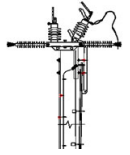




DISTRIBUTION COMMISSIONING TEST SHEET – POLE-TOP SWITCH
HPC-4DL-07-0023-2014



This commissioning test sheet covers the checking, testing and commissioning of all replacement or new installations of pole-top switch (PTS) before energisation.

NOTE: Tests must be carried out after the installation, alteration or repair and before putting back to service.
SAFETY: At all times maintain suitable clearance to all other electrical equipment and verify planned escape routes.

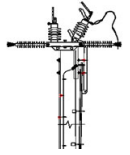
DATE:		Project No.		Name of Officer	
Pole-Top Switch Location:					

1. POLE-TOP SWITCH DESCRIPTION

Rated System Voltage		kV	Pole Number		Label/GIS ID code	
Make			Stock code		Serial Number	

2. VISUAL INSPECTION AND SAFETY CHECK

Inspect the following: <ul style="list-style-type: none"> • Structure • Contacts • Earth connections 	1	Check that the installation complies with the distribution construction standards and applicable design drawings.	<input type="checkbox"/>	
	2	Check that Public Safety has been considered (e.g. lever secured and locked, trip hazards removed, anti-climbing devices applied where applicable).	<input type="checkbox"/>	
	3	Check the supply to the pole-top switch, that it is switched off and isolated as per switching sheet and permit.	<input type="checkbox"/>	
	4	Confirm (with approved testing device) that the pole-top switch is de-energised.	<input type="checkbox"/>	
	5	Check that the pole- top switch rating matches system voltage.	<input type="checkbox"/>	
	6	Apply corrosion inhibitor as per manufacturer's recommendation	<input type="checkbox"/>	
	7	Check that the switch blades (and flexi-tails) are properly oriented with the switch closing and opening smoothly, and that the contacts are fully seated in the close position, and that all three blade are firm and operate simultaneously (adjust if necessary).	<input type="checkbox"/>	
	8	Check that the retaining springs of the pole-top switch are correctly installed. Check all bolts, nuts, connections are tight and secure.	<input type="checkbox"/>	
	9	Check that the earth system, (i.e. switch body, switch handle and earth mat), is complete, undamaged and bonded to earth points.	<input type="checkbox"/>	
	10	Check that the nearest conductive material is at least two (2) metres away from the earth system (take a photo if possible)	Measured distance	m <input type="checkbox"/>
	11	Check that there is a continuous insulated earth cable from switch body to the handle and then to the earth rod (i.e. the removal of the earth cable from the handle does not break the connection between the switch body and earth rod).	<input type="checkbox"/>	
	12	Check that a Horizon Power approved lock can be applied in both the open and closed positions.	<input type="checkbox"/>	
	13	Check that the structure is numbered and labelled correctly with labels and danger signs fitted correctly.	<input type="checkbox"/>	



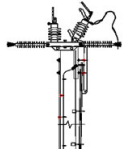
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3. EARTH RESISTANCE TEST

1	Test earth stake resistance using one of the following DCT's and record value in 3.4.					
2	New earth stake, use HPC-4DL-07-0038-2017 – Earth Testing of Distribution Poles, to test the earth					<input type="checkbox"/>
3	Existing earth stake, use HPC-4DL-07-0037-2017 – Earth Testing of Altered Systems, to test the earth					<input type="checkbox"/>
4	Previous test value if known	= _____Ω	Measured value	= _____Ω	Value acceptable	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Measured value would be acceptable if below 30 Ohms or a value between 0.8 and 1.2 is obtained when dividing the Measured value by the Previous test value. Note , if previous test value is not known a value less than or equal to 30 Ohms is acceptable.					
5	Earth stake resistances above 30 ohms or outside of an acceptable value must be communicated to the formal leader or Asset Manager.					<input type="checkbox"/>

4. ENERGISATION

Ensure that all working earths and programmed earths are removed (if applicable)			<input type="checkbox"/>
<p>Conduct a phase-out test under HPCC switching schedules if the conductors on both sides of the switch are energised from different feeders. Use appropriate phasing devices to ensure that phases on the left side of the switch are in phase with those on the right side of the switch</p>	Red to	Connections Red	Phase-out Test Results In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		White	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		Blue	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
	White to	Red	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		White	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		Blue	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
	Blue to	Red	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		White	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
		Blue	In phase <input type="checkbox"/> yes <input type="checkbox"/> no
Ensure that the switch is in the correct position (open closed) as per the switching program or network configuration.			<input type="checkbox"/>
Energise the switch as per the switching program and/or network configuration.			<input type="checkbox"/>
Remove all bypass jumpers (if applicable)			<input type="checkbox"/>
Check for any signs of abnormality.			<input type="checkbox"/>



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5. OPERATIONAL HANDOVER

The commissioning officer must ensure that all checks are completed and the test results comply with the minimum standards.

I hereby certify that all sections have been completed with satisfactory results and transfer responsibility to the network operating authority. This equipment is ready to be **SAFELY** energised.

Commissioning Officer: _____ Pay Number: _____
Signature: _____ Date: DD/MM/YY Time: HH:MM

1. Ensure the work area is left tidy with no hazards to the public.
2. Hand over responsibility to the operating authority
3. Return this sheet to the project/working file as a record of commissioning and as a document required for the Handover Certificate.