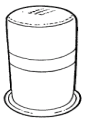
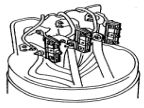
DISTRIBUTION COMMISSIONING FORM (DCF) 2.9 – Pole to pillar/pit

Purpose: This instruction covers the testing and commissioning requirements for reconnecting or new LV cable installations between the overhead network and a pillar (Pole to pillar).

For more information refer to the *Distribution Commissioning Forms Guideline (EDM 34137510)*

1. Task Parameters

Work Package No:		Test Site/Location:			
Service Address (House/Lot No and Road Name):					
Instrument		Serial Number:		Cal Date:	
Size of Cable	mm^2	Length of Cable (approx.)	m		
Pole Pick ID					
Pillar Pick ID	Uni pillar	Mini pillar	Pit		

2. Before disconnection

1	Before de-energising the cable to be replaced, test and record the phase rotation at the pillar/pit	Ø #	Ø #	Ø #

3. Preparation

1	Check that the pillar/pit is on the correct location/alignment.		
3	Separate the earth conductor from the neutral terminal block at the pillar/pit.		
4	Check the cable and conduit to the pole is in its final position.		
5	Identify the aerial mains neutral conductor and the cable neutral conductor and fit a neutral tag (HG 2101) to both.		
6	Separate the cable cores at the pole-top for testing.		
7	With the cable disconnected in the pillar, conduct an insulation test on the incoming cable and record the results.		
	Use a 1kV insulation resistance tester for one minute between phase-to-phase and phase-to-neutral. Values must be greater than 10MΩ. Ensure that all persons are clear of the circuit before testing.	Red – white	MΩ
		White – blue	MΩ
		Blue– red	MΩ
		Red – neutral	MΩ
		White – neutral	MΩ
		Blue – neutral	MΩ
8	Perform a sheath integrity test on the cable and record the results.		
	Establish an independent earth point more than 2m from any electrically conductive object. Use a 1kV insulation resistance tester and test for one minute between all the neutrals/screens and the independent earth Values must be: a. greater than 10MΩ for new cables b. greater than 1MΩ for old cables.	Neutral – earth	MΩ
9	Connect the cable neutral/screen to the pillar neutral bar/block/connector		
10	Connect the cable phase cores: ensure correct positioning and tightness.		

4. Commissioning

Note: A high impedance voltmeter may indicate stray or 'ghost' voltages on unconnected phase(s), when one phase is energised. Utilise a stray voltage eliminator or connect a load tester across the test points to dissipate this voltage and give a true reading (< 6V). If voltage of 6V or greater still exists, commence a fault-finding procedure.

1	Prove the test equipment is functioning correctly.			
2	For bare aerial mains only: Prove correct voltages: R-N, W-N, B-N (all 226–254V). **Note:** The linesperson in the EWP must confirm the OH line voltages and check that there is no voltage between each cable core and the line before connecting. N/A for aerial bundled conductor.			
3	Touch the cable neutral core to the aerial neutral while confirming voltage at the pillar N-E <6V			V
4	After proving, connect the cable neutral to the aerial neutral and reconfirm N-E voltage <6V			V
5	Reconnect the earth conductor to the neutral bar/terminal block/connector in the pillar/pit.			
6	Connect each phase in turn at the pole-top and check the voltage at the pillar/pit:			
	a) Test between the neutral and the blue terminal block/connector. (226–254V)			V
	b) Test between the neutral and the white terminal block/connector. (226–254V)			V
	c) Test between the neutral and the red terminal block/connector. (226–254V)			V
7	Record the final line voltages at the pillar/pit. Expected Value 390–440V Ø - Ø		Red to White	V
			White to Blue	V
			Blue to Red	V
8	Test for correct phase rotation and record. For cable replacement this must be the same as recorded in Sect 2.	Ø #	Ø #	Ø #
9	Conduct a service connection test on: a) At least one service that is fed from the pillar b) All installations where the service connections have been disturbed.		☐ ☐	

5. Handover of Responsibility

I hereby certify that:
1. The above tests have been completed in sequence.
2. The test results recorded above are all true and correct.

Commissioned by		BNA no.	
Signature		Date & Time	

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 form to the project file as a record of the commissioning/handover certificate.