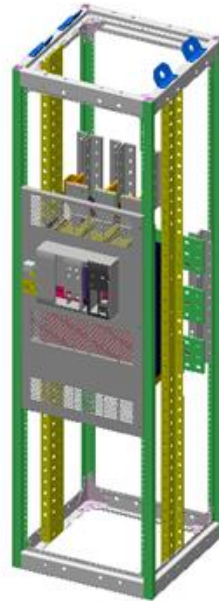
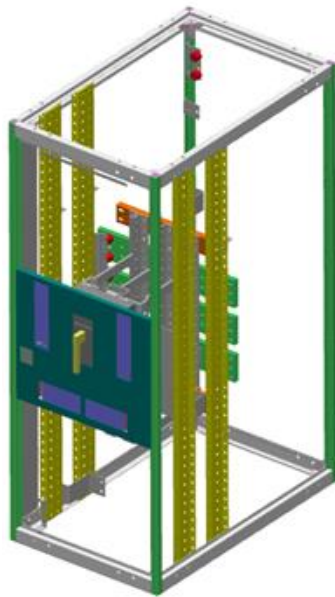


# Spectra Series Switchboard

## HPC I



## HPC II



Rev 1	4-2-2014
Rev 2	6-9-2014

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## INTRODUCTION

The HPC2 Conversion Kit provides all the necessary parts and information to assist in the replacement of a HPC1 switch with an equivalently rated HPC2 switch. This instruction manual describes the Retrofit kit nomenclature and the replacement procedure of HPC2 during installation.

This document gives basic instructions of Switch & respective door replacement only, for the other functionalities like door interlock, RELT...etc., *refer to respective PBII documents* as they are very much similar.

## 1.0: INSTRUCTIONS FOR KIT ORDERING

### 1.1: STEPS FOR ORDERING THE KITS.

- Identify the required details like switch rating, feed type of the HPC switch, section width and RELT requirement, for the installed section.
- Refer the below nomenclature and understand the kit ordering criteria.
- Refer TABLE 1 to TABLE 6 as per ratings and choose appropriate kit#
- Then refer to the corresponding retrofit kit details sheets.
- Line & Load Tier bus assembly for 12/16A – need to be ordered separately

### 1.2: KIT NOMENCLATURE

Switch	Rating	Feed	Section Width	RELT
<b>HPC2</b>	<b>08</b>	<b>T</b>	<b>30W</b>	<b>R</b>
	08 = 800A	T = Top Feed	25W	O = W/O RELT
	12 = 12/16A	B = Bottom Feed	30W	R = With RELT
	20 = 2000A		35W	
	25 = 2500A		40W	
	30 = 3000A		45W	
	40 = 4000A		50W	
			55W	

## 2.0: RATING vs. KIT PART NUMBER LOGIC TABLES

### 2.1: KIT PART NUMBERS – 08A

Rating	Feed	Section Width	RELT	Kit #
08A	Top	30	NO	HPC208T30WO
08A	Top	35	NO	HPC208T35WO
08A	Top	40	NO	HPC208T40WO
08A	Top	45	NO	HPC208T45WO
08A	Top	50	NO	HPC208T50WO
08A	Top	30	YES	HPC208T30WR
08A	Top	35	YES	HPC208T35WR
08A	Top	40	YES	HPC208T40WR
08A	Top	45	YES	HPC208T45WR
08A	Top	50	YES	HPC208T50WR
08A	Bottom	30	NO	HPC208B30WO
08A	Bottom	35	NO	HPC208B35WO
08A	Bottom	40	NO	HPC208B40WO
08A	Bottom	45	NO	HPC208B45WO
08A	Bottom	50	NO	HPC208B50WO
08A	Bottom	30	YES	HPC208B30WR
08A	Bottom	35	YES	HPC208B35WR
08A	Bottom	40	YES	HPC208B40WR
08A	Bottom	45	YES	HPC208B45WR
08A	Bottom	50	YES	HPC208B50WR

Table 1: Service Kit #'s for 800A

## 2.2: KIT PART NUMBERS – 12/16A

Rating	Feed	Section Width	RELT	Kit #
12/16A	Top	30	NO	HPC212T30WO
12/16A	Top	35	NO	HPC212T35WO
12/16A	Top	40	NO	HPC212T40WO
12/16A	Top	45	NO	HPC212T45WO
12/16A	Top	50	NO	HPC212T50WO
12/16A	Top	30	YES	HPC212T30WR
12/16A	Top	35	YES	HPC212T35WR
12/16A	Top	40	YES	HPC212T40WR
12/16A	Top	45	YES	HPC212T45WR
12/16A	Top	50	YES	HPC212T50WR
12/16A	Bottom	30	NO	HPC212B30WO
12/16A	Bottom	35	NO	HPC212B35WO
12/16A	Bottom	40	NO	HPC212B40WO
12/16A	Bottom	45	NO	HPC212B45WO
12/16A	Bottom	50	NO	HPC212B50WO
12/16A	Bottom	30	YES	HPC212B30WR
12/16A	Bottom	35	YES	HPC212B35WR
12/16A	Bottom	40	YES	HPC212B40WR
12/16A	Bottom	45	YES	HPC212B45WR
12/16A	Bottom	50	YES	HPC212B50WR

*Table 2: Service Kit #'s for 12/16A*

## 2.3: KIT PART NUMBERS – 20A

Rating	Feed	Section Width	RELT	Kit #
20A	Top	25	NO	HPC220T25WO
20A	Top	30	NO	HPC220T30WO

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DEH41700**

20A	Top	35	NO	HPC220T35WO
20A	Top	40	NO	HPC220T40WO
20A	Top	45	NO	HPC220T45WO
20A	Top	50	NO	HPC220T50WO
20A	Top	25	YES	HPC220T25WR
20A	Top	30	YES	HPC220T30WR
20A	Top	35	YES	HPC220T35WR
20A	Top	40	YES	HPC220T40WR
20A	Top	45	YES	HPC220T45WR
20A	Top	50	YES	HPC220T50WR
20A	Bottom	25	NO	HPC220B25WO
20A	Bottom	30	NO	HPC220B30WO
20A	Bottom	35	NO	HPC220B35WO
20A	Bottom	40	NO	HPC220B40WO
20A	Bottom	45	NO	HPC220B45WO
20A	Bottom	50	NO	HPC220B50WO
20A	Bottom	25	YES	HPC220B25WR
20A	Bottom	30	YES	HPC220B30WR
20A	Bottom	35	YES	HPC220B35WR
20A	Bottom	40	YES	HPC220B40WR
20A	Bottom	45	YES	HPC220B45WR
20A	Bottom	50	YES	HPC220B50WR

*Table 3: Service Kit #'s for 20A*

**2.4: KIT PART NUMBERS – 25A**

Rating	Feed	Section Width	RELT	Kit #
25A	Top	35	NO	HPC225T35WO
25A	Top	40	NO	HPC225T40WO
25A	Top	45	NO	HPC225T45WO

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DEH41700**

25A	Top	35	YES	HPC225T35WR
25A	Top	40	YES	HPC225T40WR
25A	Top	45	YES	HPC225T45WR
25A	Bottom	35	NO	HPC225B35WO
25A	Bottom	40	NO	HPC225B40WO
25A	Bottom	45	NO	HPC225B45WO
25A	Bottom	35	YES	HPC225B35WR
25A	Bottom	40	YES	HPC225B40WR
25A	Bottom	45	YES	HPC225B45WR

*Table 4: Service Kit #'s for 25A*

**2.5: KIT PART NUMBERS – 30A**

Rating	Feed	Section Width	RELT	Kit #
30A	Top	40	NO	HPC230T40WO
30A	Top	45	NO	HPC230T45WO
30A	Top	50	NO	HPC230T50WO
30A	Top	40	YES	HPC230T40WR
30A	Top	45	YES	HPC230T45WR
30A	Top	50	YES	HPC230T50WR
30A	Bottom	40	NO	HPC230B40WO
30A	Bottom	45	NO	HPC230B45WO
30A	Bottom	50	NO	HPC230B50WO
30A	Bottom	40	YES	HPC230B40WR
30A	Bottom	45	YES	HPC230B45WR
30A	Bottom	50	YES	HPC230B50WR

*Table 5: Service Kit #'s for 30A*

## 2.6: KIT PART NUMBERS – 40A

Rating	Feed	Section Width	RELT	Kit #
40A	Top	40	NO	HPC240T40WO
40A	Top	45	NO	HPC240T45WO
40A	Top	50	NO	HPC240T50WO
40A	Top	55	NO	HPC240T55WO
40A	Top	40	YES	HPC240T40WR
40A	Top	45	YES	HPC240T45WR
40A	Top	50	YES	HPC240T50WR
40A	Top	55	YES	HPC240T55WR
40A	Bottom	40	NO	HPC240B40WO
40A	Bottom	45	NO	HPC240B45WO
40A	Bottom	50	NO	HPC240B50WO
40A	Bottom	55	NO	HPC240B55WO
40A	Bottom	40	YES	HPC240B40WR
40A	Bottom	45	YES	HPC240B45WR
40A	Bottom	50	YES	HPC240B50WR
40A	Bottom	55	YES	HPC240B55WR

Table 6: Service Kit #'s for 40A

***\*\*All the above service kits are released in MWP, hence browsing through the structure of the kit in MWP yields the individual part numbers, however snapshots in next pages also gives the similar information. For latest information, refer MES or MWP\*\****



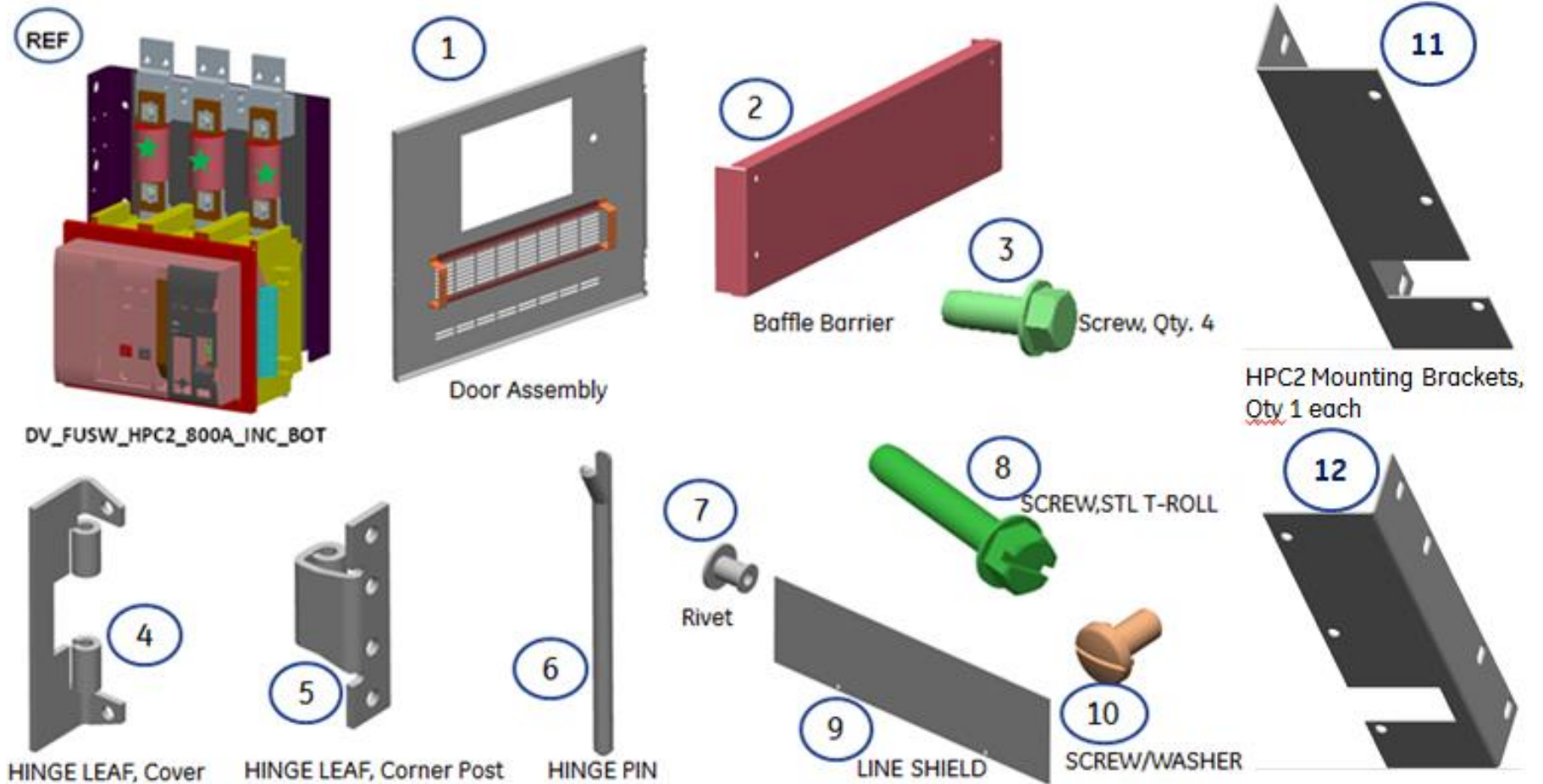


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## DEH41700

Rating	Feed	Section Width	RELT	Kit #	ITEM#1	ITEM#2	ITEM#3	ITEM#4	ITEM#5	ITEM#6	ITEM#7	ITEM#8					
					Door Assembly, Qty 1	Baffle Barrier, Qty 1	Hardware, Qty 4	HINGE LEAF COV Qty	HINGE LEAF COR POST Qty	HINGE PIN Qty	RIVET DOMED HEAD 3/16 - 0.387 Qty	SCREW, STL T-ROLL 1/4-20X1-3/8 Qty					
25A	Top	35	NO	HPC225T35WO	75C143903G11	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Top	40	NO	HPC225T40WO	75C143903G12	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Top	45	NO	HPC225T45WO	75C143903G13	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Top	35	YES	HPC225T35WR	75C143903G14	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Top	40	YES	HPC225T40WR	75C143903G15	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Top	45	YES	HPC225T45WR	75C143903G16	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	35	NO	HPC225B35WO	75C143903G17	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	40	NO	HPC225B40WO	75C143903G18	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	45	NO	HPC225B45WO	75C143903G19	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	35	YES	HPC225B35WR	75C143903G20	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	40	YES	HPC225B40WR	75C143903G21	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
25A	Bottom	45	YES	HPC225B45WR	75C143903G22	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	40	NO	HPC230T40WO	75C143904G11	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	45	NO	HPC230T45WO	75C143904G12	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	50	NO	HPC230T50WO	75C143904G13	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	40	YES	HPC230T40WR	75C143904G14	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	45	YES	HPC230T45WR	75C143904G15	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Top	50	YES	HPC230T50WR	75C143904G16	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	40	NO	HPC230B40WO	75C143904G17	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	45	NO	HPC230B45WO	75C143904G18	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	50	NO	HPC230B50WO	75C143904G19	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	40	YES	HPC230B40WR	75C143904G20	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	45	YES	HPC230B45WR	75C143904G21	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
30A	Bottom	50	YES	HPC230B50WR	75C143904G22	75C143817P224	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	40	NO	HPC240T40WO	75C143905G11	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	45	NO	HPC240T45WO	75C143905G12	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	50	NO	HPC240T50WO	75C143905G13	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	55	NO	HPC240T55WO	75C143905G14	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	40	YES	HPC240T40WR	75C143905G15	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	45	YES	HPC240T45WR	75C143905G16	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	50	YES	HPC240T50WR	75C143905G17	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Top	55	YES	HPC240T55WR	75C143905G18	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	40	NO	HPC240B40WO	75C143905G19	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	45	NO	HPC240B45WO	75C143905G20	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	50	NO	HPC240B50WO	75C143905G21	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	55	NO	HPC240B55WO	75C143905G22	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	40	YES	HPC240B40WR	75C143905G23	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	45	YES	HPC240B45WR	75C143905G24	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	50	YES	HPC240B50WR	75C143905G25	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3
40A	Bottom	55	YES	HPC240B55WR	75C143905G26	75C143817P225	N151P21010C	75C141128P101	3	75C141128P102	3	75C141128P104	3	N3348P1802B6	12	N722EP21022B6	3

### 3.0: PICTORIAL REPRESENTATION OF KIT PARTS



\*\* Switches will be received without Fuses, so before switching on assemble the fuses

\*\* Same hardware of existing HPC switch can be used to mount HPC2 switch

## 4.0: ASSEMBLY PROCEDURE - RETROFIT FROM HPC-1 TO HPC-2

### 4.1: MODIFICATION IN EXISTING PANEL

- Please ensure circuit is de-energized & HPC switch is in off condition.
- Remove the device cover assembly and HPC switch in sequence from exiting section.
- Utilize the existing hardware to mount the new kit.
- Received kit consists of these components: HPC switch, door, top barrier, bottom barrier, grommet bracket & grommet.
- For 800A & 12/16A ONLY, replace the existing HPC mounting brackets by item#11 & 12.

### 4.2: HPC2 SWITCH ASSEMBLY

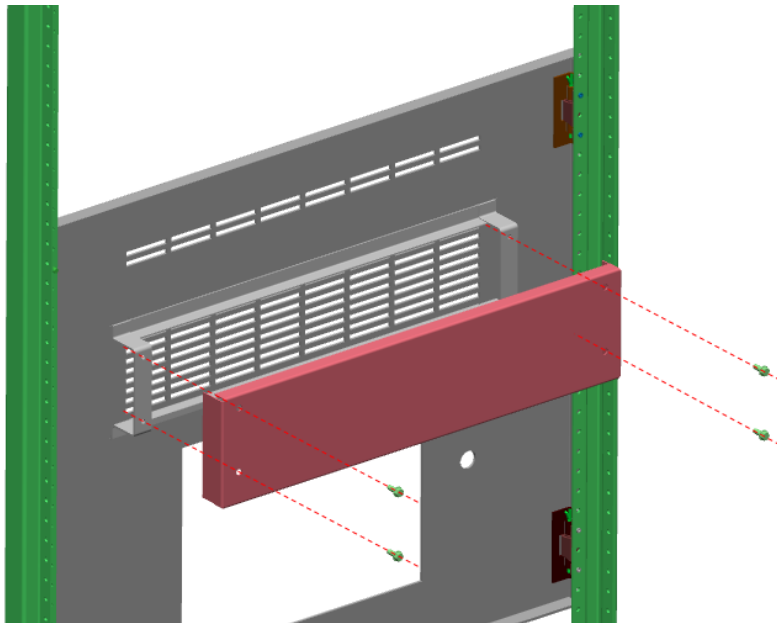
- Mount the HPC2 switch on six holes, three each on left & right mounting brackets. Ensure fuses were properly fitted at respective locations
- HPC2 switch line and load straps are to be connected to respective line and load tiers, using ½ inch bolt with plain, spring washers & Hex bolt to be used, with proper torque and assemble procedure.

### 4.3: DOOR ASSEMBLY

- Assemble the one hinge leaf (Item #4) to the door assembly (Item#1) by riveting (Item#7). Similarly assemble another hinge leaf (Item#5) to the corner post at the respective location by riveting.
- Repeat the above step for all the hinge assemblies.
- Place the door assembly appropriately such that both the hinge leafs sit together, and insert Hinge Pin (Item#6)



- Make sure that the door is assembled properly to the vertical post
- Then assemble the baffle barrier to the door at the respective welded brackets of the cover.



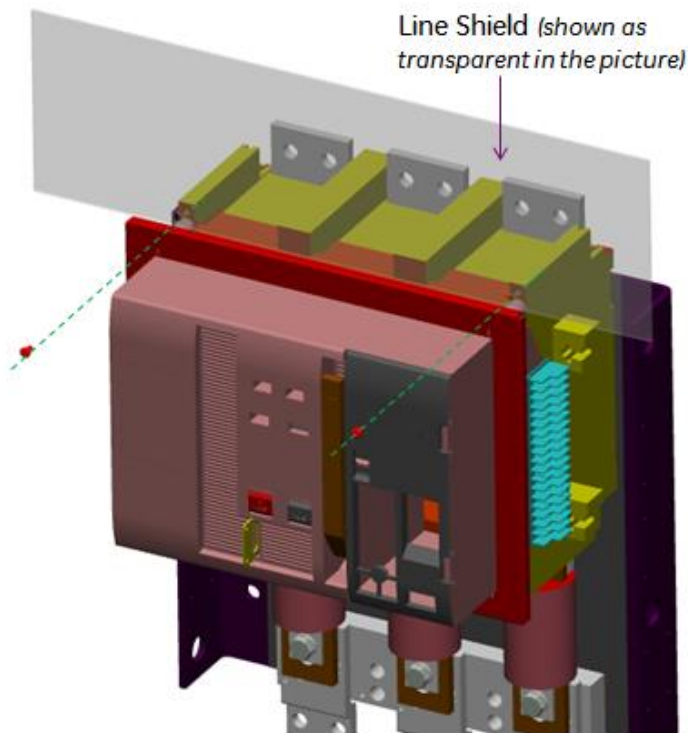
After the door assembly is completed, close the door and assemble the hardware (Item#8) on the right side of the door to firmly close it against posts.

## 5.0 LINE SHIELD ASSEMBLY (08A – 20A)

- Line shields are part of HP2 switch for higher frames (25 – 40A)
- For lower frames (08A / 12-16A / 20A), insulation shields are to be assembled on the HPC2 switch on line side.

Below are the respective part numbers and hardware. These are included in the kit structure.

Switch Rating	Line Shield, Qty. – 1	Hardware, Qty. – 2
800 – 1600 A	75C143817P230	N168P16006B6
2000A	75C143817P231	N168P16006B6



There are two small holes on the housing / casing of the HPC2 switch on Line side, use those two holes to assemble the line shield with the hardware

## 6.0 TIER BUS ASSEMBLY (12/16A only)

- Whenever there is a Retrofit required for 12/16A – the line and load tiers for A & C phases need to be changed
- Refer to the below end items and order the bus bars based on different criteria like Bus bar material, depth...Etc.
  - Line Tiers – 75C143901LINE
  - Load Tiers - 75C143901LOAD

***\*\*These are not the part of the retrofit Kit Cat #'s mentioned in this document, so need to order separately\*\****

**END OF THE DOCUMENT**