



DISTRIBUTION COMMISSIONING TEST SHEET – NETWORK ACCESS POINTS AND RELAYS
HPC-4DL-07-0034-2014

This commissioning test sheet covers the checking, testing and commissioning of all new installations of network access points and relays.



SAFETY: At all times maintain suitable clearance to all other electrical equipment and verify planned escape routes.
In preparation for the tests, wherever possible, isolate the supply to the equipment and make the area safe.

DATE:		Reference Work Order No.		Name of Officer	
Location:					

1. DEVICE COMPONENT DESCRIPTIONS

Item	Description	Value/Description	Comments
1.	Record the communication device location (Pole Pick Identification number).		
2.	Record the Street name and Suburb/Town.		
3.	Is the communication device an Access point or Relay?		
4.	Record serial number of communication device.		
5.	Record label number of communication device.		
6.	Record MAC address number of communication device.		
7.	Record battery Serial number.		
8.	Record battery catalogue number and description.		
9.	Record battery part number and manufacturing week.		
10.	Record height of communication device from ground level.		
11.	Record GPS co-ordinates of device (e.g. -24.87517, 113.69213)		



2. SAFETY CHECK AND VISUAL INSPECTION

Item	Description	Please Tick (if correct/complete)	Comments
1.	Check that the installation complies with the distribution construction standards and applicable design drawings. <ul style="list-style-type: none"> • M1 – 1 (Feb 2014) – SSN network device with LV aerial supply (ABC) arrangement • M1 – 2 (Feb 2014) – SSN network device with LV aerial supply arrangement • M1 – 3 (Feb 2014) – SSN network device with LV aerial supply (on HV pole) arrangement • M1 – 4 (Apr 2015) – SSN network device with streetlight supply arrangement 	<input type="checkbox"/>	
2.	Confirm circuit breaker is in the OFF position and device is not connected to supply mains.	<input type="checkbox"/>	
3.	Prove cables de-energised, use 'Test before you touch' FI 2.25	<input type="checkbox"/>	
4.	Ensure the communication device neutral (blue wire) and earth (yellow/green wire) is removed from neutral link in circuit breaker housing.	<input type="checkbox"/>	
5.	For devices mounted on steel structures (except streetlights*), ensure the MEN earth wire is disconnected prior to energisation.	<input type="checkbox"/>	
6.	Confirm all electrical connections meet Horizon Power requirements.	<input type="checkbox"/>	
7.	Ensure the device is attached on the pole bracket as far as possible away from the pole. This is to reduce radio frequency shadowing from the pole.	<input type="checkbox"/>	
8.	All appropriate labels fitted.	<input type="checkbox"/>	
9.	Ensure the NAN antenna on the communication device is perpendicular to the ground.	<input type="checkbox"/>	



10.	Has a photograph been taken of the completed installation?	<input type="checkbox"/>	
-----	--	--------------------------	--

*For streetlights, the MEN link in the cutout shall remain connected throughout commissioning.

3. CONNECTION INTEGRITY TEST

Item	Description	Please Tick if correct/complete	Values	Comments
1.	Install a temporary earth spike, a minimum of 2 metres from the structure in which the device is mounted. The temporary earth spike must be to a depth of 300 mm.	<input type="checkbox"/>	Not applicable	
2.	Connect the Network Analyser's earth lead to the temporary earth stake lead and the Network Analyser's neutral lead to the circuit breaker supply-side neutral.	<input type="checkbox"/>	Not applicable	
3.	Appropriately identify the supply main neutral and fit a neutral tag.	<input type="checkbox"/>	Not applicable	
4.	Appropriately identify the communication device circuit breaker line neutral and fit a neutral tag.	<input type="checkbox"/>	Not applicable	
5.	Connect the circuit breaker supply-side neutral to the LV mains neutral. If the Network Analyser displays a red light and two green lights, stop work immediately and check all connections as part of the installation. Rectify the appropriate connection(s) and recommence test.	<input type="checkbox"/>	Not applicable	
6.	Connect circuit breaker supply-side active to the LV mains active. Use the divide by 3 rule, to determine the appropriate phase. Record supply phase.	<input type="checkbox"/>		
7.	Place the Network Analyser phase probe onto the circuit breaker line side terminal, push start and record the following results <ul style="list-style-type: none"> • Voltage: V - > line to neutral • Voltage: V - > line to earth • Impedance: Z - > line to earth • Impedance: Z - > line to neutral 	<input type="checkbox"/>		



DISTRIBUTION COMMISSIONING TEST SHEET – NETWORK ACCESS POINTS AND RELAYS
HPC-4DL-07-0034-2014

This commissioning test sheet covers the checking, testing and commissioning of all new installations of network access points and relays.



	<ul style="list-style-type: none"> • Impedance: Z - >Neutral wire impedance • Impedance: Z - > Line X – Form 			
8.	Reinstate the communication device neutral (blue wire) and earth (yellow/green wire) from neutral link in circuit breaker housing.	<input type="checkbox"/>	Not applicable	
9.	Connect MEN earth wire for device mounted on steel structures (except streetlights*).	<input type="checkbox"/>		
10.	Energise communication device via the circuit breaker.	<input type="checkbox"/>	Not applicable	
11.	Connect a voltmeter between the independent earth and the communication device's metal pole bracket. No voltage should be recorded.	<input type="checkbox"/>		

*For streetlights, the MEN link in the cutout shall remain connected throughout commissioning.

4. FUNCTION CONFIRMATION

Item	Description	Please Tick if correct/complete	Comments
1.	Has Project Metering team been contacted to confirm if device is commissioned and communicating correctly via the network?	<input type="checkbox"/>	
2.	Has Project Metering team confirmed the device is working on mains supply and not the battery backup?	<input type="checkbox"/>	
3.	Has Project Metering team confirmed the device will work on battery power if the mains supply is not available?	<input type="checkbox"/>	



DISTRIBUTION COMMISSIONING TEST SHEET – NETWORK ACCESS POINTS AND RELAYS
HPC-4DL-07-0034-2014

This commissioning test sheet covers the checking, testing and commissioning of all new installations of network access points and relays.



5. HANDOVER OF RESPONSIBILITY

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.

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.

IMPORTANT: PLEASE ATTACH AS-BUILT DRAWINGS AND DATASHEETS TO THIS SHEET AND SEND TO RELEVANT ASSET MANAGER