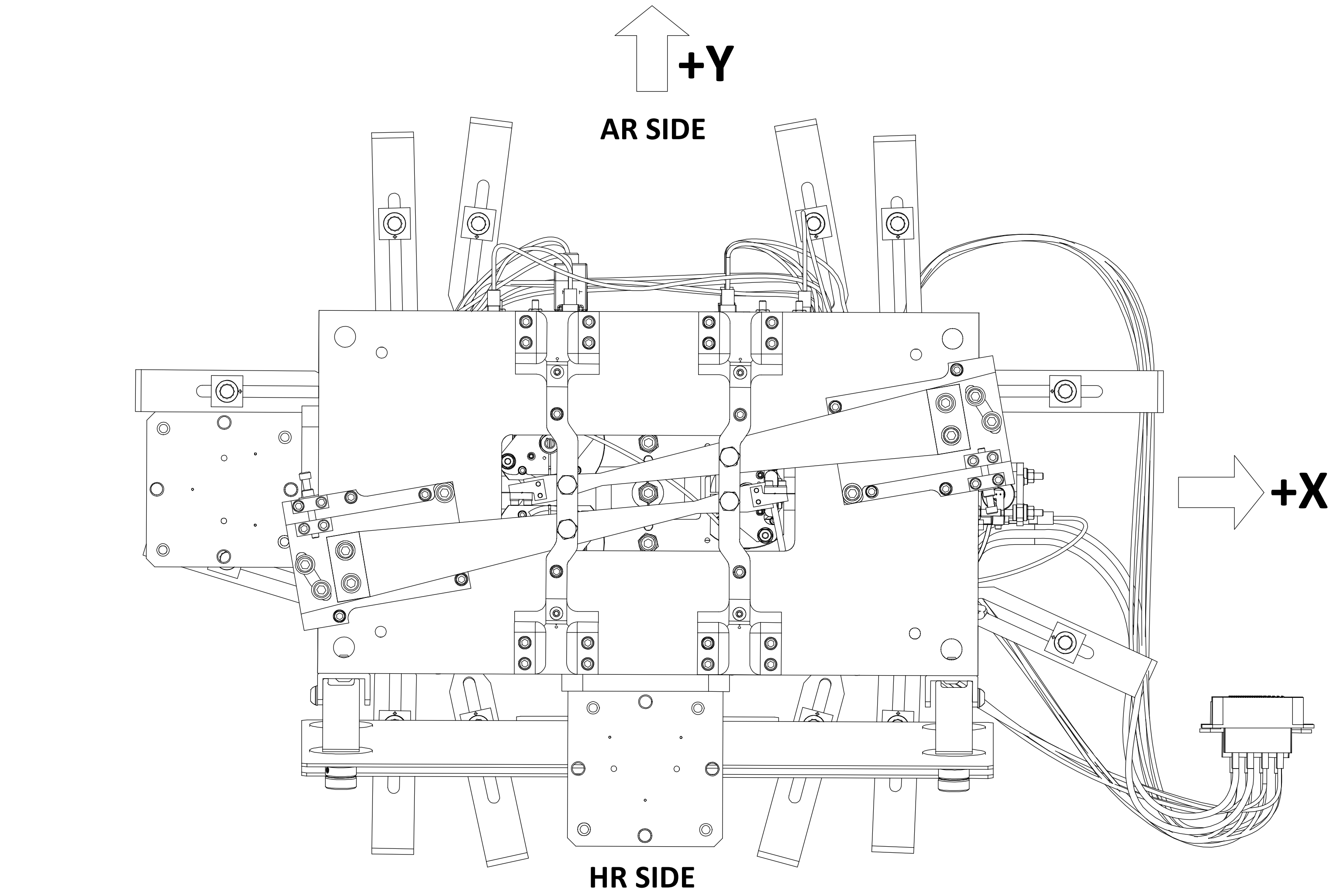


NOTES CONTINUED:

③ VIBRATION ABSORBER ATTACHED USING
HARDWARE SUPPLIED WITH D1002424.

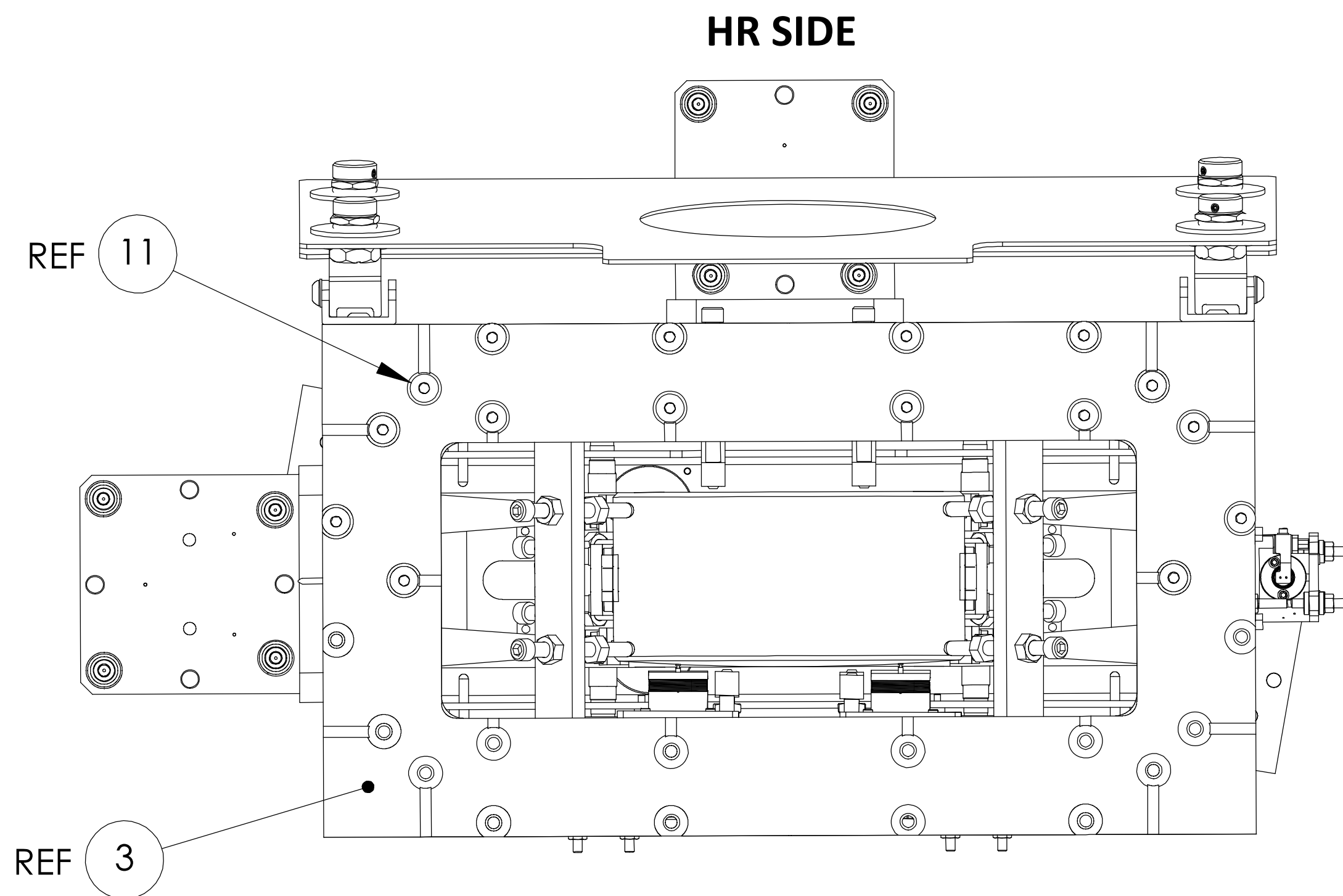
INSTALL CONFIGURATION (IN CHAMBER - DOORS CLOSED)
H1 HSTS FC2

REV.	DATE	DCN #	DRAWING TREE #
v1	29 MAR 2022	-	
v2	13 APR 2022	E2200058	
v3	27 SEP 2022	E2200399	

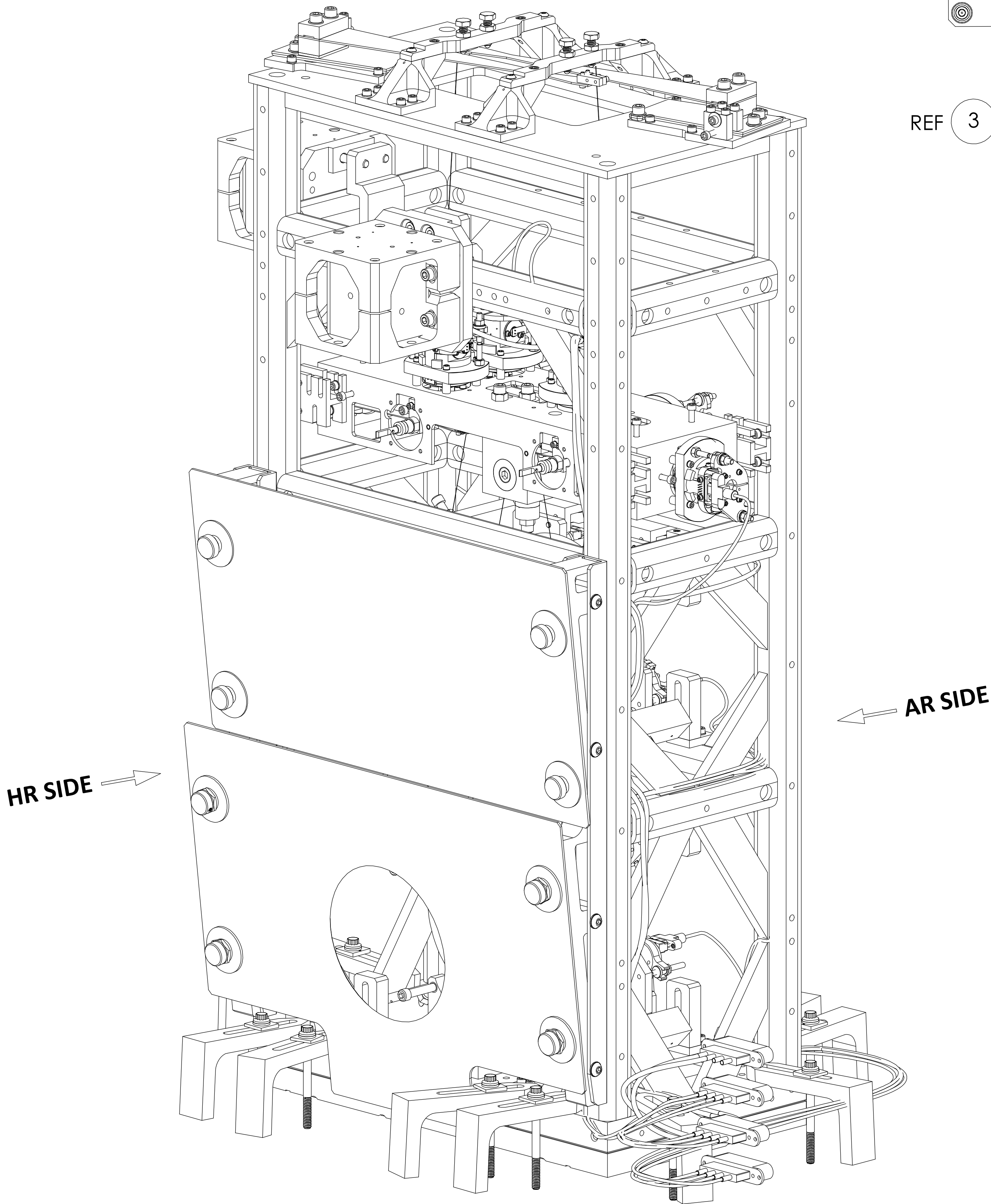
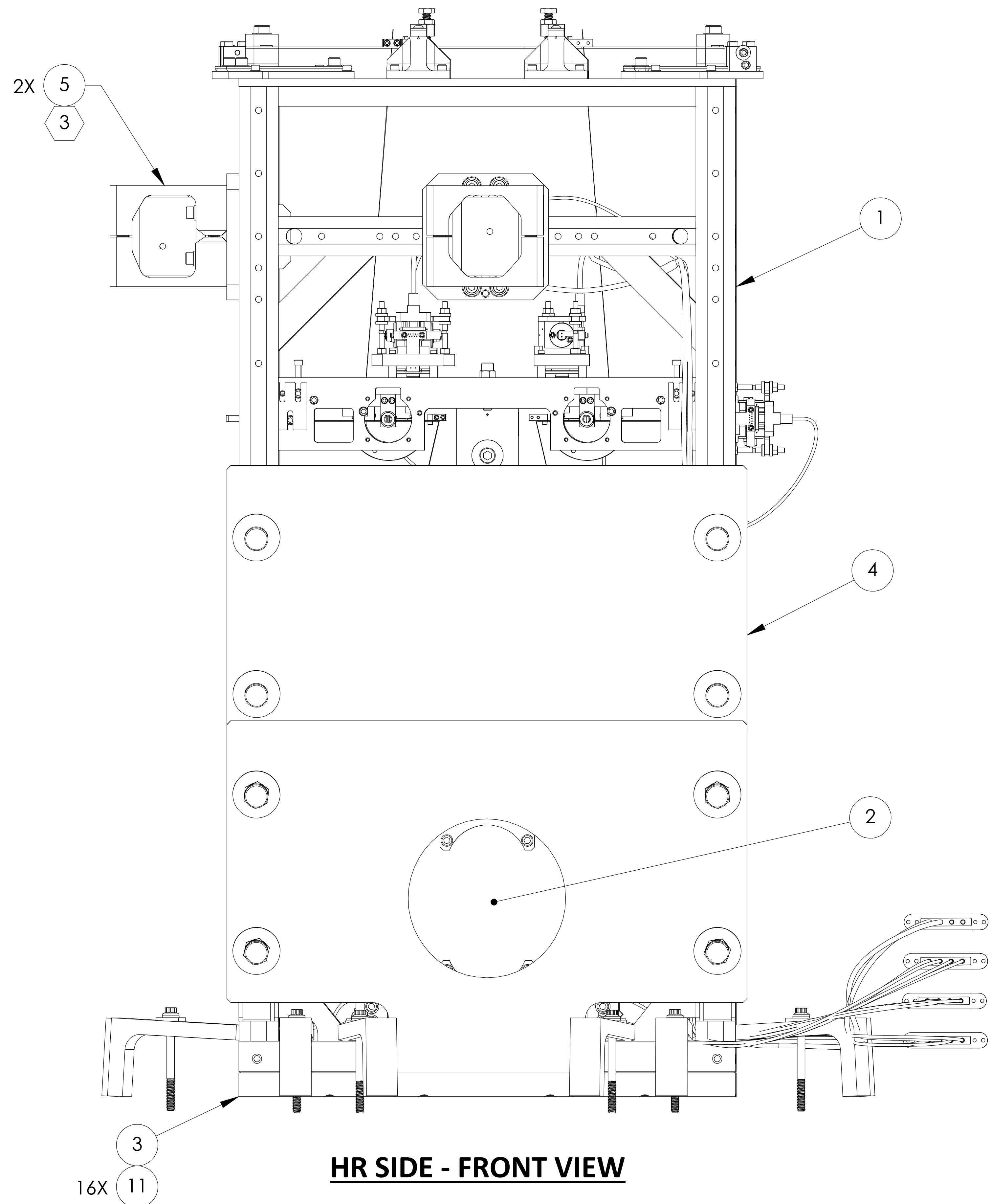


HAM8-H1 CABLES				
ROUTE NO.	FROM OSEM POSITION	TO CB FLOOR DES.	CABLE PART NO.	NOM. CABLE LENGTH (IN)
1	M3-UL(S)	CB-2 (1ST)	D2100049	36
	M3-LL(N)			
	M3-UR(N)			
	M3-LR(S)			
2	M2-UL(S)	CB-2 (2ND)	D2100049	45
	M2-LL(N)			
	M2-UR(N)			
	M2-LR(S)			
3	M1-T3(N)	CB-2 (3RD)	D2100049	54
	M1-LF(N)			
	M1-RT(S)			
	M1-SD(S)			
4	M1-T1(S)	CB-2 (4TH)	D2100050	54
	M1-T2(S)			

LOCAL COORDINATES - SEE SHEET 3 FOR REFERENCE			
X mm	Y mm	Z mm	YAW
-532.201	-175.410	- 98.318	0.205 °



AR SIDE
BOTTOM VIEW
(CABLES AND DOG CLAMPS NOT SHOWN)



3D VIEW

PARTS LIST				
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D1900325	A+ SUS, HSTS Overall Assembly	N/A	1
2	D2200111	A+, COC, H1-FC2 Optic Assembly	N/A	1
3	D2000602	HSTS SUS STRUCTURE SPACER 8.91MM	6061-T6 Al	1
4	D1900497-01	A+, SUS, HSTS BAFFLE ASSY.	N/A	1
5	D1002424	VIBRATION ABSORBER ASSEMBLY	N/A	2
6	D2200113	A+, SUS, HSTS Installation Plate	6061-T6 Al	1
7	D1100641-15	AdvLIGO HAM Optics Table Dog Clamp Chamfered End 2.0L	304 SSSL	12
8	D1201293-3	ALIGO, SUS, 1/4 WASHER, BEVELED	304 SSSL	12
9	D1100785-530	WASHER, FLAT, .25 X .530 O.D.	NITRONIC 60	12
10	2AL3.00-12SL	1/4-20 X 3.00 12PT BOLT	450 SSSL	12
11	FA-2020-NA	SCREW, FHSC, 1/4-20 X 1.25, Ag PLATED	Ag-PLATED 300 SSSL	16
12	UC COMPONENTS #C-2012-N (OR EQUIVALENT)	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 0.75 LONG, FULLY THREADED	300 SSSL	2

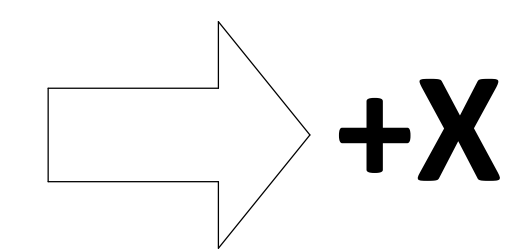
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)
1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. DO NOT SCALE FROM DRAWING.

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PART NAME
A+ SUS HAM8-H1, XYZ Local CS for HSTS

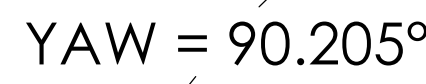
SYSTEM		SUB-SYSTEM		DESIGNER	SIZE	DWG. NO.	REV.
A+		SUS		D. GRIFFITH	E	D1900368	v3
MATERIAL		FINISH		DRAFTER	DATE	SCALE: 1:5	
N/A		N/A μinch		SEE DCC	28 MAR 2022		
NEXT ASSY		D1900369		CHECKER	SEE DCC	PROJECTION:	
				APPROVAL		SHEET 1 OF 9	

+Y

A large, hollow upward-pointing arrow, indicating a positive or upward direction.

 LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO. E	REV. D1900368 v3
SCALE: 1:5 PROJECTION: 	SHEET 2 OF 9

LOCAL COORDINATES DEFINITION


$$Y = - \frac{6.906}{[175.410]}$$

B.

FC2 LOCAL CS

$$\bar{X} = -20.953$$

TOP VIEW

(BAFFLE AND CABLE ASSEMBLIES NOT SHOWN)

+X

+Z

$$Z = - \frac{3.871}{\sqrt{98.318}}$$
$$Z = -\frac{10.139}{\sqrt{257.520}}$$

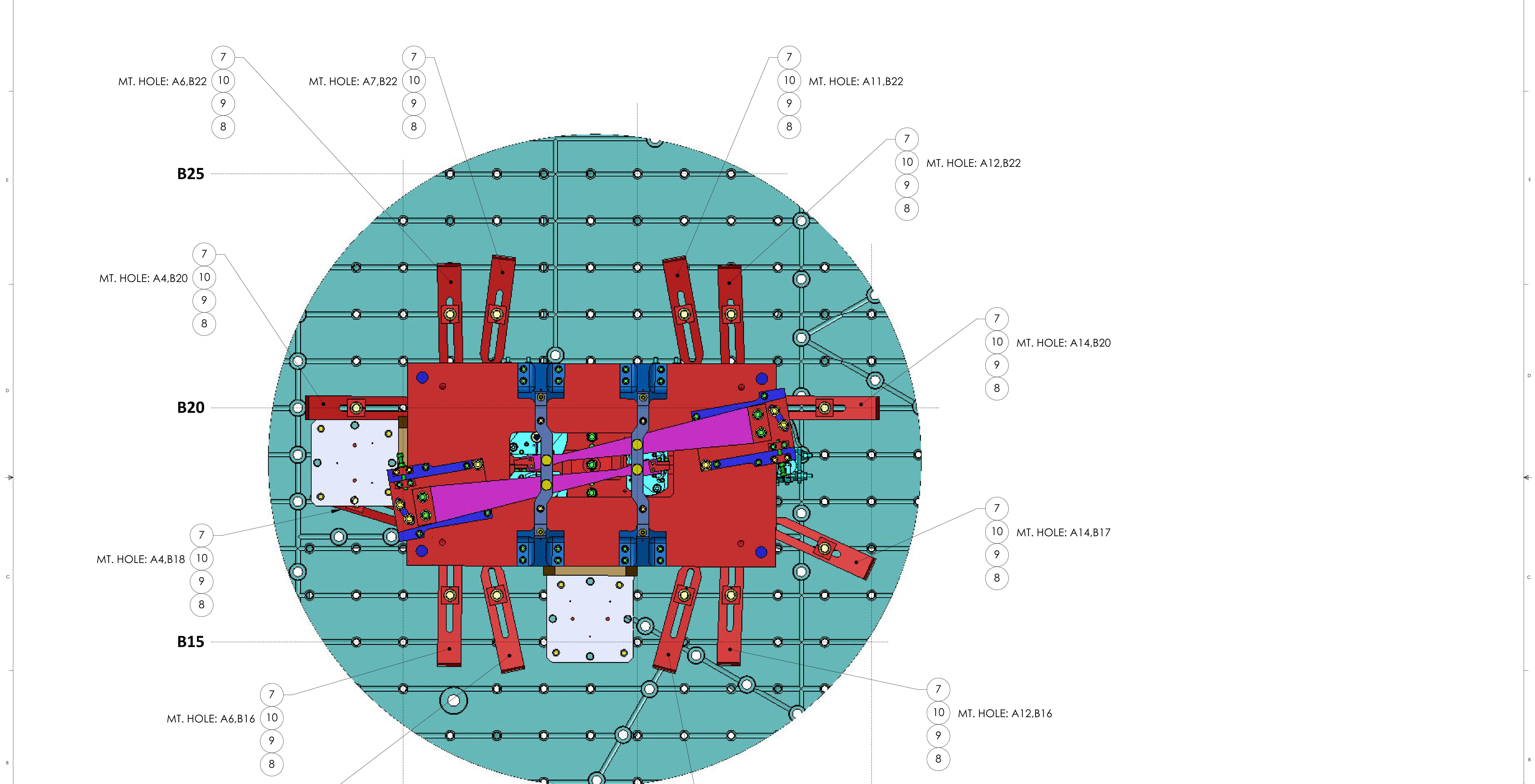
—FC2 LOCAL CS

—HAM CHAMBER LOCAL CS

+X

FRONT VIEW

(BAFFLE AND CABLE ASSEMBLIES NOT SHOWN)



MT. HOLE: A7,B16

A5

A10

MT HOLE: A11,B16

A15

DETAIL B
SCALE 2 : 3
(BAFFLE AND CABLE ASSEMBLIES NOT SHOWN)

PARTS LIST				
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ
1	D1900325	A+ SUS, HSTS Overall Assembly	N/A	1
2	D2200111	A+, COC, H1-FC2 Optic Assembly	N/A	1
3	D2000602	HSTS SUS STRUCTURE SPACER 8.91MM	6061-T6 Al	1
4	D1900497-01	A+, SUS, HSTS BAFFLE ASSY.	N/A	1
5	D1002424	VIBRATION ABSORBER ASSEMBLY	N/A	2
6	D2200113	A+, SUS, HSTS Installation Plate	6061-T6 Al	1
7	D1100641-15	AdvLIGO HAM Optics Table Dog Clamp Chamfered End 2.0L	304 SSTL	12
8	D1201293-3	ALIGO, SUS, 1/4 WASHER, BEVELED	304 SSTL	12
9	D1100785-530	WASHER, FLAT, .25 X .530 O.D.	NITRONIC 60	12
10	2AL3.00-12SL	1/4-20 X 3.00 12PT BOLT	450 SSTL	12
11	FA-2020-NA	SCREW, FHSC, 1/4-20 X 1.25, Ag	Ag-PLATED	16

12	UC COMPONENTS #C-2012-N (OR EQUIVALENT)	SCREW, SOCKET HEAD CAP, 1/4-20 UNC-2A X 0.75 LONG, FULLY THREADED	300 SSTL	2
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LIGO

CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE DWG. NO.

D1900368

REV.

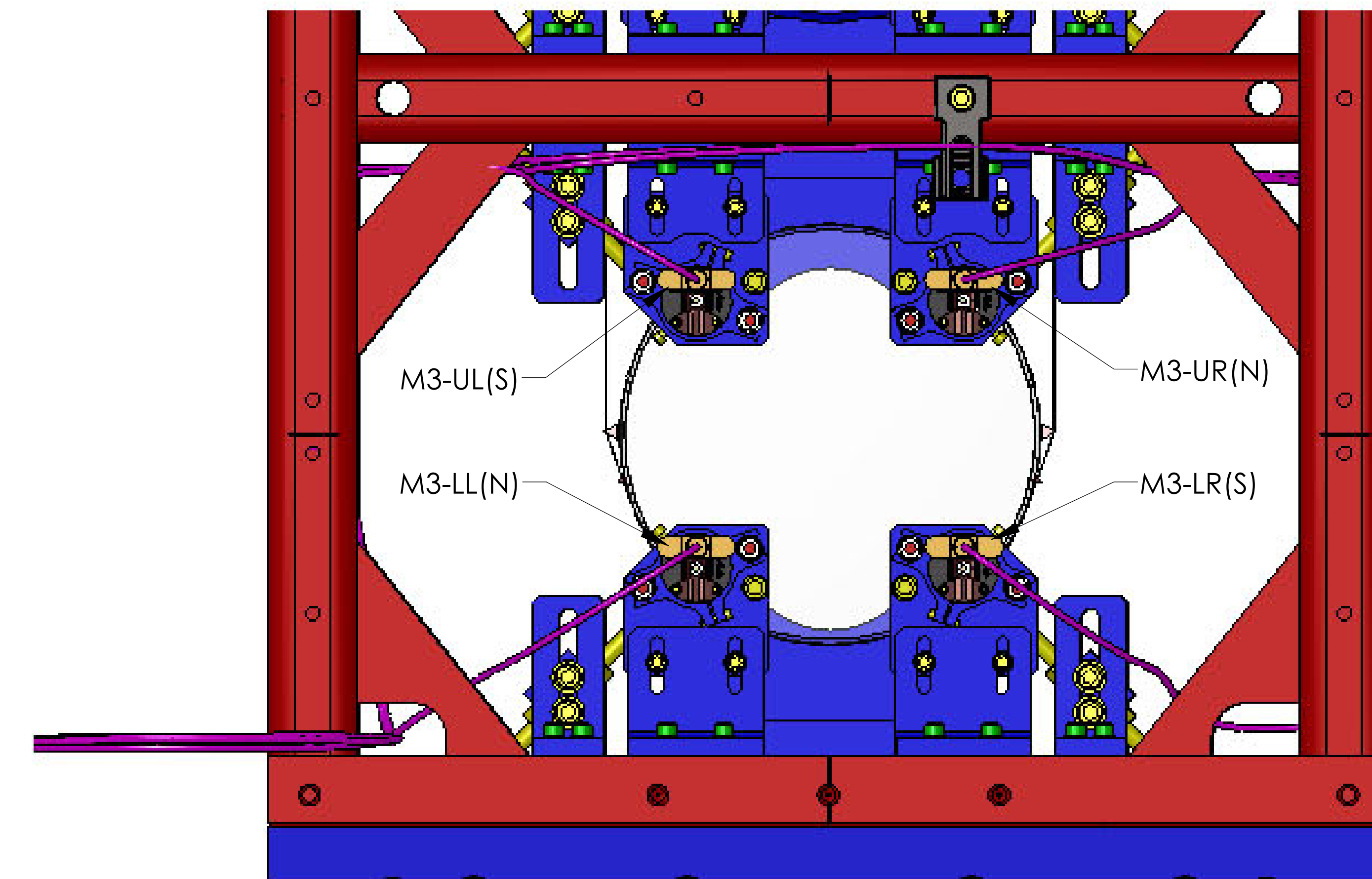
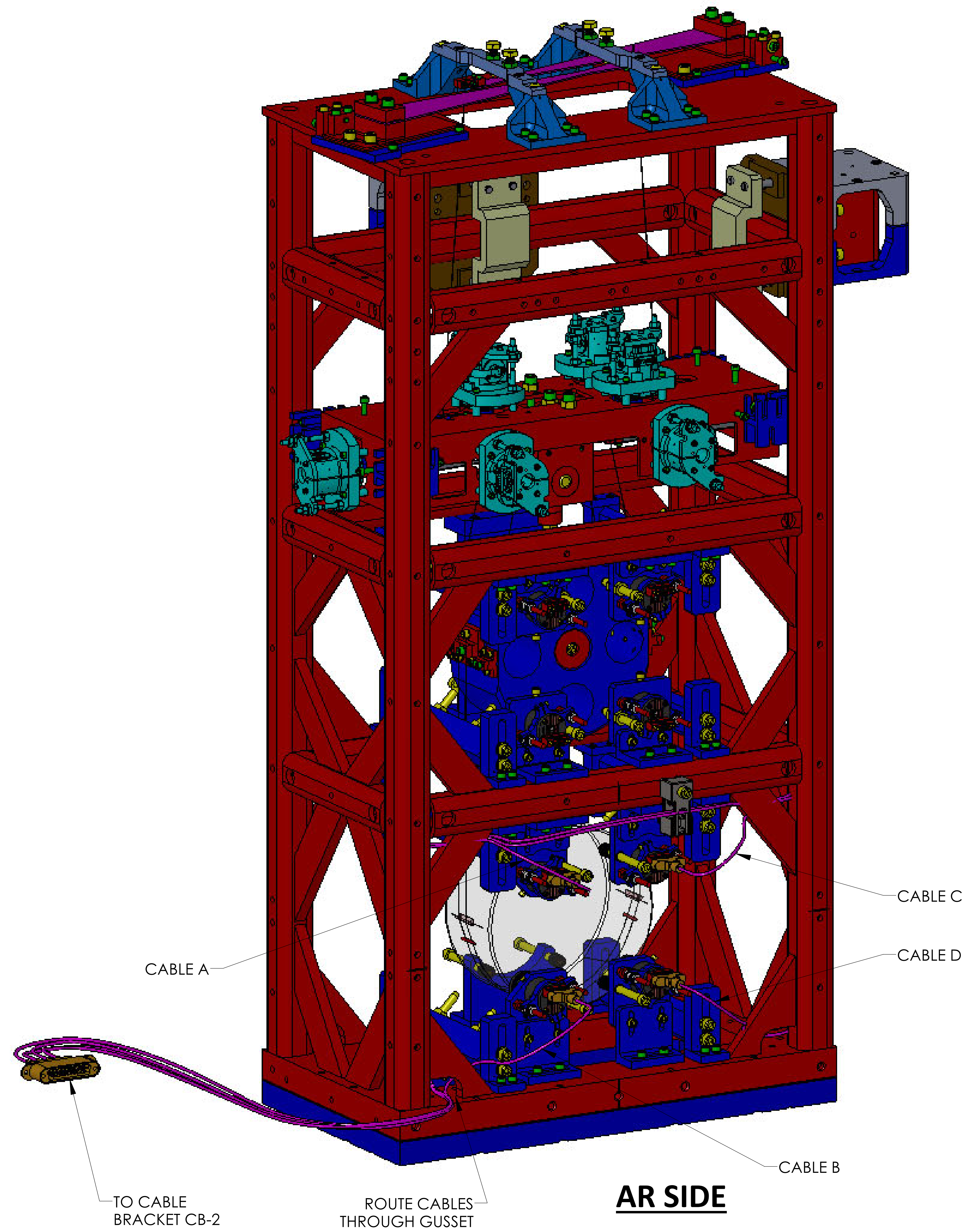
v3

SCALE: 1:10

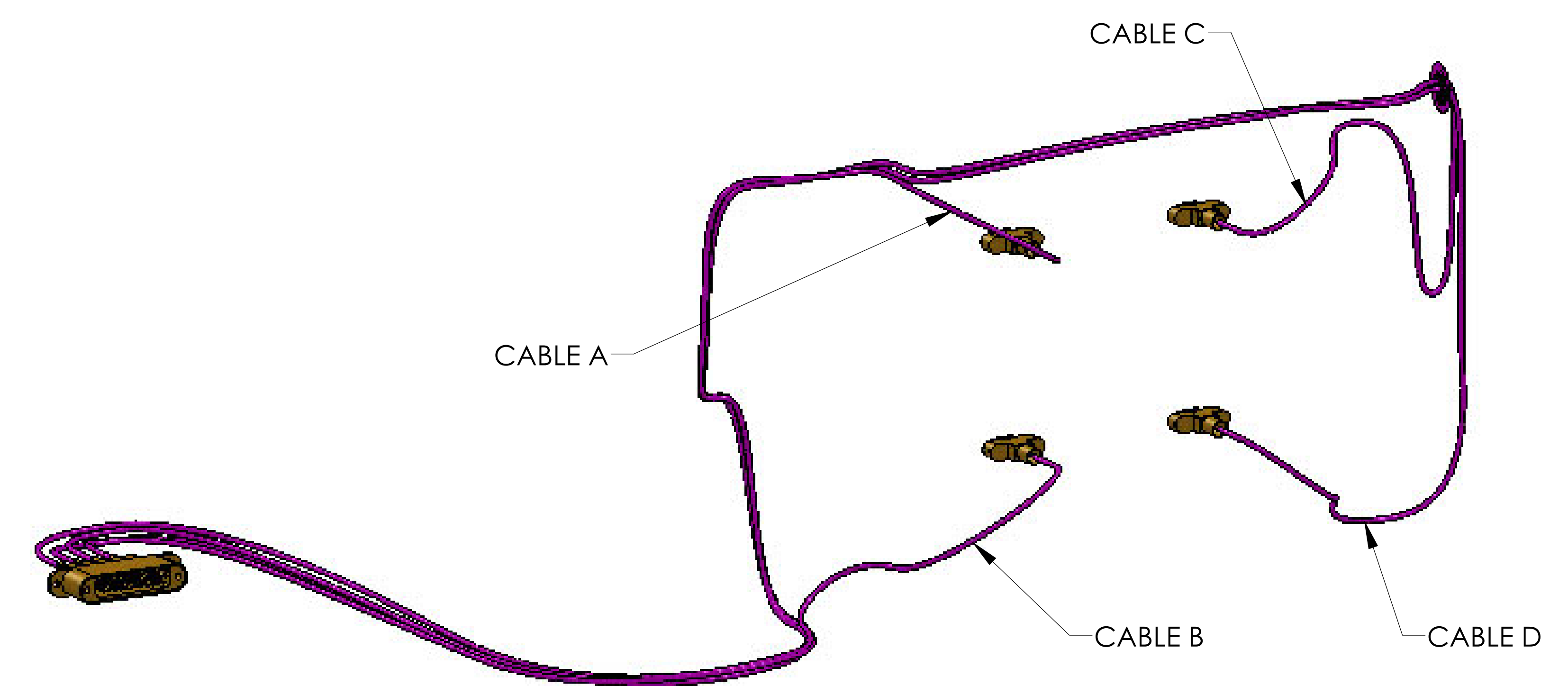
PROJECTION:

SHEET 4 OF 9

ROUTE NO 1
SEE T1200318 FOR STEP BY STEP CABLING GUIDE

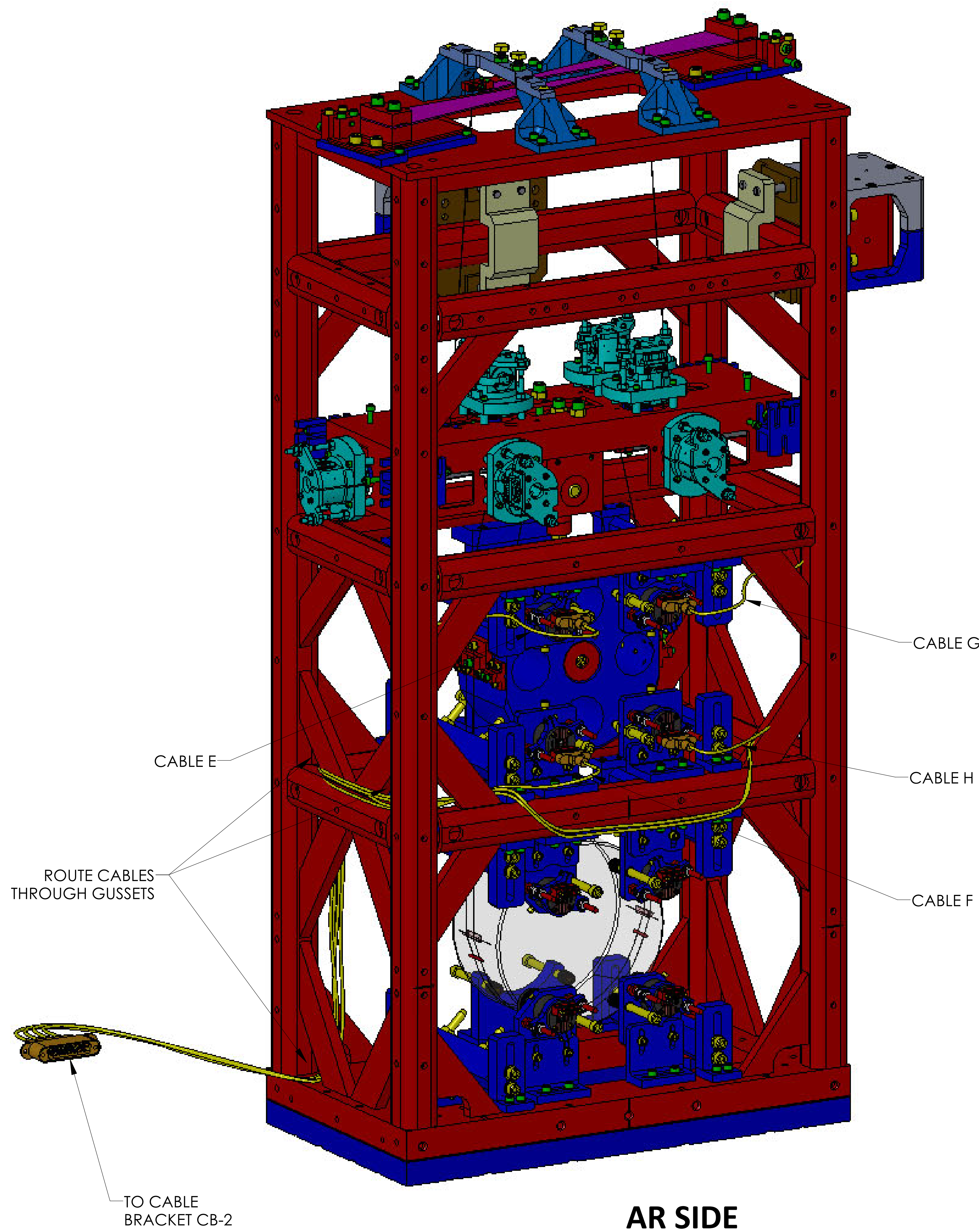


AR SIDE - BACK VIEW

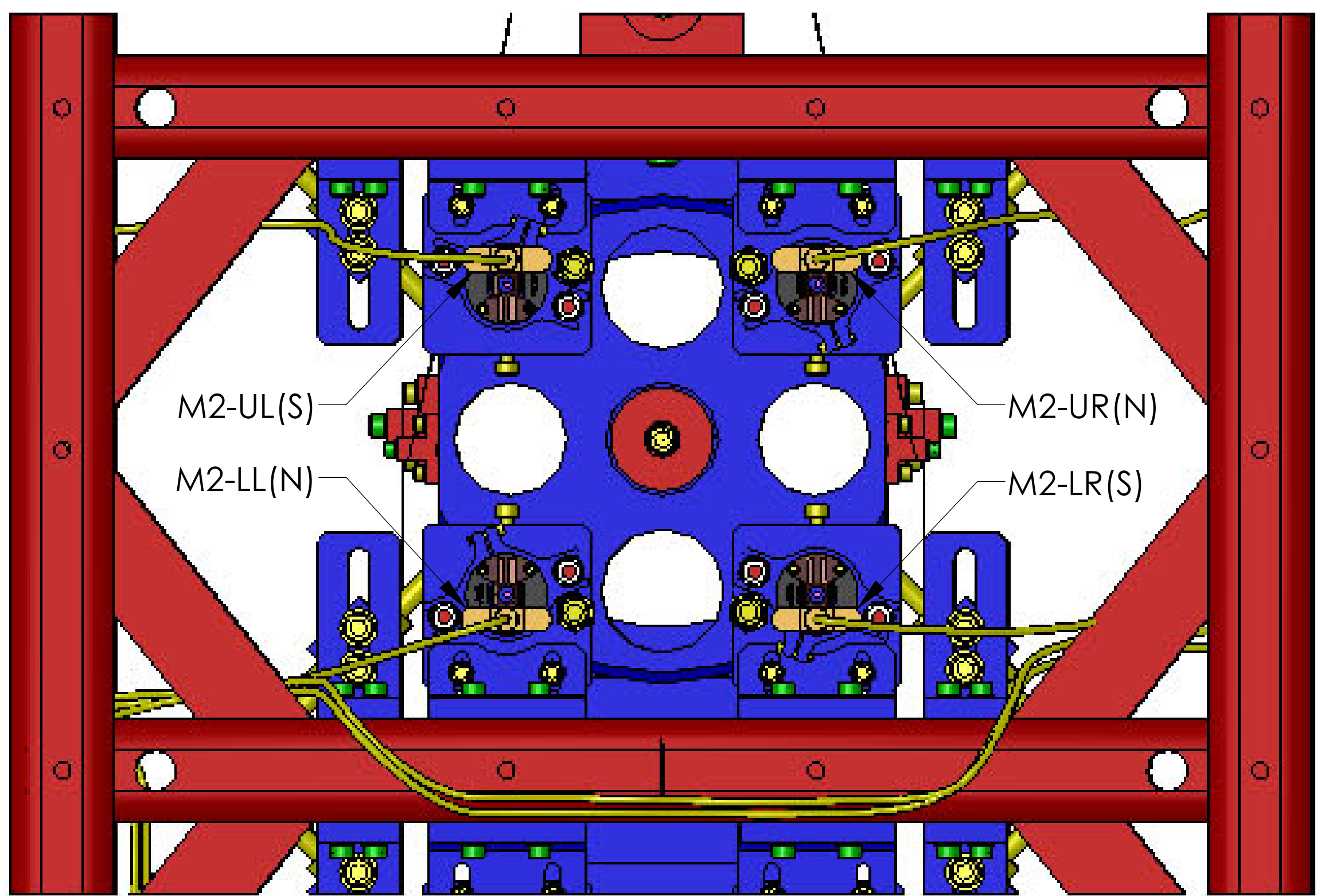


CABLE ASSEMBLY D2100049 - 36"

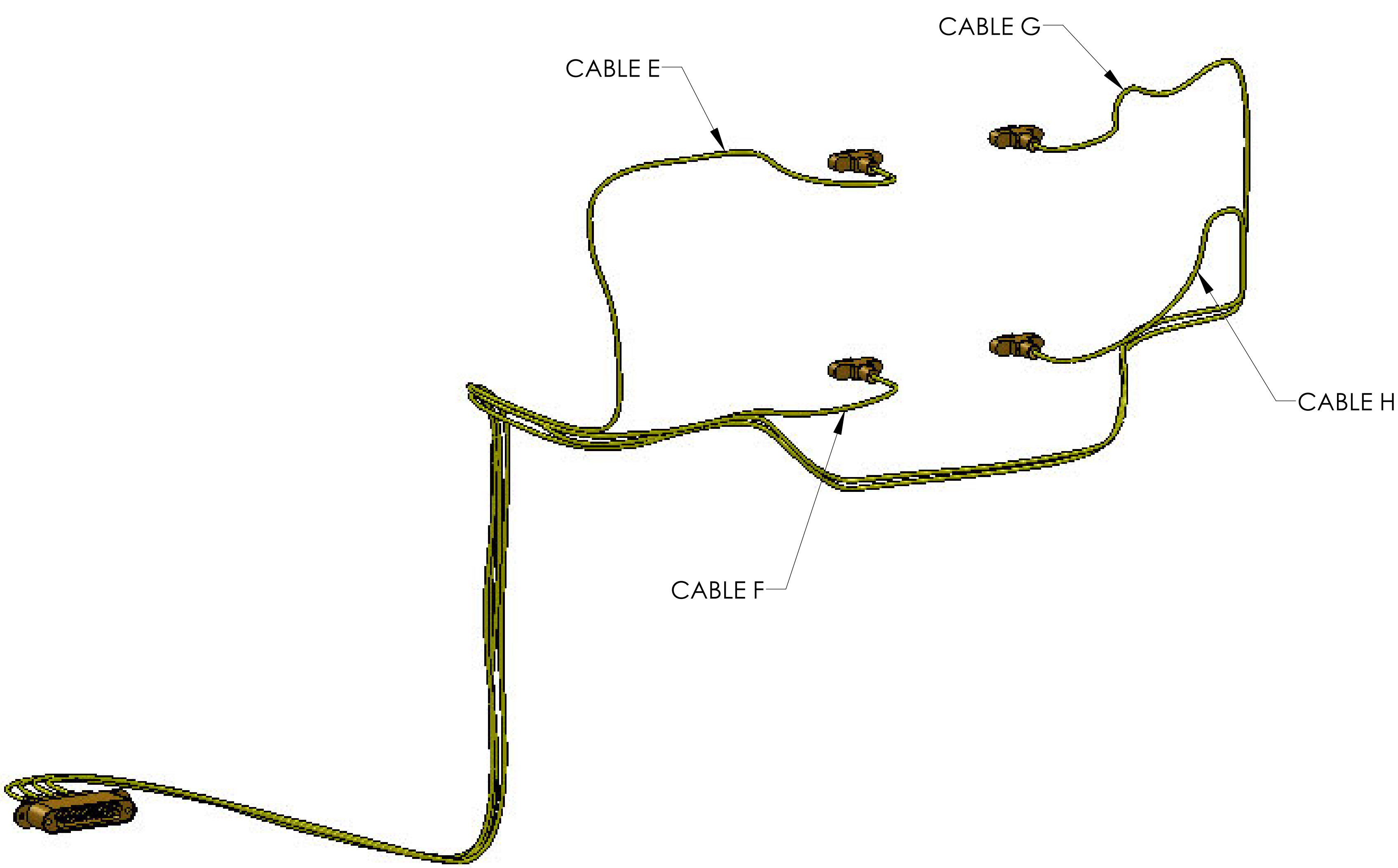
ROUTE NO 2
SEE T1200318 FOR STEP BY STEP CABLING GUIDE



AR SIDE

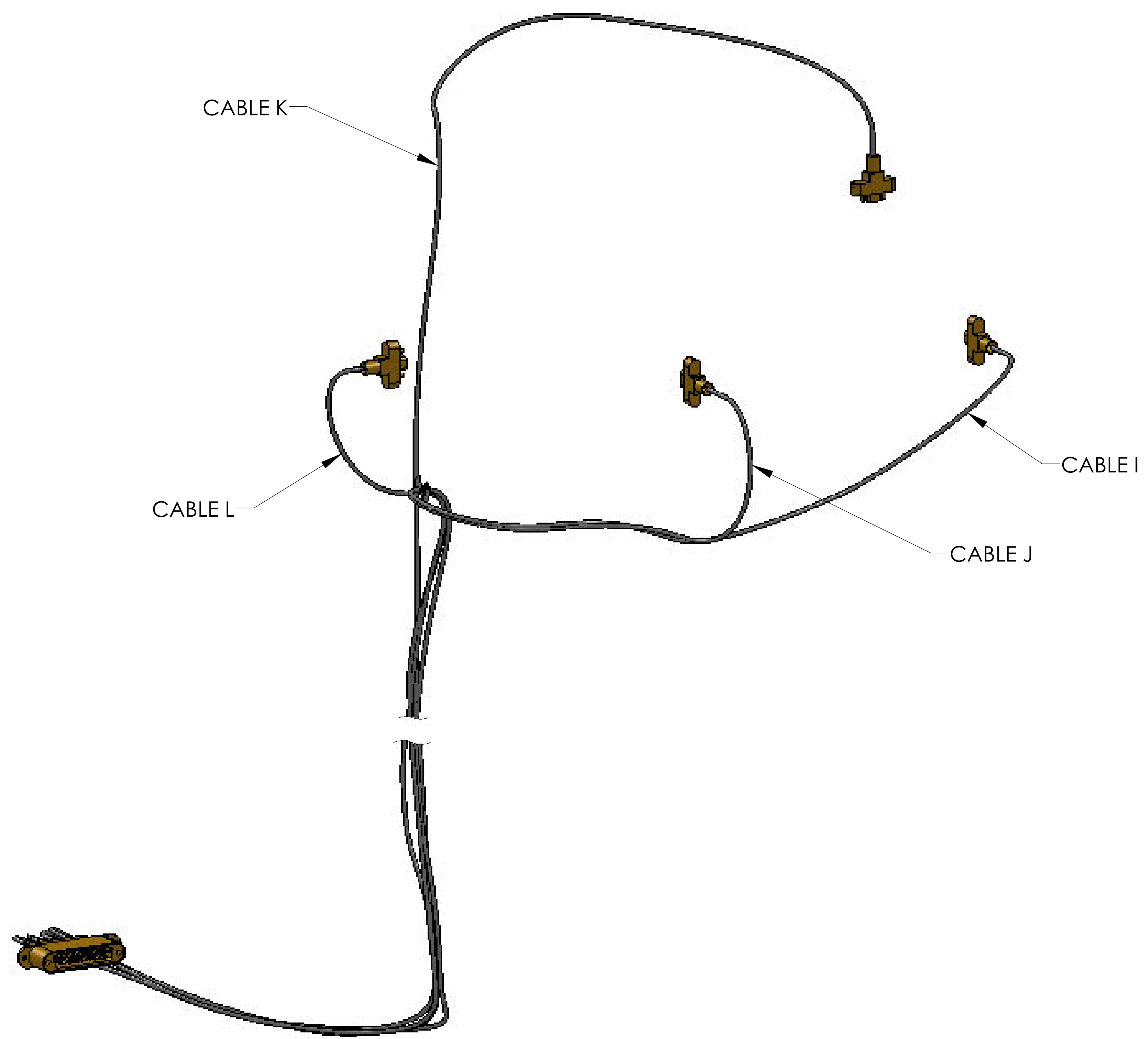
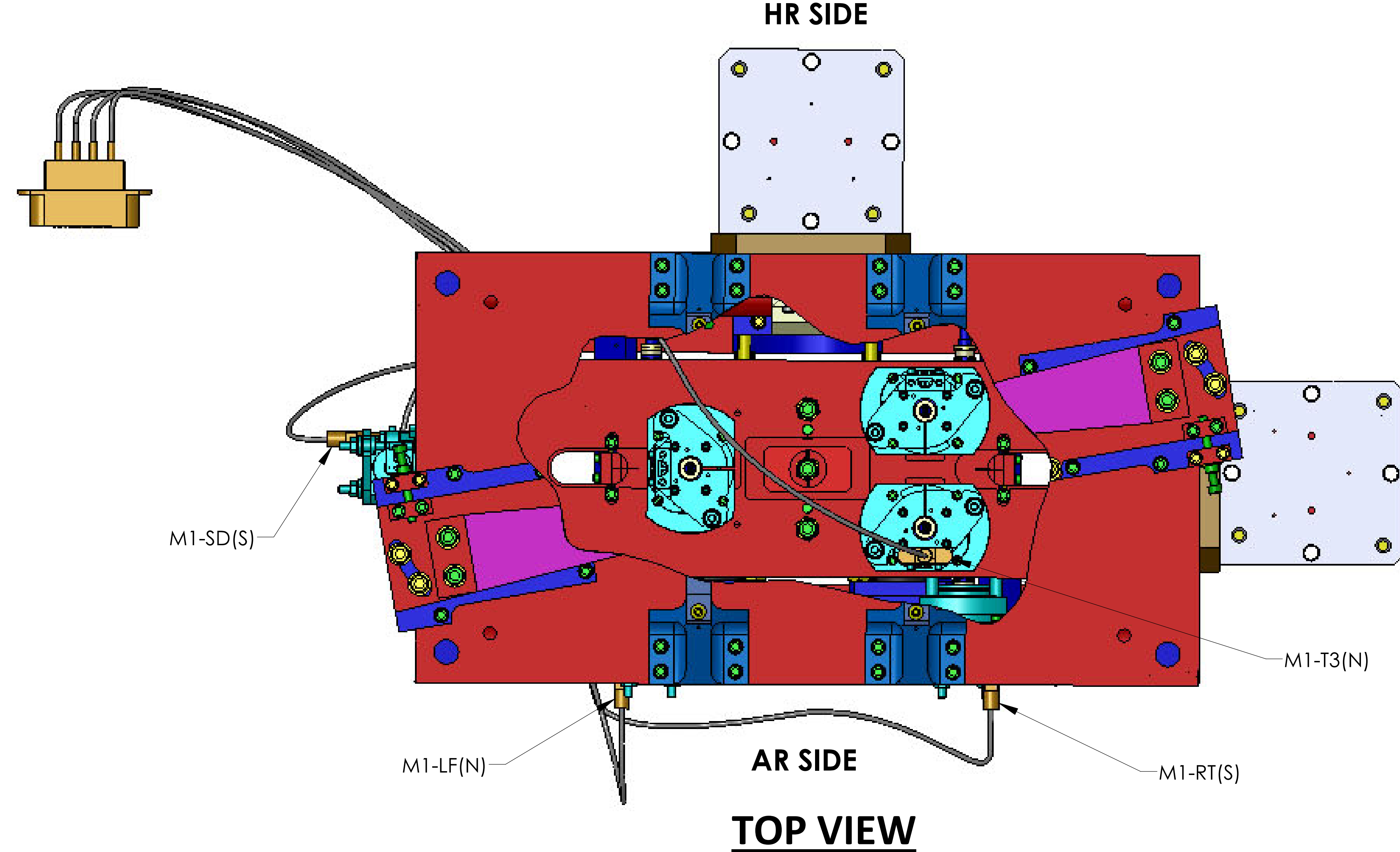
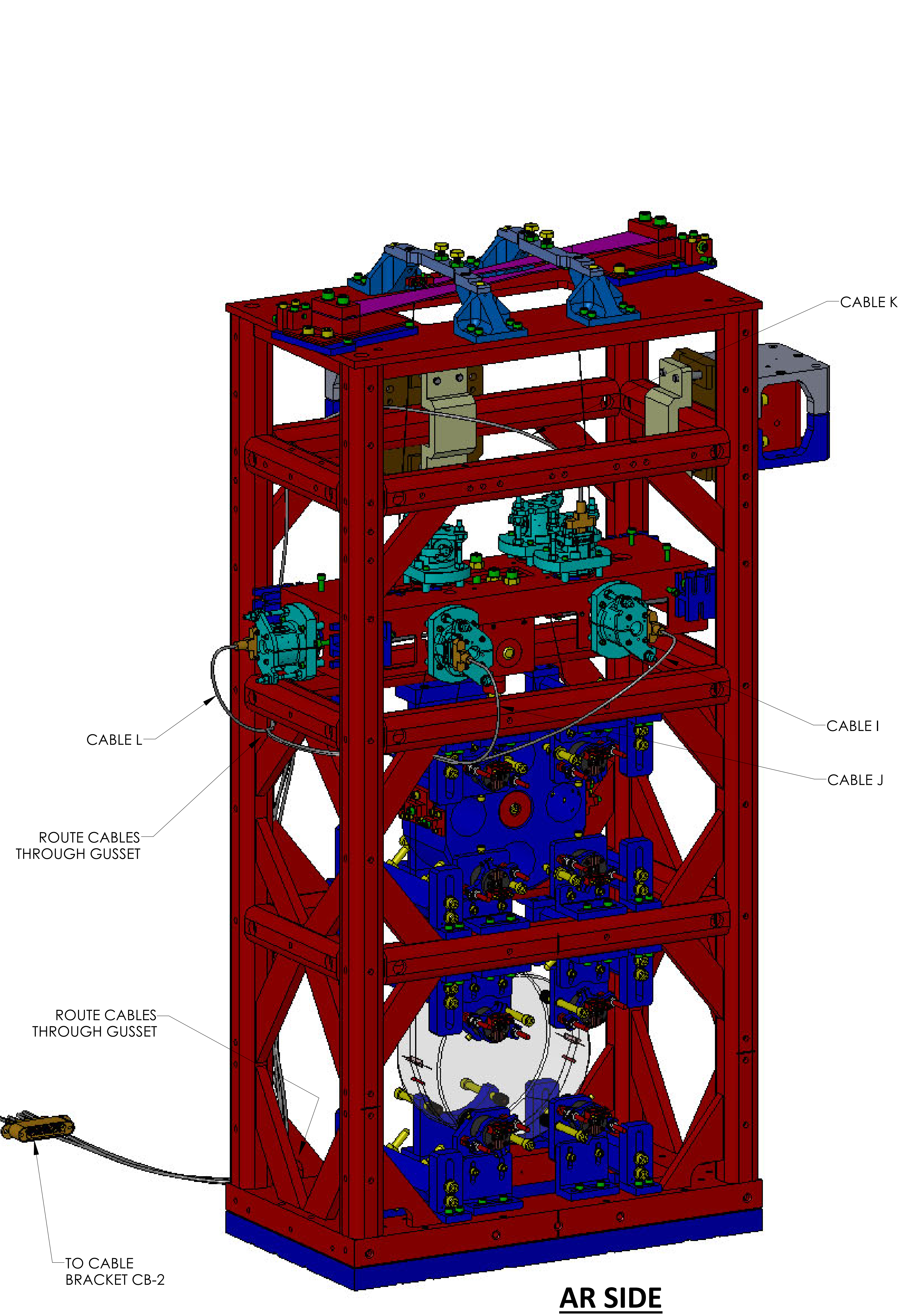


AR SIDE - BACK VIEW



CABLE ASSEMBLY D2100049 - 45"

ROUTE NO 3
SEE T1200318 FOR STEP BY STEP CABLING GUIDE



CABLE ASSEMBLY D2100049 - 54"

ROUTE NO 4
SEE T1200318 FOR STEP BY STEP CABLING GUIDE

AR SIDE FRONT VIEW

ROUTE CABLES THROUGH GUSSET

ROUTE CABLES THROUGH GUSSETS

ROUTE CABLES THROUGH GUSSET

TO CABLE BRACKET CB-2

CABLE M

CABLE N

HR SIDE

AR SIDE

TOP VIEW

M1-T1(S)

M1-T2(S)

CABLE M

CABLE N

CABLE ASSEMBLY D2100050 - 54"

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 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE DWG. NO. REV.
 E D1900368 v3

SCALE: 1:10 PROJECTION: SHEET 8 OF 9

—M1-T2(S)

M1-T1(S)-

—CABLE M

—CABLE N

ROUTE CABLES— THROUGH GUSSET

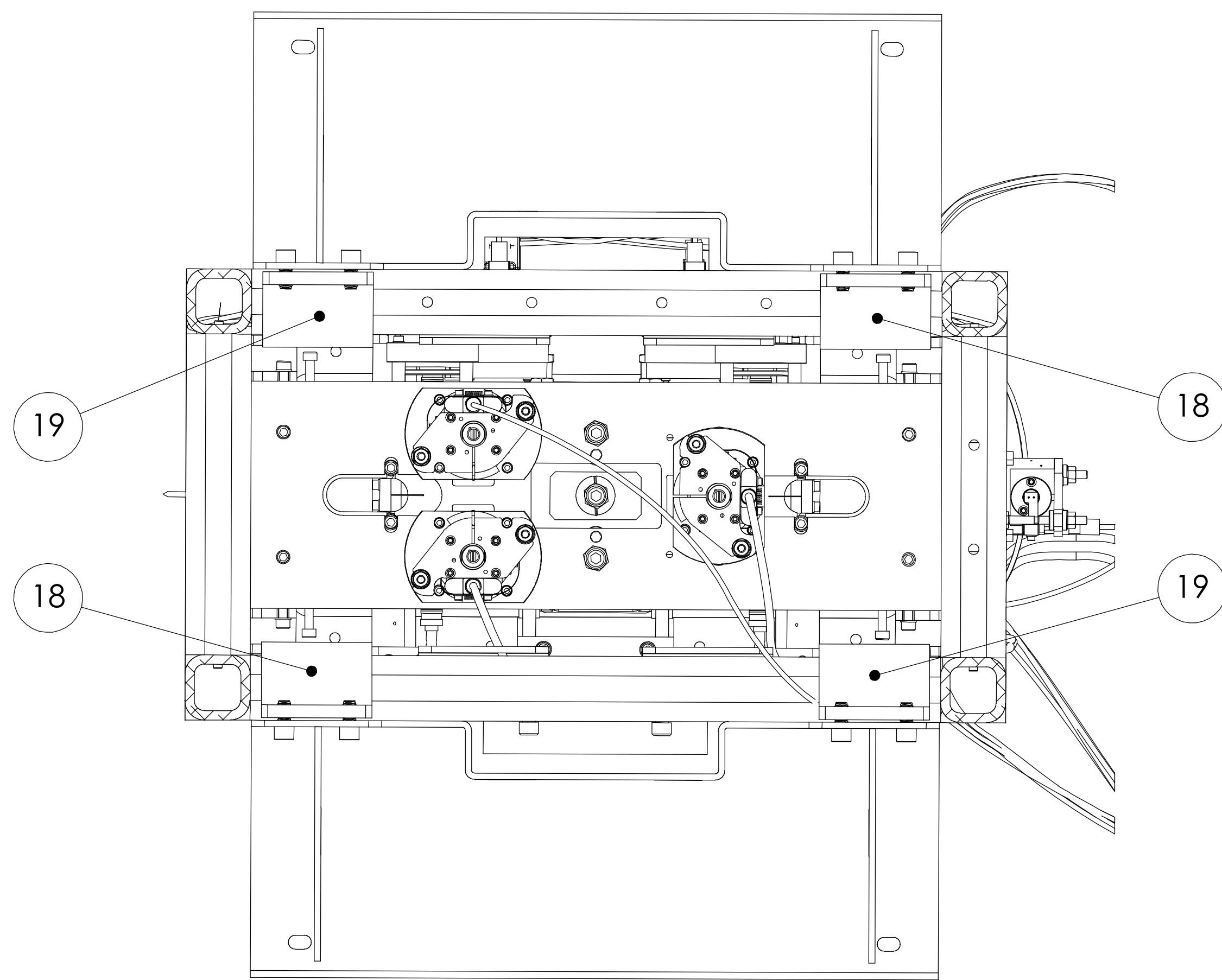
TO CABLE
BRACKET CB-2

CABLE M

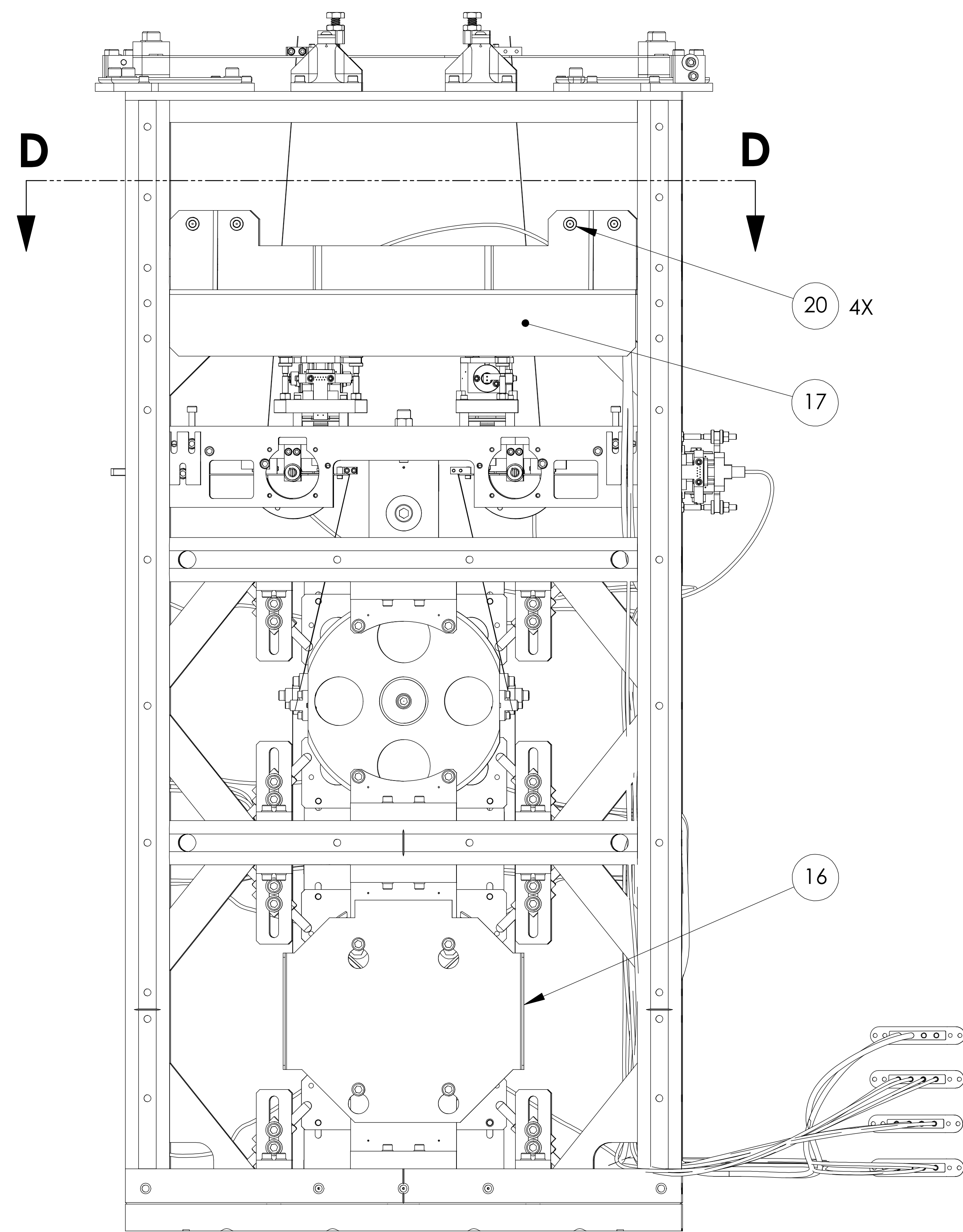
CABLE N

 LIGO		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE	DWG. NO.	REV.	
E	D1900368	v3	
SCALE: 1:10		PROJECTION: 	SHEET 8 OF 9

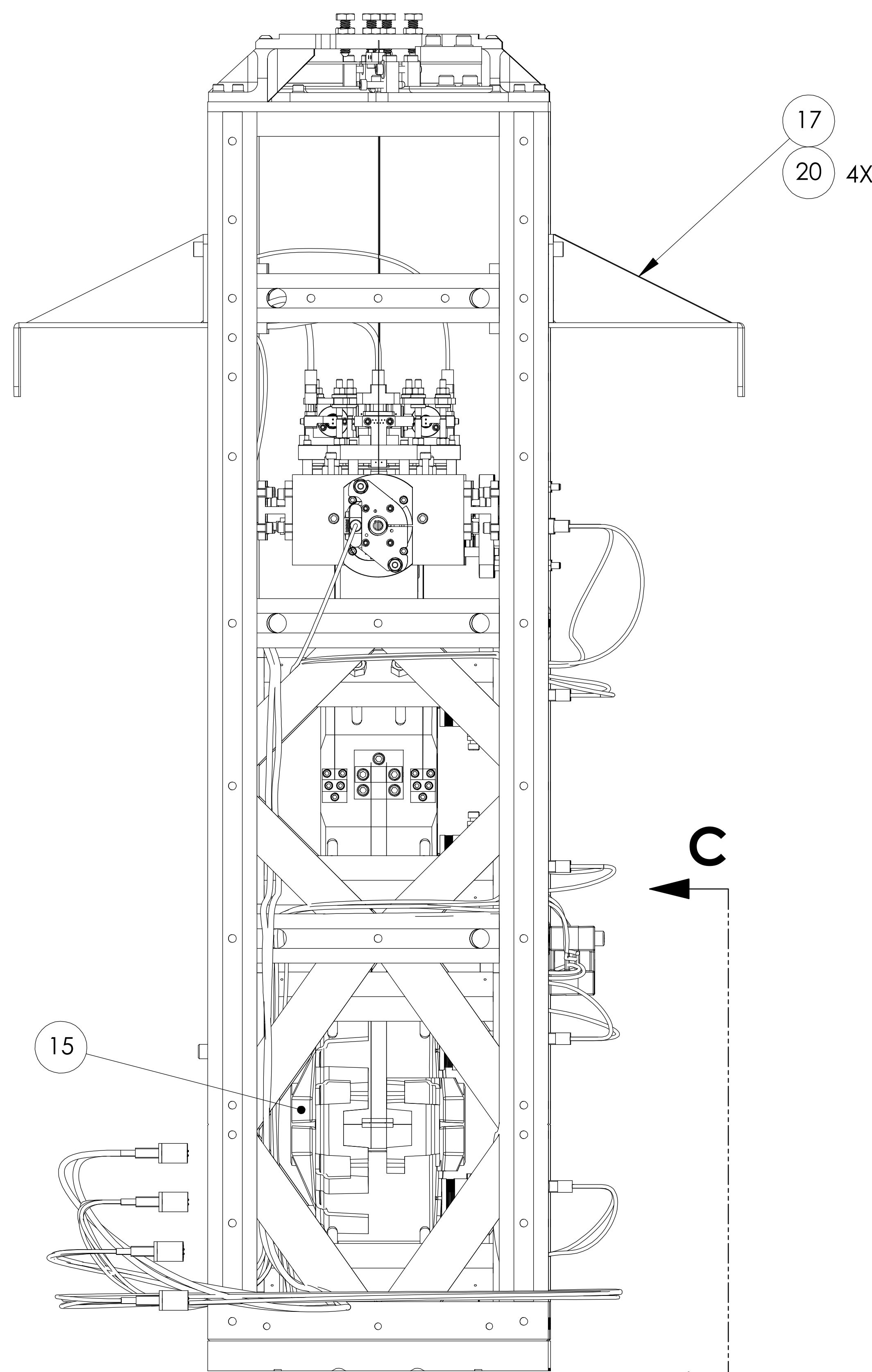
HSTS FC2 STRUCTURE TRANSPORTATION



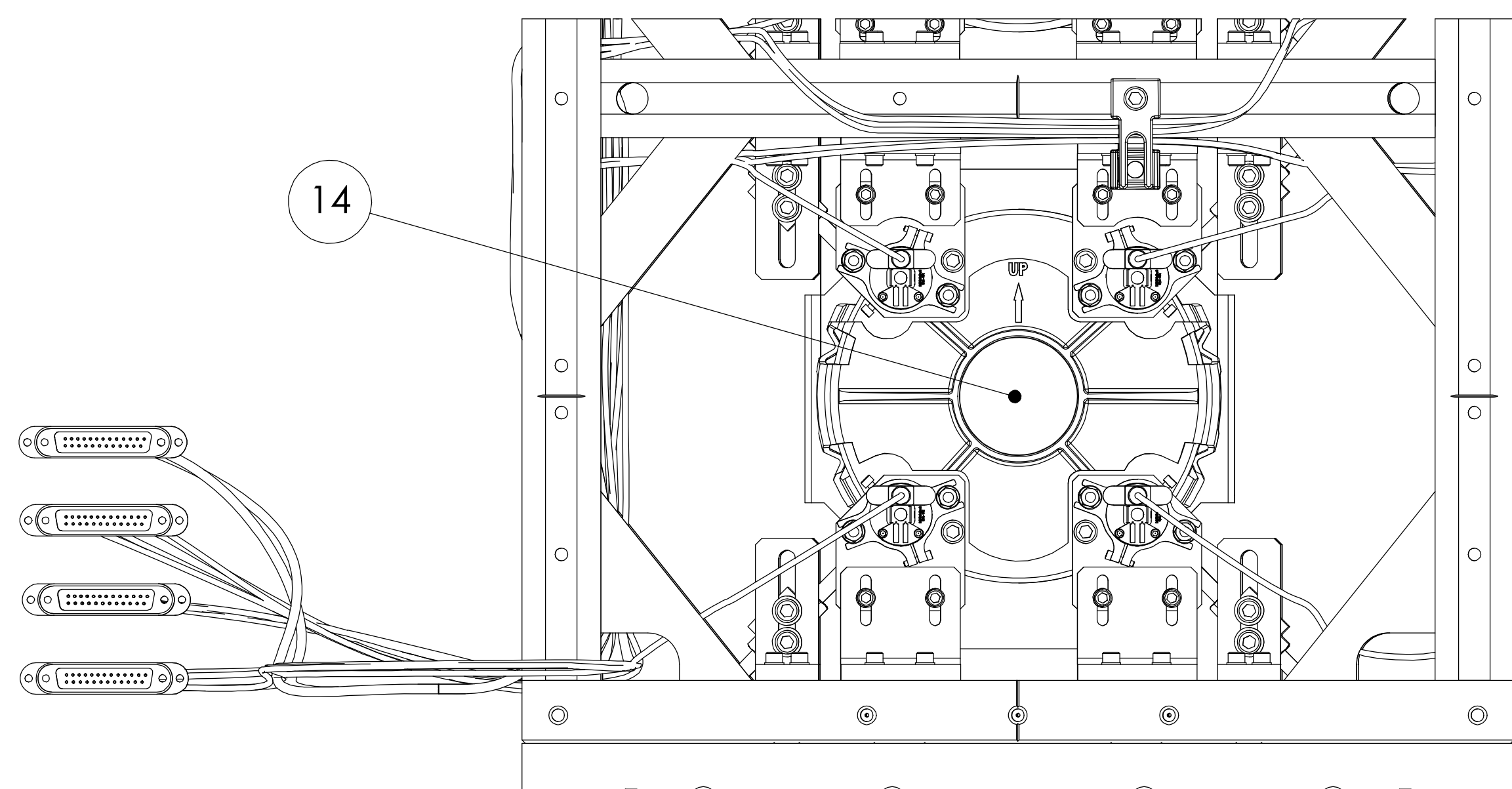
SECTION D-D



HR SIDE - FRONT VIEW



RIGHT SIDE VIEW



VIEW C-C

PARTS LIST				
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ
14	D1102299	HSTS OPTICS CAP - BACK SIDE	PET	1
15	D1101143	HSTS OPTICS CAP.SLDPRT	PET	1
16	D1102308	HSTS OPTIC FACE SHIELD	5052-H32	1
17	D1001788	HSTS BRACKET, HAM STRUCTURE LIFT	304 SSSL	2
18	D1101496	HSTS BRACKET CLAMP, HAM STRUCTURE LIFT-LH	6061-T6 Al	2
19	D1101495	HSTS BRACKET CLAMP, HAM STRUCTURE LIFT-RH	6061-T6 Al	2
20	92200A537	SOCKET HEAD CAP SCREW, .25-20 UNC X .50 LG, (MS 16995-48 OR EQUIV)	300 SSSL	8



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SIZE
E

DWG. NO.
D1900368

REV.
v3

SCALE: 1:5

PROJECTION:

SHEET 9 OF 9