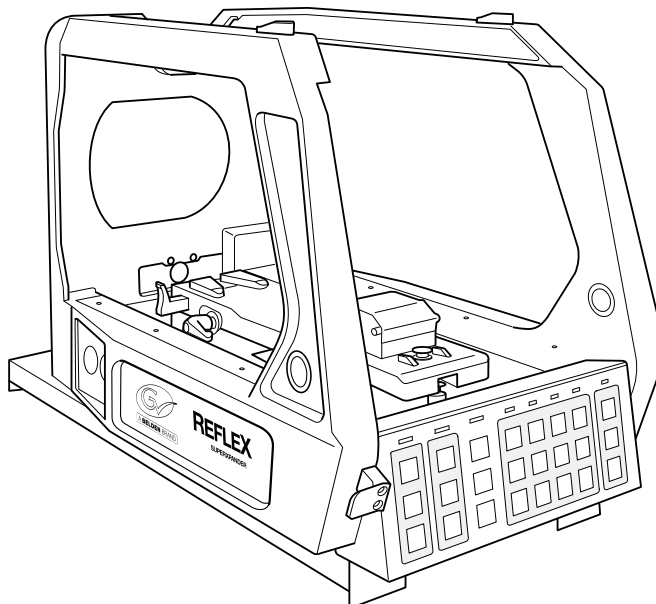


Maintenance Manual

3922 496 31471 June 2017 v2.1



LDK 4475/15

RefleX SuperXpander

Declaration of Conformity

We, Grass Valley Nederland B.V., Bergschot 69, 4817 PA Breda, The Netherlands, declare under our sole responsibility that these products are in compliance with the following standards:

- EN62368-1:2014 + AC:2015 — Safety
- EN 55032:2012 + C2:2013 — EMC (Emission)
- EN55103-2:2009 — EMC (Immunity)

following the provisions of:

- a. the Low Voltage directive 2014/35/EU
- b. the EMC directive 2014/30/EU
- c. the RoHS directive 2011/65/EU

FCC CLASS A Statement

This product generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause interference to radio communications.

It has been tested and found to comply with the limits for a CLASS A digital device pursuant to part 15 of the FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this product in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Copyright

Copyright Grass Valley Nederland B.V. 2017. Copying of this document and giving it to others, and the use or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights are reserved in the event of the grant of a patent or the registration of a utility model or design. Liable to technical alterations in the course of further development.

Recycling

Visit www.grassvalley.com for recycling information.

Website

Visit the Grass Valley public website to download the latest user's guide updates and additional information about your broadcast product:

www.grassvalley.com

Important information

This information is intended as a guide for trained and qualified personnel who are aware of the dangers involved in handling potentially hazardous electrical / electronic equipment. It is not intended to contain a complete list of all safety precautions which should be observed by personnel in using this or other electronic equipment.

The installation, maintenance and service of this equipment involves risks both to personnel and equipment and must be performed only by qualified personnel exercising due care.

Personnel engaged in the installation, operation, maintenance or servicing of this equipment are urged to become familiar with First Aid theory and practises.


During installation and operation of this equipment, local building safety and fire protection standards must be observed.

Whenever it is likely that safe operation is impaired, the apparatus must be made inoperative and secured against any unintended operation. The appropriate servicing authority must then be informed. For example, safety is likely to be impaired if the apparatus fails to perform intended function or shows visible damage.

Warnings

When performing service, be sure to read and comply with the warning notices appearing in the manuals. Warnings indicate danger that requires correct procedures or practices to prevent death or injury to personnel.

- THE CURRENTS AND VOLTAGES PRESENT IN THIS EQUIPMENT ARE DANGEROUS. ALL PERSONNEL MUST AT ALL TIMES FOLLOW THE SAFETY REGULATIONS.
- ALWAYS DISCONNECT POWER BEFORE REMOVING COVERS OR PANELS.
- NEVER MAKE INTERNAL ADJUSTMENTS, PERFORM MAINTENANCE OR SERVICE WHEN ALONE OR WHEN FATIGUED.
- IN CASE OF AN EMERGENCY ENSURE THAT THE POWER IS DISCONNECTED.



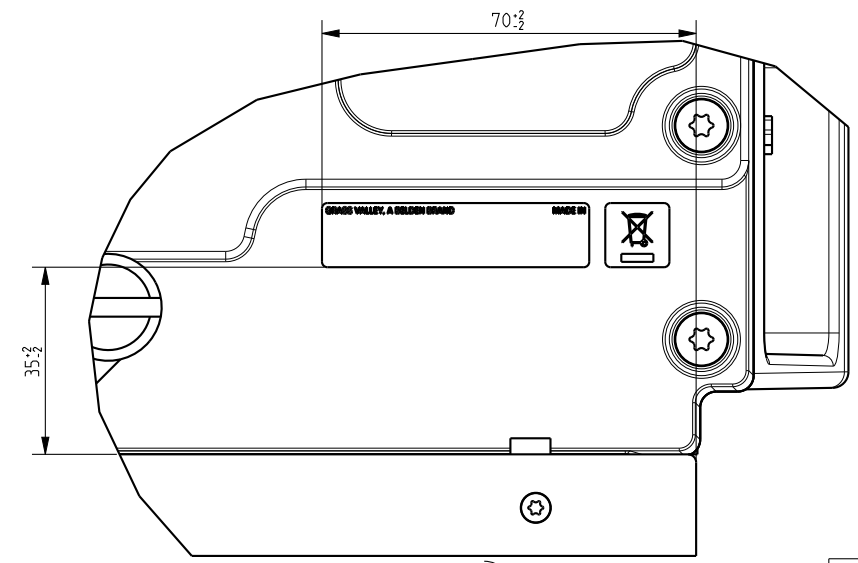
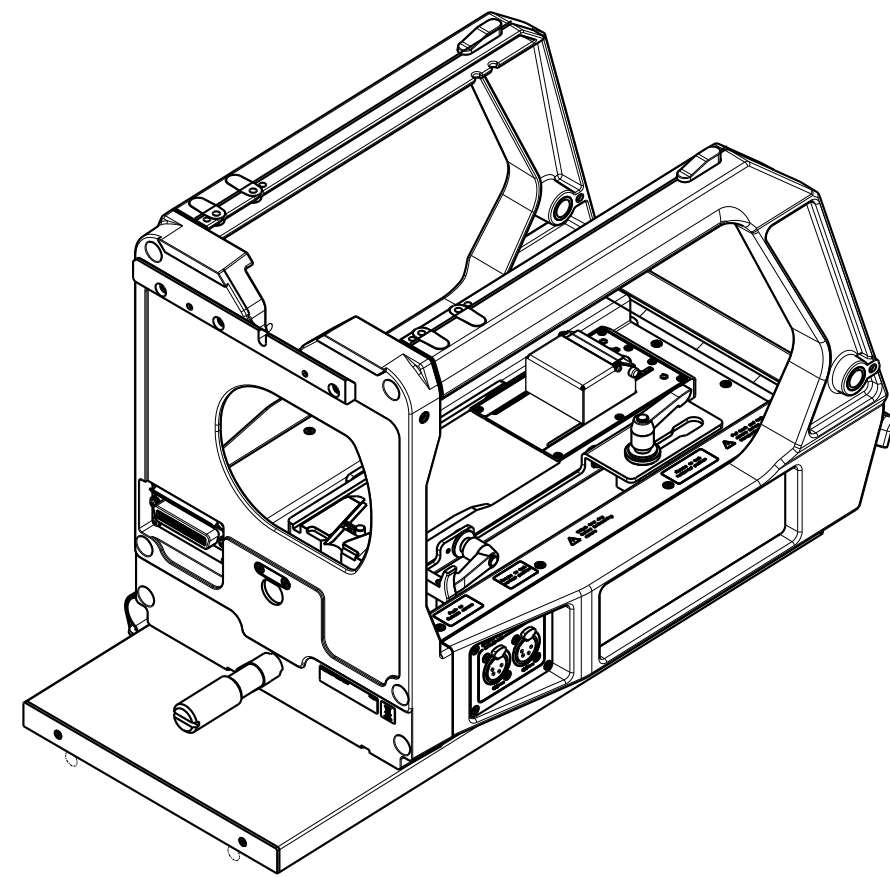
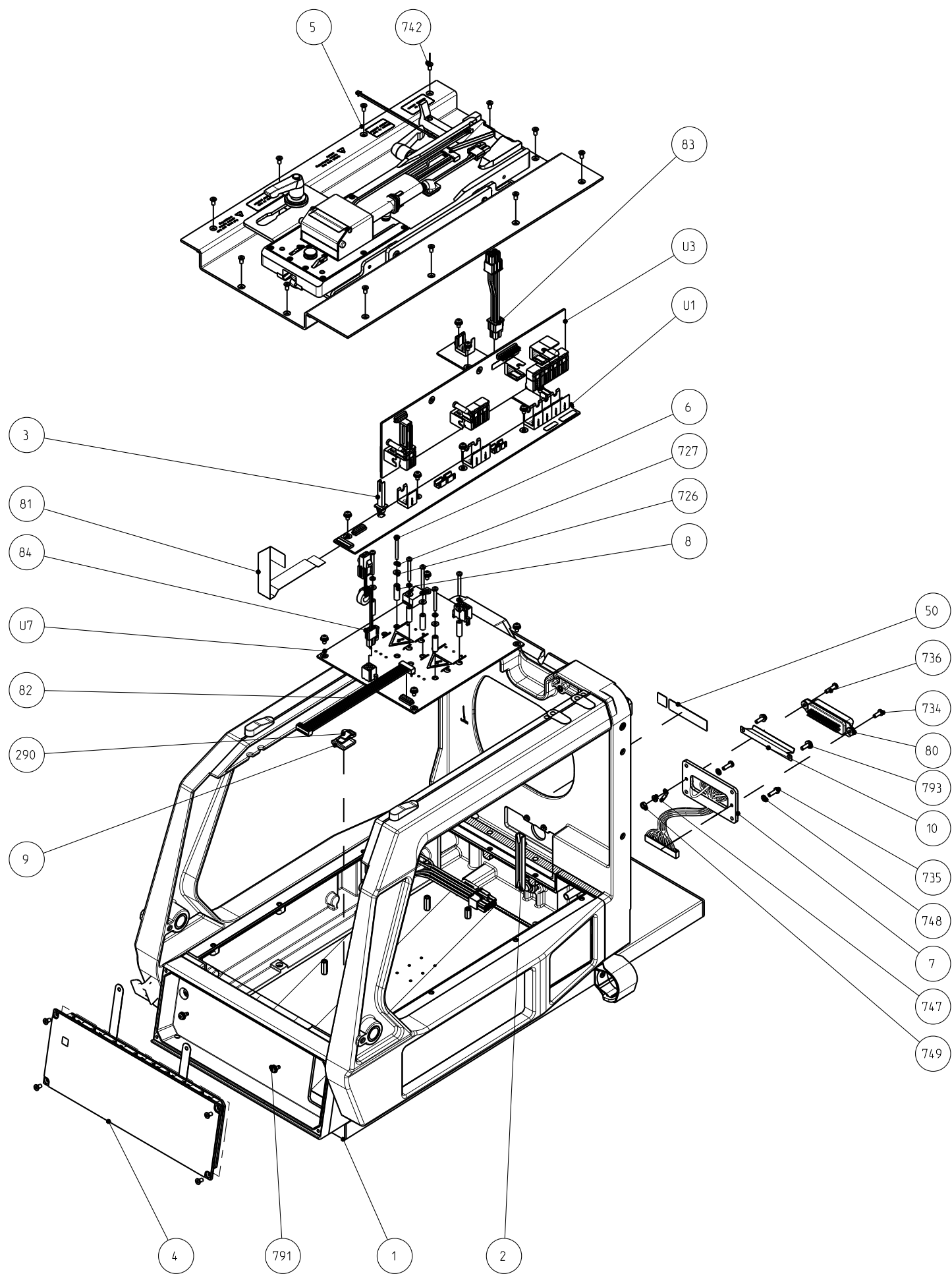
<blank>

8926 447 50015 LDK4475/15 RefleX SuperXpander

List of Field Replacable Units (FRUs):

Pos	Part Number	Description
4	3922 407 57731	FLEX SWITCH PANEL ASSY
7	3922 404 37711	CONNECTORPLATE
80	3922 407 49492	WIRE ASSY LARGE LENS SXP
81	3922 205 00123	CLB FLEX 30P FFC 0.5 SUMICARD TL=160MM 30V
82	3922 407 57771	WIRE ASSY SXP DIAGNOSE
83	3922 407 57761	WIRE ASSY SXP POWER
84	3922 407 60652	FLEX SXP EMI CABLE ASSY
791	326-00005-01	COMBI SCR PAN STL ST M3X6
793	326-00007-01	COMBI SCR PAN STL ST M3X10
U1	3922 406 51961	INT CONN BRD RIGHT
U3	3922 406 51981	ELECTRONICS MODULE SXP
U7	3922 406 55681	FLEXLINE PWR BRD

Maintenance Manual



TYPE PLATE LOCATION
(SCALE 1:1)

- MATERIAL AND FINISHES MUST BE RoHS COMPLIANT
- MATERIAL OR PACKAGING MUST BE MARKED WITH
RoHS COMPLIANCE MARKING OR LABEL

MATERIAL:	....	Rev	Name	Date	SCALE
TREATMENT:	....				3:10
FINISH:	....				UNIT
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:	ANGLE:	mm
M. de Waal	2016-01-20	Ra 3.2 µm	DIMENSION: ±	±1°	
TITLE: LDK4475/15 REFLEX SUPERXPANDER					
DOCUMENT NUMBER			FORMAT	SHEET	
8926 447 50015			A2	1/2	
RELEASE LEVEL: ...			110-01		

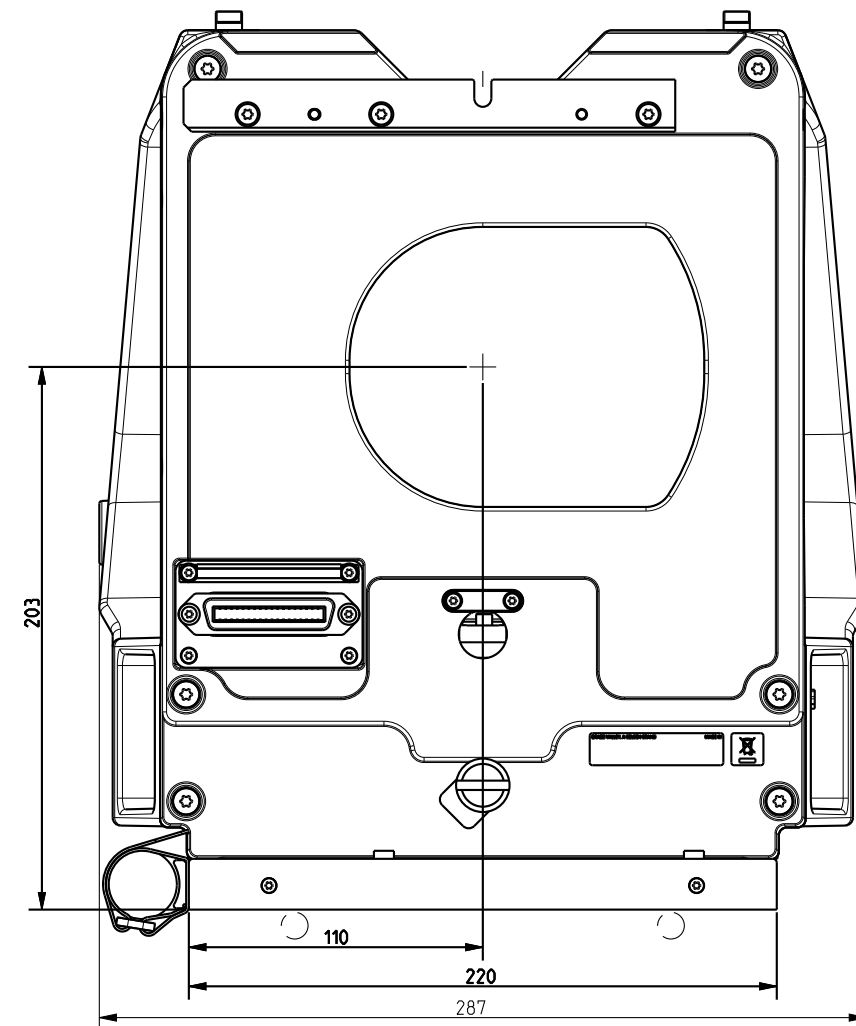
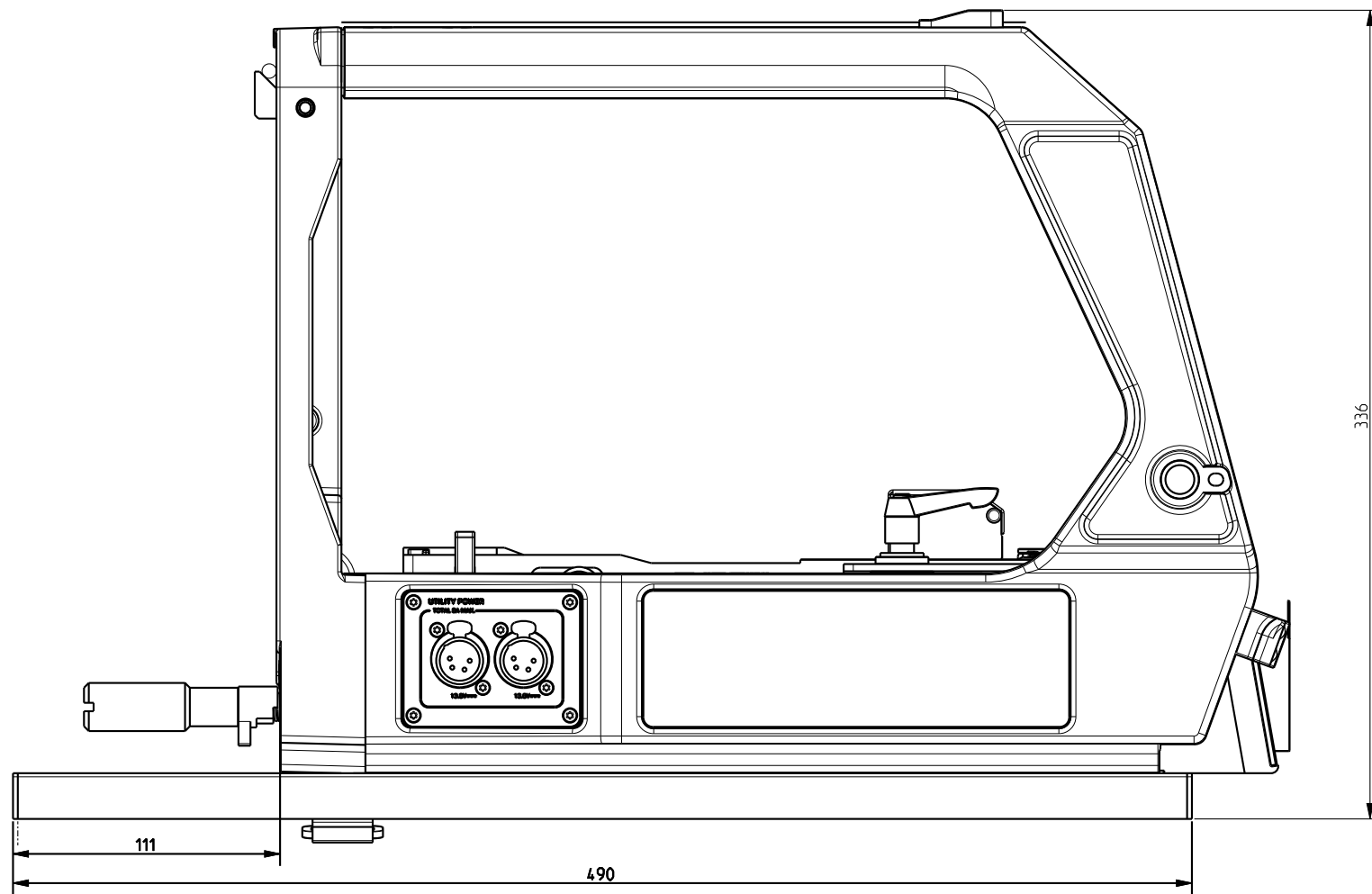
TORQUE TABLE	
Tolerances unless otherwise stated: ± 10%	
Torque unless otherwise stated:	
Thread size	Torque (Nm)
M2	0.5
M2.5	0.75
M3	1
M4	2





ADDED TORQUE TABLE

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- MATERIAL AND FINISHES MUST BE RoHS COMPLIANT
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RoHS COMPLIANCE MARKING OR LABEL

MATERIAL:					SCALE
TREATMENT:					1:2
FINISH:					
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:		UNIT	
M. de Waal	2016-01-20	Ra 3.2 n um	DIMENSION:±	ANGLE: ±1°		mm
TITLE:	LDK4475/15 REFLEX SUPERXPANDER					
 grass valley		DOCUMENT NUMBER			FORMAT	SHEET
		8926 447 50015			A2	2/2
		RELEASE LEVEL: ...			110-01	.

Rev	Name	Date
.
.
.
.	MdW	2017-04-12

		SCALE
		1:2
		UNIT mm

500-00056-01 FLEX SXP MECHANICS

List of Field Replacable Units (FRUs):

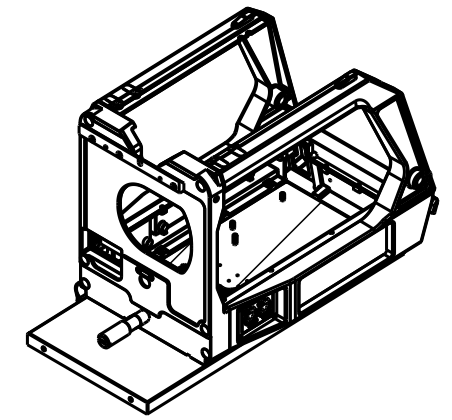
Pos	Part Number	Description
1	500-00060-01	BASE PLATE ASSY
5	520-00015-02	CONTROL PAINTED
80	3922 407 57752	WIRE ASSY UTILITY POWER

Maintenance Manual

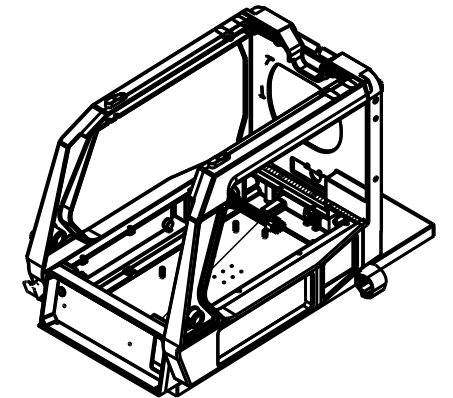
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TORQUE TABLE	
Tolerances unless otherwise stated: $\pm 10\%$	
Torque unless otherwise stated:	
Thread size	Torque (Nm)
M2	0.5
M2.5	0.75
M3	1
M4	2
M5	4.7
M6	8

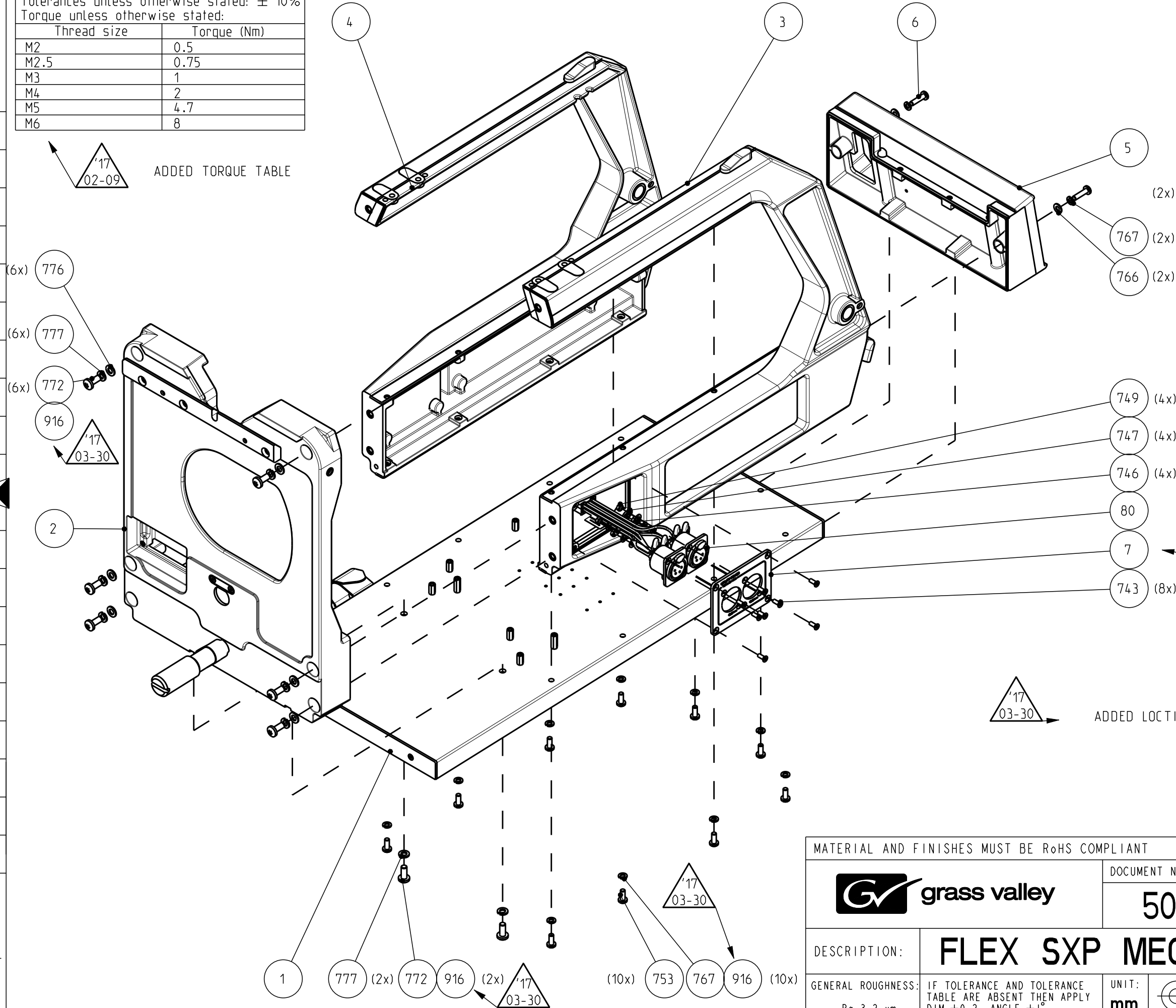
ADDED TORQUE TABLE



SCALE 1:10



SCALE 1:10



ADDED LOCTITE NOTIFICATION

UNDERLYING PART CHANGED

REPLACED SCREW BY
SHORTER VERSION

Rev:	Name:	Date:
01	MdW	2017-03-30
01	MdW	2017-02-09
01	MdW	2016-09-27
01	MdW	2016-06-22
01	MdW	2016-01-19
M. de Waal		

MATERIAL AND FINISHES MUST BE RoHS COMPLIANT



DOCUMENT NUMBER: SHEET: 043-01

500-00056

01

M. de Waal

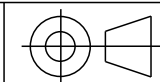
DESCRIPTION:

FLEX SXP MECHANICS

GENERAL ROUGHNESS:
Ra 3.2 μm

IF TOLERANCE AND TOLERANCE
TABLE ARE ABSENT THEN APPLY
DIM ± 0.2 ANGLE $\pm 1^\circ$

UNIT:
mm



SCALE:
3:10

FORMAT:
A3

SHEET:
1/1

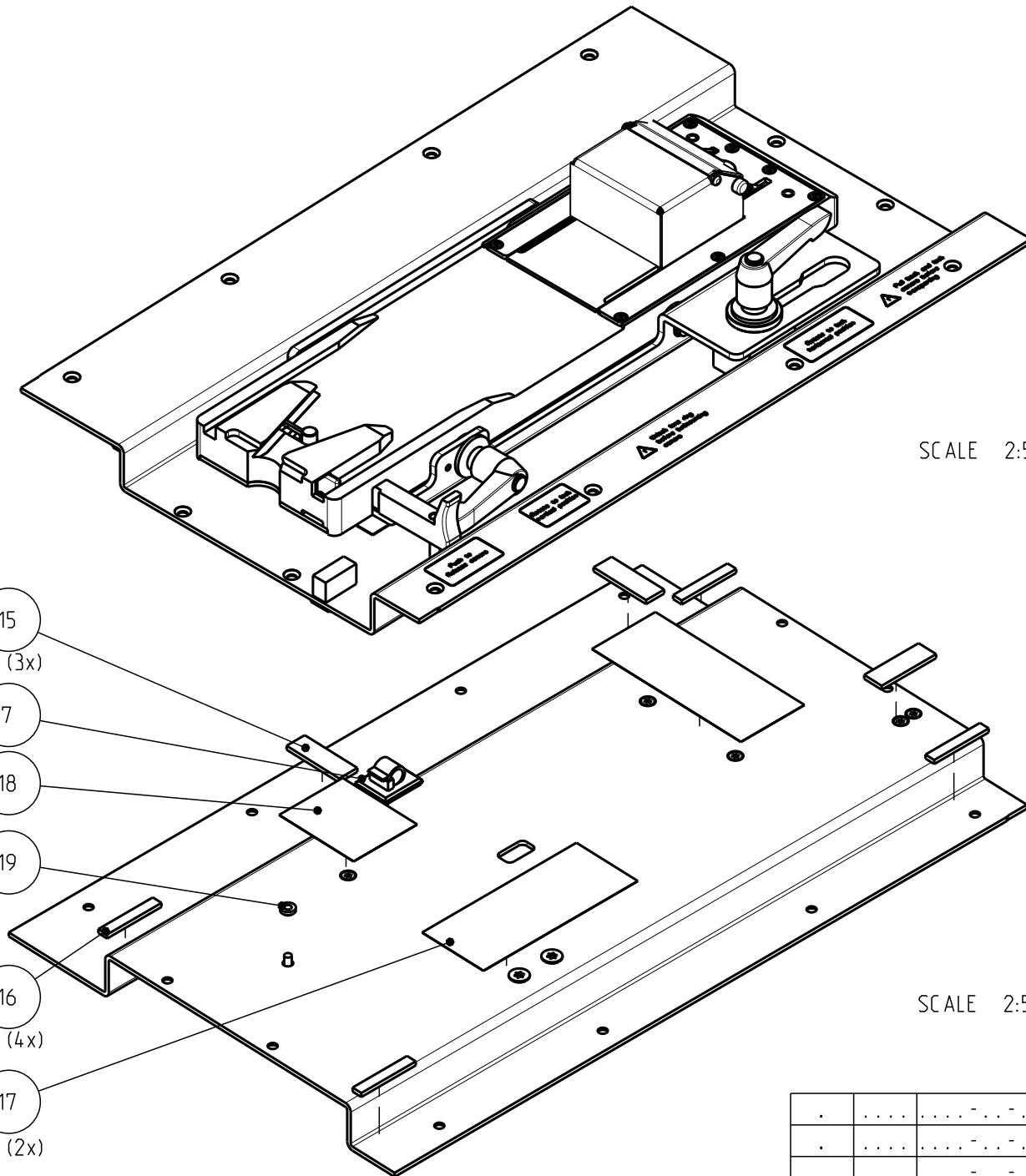
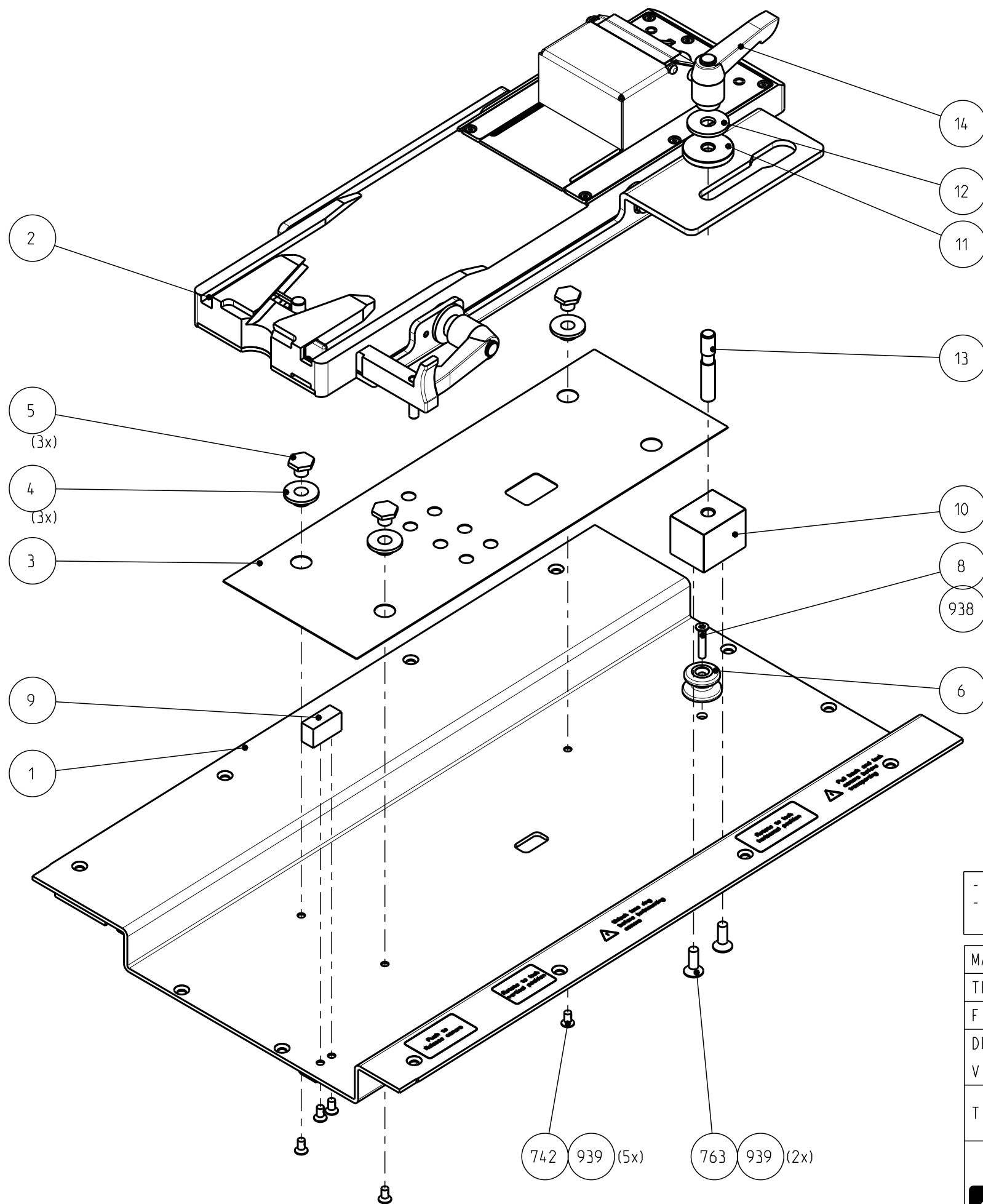
3922 407 57721 FLEX TOPPLATE ASSY

List of Field Replacable Units (FRUs):


Pos	Part Number	Description
1	3922 407 58462	TOPPLATE PAINTED
2	3922 407 57631	FLEX QUICKMOUNT ASSEMBLY
7	2422 015 05429	SELFADHESIVE CLAMP 5MM
15	1222 103 98065	CELRUBBER ZK/CR FEST 10X2MM
17	3922 405 04851	PROTECTION SHIELD

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RoHS COMPLIANCE MARKING OR LABEL

MATERIAL:	SEE PARTS LIST			Rev	Name	Date
TREATMENT:			1		
FINISH:	....				
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:			
V.Heijman	2011-03-03	Ra 3.2 n um	DIMENSION: $\pm 0,2$ | ANGLE: $\pm 1^\circ$			
TITLE:	FLEX TOPPLATE ASSY					
		DOCUMENT NUMBER	FORMAT	SHEET		
		3922 407 5772	A3	1/1		
		RELEASE LEVEL:		110-01		

3922 407 60911 SET OF ADD.SUPPL.LDK4475

List of Field Replacable Units (FRUs):

Pos	Part Number	Description
3	3922 404 23105	LENSHANDLE LLA 2/3 INCH

Maintenance Manual

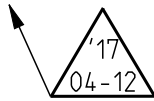
Yes

Pos	Part Number	Description	Service - FRU
4	3922 407 54531	CABLECLAMP VELCRO	Yes

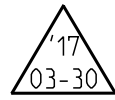
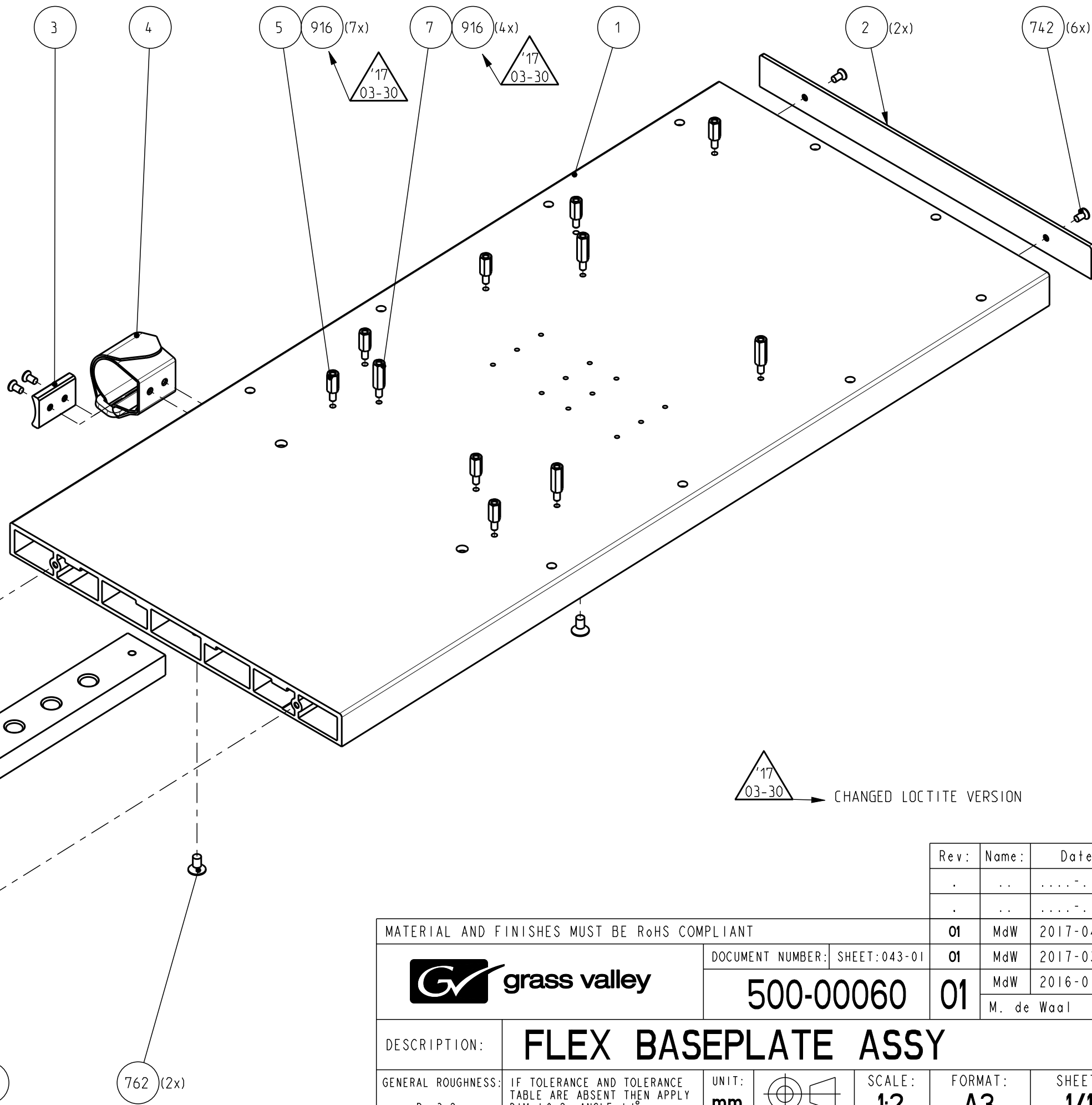
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TORQUE TABLE	
Tolerances unless otherwise stated: $\pm 10\%$	
Torque unless otherwise stated:	
Thread size	Torque (Nm)
M2	0.5
M2.5	0.75
M3	1
M4	2



ADDED TORQUE TABLE



CHANGED LOCTITE VERSION

MATERIAL AND FINISHES MUST BE RoHS COMPLIANT



DOCUMENT NUMBER: SHEET: 043-01

500-00060

Rev:	Name:	Date:
.-.-.-.
.-.-.-.
01	MdW	2017-04-12
01	MdW	2017-03-30
01	MdW	2016-01-20
M. de Waal		

DESCRIPTION: **FLEX BASEPLATE ASSY**

GENERAL ROUGHNESS: Ra 3.2 um	IF TOLERANCE AND TOLERANCE TABLE ARE ABSENT THEN APPLY DIM ± 0.2 ANGLE $\pm 1^\circ$	UNIT: mm		SCALE: 1:2	FORMAT: A3	SHEET: 1/1
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500-00057-01

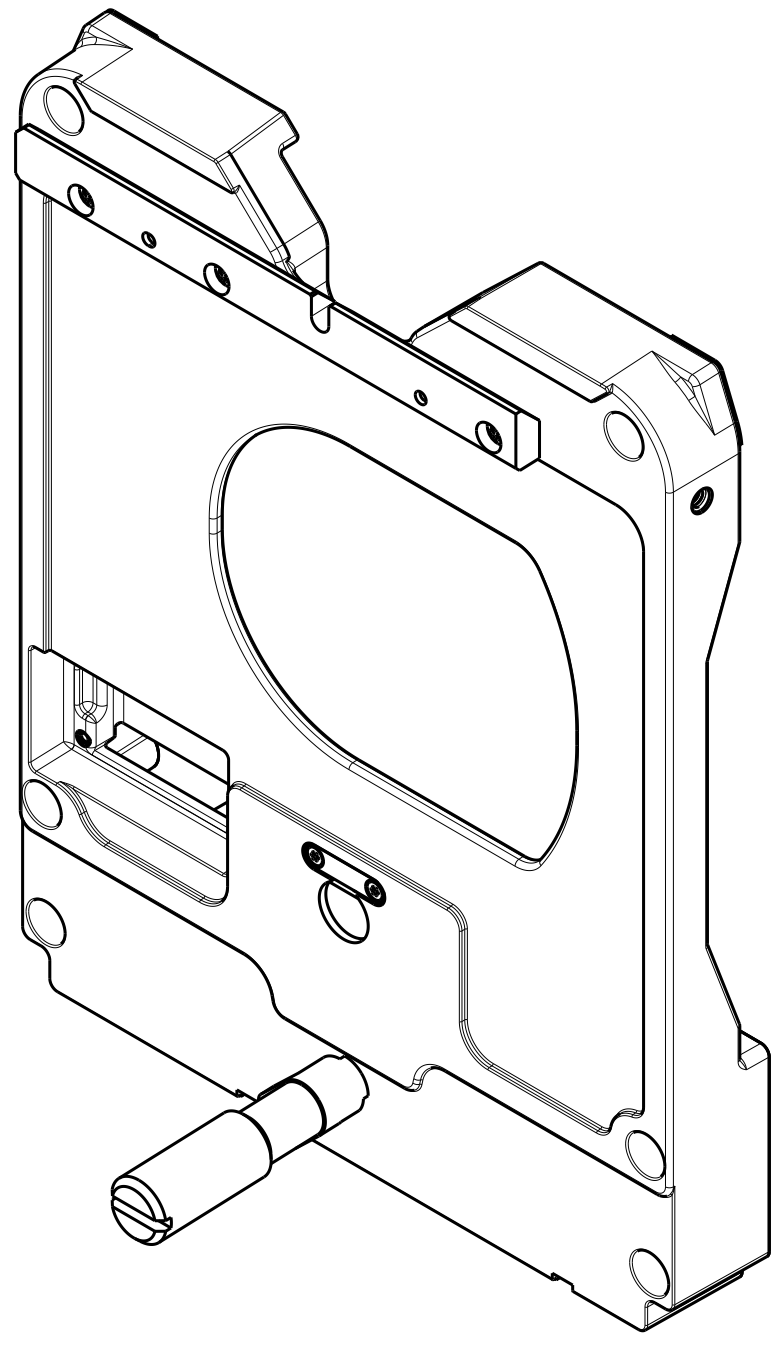
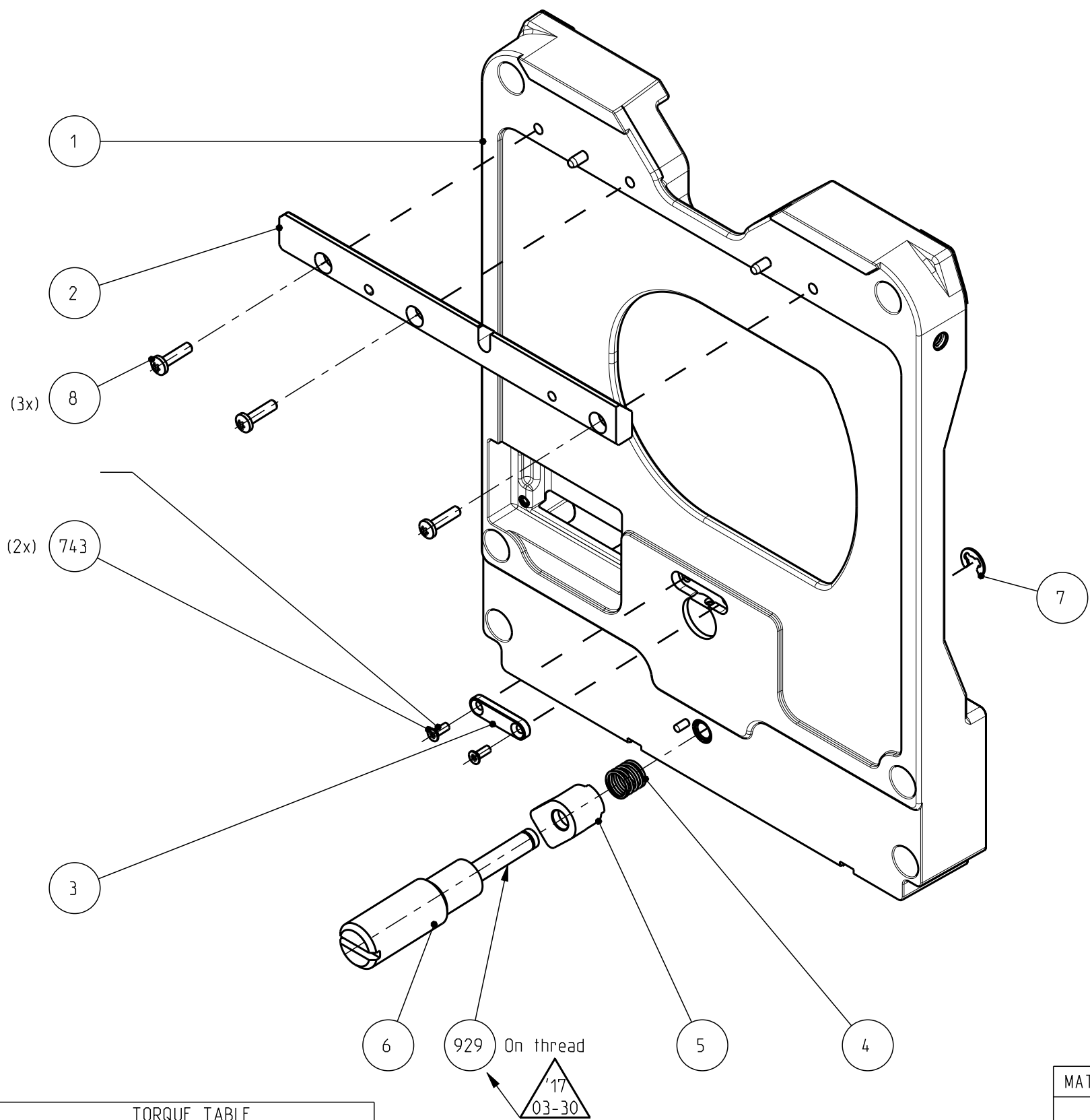
FRONTPLATE ASSY

List of Field Replacable Units (FRUs):

Pos	Part Number	Description
1	520-00007-01	FRONTPLATE PAINTED
2	3922 404 36541	CARRYING BEAM
3	3922 404 34862	SXP PARALLEL KEY
4	3922 404 05261	COMPRESSION SPRING
5	3922 404 16272	CLAMPINGPIECE
6	3922 404 16263	SPINDLE


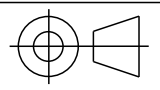
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TORQUE TABLE	
Tolerances unless otherwise stated: $\pm 10\%$	
Torque unless otherwise stated:	
Thread size	Torque (Nm)
M2	0.5
M2.5	0.75
M3	1
M4	2

ADDED TORQUE TABLE

MATERIAL AND FINISHES MUST BE RoHS COMPLIANT				Rev:	Name:	Date:
			-.-.-..
			-.-.-..
DOCUMENT NUMBER: SHEET: 043-01				01	MdW	2017-03-30
500-00057				01	MdW	2016-01-20
DESCRIPTION: FRONTPLATE ASSY				M. de Waal		
GENERAL ROUGHNESS: Ra 3.2 um	IF TOLERANCE AND TOLERANCE TABLE ARE ABSENT THEN APPLY DIM ± 0.2 ANGLE $\pm 1^\circ$	UNIT: mm		SCALE: 1:2	FORMAT: A3	SHEET: 1/1

500-00058-01 FLEX ARM LEFT ASSY

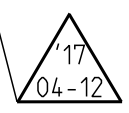
List of Field Replacable Units (FRUs):

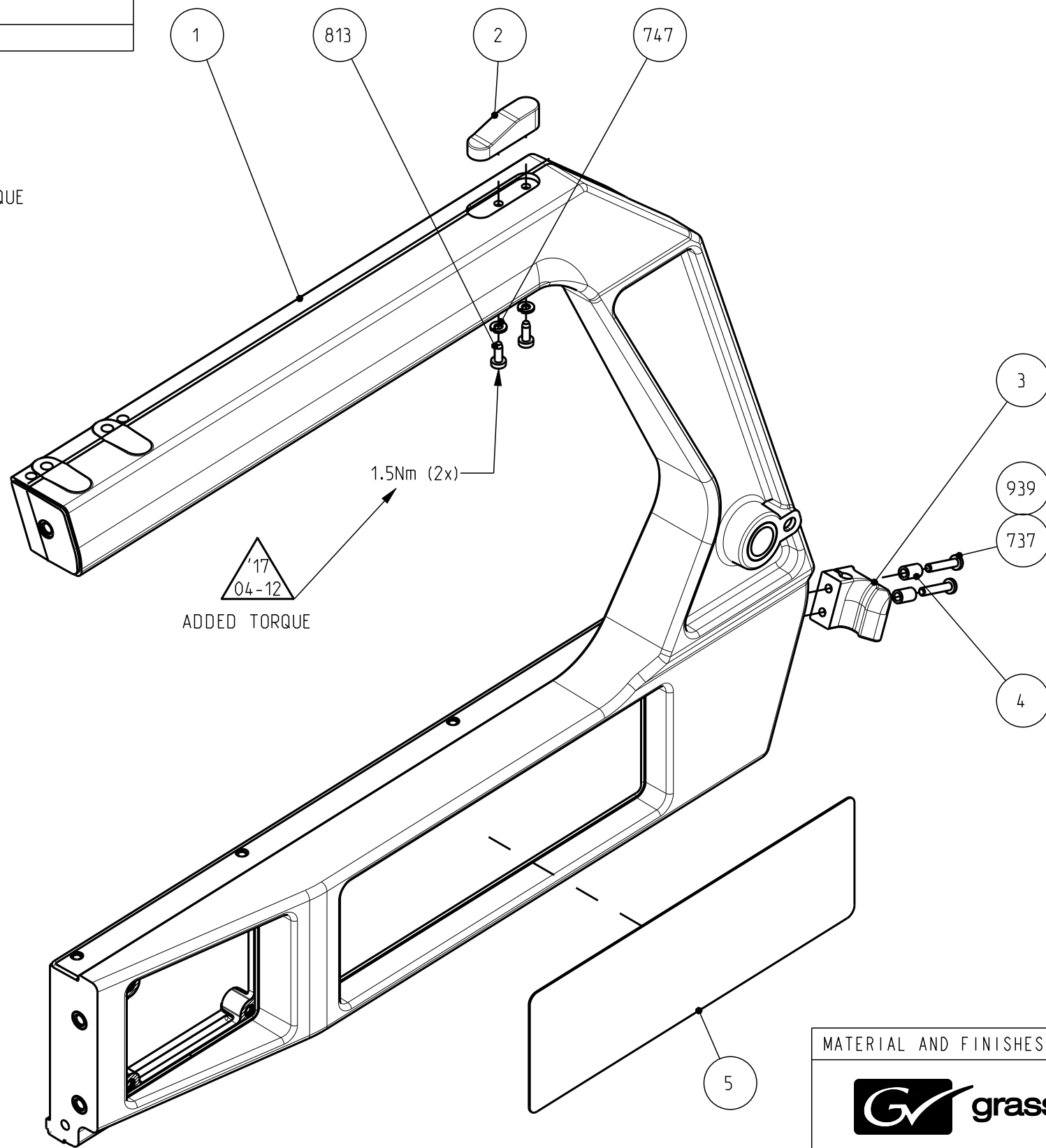
Pos	Part Number	Description
1	520-00006-01	ARM LEFT PAINTED
2	3922 405 03923	ENDSTOP
3	3922 405 04302	CABLE GUIDE
4	2522 627 01021	DIST BUSH AL 3.1X5X8
5	518-00038-01	STICKER SUPERXPANDER


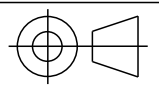
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TORQUE TABLE	
Tolerances unless otherwise stated: $\pm 10\%$	
Torque unless otherwise stated:	
Thread size	Torque (Nm)
M2	0.5
M2.5	0.75
M3	1
M4	2


ADDED TORQUE



MATERIAL AND FINISHES MUST BE RoHS COMPLIANT				Rev:	Name:	Date:
 grass valley				DOCUMENT NUMBER:	SHEET: 043-01	01
				500-00058		
DESCRIPTION:				01	MdW	2017-04-12
GENERAL ROUGHNESS:					MdW	2016-01-20
Ra 3.2 um				M. de Waal		
IF TOLERANCE AND TOLERANCE TABLE ARE ABSENT THEN APPLY DIM ± 0.2 ANGLE $\pm 1^\circ$				UNIT:	SCALE:	FORMAT:
				mm	1:2	A3
					SHEET: 1/1	

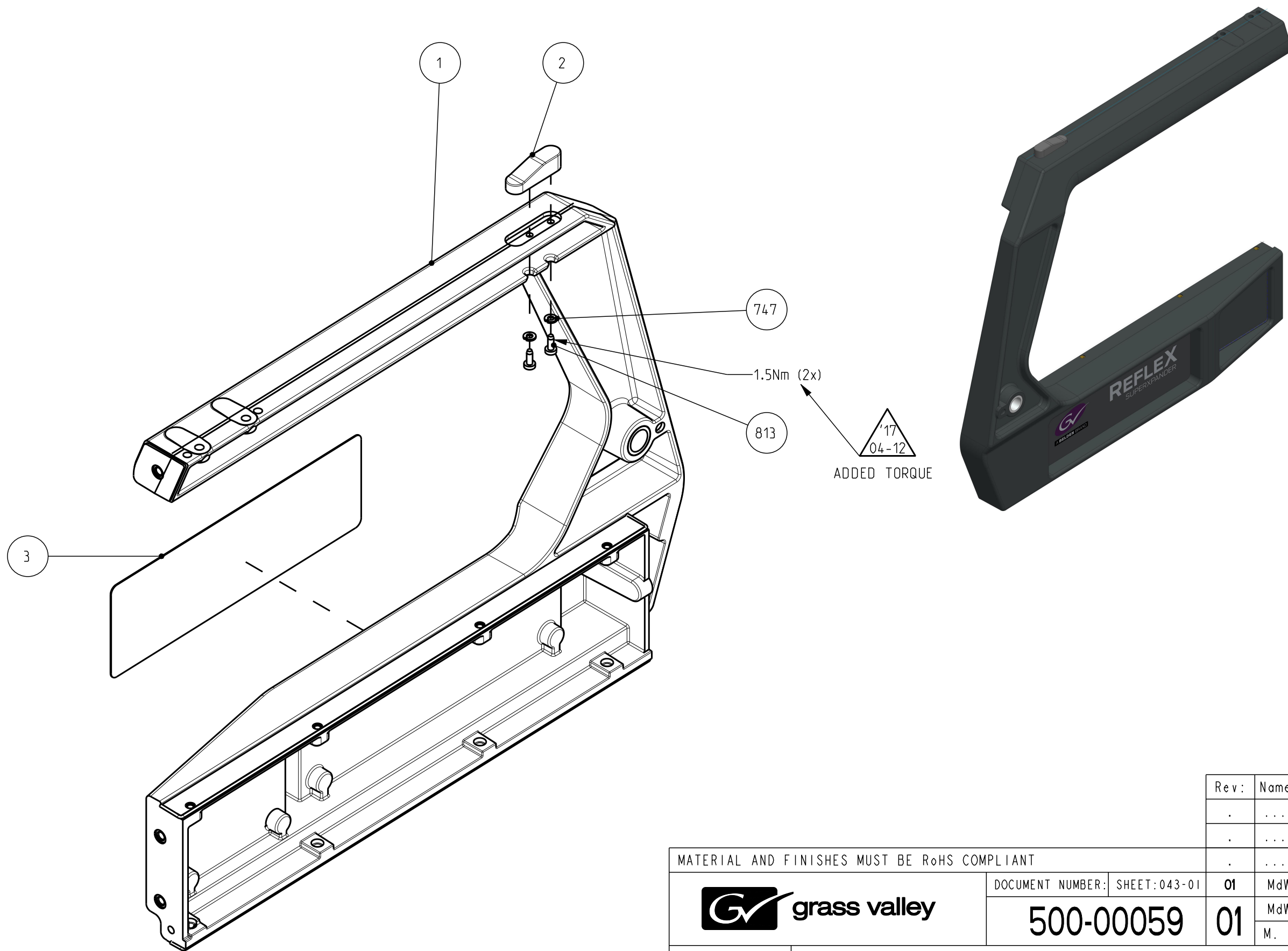
500-00059-01 FLEX ARM RIGHT ASSY

List of Field Replacable Units (FRUs):

Pos	Part Number	Description
1	520-00005-01	ARM RIGHT PAINTED
2	3922 405 03923	ENDSTOP
3	518-00038-01	STICKER SUPERXPANDER

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MATERIAL AND FINISHES MUST BE RoHS COMPLIANT



DOCUMENT NUMBER: SHEET: 043-01

500-00059 01

Rev:	Name:	Date:
.-..-..
.-..-..
.-..-..
.-..-..

MdW	2017-04-12
MdW	2016-01-20
M. de Waal	

DESCRIPTION:	FLEX ARM RIGHT ASSY				
GENERAL ROUGHNESS: Ra 3.2 um	IF TOLERANCE AND TOLERANCE TABLE ARE ABSENT THEN APPLY DIM ± 0.2 ANGLE $\pm 1^\circ$	UNIT: mm		SCALE: 1:2	FORMAT: A3
				SHEET: 1/1	