

User Mounting and Assembly Instructions

HM501225U001 Issue 3



Parts List:

Chassis Assembly LA501088UXXX		CS Module Control Cable CM471462U002	
STO PCB AH471776U001		CP to CS Control Cable CM471686U003	
AC890PX Control Module 890CM		Blanking plates LA501357U001 BA501301U002 BA501301U003	
AC890 CS Module LA471171UXXX (optional)		Bracket x 2 BA501090	
AC890 CD Module LA471160UXXX x 3		Housing Bracket BA501111 BA501112	
AC890 CP module LA471175UXXX (optional)		Air duct BA501114 BA501113	
STO Feedback Cable CM472271U002		Roof Vent LA501358	
STO Supply Cable CM501215U001		Mounting Bracket BA501092 x 2	
STO connection Cable LA501221		Mounting Bracket BA501093	
Module Control Cables CM471297U002 CM471297U003 CM471297U004		Upper & Lower Setting Plates BA501120	
Earth Wire Assembly CM467679U001		TS8 Adaptor BA501091 x 2	
Module Power Cables CM501601U100 CM501601U500 CM501600U200 CM501600U300 CM501600U400		Also Included: Grommets, screws, p clips, gasket strip, etc. 	
Right & Left Side Panels LA501220U001 LA501220U002	See page 23 (drawing no. LA501088U000)		

Before starting assembly you must read the Safety Instructions at the beginning of Product Manual HA501299U001 available from www.parker.com/ssd.

1. Assemble cubicle ready for mounting AC890PX Frame M.

Notes:

The minimum required backpanel width is 600mm.

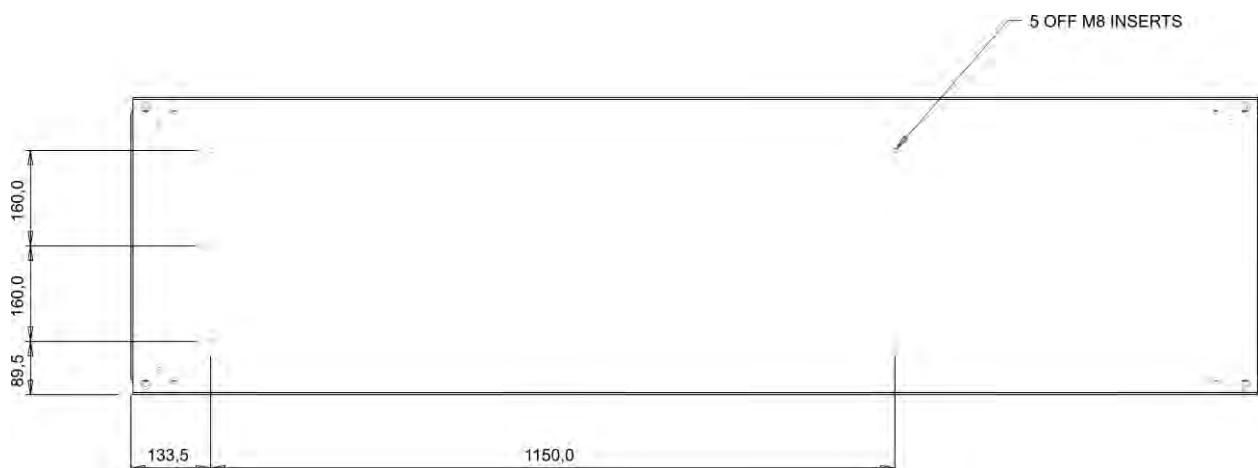
This product is intended to be mounted in an appropriate electrical enclosure in a vertical position where it is not subject to excessive heat or vibration.

These instructions use a Rittal TS8 cubical. If the product is not to be mounted in a Rittal cubical then refer to [HG501237U001](#).

These instruction need to be used in conjunction with assembly drawing [LA501088U000](#).

Co-ordinates for a Rittal TS8 or PS8 series 600mm back panel [HG501140](#).

Punch or drill the required mounting holes into the cubicle backplate this drawing assumes the use of M8 inserts.

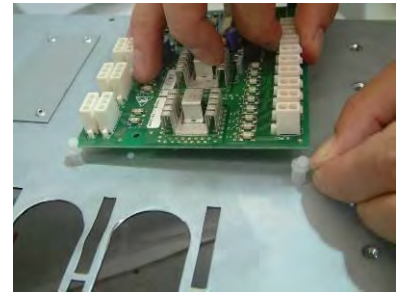


The back panel must be mounted in the rear most position.



2. Fit STO PCB Assembly [AH471776U001](#) to retaining posts on the chassis.

This equipment contains electrostatic discharge (ESD) sensitive parts. Observe static control precautions when handling, installing and servicing this product.

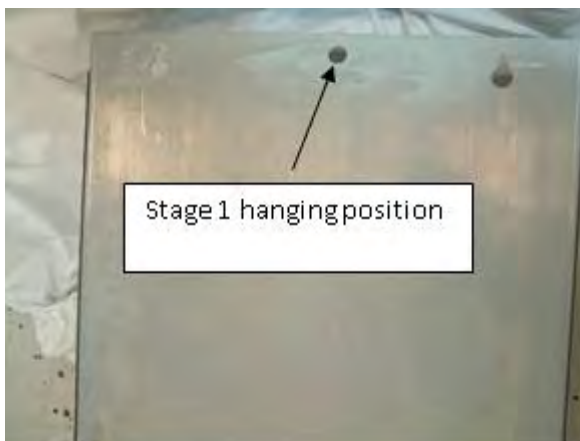


3. Mount the chassis into the cubicle.

Partially insert a M8 bolt (no washer) in the centre top mounting hole.



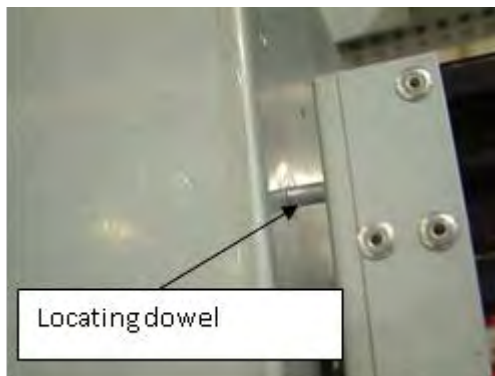
Hang the chassis assembly from the single bolt by passing the bolt head through the large central hole on the rear panel of the chassis. Chassis is 38kg thus lifting procedures must be adhered to.



Fix to back panel in all 4 positions with M8 bolts and remove original hanging bolt.



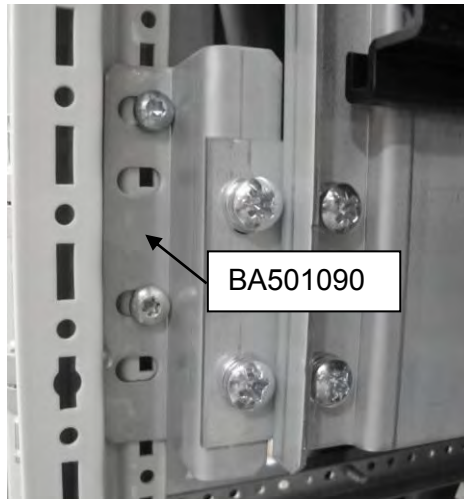
- 4.** Install the module mounting rails. Use the top dowels to align and fit left (LA501220U001) and right (LA501220U002) rail assemblies, fix using M5 SEMs FY047651 (item 642), quantity 8 (torque setting 2.7Nm).



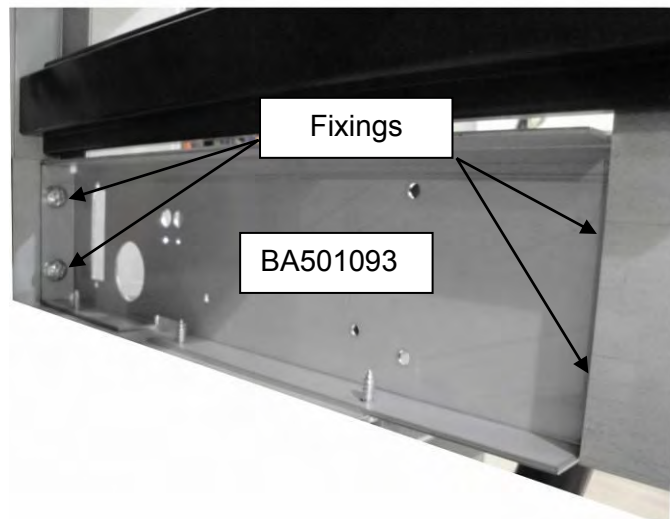
- 5.** Fit lower left mounting bracket BA501092 (item 252) with M6 SEMs FY385692 (item 643), quantity 4 (torque setting 4.5Nm).



- 6.** Loosely fit TS8 adaptor bracket BA501090 (item 250) to lower left mounting bracket BA501092 (item 252) with M6 SEMs FY385692 (item 643), quantity 2. Loosely fit to cubicle frame using TORX self tap screws FY501218 (item 645), quantity 2 (use upper hole positions) (torque setting 4.5Nm).



- 7.** Fit lower right mounting bracket BA501093 (item 253) with M6 SEMs FY385692 (item 643), quantity 4 (torque setting 4.5Nm).

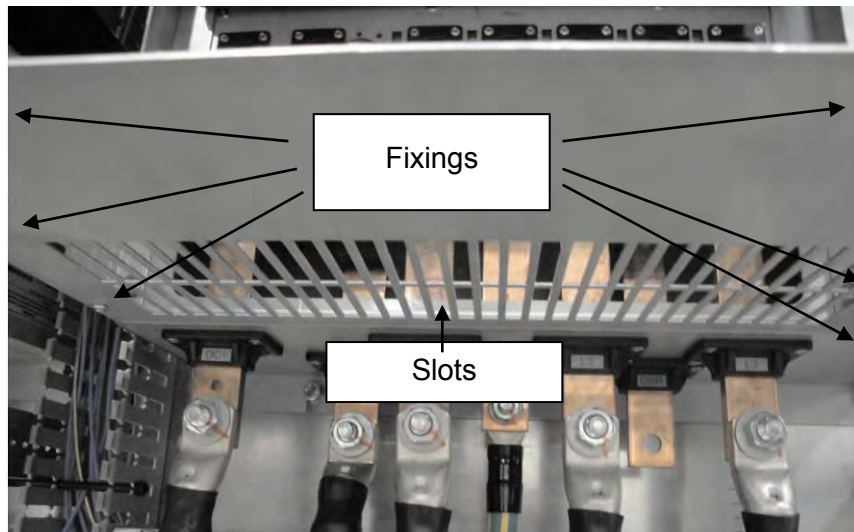


- 8.** Loosely fit TS8 adaptor bracket BA501091 (item 251) to lower right mounting bracket BA501093 (item 253) with M6 SEMs FY385692 (torque setting 4.5Nm) (item 643), quantity 3. Loosely fit to cubicle frame using TORX self tap screws FY501218 (torque setting 2.7Nm) (item 645), quantity 2 (use upper hole positions).



- 9.** Fit lower setting plate BA501120 (item 258) with self tap screws FY501150 (item 640), quantity 6.

Tighten screws on TS8 adaptor bracket BA501091 (item 251) and TS8 adaptor bracket BA501090 (item 250), on right and left sides, quantity 5. Tighten TORX self tap screws FY501218 (item 645) slots towards the back, on both left and right sides, quantity 6.



- 10.** Fit upper left mounting bracket BA501092 (item 252) with M6 SEMs FY385692 (torque setting 4.5Nm) (item 643), quantity 4. Fix earth wire assembly CM467679U001 (item 285) with front top screw, as shown.

Fit control housing bracket BA501111 (item 259) to left mounting bracket BA501092 (item 252) with M4 SEMs FY385968 (item 644), quantity 2.

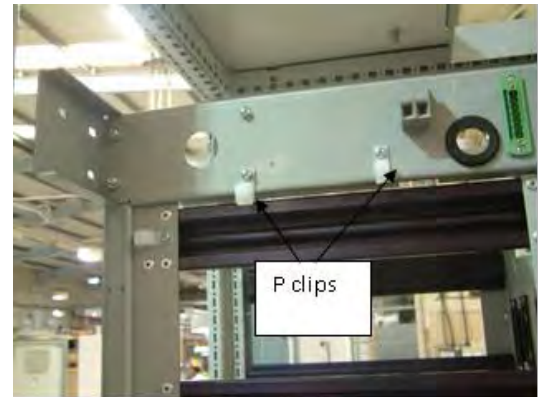
Add grommet DF044535 (item 431) to mounting bracket BA501092 (item 252), this grommet only has wires passing through it when it is configured as a parallel stack.



- 11.** Loosely fit TS8 adaptor bracket BA501090 (item 250) to upper left mounting bracket BA501092 (item 252) with M6 SEMs FY385692 (item 643), quantity 2. Loosely fit to cubicle frame using TORX self tap screws FY501218 (item 645), quantity 2 (use lower hole positions).



- 12.** Fit upper right mounting bracket BA501093 (item 253) with M6 SEMs FY385692 (item 643), quantity 4. Fit control housing bracket BA501112 (item 260) to upper right mounting bracket BA501093 (item 253) with M4 SEMs FY385968 (torque setting 1.3Nm) (item 643), quantity 2.

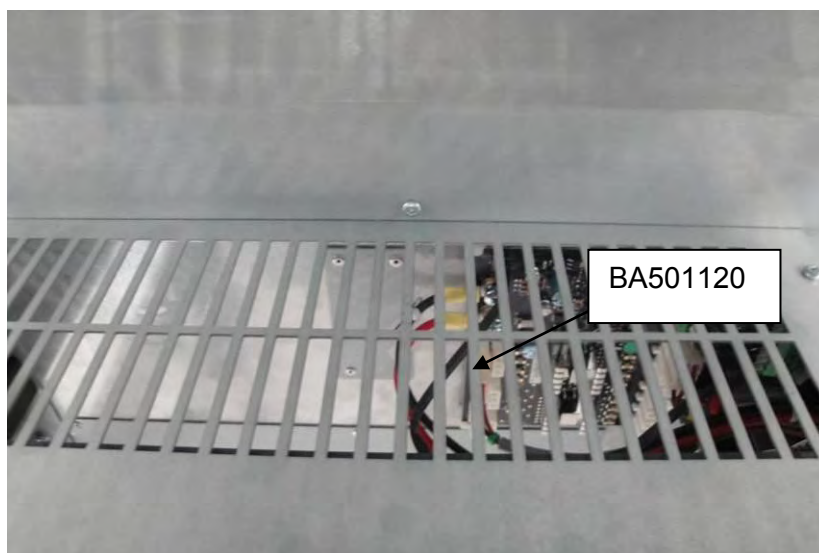


- 13.** Loosely fit TS8 adaptor bracket BA501091 (item 251) to upper right mounting bracket BA501093 (item 253) with M6 SEMs FY385692 (item 643), quantity 3. Loosely fit to cubicle frame using TORX self tap screws FY501218 (item 645), quantity 2 (use lower hole positions).



- 14.** Fit upper setting plate BA501120 (item 258) with self tap screws FY501150 (item 640), quantity 6 (slots to the rear).

Tighten screws on TS8 adaptor bracket BA501091 (item 251) and TS8 adaptor bracket BA501090 (item 250), quantity 5. Tighten TORX self tap screws FY501218 (torque setting 2.7Nm) (item 645) on both sides, quantity 4.



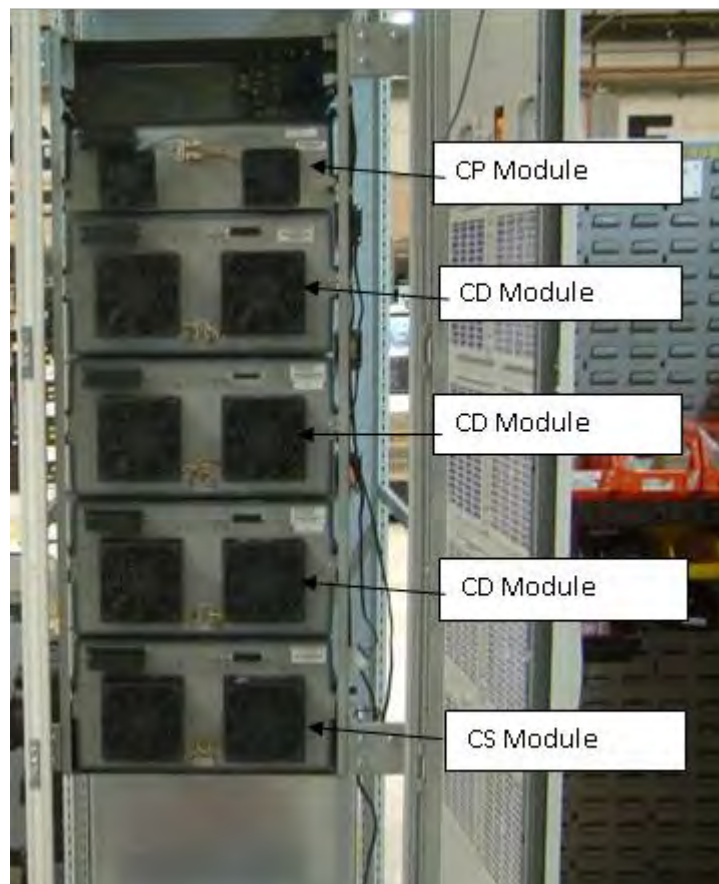
- 15.** Populate rack with power and control modules. (***) denotes a power variant which must be verified from the ratings table). Modules are pulled into place via the insertion/extraction screws on the side of each module. This is a multi turn screw where both screws should be turned simultaneously or alternatively no more than 2 turns on each side before returned to the opposite screw. Use 5mm Allen T bars, screws will increase their resistance significantly when the module is fully seated (**do not use more than 10Nm of torque**).

Refer to Configuration Table on page 23 for module Details.

Slide the CS module LA471171U*** (item 284) into the bottom slot.

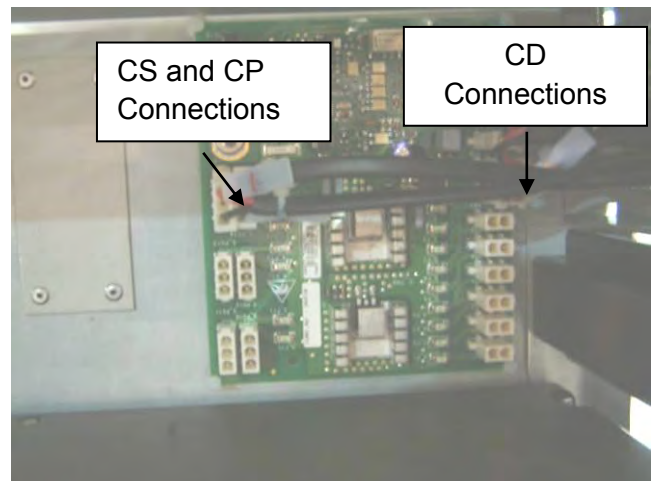
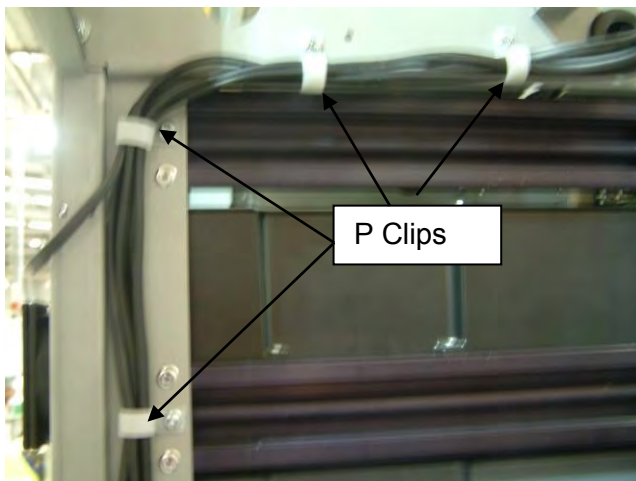
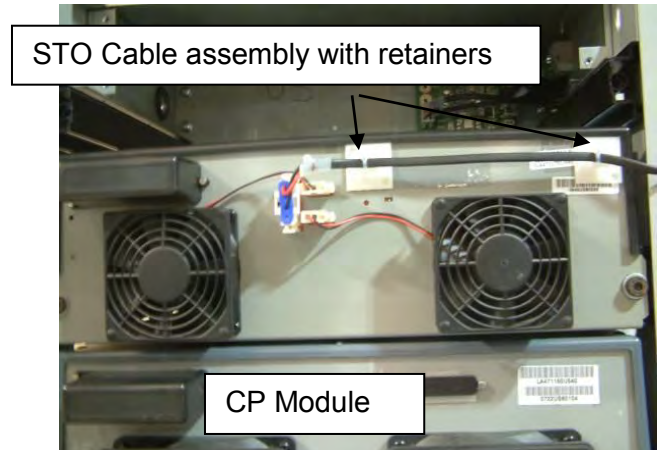
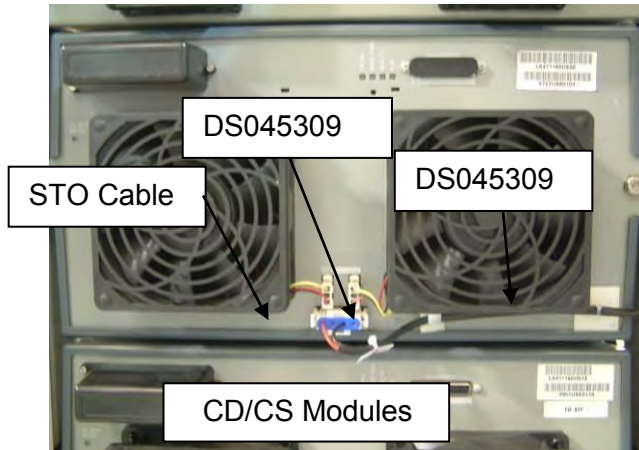
Slide 3 CD modules LA471160U*** (item 283) into the next 3 slots.

When fitted, slide a CP module LA471175U*** (item 282) into the top slot.

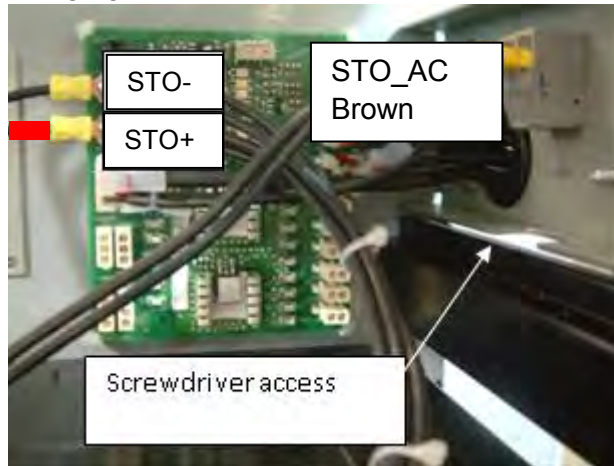


- 16.** Add STO cable assembly CM501601U100 (item 291) to the top CP module (if fitted).
Add STO cable assembly CM501600U200 (item 293) to the top CD module.
Add STO cable assembly CM501600U300 (item 294) to the middle CD module.
Add STO cable assembly CM501600U400 (item 295) to the bottom CD module.
Add STO cable assembly CM501600U500 (item 291) to the bottom CS module).

Cables to be retained in P clips.



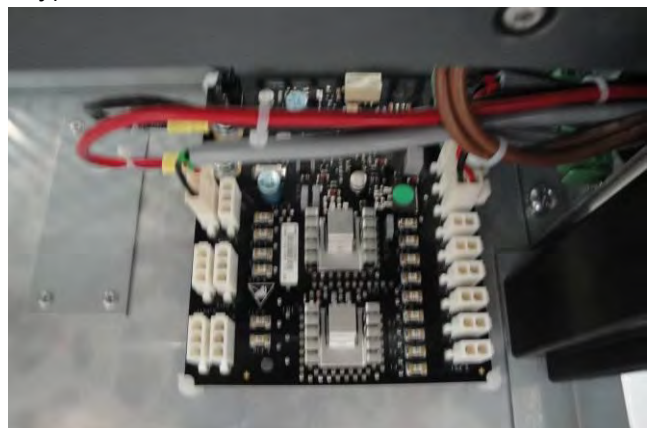
- 17.** Add STO power cable assembly CM501215U001 (item 297), STO+ on the lower ring connection, STO- on the upper with M5 x 10 PAN POZ1 FY385690 (torque setting 2.7Nm) quantity 2, STO_AC in the side terminals (tighten terminal screws via access slot shown). Feed cable assembly through grommet and secure in P clips.



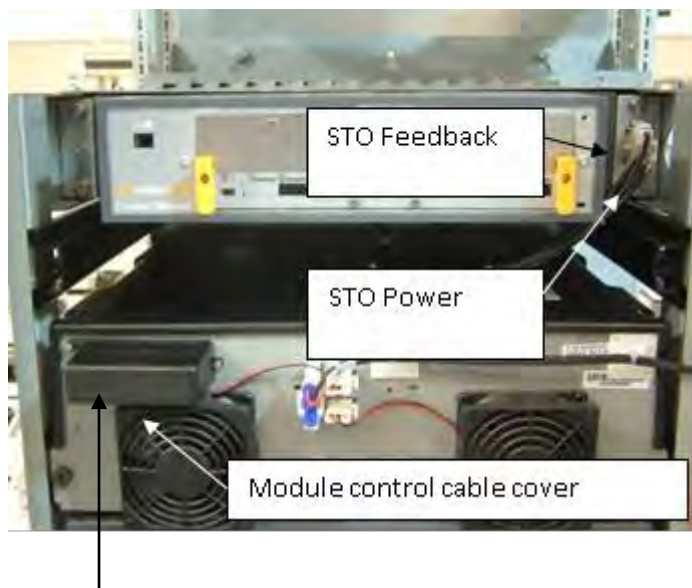
- 18.** Add STO control wire assembly CM501217U001 and STO terminal block GE501211U001 (which are both part of Assembly LA501221 Item 254).



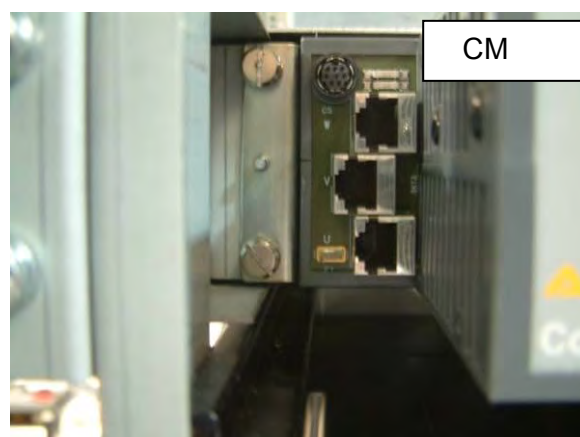
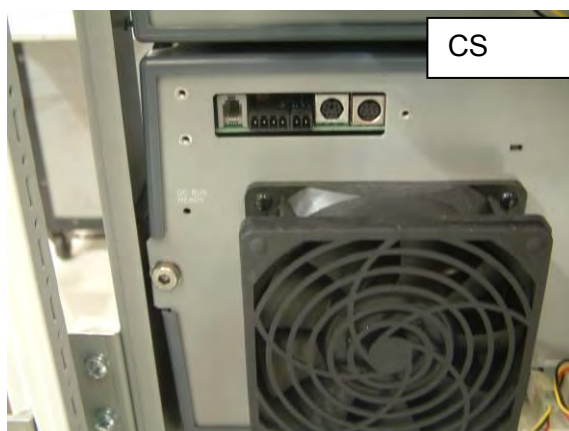
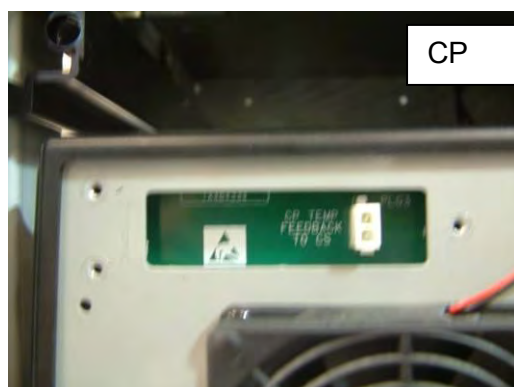
- 19.** Add STO feedback cable assembly CM472271U002 (item 296) to STO assembly AH471776U001. (Item shown on bench for clarity).



- 20.** Fit 890CM into position by angling it in from the top and secure via retaining screws, quantity 4. Plug in STO supply cable assembly CM501215U001 (item 297) and STO feedback cable assembly CM472271U002 (item 296).

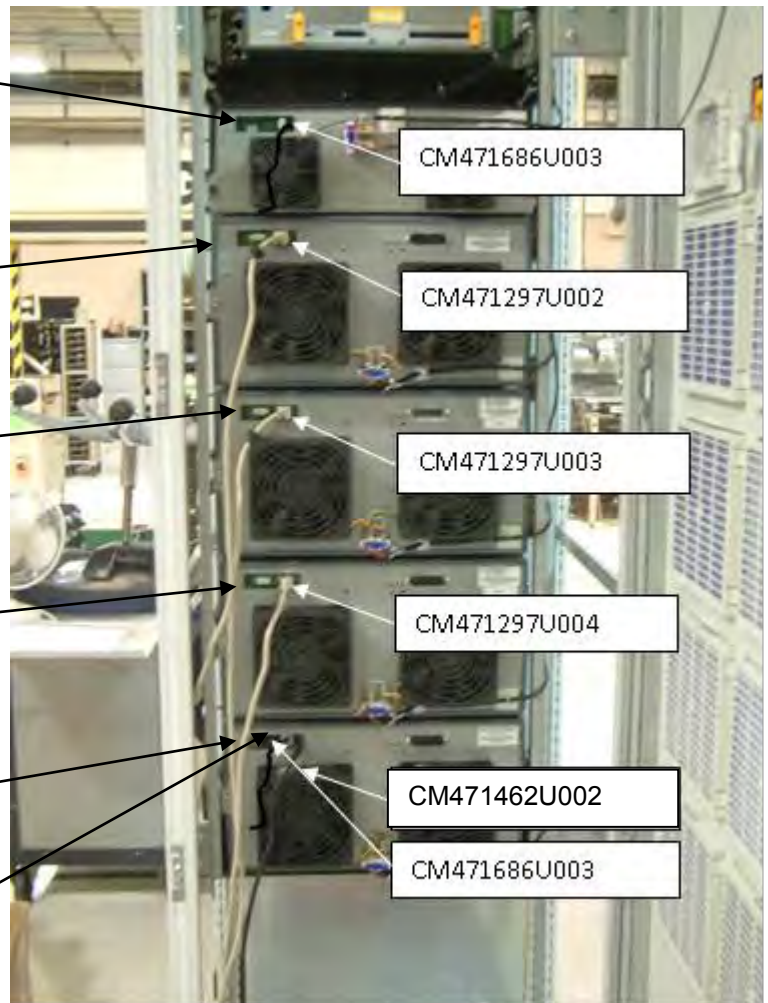


- 21.** Remove all power module control cable covers.

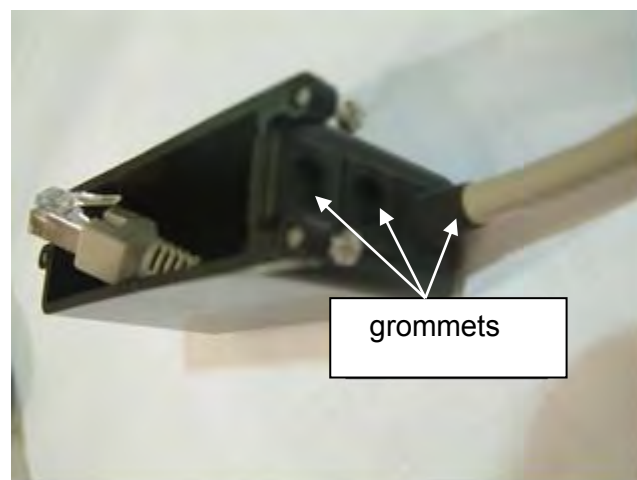


22. Plug in control cables:-

- a. Plug in CM471686U003 (item 290) into CP module.
- b. Plug in CM471297U002 (item 286) (670mm long) into top CD module
- c. Plug in CM471297U003 (item 287) (900mm long) into middle CD module
- d. Plug in CM471297U004 (item 288) (1200mm long) into bottom CD module
- e. Plug in CM471462U002 (1200mm long) into bottom CS module
- f. Plug in CM471686U003 (item 290) into CS module



23. Each module control cover needs to be populated with 3 grommets DF471202 including the one on the cable.



24. Use P clip to retain cables from the power modules to the control module.

Plug in the cable from the CS module into the control module connector marked **CS**.

Plug in the cable from the top CD module into the control module connector marked **W**.

Plug in the cable from the middle CD module into the control module connector marked **V**.

Plug in the cable from the bottom CD module into the control module connector marked **U**.



Plug in the small earth wire into the control module faston. Secure cables together with small tyrap.

25. Fit small blanking plate LA501357U001 (item 298) with bolts FB376R25 fitted with M8 washers FC12301R (torque setting 4.5Nm) (item 652).



If CP module is not fitted, fit medium size blanking plate BA501301U002 with bolts FB376R25 quantity 2 (item 651) fitted with M8 washer per bolt FC12301R (torque setting 4.5Nm) (item 652).

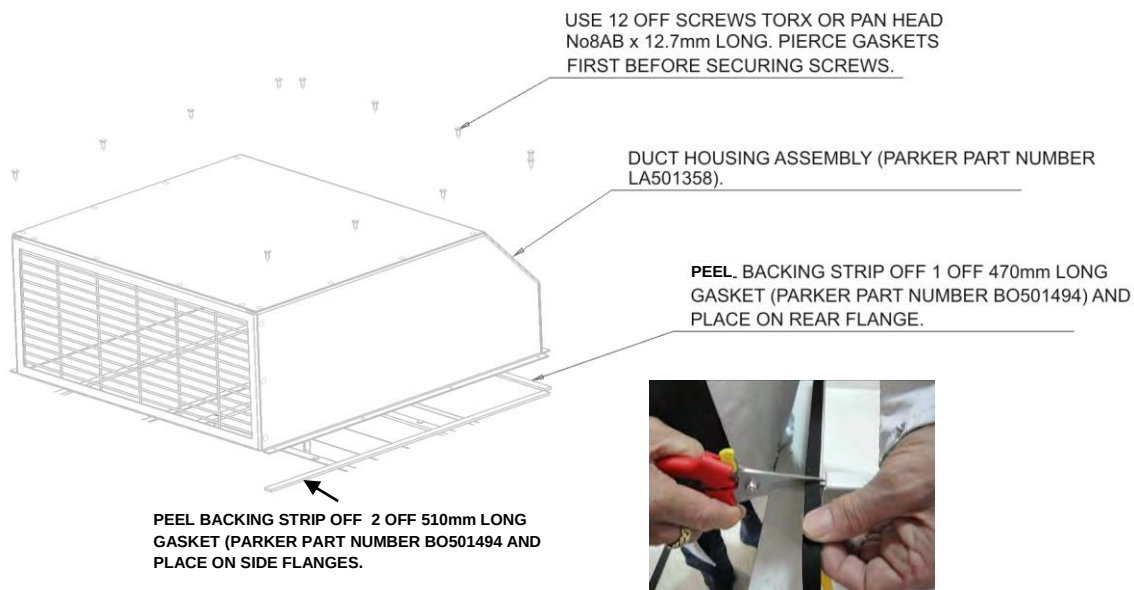
- 26.** If CS module is not fitted, fit large size blanking plate (BA501301U003) with 2 bolts FB376R25 (torque setting 4.5Nm) (item 651) fitted with M8 washer per bolt FC12301R (item 652).



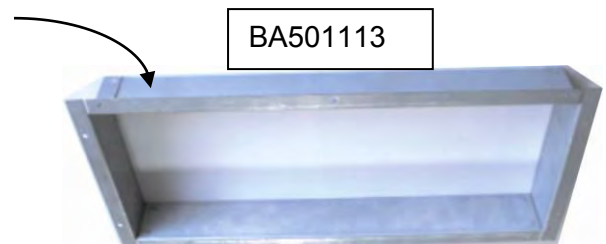
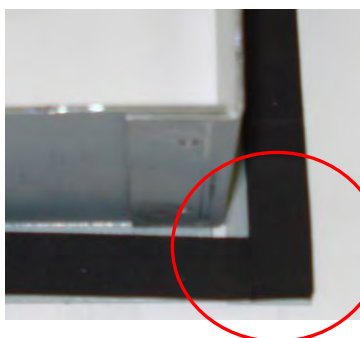
- 27.** Assemble upper air duct BA501114 (item 257) and fix with 3 self tap screws FY501150 (loosely fit) (Item 640).



- 28.** Fit gasket strip to roof vent LA501358, see details below, and to air duct BA501113.



Fit gasket to underside of air duct BA501113. See drawing on page 23. Making sure to fit closely at the corners.



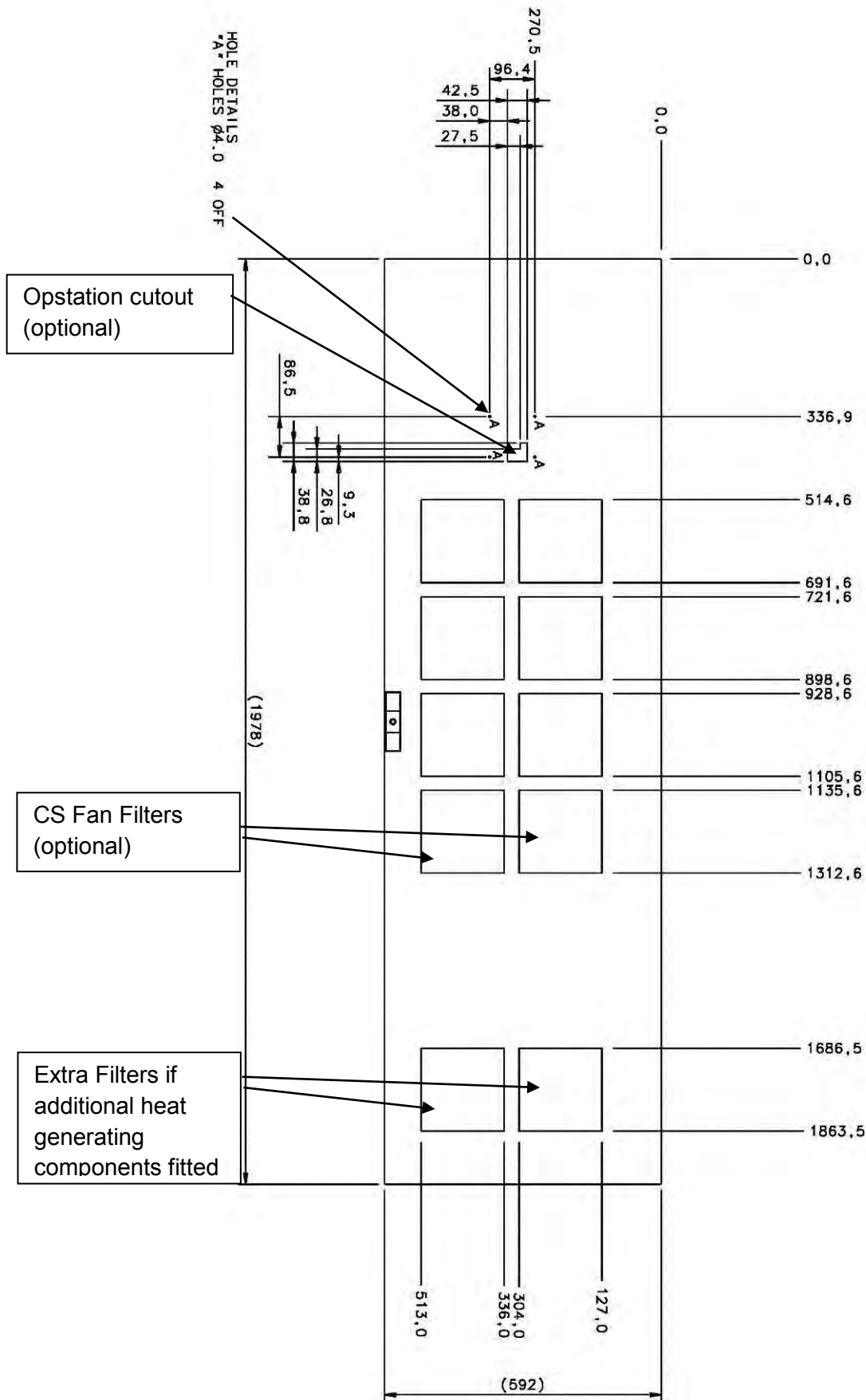
29. Cubicle roof must be cut to the following instructions (these instructions apply to a Rittal TS8 600*600mm enclosure only).

See drawing [HG501087](#), page 29. Fit cubicle roof with details as shown.

From top of cubicle fit gasket plate BO501494 (item 261) under outlet air duct BA501113 (item 256) with 6 self tap screws FY501150 (item 640), quantity 10.

Then tighten the 3 self tap screws as mentioned in 26 above.

30. It is critical that the door filters are fitted in the correct positions as shown below.



- 31.** Fit 200mm filters SY-000528 or equivalent Rittal SK3239.200 (parts not provided in kit).



- 32.** If required fit Opstation (6901-00-G and 6052-00-G)



Configuration Table

Commonbus Drive

		Block 1				Block 2					
Example▶		890PX S A				4 3215 M					
Family		AC890PX 890PX									
		Common Bus Drive C									
		Air Cooled A									
Rating Data		400V Nominal 460V Nominal				4					
		Heavy/Normal Duty							Chassis Assy CP Module CD Modules		
		kW A	HP A								
		110/132 215/260	150/200 200/250			3215			LA501088U521	-	LA471160U513
		132/160 260/340	200/250 250/320			3260			LA501088U521	-	LA471160U513
		160/200 300/390	250/300 300/380			3300			LA501088U521	-	LA471160U520
		200/250 420/480	300/400 380/480			3420			LA501088U531	-	LA471160U532
		250/280 480/600	400/500 460/590			3480			LA501088U531	-	LA471160U532
		280/315 520/660	- -			3520			LA501088U541	LA471175U500	LA471160U540
		315/400 580/700	500/600 580/700			3580			LA501088U541	LA471175U500	LA471160U540
		575 V Nominal				6					
		Heavy/Normal Duty									
		kW A	HP A								
			150/200 160/210			3160			LA501088U731	-	LA471160U713
			200/250 210/250			3210			LA501088U731	-	LA471160U713
			250/300 260/310			3260			LA501088U731	-	LA471160U720
			300/400 310/420			3310			LA501088U731	-	LA471160U732
			400/500 410/480			3410			LA501088U741	LA471175U700	LA471160U740
		690V Nominal				7					
		Heavy/Normal Duty									
		kW A	HP A								
		110/132 130/160				3130			LA501088U731	-	LA471160U713
		132/160 160/190				3160			LA501088U731	-	LA471160U713
		160/200 190/240				3190			LA501088U731	-	LA471160U720
		200/250 230/280				3230			LA501088U731	-	LA471160U732
		250/280 280/340				3280			LA501088U731	-	LA471160U732
		280/315 320/390				3320			LA501088U741	LA471175U700	LA471160U740
		315/400 340/430				3340			LA501088U741	LA471175U700	LA471160U740
Build Style		Modular (Chassis Drive)				M					

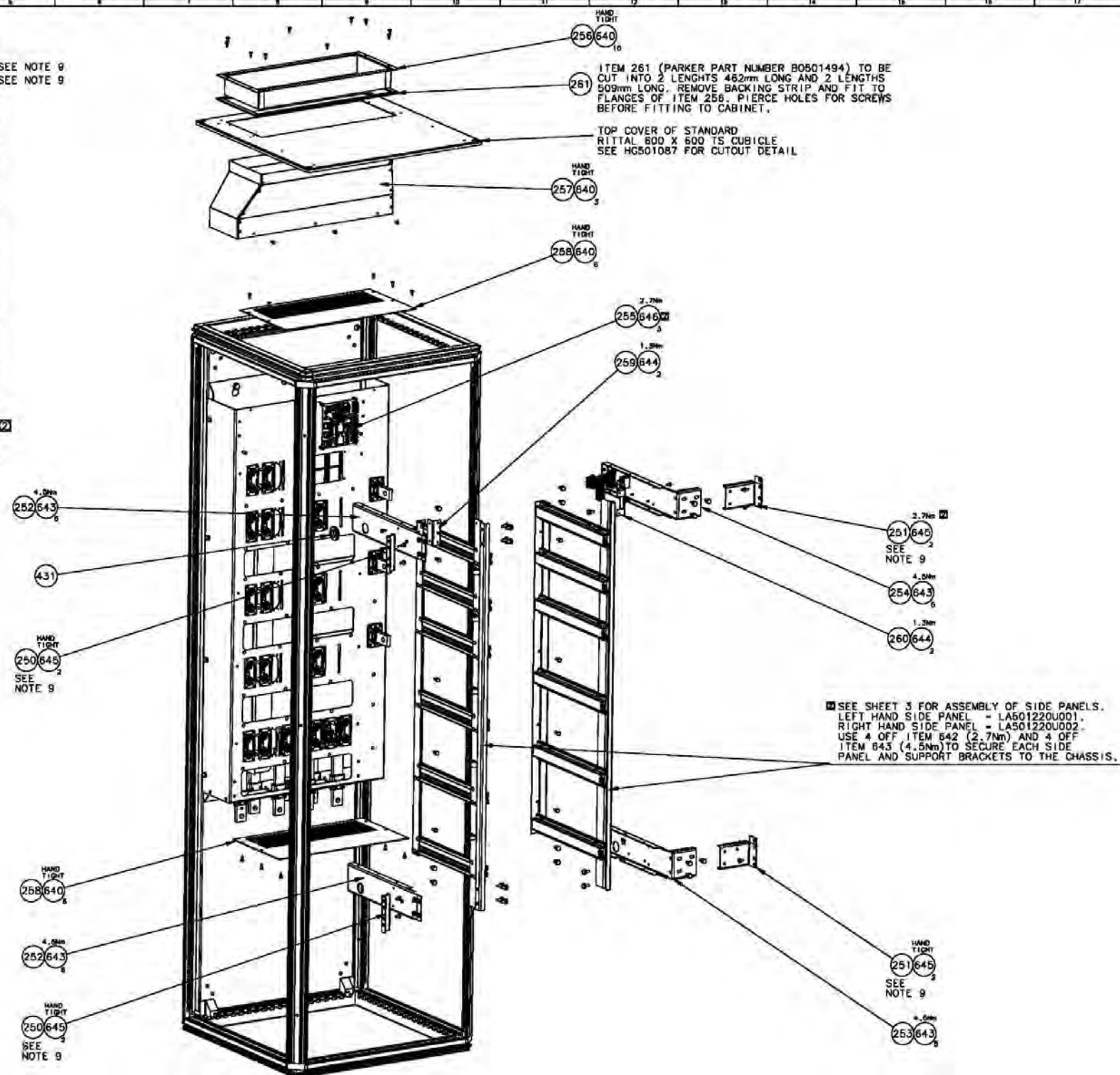
Standalone Drive

		Block 1				Block 2			
Example▶		890PX	S	A	-	4	3215	M	
Family		AC890PX	890PX						
		Standalone Drive	S						
		Air Cooled		A					
Rating Data		400V Nominal	460V Nominal			4			
		Heavy/Normal Duty							
		kW	A	HP	A				
		110/132	215/260	150/200	200/250		3215	LA501088U520	- LA471160U513 LA471171U520
		132/160	260/340	200/250	250/320		3260	LA501088U520	- LA471160U513 LA471171U520
		160/200	300/390	250/300	300/380		3300	LA501088U520	- LA471160U520 LA471171U520
		200/250	420/480	300/400	380/480		3420	LA501088U530	- LA471160U532 LA471171U540
		250/280	480/600	400/500	460/590		3480	LA501088U530	- LA471160U532 LA471171U540
		280/315	520/660	-	-		3520	LA501088U540	LA471175U500 LA471160U540 LA471171U540
		315/400	580/700	500/600	580/700		3580	LA501088U540	LA471175U500 LA471160U540 LA471171U540
		575 V Nominal				6			
		Heavy/Normal Duty							
		kW	A	HP	A				
				150/200	160/210		3160	LA501088U730	- LA471160U713 LA471171U720
				200/250	210/250		3210	LA501088U730	- LA471160U713 LA471171U720
				250/300	260/310		3260	LA501088U730	- LA471160U720 LA471171U720
				300/400	310/420		3310	LA501088U730	- LA471160U732 LA471171U740
				400/500	410/480		3410	LA501088U740	LA471175U700 LA471160U740 LA471171U740
		690V Nominal				7			
		Heavy/Normal Duty							
		kW	A	HP	A				
		110/132	130/160				3130	LA501088U730	- LA471160U713 LA471171U720
		132/160	160/190				3160	LA501088U730	- LA471160U713 LA471171U720
		160/200	190/240				3190	LA501088U730	- LA471160U720 LA471171U720
		200/250	230/280				3230	LA501088U730	- LA471160U732 LA471171U740
		250/280	280/340				3280	LA501088U730	- LA471160U732 LA471171U740
		280/315	320/390				3320	LA501088U740	LA471175U700 LA471160U740 LA471171U740
		315/400	340/430				3340	LA501088U740	LA471175U700 LA471160U740 LA471171U740
Build Style		Modular (Chassis Drive)				M			

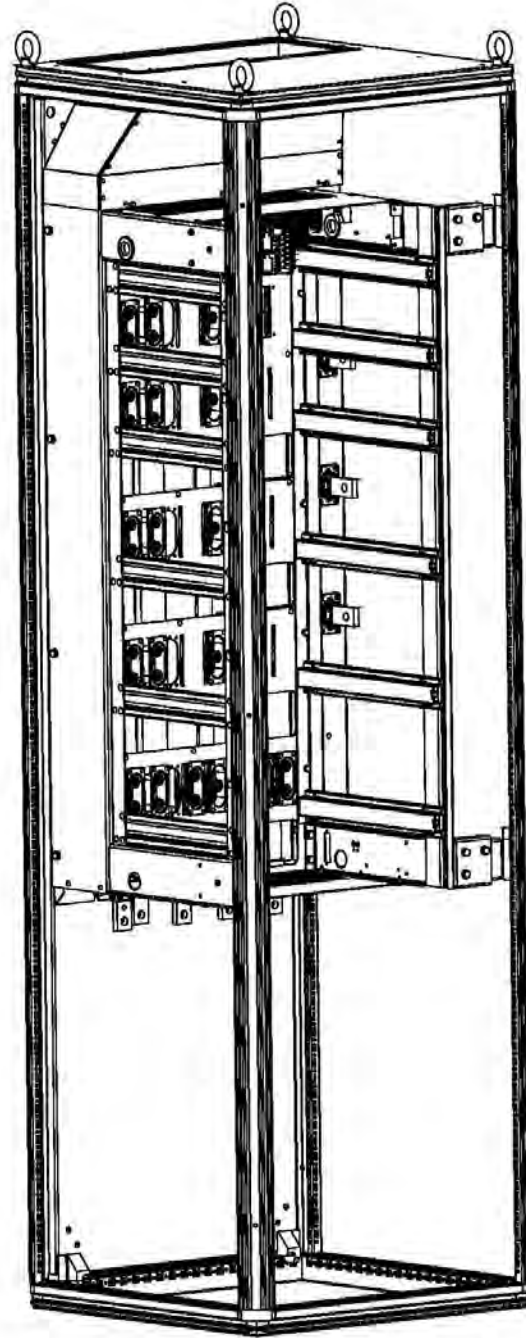
ITEM NO.	PART NUMBER	DESCRIPTION
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251	BA501091	brkt_odpt_rh_2thk0
252	BA501092	brkt_pnl_lh_353063_2thk0
253	BA501093	brkt_pnl_rh_353063_2thk0
254	LA501221	brkt_trm_assy_rh
255	AH471776U***	assy_pcb_sta_oux_pwr
256	BA501113	dcl_odpt_482148_54_1thk2
257	BA501114	dcl_odpt_502139_190_1thk2
258	BA501120	pnl_cvr_420352_1thk5
259	BA501111	brkt_shmt_2525_701_1thk5
260	BA501112	brkt_shmt_2527_701_1thk5
261	B0501494	gskt_odsv_1203
431	DFD44535	grmt_rbb_r_27d
432		
433		
434		
435		
436		
640	FY501150	scr_lpn_nobob_1217
641		
642	FY047651	scr_assy_ppnsprflit_m5_16
643	FY385692	scr_assy_ppnsprflit_m6_16
644	FY385968	scr_assy_ppnsprflit_m4_12
645	FY501218	scr_lpn_5m5st_131
646	FY385690	scr_assy_ppnsprflit_m5_10
647		

SEE NOTE 9
SEE NOTE 9

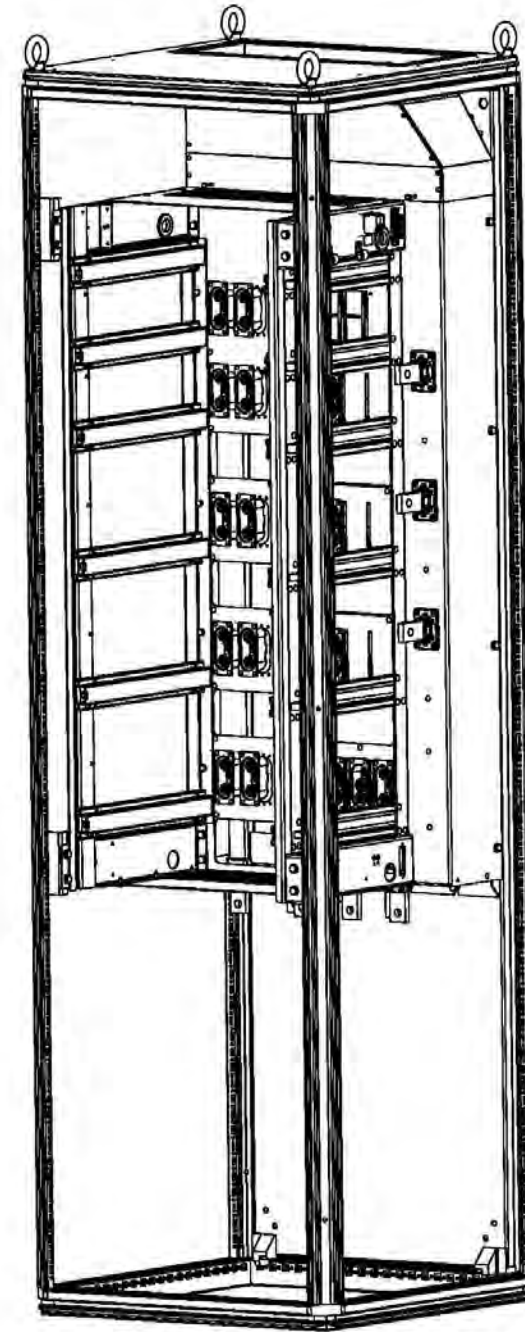
NOTE 9. BRACKETS ILLUSTRATED ARE FOR RITTAL TS TYPE CABINET.
FOR RITTAL PS TYPE CABINET REPLACE BA501090 WITH BA501352 AND REPLACE BA501091 WITH BA501351 (LA501475U001).



ISSUE	DATE	ECN	DRN	QTY		MATERIAL: SEE BOMS	DO NOT SCALE DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED □ INDICATES A DRAWING CHANGE AT THIS ISSUE	DRAWING TO BS308/BS8888	DESCRIPTION: assy_pdc_t_890PX_frm	TITLE: ASSEMBLY PRODUCT 890PX FRAME M
D	26JAN12		PAW			FINISH: CLEAN	DRG SIZE A1 D	ENGINEERED: P.A.W.	ELECTRONIC FILENAME:	DRAWING NUMBER: LA501088U000
1	21JUN12	20914	PAW				SCALE UOS	CHECKED:		SHT 4 OF 9
2	13FEB13	21514	PAW	22				FIRST USED: 890PXM		

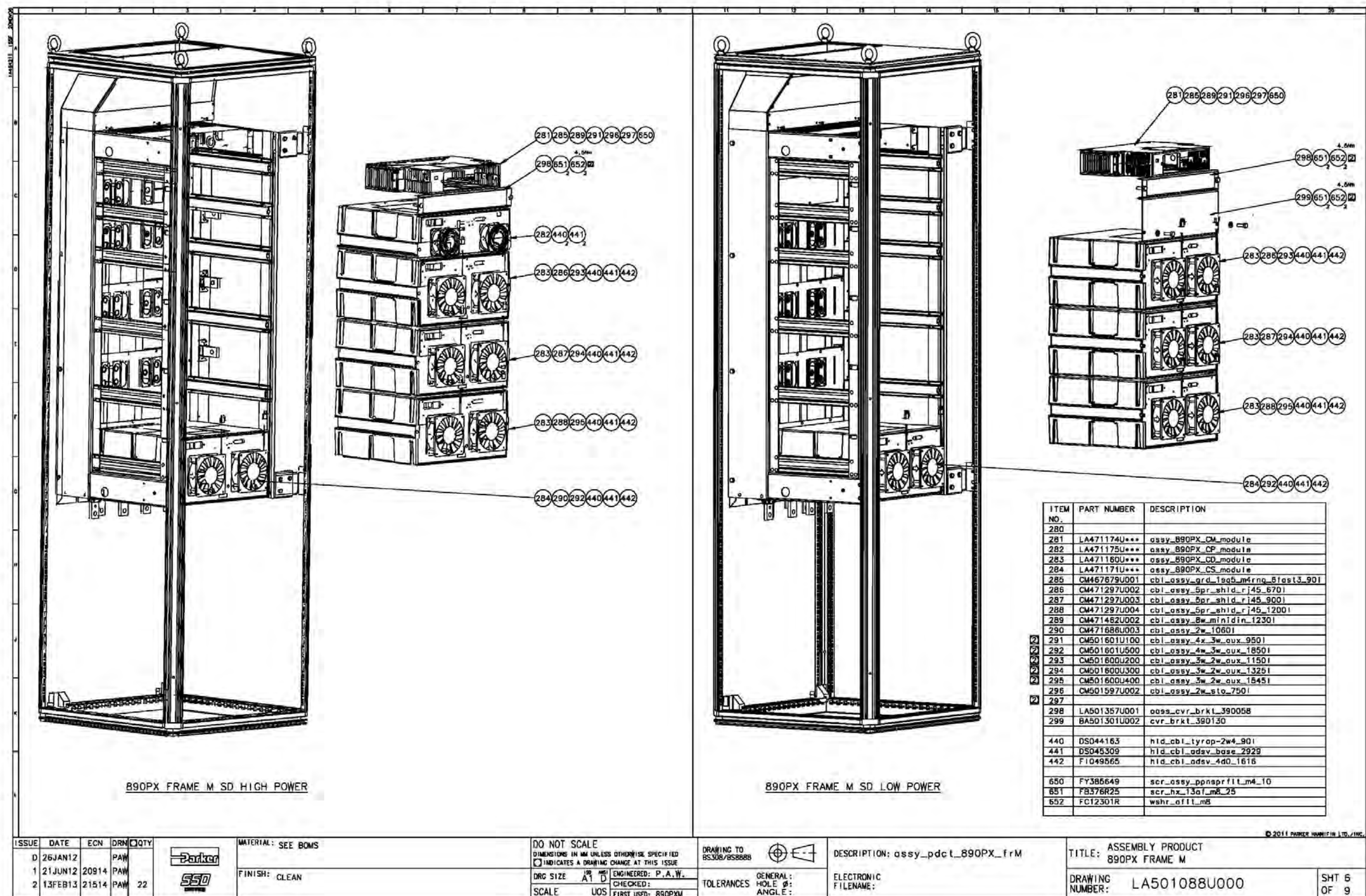


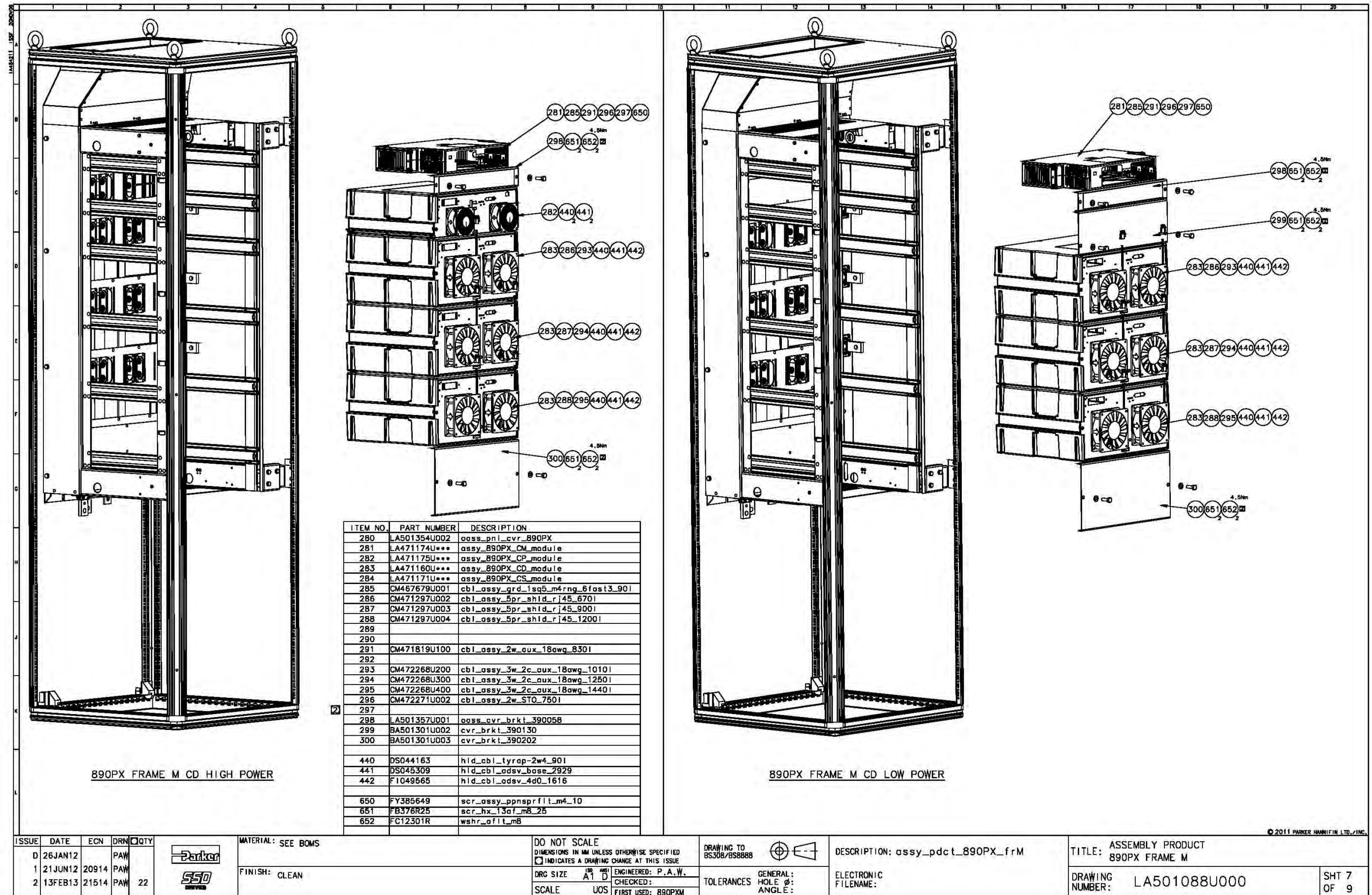
LEFT HAND VIEW OF 890PX FRAME M INSTALLED
IN CABINET FRAME RITTAL TYPE TS

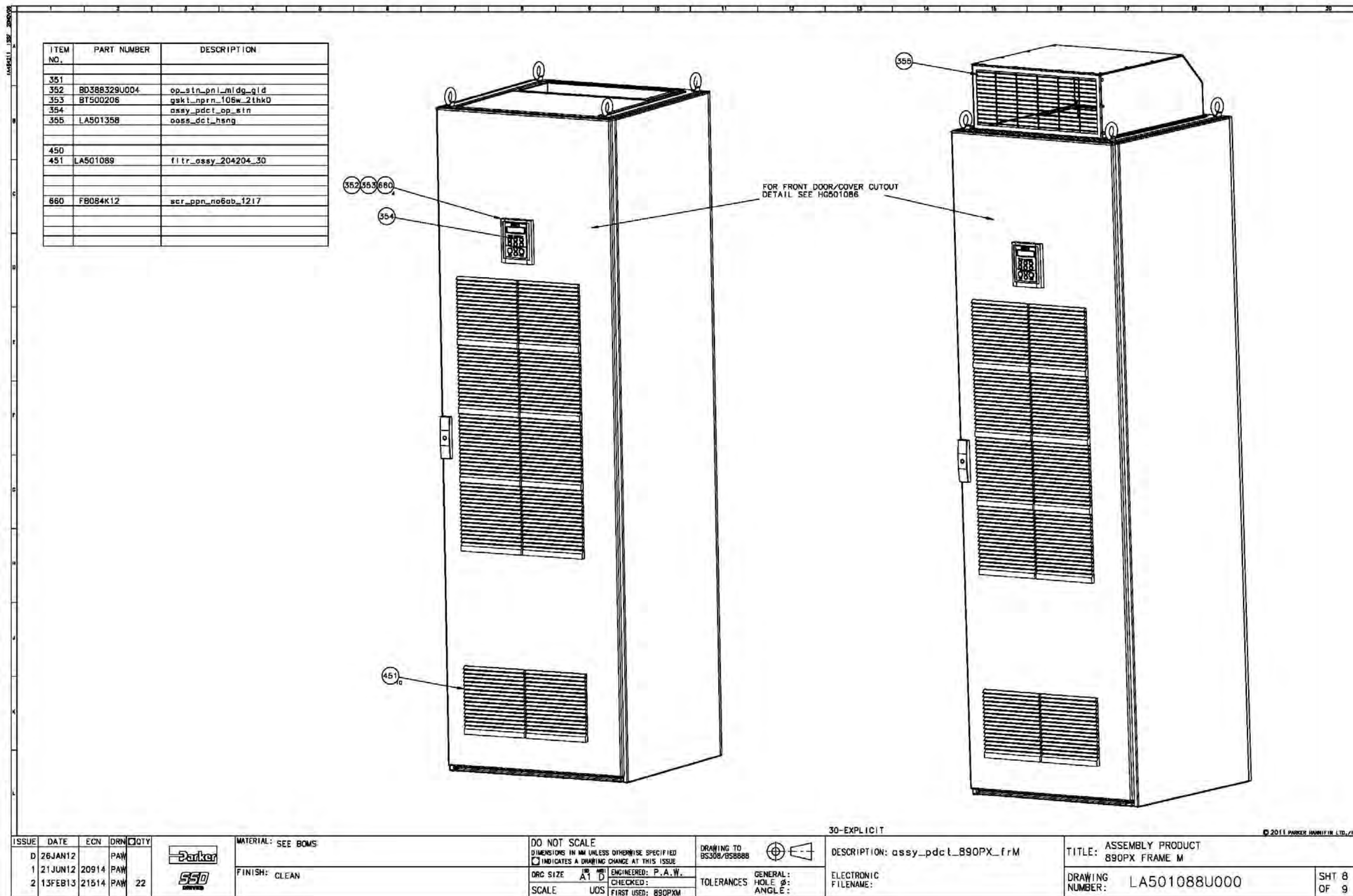


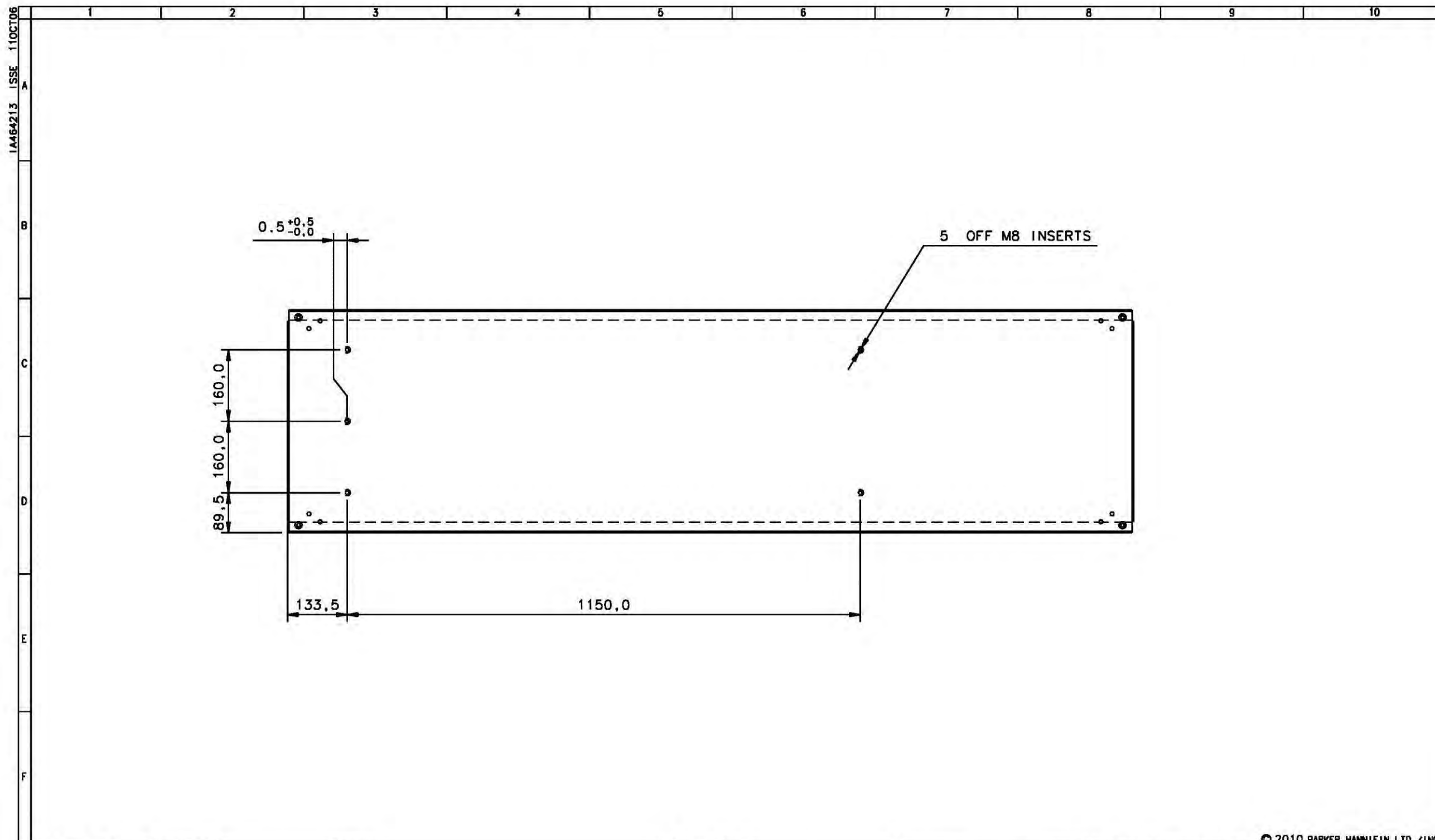
RIGHT HAND VIEW OF 890PX FRAME M INSTALLED
IN CABINET FRAME RITTAL TYPE TS

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<table><tr><td>ISSUE</td><td>DATE</td><td>ECN</td><td>DRN</td><td>QTY</td></tr><tr><td>D</td><td>26JAN12</td><td></td><td>PAW</td><td></td></tr><tr><td>1</td><td>21JUN12</td><td>20914</td><td>PAW</td><td></td></tr><tr><td>2</td><td>13FEB13</td><td>21514</td><td>PAW</td><td>22</td></tr></table>					ISSUE	DATE	ECN	DRN	QTY	D	26JAN12		PAW		1	21JUN12	20914	PAW		2	13FEB13	21514	PAW	22	 		MATERIAL: SEE BOMS		DO NOT SCALE DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED □ INDICATES A DRAWING CHANGE AT THIS ISSUE		DRAWING TO BS308/BS8888 		DESCRIPTION: assy_pdc_t_890PX_fm		TITLE: ASSEMBLY PRODUCT 890PX FRAME M	
ISSUE	DATE	ECN	DRN	QTY																																
D	26JAN12		PAW																																	
1	21JUN12	20914	PAW																																	
2	13FEB13	21514	PAW	22																																
							FINISH: CLEAN		ORG SIZE A1 D ENGINEERED: P.A.W. CHECKED: FIRST USED: 890PX		TOLERANCES GENERAL: HOLE Ø: ANGLE:		ELECTRONIC FILENAME:		DRAWING NUMBER: LA501088U000		SHT 5 OF 9																			









ISSUE	DATE	ECN	DRN	QTY		MATERIAL:	DO NOT SCALE DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED ☐ INDICATES A DRAWING CHANGE AT THIS ISSUE	DRAWING TO BS308/BS888		DESCRIPTION: pnl_mtg_1896h_499w_23d_3thk0 ELECTRONIC FILENAME:	
1	27JUN12	20914	PAW			FINISH:	DRG SIZE A3 SCALE 1:8 UOS	ENGINEERED: P.A.W. CHECKED: FIRST USED: 890PXC		TITLE: PANEL MOUNTING 1896 HIGH 499 WIDE 23 DEEP 3mm THICK DRAWING NUMBER: HG501140	

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SHT 1 OF 1

