



Distribution Design Catalogue

Distribution Automation

Section 09 (DA)



Revision List

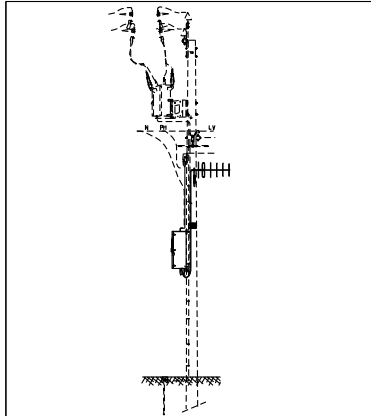
For drawing revisions please refer to the DDC Amendment list EDM# 24803827

General Notes

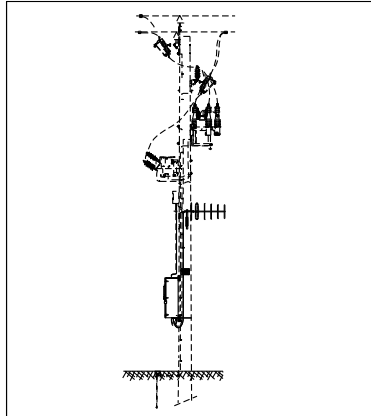
NOTE #	DESCRIPTION
1	Driving point is not required for normal ground conditions including small coffee rocks and shale. For harder ground condition, a driving point is recommended. (It is unlikely the driving point will be suitable for granite rock)
2	Expulsion Dropout Fuse (EDO) base and links as well as K-Mate fuse current limiters are not included in CUs but listed in HV51. Fault Tamer fuse base and links are listed in HV52. Fault Tamer fuse are not to be used on 33kV networks and have a maximum rating of 20A. EDOs are used on 33kV networks and for current rating greater than 20A.
3	For the physical dimension tables the uppermost king bolt / eye bolt is the reference point with coordinates X=0.0, Y=0.0 (Datum)
4	The conductor location in the Y axis of the physical dimension tables lists the height of the conductor on the top of the post insulator above the datum. This dimension has been rounded down taking equipment differences, manufacturing tolerances and installation variations into account. On angle structures, where the conductor is attached to the side of the insulator head the conductor is located marginally lower than if located on the top of the insulator. No adjustment is considered necessary to the Y dimension in these cases.
5	For conductor clashing calculation, apply the correct Y dimension which may differ from that listed in the dimension table which is used for ground clearance simulation purposes. E.g. HV09 RHS span (centre to outer phase) Ydim to be 230mm and not 310mm.
6	HV isolators to be selected according to HV53.

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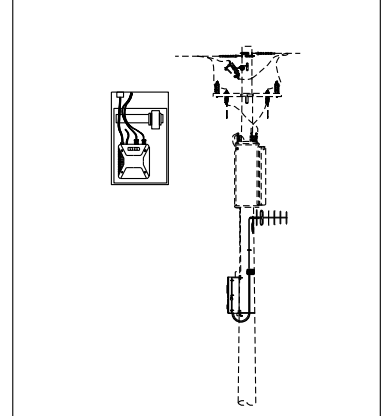
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RECLOSER
RADIO COMMS DA 1

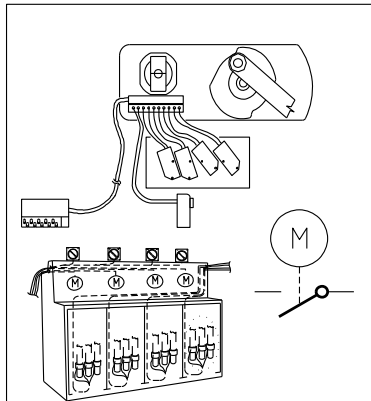


CAPACITOR BANK
RADIO COMMS DA 2

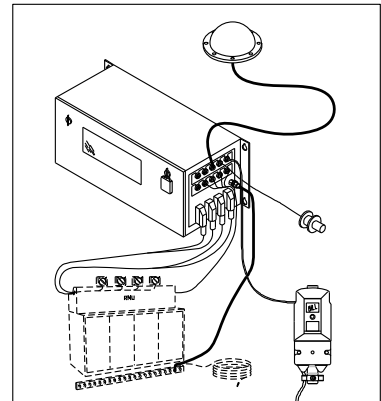


VOLTAGE REGULATOR
RADIO COMMS DA 3

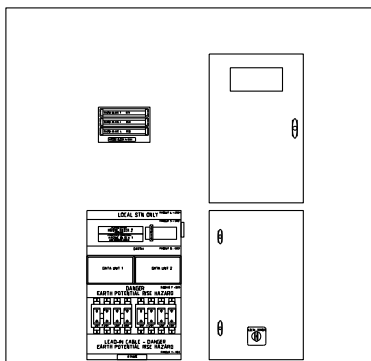
FAULT INDICATOR
SOLAR SUPPLY
REFERENCE DRG
(O/H&U/G)
FUTURE
RADIO COMMS
DA 4



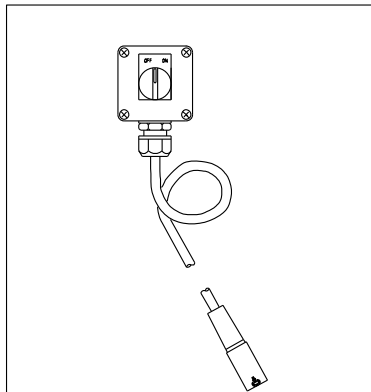
SWITCHGEAR RM6
SWITCH DISCONNECTOR
MOTORISATION KIT DA 5



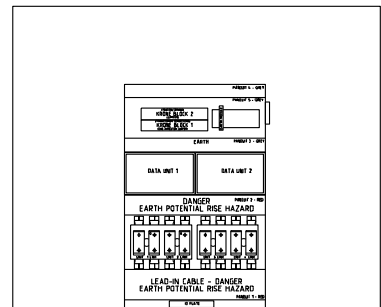
RMU REMOTE TELEMETRY EQUIPMENT
(RTU) CELLULAR ARRANGEMENT DA 6



SWITCHGEAR AUTOMATION
COMMS INTERFACE &
DC SUPPLY DA 7

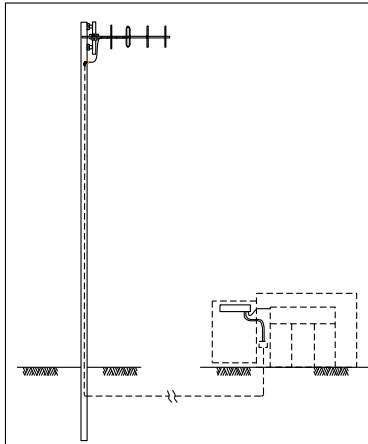


SWITCHGEAR AUTOMATION
LOCAL OPERATING STATION DA 8

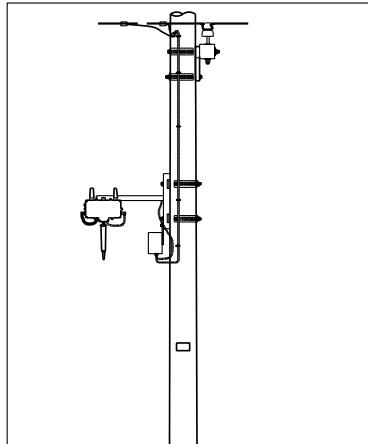


CBD SCADA COSTS ONLY DA 9

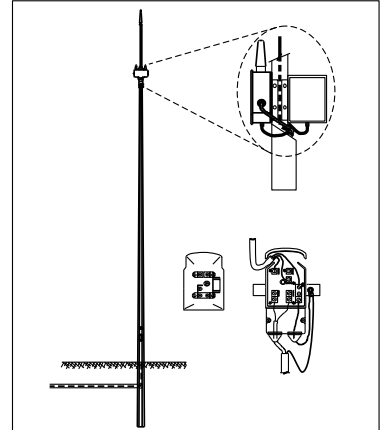
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							CHECKED: REE		REV. A ISHT. 1/2	
							APPROVED: GRANT STACY			
A	02.10.13	ORIGINAL ISSUE		DRGD.	CHKD.	APRD.				
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APRD.				



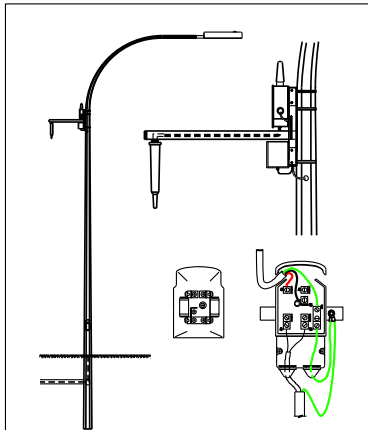
SWITCHGEAR AUTOMATION - ANTENNA ON POLE DA10



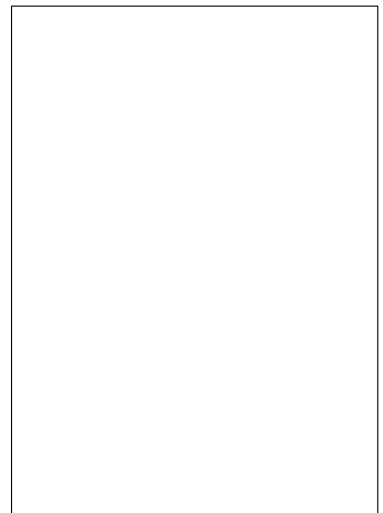
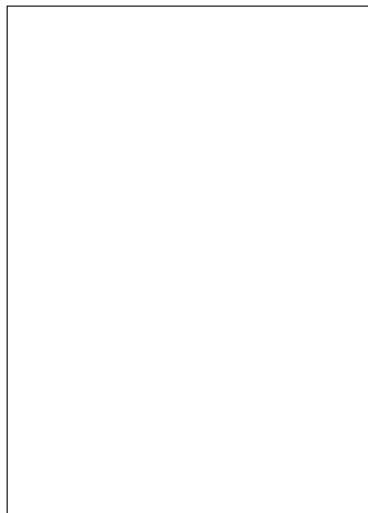
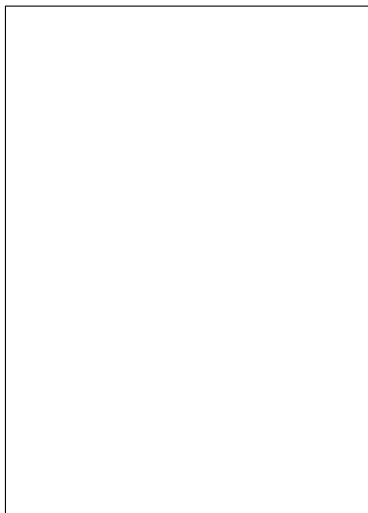
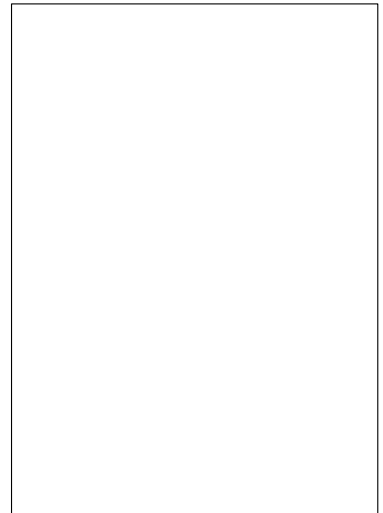
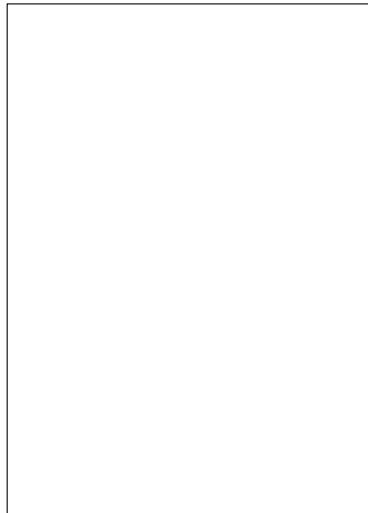
AMI - ADVANCED METERING LV AERIAL SUPPLY DA11-1



AMI - ADVANCED METERING UNDERGROUND SUPPLY DA11-2



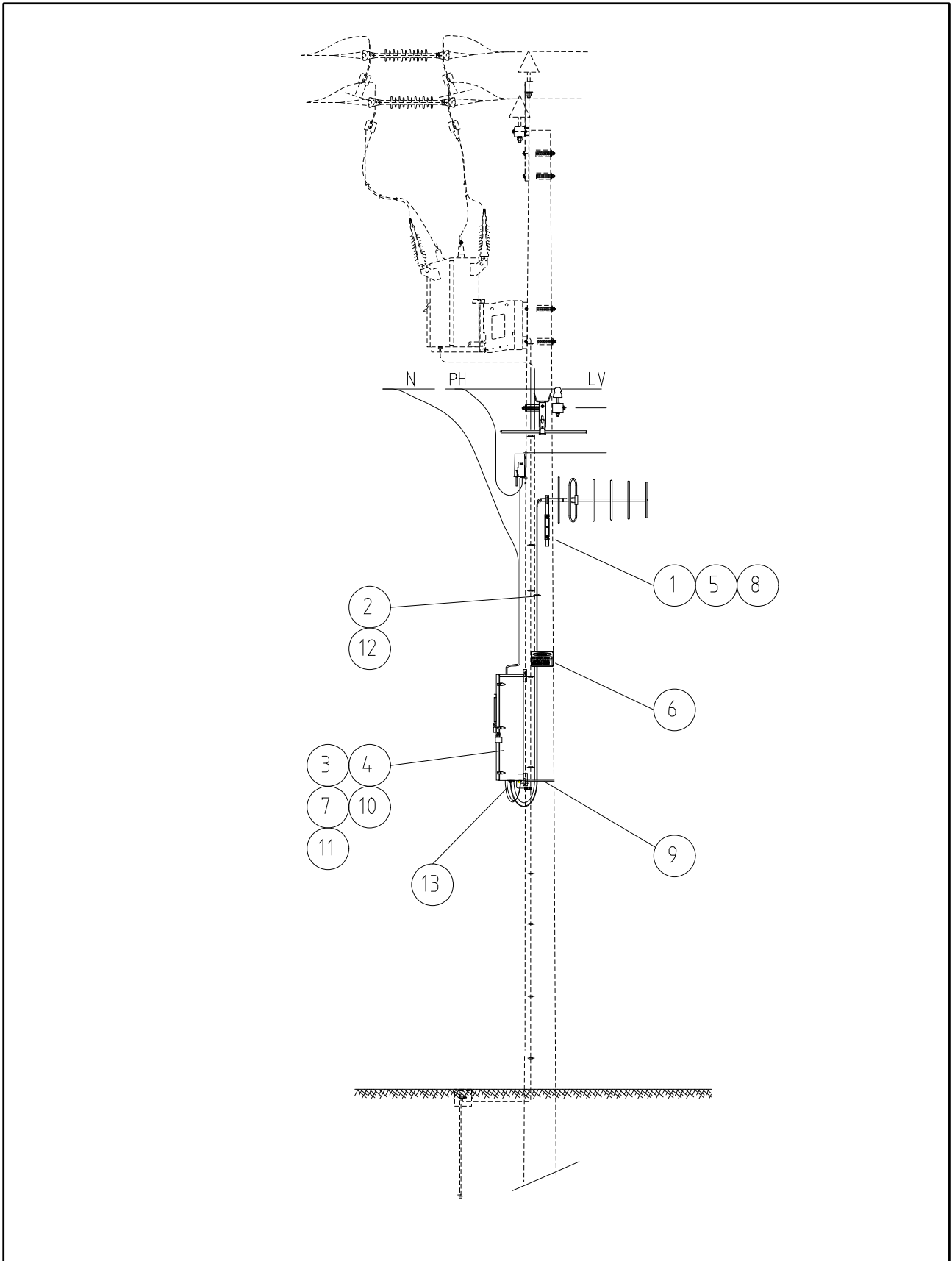
AMI - ADVANCED METERING DIRCT FROM PIT OR PILLAR DA11-3



				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
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						CHECKED: REE		REV. B	
						APPROVED: GRANT STACY		SHT. 2/2	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRO				
B	09.04.19	ITEM DA11-1 & 2 ADDED							
A	17.09.12	ORIGINAL ISSUE							

Distribution Automation CU List

CU	CU DESCRIPTION
DA1_150MHZ	Recloser Radio 150 MHz Communications – Country Analogue
DA1_150NULEC	Recloser Radio 150 MHz Communications – NULEC Country GE
DA1_150NOJA	Recloser Radio 150 MHz Communications – NOJA/ADVC Country GE
DA1_450 NULEC	Recloser Radio 450 MHz Communications – NULEC Metro GE
DA1_450NOJA	Recloser Radio 450 MHz Communications - NOJA Metro GE
DA1_450MHZ_D	Recloser Radio 450 MHz Communications – NULEC Metro GE
DA1_450NOJA	Recloser Radio 450 MHz Communications – Metro Digital
DA1_NextG	Recloser Radio Communications - NextG
DA2_150MHZ	Capacitor Bank Radio Communications – Country Analogue
DA2_450MHZ_D	Capacitor Bank Radio Communications – Digital
DA2_NextG	Capacitor Bank Radio Communications - NextG
DA3_150MHZ	Voltage Regulator Radio Communications – Country Analogue
DA3_450MHZ	Voltage Regulator Radio Communications – Digital
DA4	Fault Indicator (overhead and underground) Radio Communications - future
DA5_EXT_ALSTO	Switchgear automation motor actuator, Alstom Fluokit M24
DA5_RMU_ALSTO	Switchgear automation motor actuator, Alstom FBA RMU
DA5_RMU_F & G	Switchgear automation motor actuator, F& G RMU
DA5_RM6	Switchgear automation - Schneider RM6 Switch Disconnecter Motorisation Kit
DA6_LVS	T300 RTU LV supply
DA6_NG_SE_2I	T300 RTU Next G (RM6 & FLUSARC), 2x SWDC for SE SWGR
DA6_NG_SE_3I	T300 RTU Next G (RM6 & FLUSARC), 3x SWDC for SE SWGR
DA6_NG_SE_4I	T300 RTU Next G (RM6 & FLUSARC), 4x SWDC for SE SWGR
DA6_NG_SE_5I	T300 RTU Next G (RM6 & FLUSARC), 5x SWDC for SE SWGR
DA7	Switchgear Automation Comms Interface & DC Supply (not for RM6 / Flusarc36)
DA8	Switchgear Automation Local Operating Station (not for RM6 / Flusarc36)
DA9	CBD SCADA only costs for automation
DA10_NEXTG	Switchgear automation - Schneider RM6/Flusarc36 - NextG 800MHz Whip Antenna on pole arrangement
DA10_150MHZ	Switchgear automation - Schneider RM6/Flusarc36 - 150MHz VHF Yagi Antenna on pole arrangement
DA10_450MHZ	Switchgear automation - Schneider RM6/Flusarc36 - 450MHz UHF Yagi Antenna on pole arrangement
DA11_AMI OWA	AMI Equipment on overhead Network – Wood Pole Access Point
DA11_AMI OWR	AMI Equipment on overhead Network – Wood Pole Relay
DA11_AMI UGA	AMI Equipment Underground Supplied – Access Point – 10m
DA11_AMI UGR	AMI Equipment Underground Supplied – Relay – 10m
DA11_AMI SLA	AMI Equipment Streetlight Columns – Access Point – 10m
DA11_AMI SLR	AMI Equipment Streetlight Columns – Relay – 10m



				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR DATE: 26-03-2014		DRG. No.	
				RECLOSER RADIO COMMUNICATIONS		ORIGINATED: SCALE: NTS		DA01	
						CHECKED: REE		REV. SHY.	
						APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				
A	07.07.09	ORIGINAL ISSUE							

CU	CU Description
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DA1_150MHZ		Recloser Radio 150 MHz Communications – Country Analogue			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
2	CB7550	600mm LG; RG58 Cable	1	ea	
3	CB7551	6 Core;350mm LG; RS232 N03-557	1	ea	
5	GS6024	Base, Antenna mounting bracket (VHF)	1	ea	
6	CZ5006	Warning sign	1	ea	
7	GA3011	Surge Arrester – Co-axial	1	ea	
8	GS6023	Antennae - VHF	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	GS6025	VHF Radio Tait TM8105;	1	ea	

DA1_150NULEC		Recloser Radio 150 MHz Communications – NULEC Country GE			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
2	ED1001	RJ45-P8 Cable	1	ea	
3	ED1000	RG58 RF Patch	1	ea	
4	ED1002	RJ45-P9 Cable	1	ea	
5	GS6024	Base, Antenna mounting bracket (VHF)	1	ea	
6	CZ5006	Warning sign	1	ea	
7	GA3011	Surge Arrester – Co-axial	1	ea	
8	GS6023	Antennae - VHF	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	RA0002	GE MCR LN1, 4Eth/2 serial 150 MHZ Radio	1	ea	

DA1_150NOJA		Recloser Radio 150 MHz Communications – NOJA/ADVC Country GE			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
3	JW0159	Cat5 Patch Cable 0.5m	1	ea	
4	ED1000	RG58 RF Patch	1	ea	
5	GS6024	Base, Antenna mounting bracket (VHF)	1	ea	
6	CZ5006	Warning sign	1	ea	
7	GA3011	Surge Arrester – Co-axial	1	ea	
8	GS6023	Antennae - VHF	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	RA0002	GE MCR LN1, 4Eth/2 serial 150 MHZ Radio	1	ea	

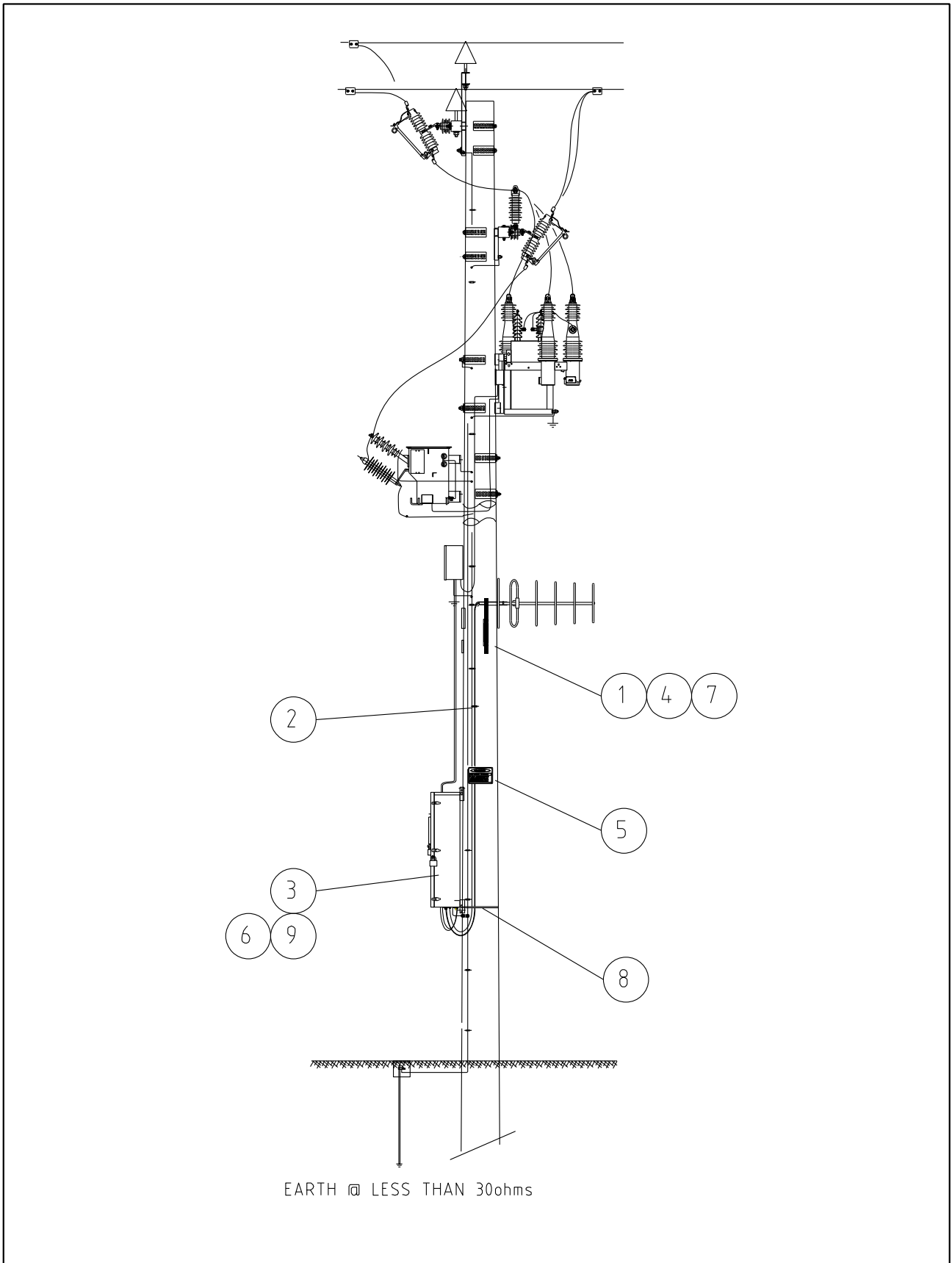
CU	CU Description
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DA1_450NULEC Recloser Radio 450 MHz Communications – NULEC Metro GE					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
2	ED1001	RJ45-P8 Cable	1	ea	
3	ED1000	RG58 RF Patch	1	ea	
4	ED1002	RJ45-P9 Cable	1	ea	
5	CB3080	Bracket Antenna Support	1	ea	
6	CZ5006	Warning Sign	1	ea	
8	GS0003	Antenna – 6El Yagi w/ arrestor & Patch lead	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	RA0001	GE MCR LN4, 4Eth/2 Serial Radio	1	ea	

DA1_450NOJA Recloser Radio 450 MHz Communications – NOJA Metro GE					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
3	ED1000	RG58 RF Patch	1	ea	
4	JW0159	Cat5 Patch Cable 0.5m	1	ea	
5	CB3080	Bracket Antenna Support	1	ea	
6	CZ5006	Warning Sign	1	ea	
8	GS0003	Antenna – 6El Yagi w/ arrestor & Patch lead	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	RA0001	GE MCR LN4, 4Eth/2 Serial Radio	1	ea	

DA1_450MHZ_D Recloser Radio 450 MHz Communications – Metro Digital					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
3	CB7551	6 Core;350mm LG; RS232 N03-557	1	ea	
3	GS6030	Patch cable	1	ea	
4	HC3034	Cable connector - Modem	1	ea	
6	CZ5006	Warning sign	1	ea	
5	CB3080	Bracket – Antennae Support	1	ea	
8	GS0003	Antenna, 6El Yagi w/ arrestor & patch lead	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	GZ4011	Radio, Digital 450Mhz	1	ea	
11	VG7023	Data Cable, P9 Maintenance Port	1	ea	

CU		CU Description			
DA1_NextG		Recloser Radio Communications – NextG			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
3	HC3034	Cable Connector 100cm	1	ea	
4	HC3035	Cable Connector 60cm	1	ea	
5	CB7552	Antennae Bracket – 90deg Aluminium	1	ea	
8	GS6027	Antennae – CDMA 6.5db & 5m RG58	1	ea	
9	GC7191	Strap – Conduit 20mm Gal	6	ea	
10	HC3039	GE Orbit - Modem	1	ea	
11	GS6028	Adapter – FME-SMA (Modem to Antennae)	1	ea	
12	GC7872	Conduit 20mm corrugated PVC	1	ea	
13	GC7846	Ferrule, Conduit 20mm, Gland	1	ea	



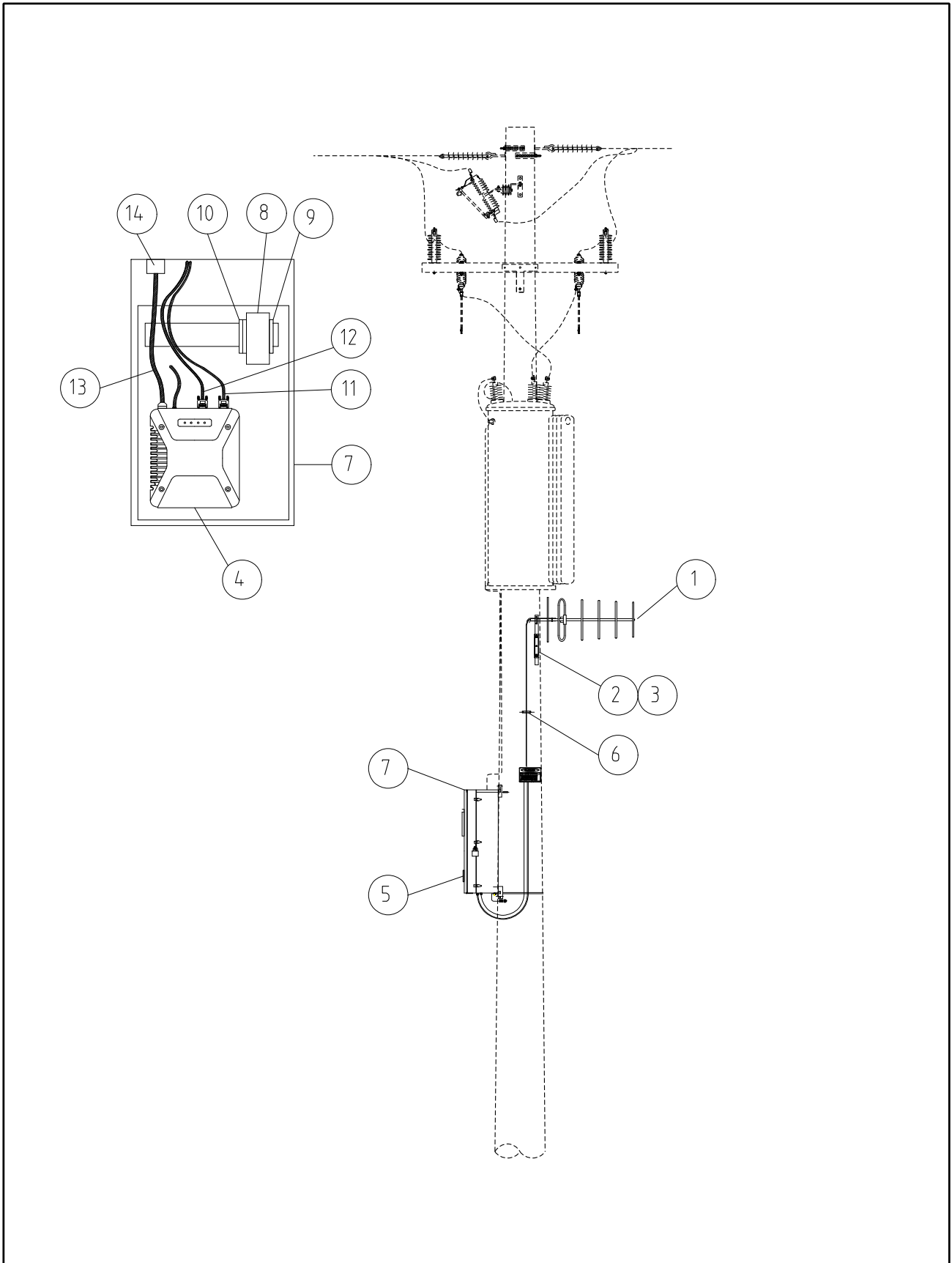
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						ORIGINATED:	SCALE: NTS	DA01	
						CHECKED: REE			
						APPROVED: GRANT STACY	REV: B	SHT.	
A	23.03.09	ORIGINAL ISSUE		ORGD.	CHKD.	APRD.			

CU	CU Description
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DA2_150MHZ Capacitor Bank Radio Communications – Country Analogue					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
2	CB7550	600mm LG; RG58 Cable	1	ea	
3	CB7562	Data and Power cable assembly	1	ea	
4	GS6024	Base, Antenna mounting bracket (VHF)	1	ea	
5	CZ5006	Warning sign	1	ea	
6	GA3011	Surge Arrester – Co-axial	1	ea	
7	GS6023	Antennae - VHF	1	ea	
8	GC7191	Strap – Conduit 20mm Gal	6	ea	
9	GS6025	VHF Radio Tait TM8105;	1	ea	

DA2_450MHZ_D Capacitor Bank Radio Communications – Digital					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
3	GS6030	Patch cable	1	ea	
4	CB3080	Antennae support bracket	1	ea	
5	CZ5006	Warning sign	1	ea	
6	GS0003	Antenna, 6El Yagi w/ arrester & patch lead	1	ea	
8	GC7191	Strap – Conduit 20mm Gal	6	ea	
9	GZ4011	Radio, Digital 450Mhz	1	ea	

DA2_NextG Capacitor Bank Radio Communications – NextG					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	AS1423	Coach bolt	2	ea	
2	GC7872	Conduit 20mm corrugated PVC	1	ea	
3	GS6028	Adapter – FME-SMA (Modem to Antennae)	1	ea	
4	CB7552	Antennae Bracket – 90deg Aluminium	1	ea	
6	GC7846	Ferrule, Conduit 20mm, Gland	1	ea	
7	GS6027	Antennae – CDMA 6.5db & 5m RG58	1	ea	
8	GC7191	Strap – Conduit 20mm Gal	6	ea	
9	HC3039	GE Orbit - Modem	1	ea	




				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE		DRAWN: JRR		DATE: 26-03-2014 DRG. No.	
				VOLTAGE REGULATOR		ORIGINATED:		SCALE: NTS	
				RADIO COMMUNICATIONS		CHECKED: REE		DA03	
						APPROVED:		REV. A	
						GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				
A	29.08.13	ORIGINAL ISSUE							

CU	CU Description
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DA3_150MHZ Voltage Regulator Communication – Country Analogue					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS6023	Analogue antenna 150 MHz, antenna cable and conduit	1	ea	
2	GS6024	Antenna Bracket	1	ea	
3	AS1423	Coach screw for the bracket	2	ea	
4	GS6025	Tait analogue Modem	1	ea	
5	CZ5006	Warning sign	1	ea	
6	GC7191	Strap for conduit	6	ea	
7	HC3044	Modified GE Control Box's Lid	1	ea	DM # 11231766
8	GT0042	Power supply 120VAC/12VDC	1	ea	PBAMR2-12
9	GZ0097	120V AC mcb	1	ea	iC60N-A9F44101
10	GZ0098	12V DC mcb	1	ea	iC60N-A9F44202
11	HC3043	Com1 cable 3 RS232 dm #11234015	1	ea	To VR COM1
12	NA	Not used.	NA	NA	Purposely left blank
13	CB7550	Data cable between radio and surge arrester	1	ea	RG58 cable
14	GA3011	Surge Arrester	1	ea	

DA3_450MHZ Voltage Regulator Communication – Digital					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0003	Digital antenna 450 MHz, antenna cable, conduit, and surge arrester	1	ea	Including RG58 cable (CB7550)
2	CB3080	Antenna Bracket	1	ea	
3	AS1423	Coach screw for the bracket	2	ea	
4	GZ4011	Trio ER450 Modem	1	ea	
5	CZ5006	Warning sign	1	ea	
6	GC7191	Strap for conduit	6	ea	
7	HC3044	Modified GE Control Box's Lid	1	ea	DM # 11231766
8	GT0042	Power supply 120AC/12VDC	1	ea	PBAMR2-12
9	GZ0097	120V AC mcb	1	ea	iC60N-A9F44101
10	GZ0098	12V DC mcb	1	ea	iC60N-A9F44202
11	HC3041	Com1 cable 1 RS232 dm #11234015	1	ea	To VR COM1
12	HC3042	Com2 cable 2 RS232 dm #11234015	1	ea	To VR COM2

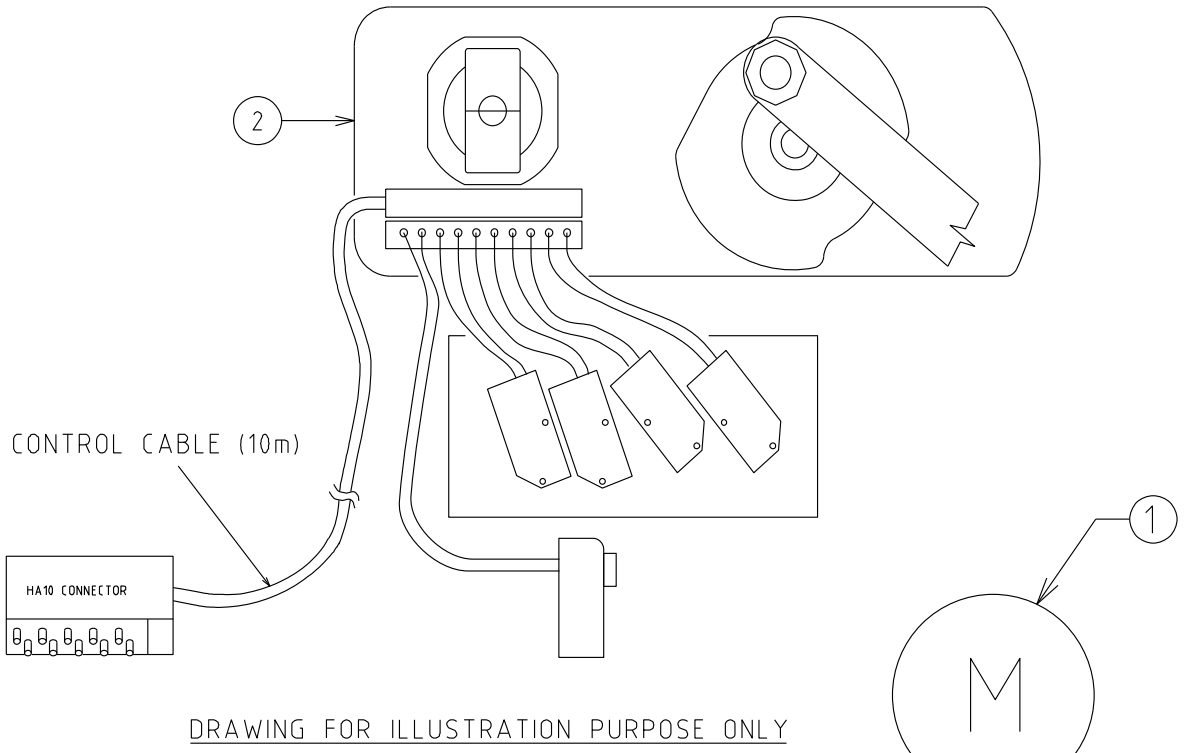
FUTURE

 CUSTOMER SERVICES DIVISION DISTRIBUTION DESIGN CATALOGUE	<i>COMPATIBLE UNIT</i>	DATE	REVISION
	FAULT INDICATOR (O/H&U/G) RADIO COMMUNICATIONS	DRAWING No. DA4	

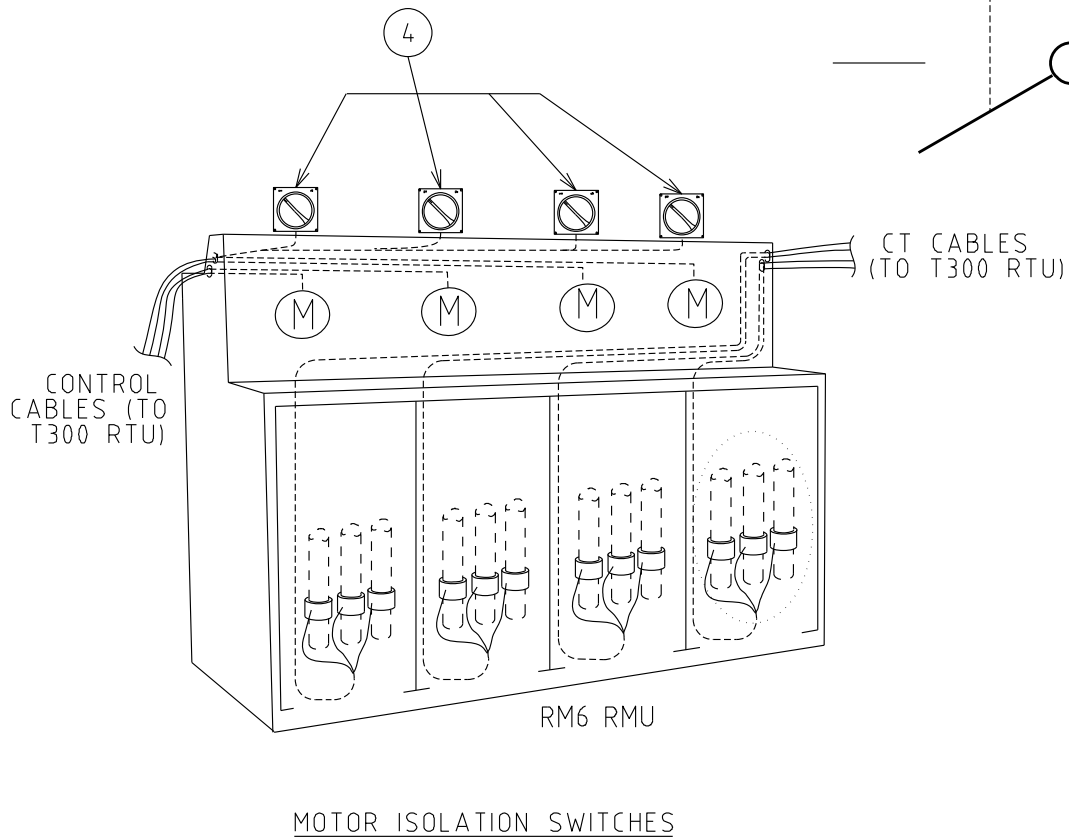
CU	CU Description
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DA4_UG_FI Underground Fault Indicator					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GZ9422	Indicator fault locating	1	ea	

DA4_UG_NextG Underground Fault Indicator Telemetry (NextG)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	HC0404	Indicator fault locating	1	ea	

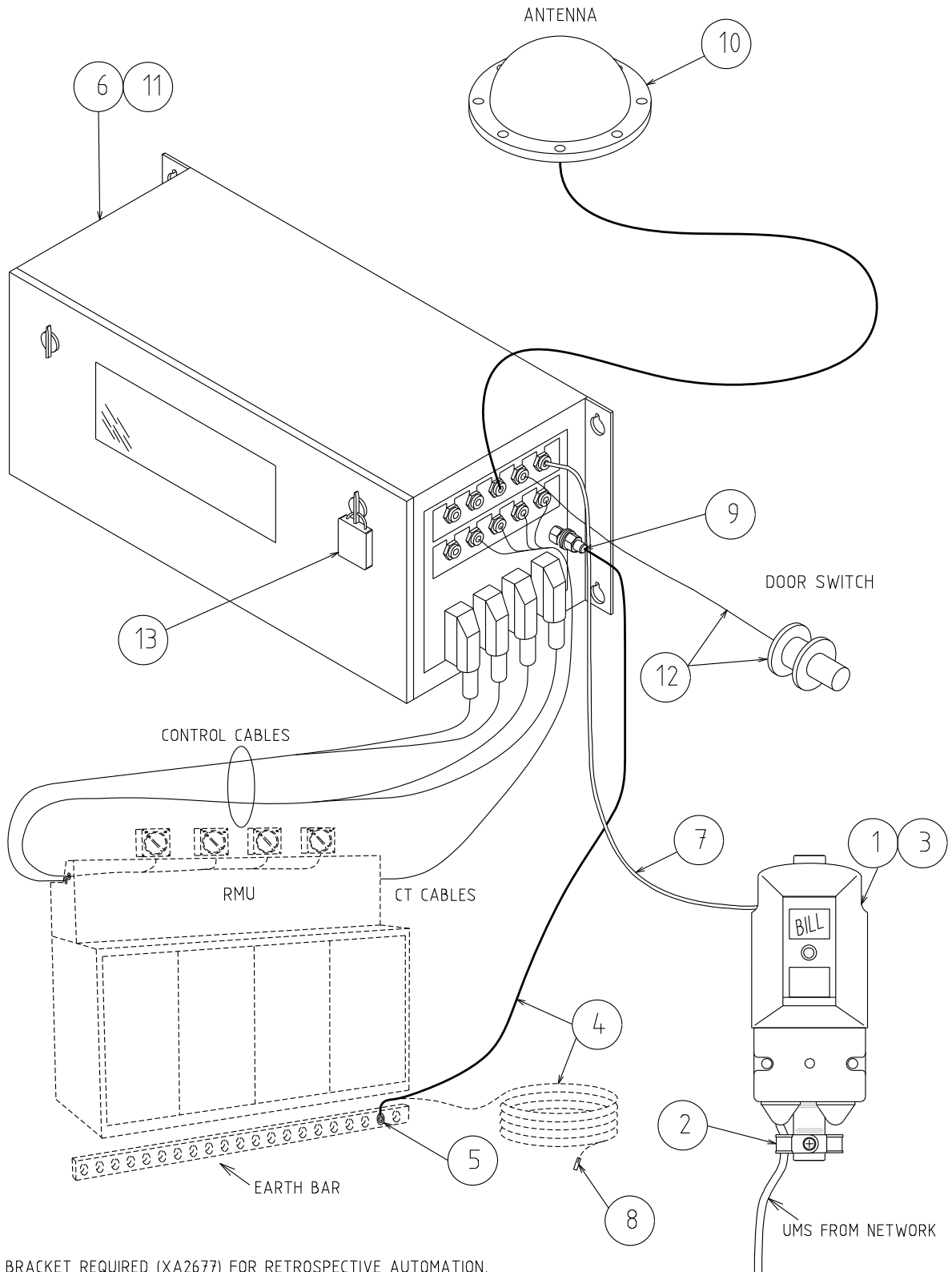


DRAWING FOR ILLUSTRATION PURPOSE ONLY



				TITLE			COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				SCHNEIDER RM6 SWITCH DISCONNECTOR			DRAWN: JRR		DATE: 26-03-2014		DRG. No.	
				MOTORISATION KIT			ORIGINATED:		SCALE: NTS		DA5-RM6	
							CHECKED: REE		APPROVED:		REV. B	
							GRANT STACY				SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD							
B	26.03.24	ADDITION OF MOTOR ISOLATION		TCM	SL	CO						
A	19.05.09	ORIGINAL ISSUE										

CU		CU Description			
DA5_EXT_ALSTO Switchgear automation motor actuator, Alstom extensible					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	XA2530	Alstom motor mechanism for M24 Fluokit type incl instrument panel	1	ea	
DA5_RMU_ALSTO Switchgear automation motor actuator, Alstom RMU					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	XA2525	Alstom motor mechanism for FBA type	1	ea	
DA5_RMU_F & G Switchgear automation motor actuator, F & G RMU					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	XA2158	F & G motor actuator kit	1	ea	
1	XA2180	F & G manual operating handle	1	ea	
DA5_RM6 Switchgear automation Schneider RM6 Switch Disconnecter Motorisation Kit					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
2	XA2660	Schneider RM6 SWDC Motorisation Kit consisting of 1x24V DC motor kit and 10m control cable complete with HA10 connector and pins	1	kit	For retrofitting extensible RM6 SWDC or extensible RM6 BUS-SWDC
2	XA2667	Split CTs for SchneiderT200H RTU (set of 3) with 1x10m CT cable and shorting plug	1	set	RMU MV cable mounted CTs for load Amps & SC/EF sensing
DA5_2M_KIT Retrospective motor isolation kit for T300 RTU + RM6 RMU (2 motor)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
4	XA2676	4 pole, 20 A, 440 V Clipsal 56 series isolation switch	2	ea	
DA5_3M_KIT Retrospective motor isolation kit for T300 RTU + RM6 RMU (3 motor)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
4	XA2676	4 pole, 20 A, 440 V Clipsal 56 series isolation switch	3	ea	
DA5_4M_KIT Retrospective motor isolation kit for T300 RTU + RM6 RMU (4 motor)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
4	XA2676	4 pole, 20 A, 440 V Clipsal 56 series isolation switch	4	ea	



NOTE:- BRACKET REQUIRED (XA2677) FOR RETROSPECTIVE AUTOMATION.

					COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
					TITLE			DRAWN: JRR		DATE: 27-03-2014	
					RMU REMOTE TELEMETRY EQUIPMENT (RTU) CELLULAR ARRANGEMENT			ORIGINATED: REE		SCALE: NTS	
								CHECKED: REE		DRG. No. DA6-NEXTG	
								APPROVED: GRANT STACY		REV. E	
										SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.						
E	16.04.24	CU NUMBERS AND DESCRIPTIONS CHANGED	TCM	SL	CO						
D	26.03.24	CU NUMBERS AND DESCRIPTIONS CHANGED	TCM	SL	CO						
C	31.01.23	DRG. NO. & TITLE CHANGED AND CU DESC. REVISED	CO	KJ	PC						
B	07.09.12	ORIGINAL ISSUE									

CU	CU Description
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DA6_LVS		T300 RTU LV supply			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	HZ0131	Cutout fuse box	1	ea	
2	HZ0135	Cut-out mounting bracket	1	ea	
3	GF1300	10A fuse	1	ea	
4	EE1435	16mm ² copper earth cable	5	m	
5	FL1430	16mm ² tinned copper termination lug (M12 hole)	1	ea	
8	CJ0054	16mm ² cable cap	1	ea	


DA6_NG_SE_2I		T300 RTU Next G (RM6 & FLUSARC), 2x SWDC for SE SWGR			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
6	XA2678	T300 RTU and Controller with 3x SC150	1	set	
7	EE1643	2 Core 4mm ² Cable	2	m	
9	FL1428	16mm ² copper termination ug	1	ea	
10	GS6100	Radome Antenna (with coax cable and connectors to kiosk roof B/H and with coax cable from B/H to NextG modem)	1	ea	
11	HC3047	Cybertec NextG Modem Model 2455X	1	ea	
12	XA2665	Kiosk/Switchroom door switch (normally open momentary contact) with 5m 2-core cable	1	set	
13	OH0194	WP NMK2 Padlock (Lockwood 234B45/619/6MK; Keyed to MK RD1/WPC NMK2)	1	ea	

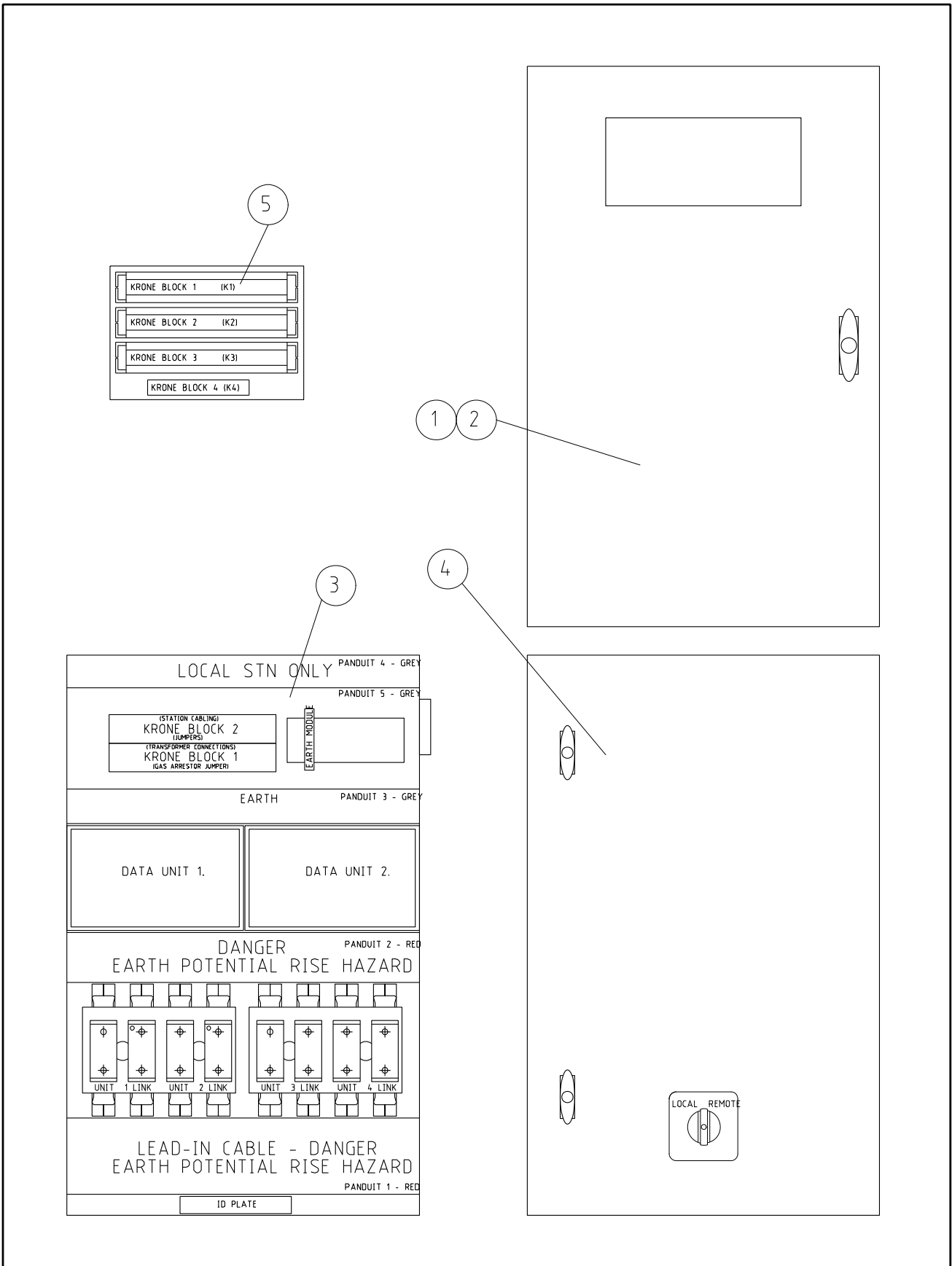
DA6_NG_SE_3I		T300 RTU Next G (RM6 & FLUSARC), 3x SWDC for SE SWGR			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
6	XA2678	T300 RTU and Controller with 3x SC150	1	set	
7	EE1643	2 Core 4mm ² Cable	2	m	
9	FL1428	16mm ² copper termination ug	1	ea	
10	GS6100	Radome Antenna (with coax cable and connectors to kiosk roof B/H and with coax cable from B/H to NextG modem)	1	ea	
11	HC3047	Cybertec NextG Modem Model 2455X	1	ea	
12	XA2665	Kiosk/Switchroom door switch (normally open momentary contact) with 5m 2-core cable	1	set	
13	OH0194	WP NMK2 Padlock (Lockwood 234B45/619/6MK; Keyed to MK RD1/WPC NMK2)	1	ea	

CU		CU Description			
DA6_NG_SE_4I		T300 RTU Next G (RM6 & FLUSARC), 4x SWDC for SE SWGR			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
6	XA2678	T300 RTU and Controller with 3x SC150	1	set	
	XA2685	T300 SC150 Switch Controller	1	ea	
	XA2684	T300 Ethernet Jumper	1	ea	
7	EE1643	2 Core 4mm ² Cable	2	m	
9	FL1428	16mm ² copper termination ug	1	ea	
10	GS6100	Radome Antenna (with coax cable and connectors to kiosk roof B/H and with coax cable from B/H to NextG modem)	1	ea	
11	HC3047	Cybertec NextG Modem Model 2455X	1	ea	
12	XA2665	Kiosk/Switchroom door switch (normally open momentary contact) with 5m 2-core cable	1	set	
13	OH0194	WP NMK2 Padlock (Lockwood 234B45/619/6MK; Keyed to MK RD1/WPC NMK2)	1	ea	

DA6_NG_SE_5I		T300 RTU Next G (RM6 & FLUSARC), 5x SWDC for SE SWGR			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
6	XA2678	T300 RTU and Controller with 3x SC150	1	set	
	XA2685	T300 SC150 Switch Controller	2	ea	
	XA2684	T300 Ethernet Jumper	2	ea	
7	EE1643	2 Core 4mm ² Cable	2	m	
9	FL1428	16mm ² copper termination ug	1	ea	
10	GS6100	Radome Antenna (with coax cable and connectors to kiosk roof B/H and with coax cable from B/H to NextG modem)	1	ea	
11	HC3047	Cybertec NextG Modem Model 2455X	1	ea	
12	XA2665	Kiosk/Switchroom door switch (normally open momentary contact) with 5m 2-core cable	1	set	
13	OH0194	WP NMK2 Padlock (Lockwood 234B45/619/6MK; Keyed to MK RD1/WPC NMK2)	1	ea	

PLEASE CONTACT:
 DISTRIBUTION.STANDARD.SUPPORT
 @WESTERNPOWER.COM.AU
 FOR CBD AUTOMATION

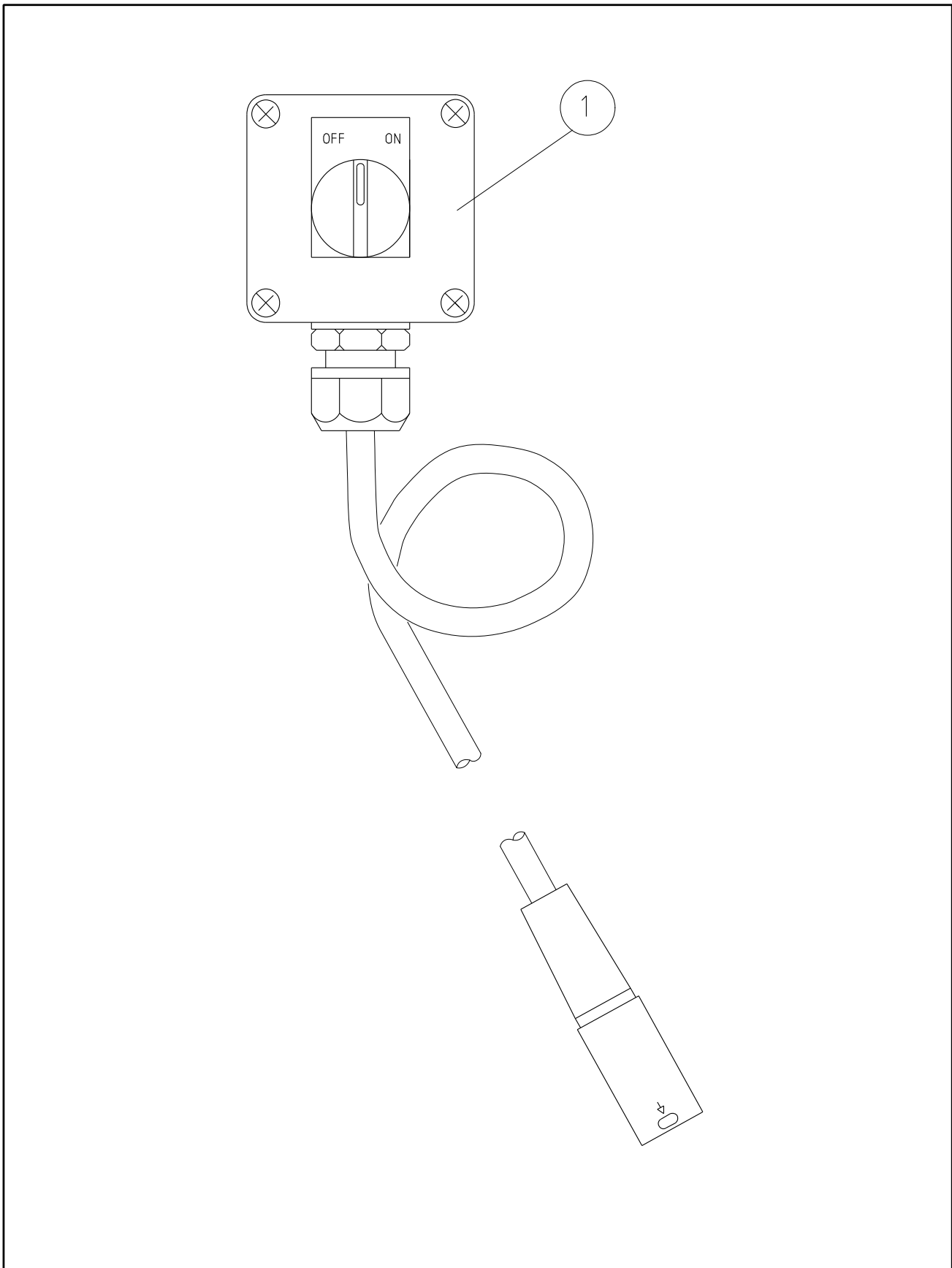
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE		 westernpower	
				TITLE			DRAWN: JRR	DATE: 27-03-2014	DRG. No.	
				RMU REMOTE TELEMETRY EQUIPMENT (RTU) - FIBRE ARRANGEMENT			ORIGINATED:	SCALE: NTS	DA6-FIBRE	
							CHECKED: REE	APPROVED:	REV: C	SHT.
							GRANT STACY			
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD					
C	31.01.23	TITLE CHANGED, DETAILS DELETED	CO	KJ	PC					
B	07.09.12	ORIGINAL ISSUE								



COMPATIBLE UNIT										DISTRIBUTION DESIGN CATALOGUE					
TITLE										DRAWN: JRR		DATE: 26-03-2014		DRG. No.	
SWITCHGEAR AUTOMATION COMMS INTERFACE & DC SUPPLY										ORIGINATED:		SCALE: NTS		DA07	
A										CHECKED: REE		APPROVED: GRANT STACY		REV. A	
REV	DATE	ORIGINAL ISSUE	DESCRIPTION	DRG.	CHKD.	APRD.					SHT.				

CU	CU Description
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DA7 Switchgear automation comms interface and dc supply (not for RM6/Flusarc36)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	XA2179	24V DC Battery Charger	1	ea	
2	XA2360	Batteries	2	ea	
3	XA2365	Isolation enclosure	1	ea	
4	XA4089	Remote terminal unit	1	ea	
5	XA2182	Krone block	1	ea	

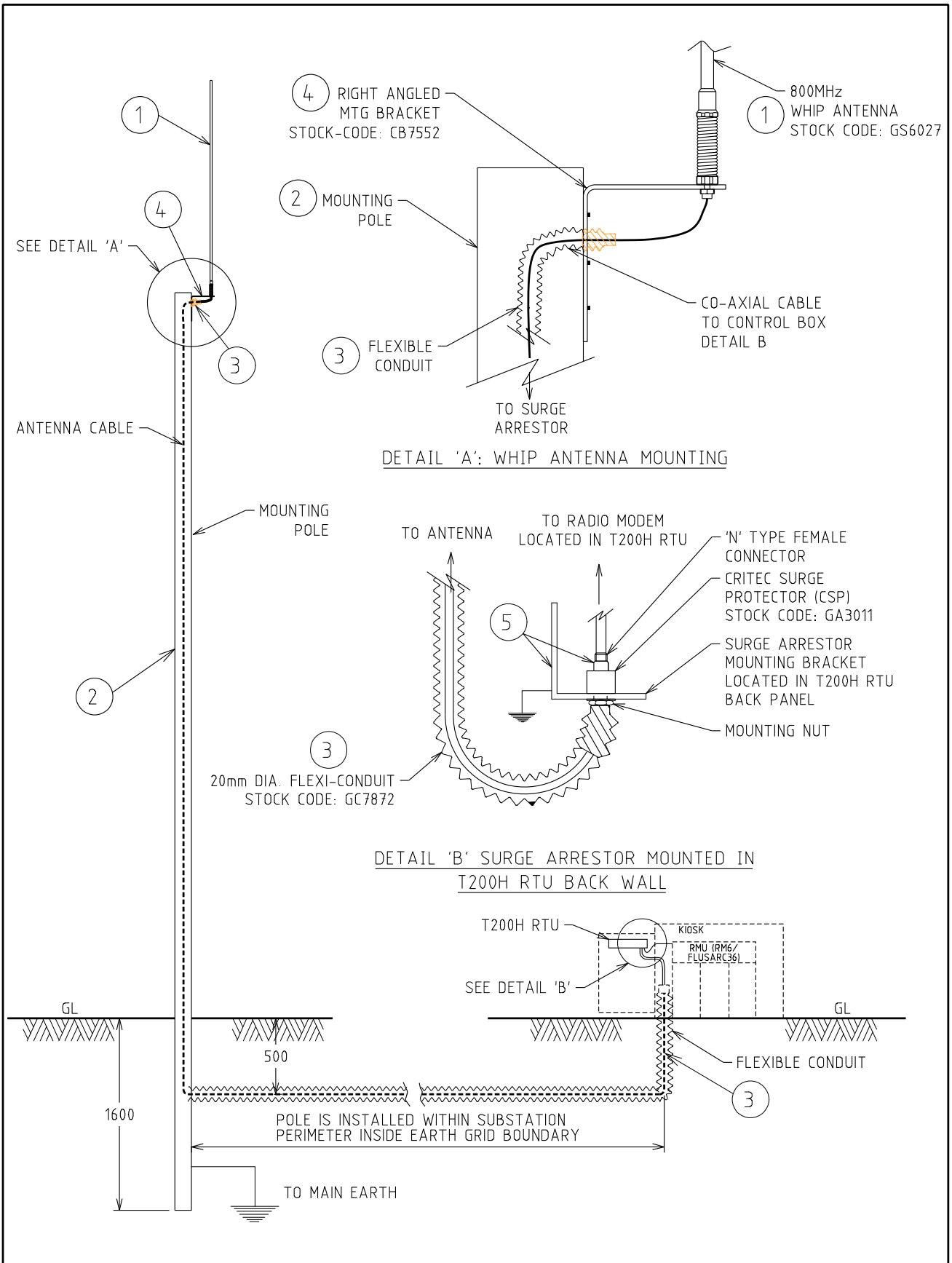


				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				TITLE			DRAWN: JRR		DATE: 26-03-2014	
				SWITCHGEAR AUTOMATION LOCAL OPERATING STATION			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		ORG. No. DA08	
							APPROVED: GRANT STACY		REV. A	
									SHT.	
A	DATE	ORIGINAL ISSUE	DESCRIPTION	DRGD.	CHKD.	APRD				

CU	CU Description
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DA8 Switchgear automation local operating station (not for RM6/Flusarc36)					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	XA2370	Local operating station	1	ea	Incl 8m lead

DA9 CBD SCADA only costs for automation					
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	N/A	Automation Commissioning	1	ea	Listed under "Materials" tab



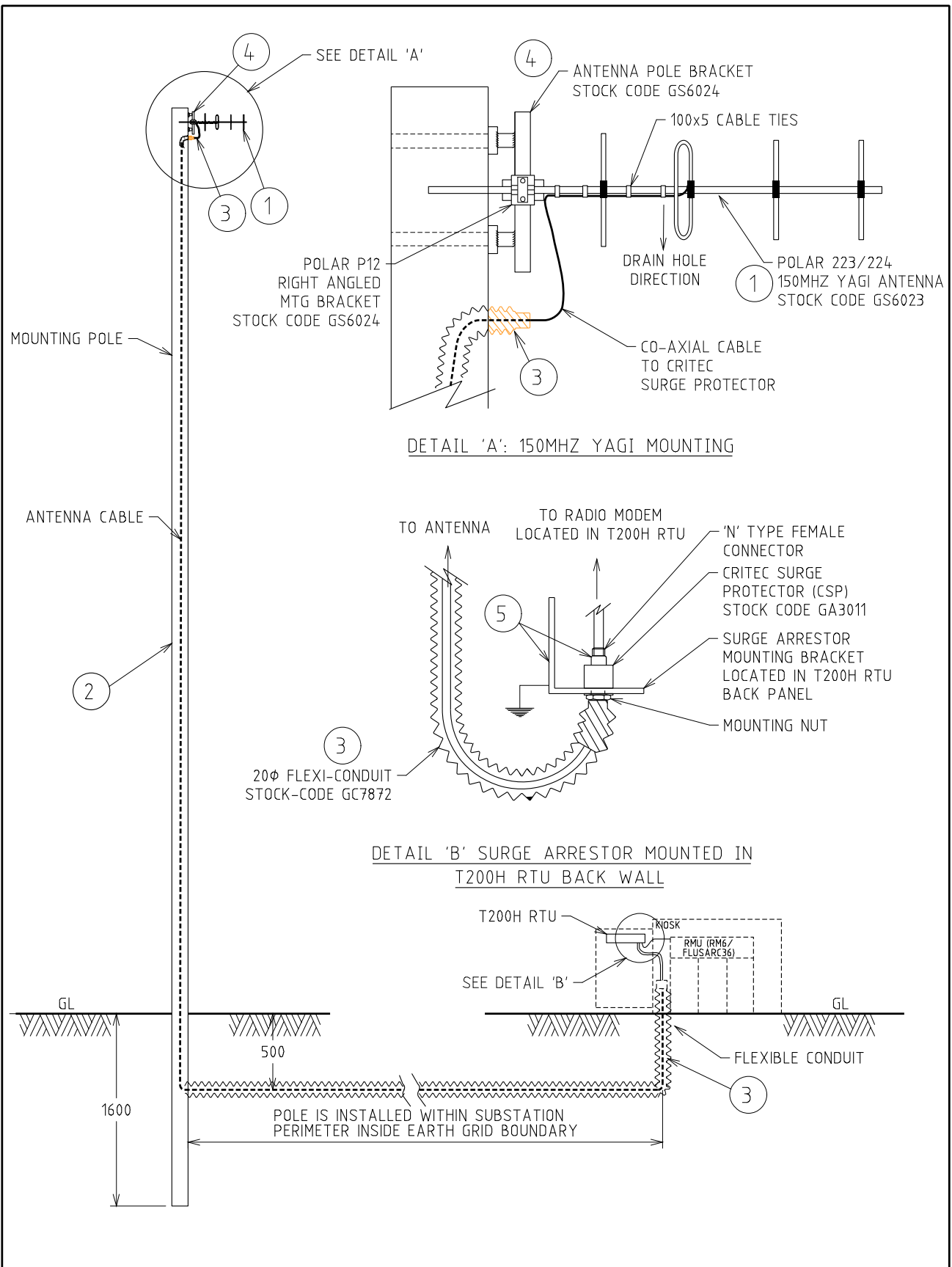
DETAIL 'A': WHIP ANTENNA MOUNTING

DETAIL 'B' SURGE ARRESTOR MOUNTED IN T200H RTU BACK WALL

				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				SCHNEIDER RM6/FLUSARC36 RMU REMOTE TELEMETRY EQUIPMENT (RTU) - NEXTG		DRAWN: JRR DATE: 26-03-2014 DRG. No.		DA10-NEXTG	
				WHIP ANTENNA ON POLE ARRANGEMENT		ORIGINATED: SCALE: NTS			
						CHECKED: REE		APPROVED: GRANT STACY	
						APPROVED: GRANT STACY		REV. A	
A	10.09.12	ORIGINAL ISSUE		DRG.	CHKD.	APRD.			
REV	DATE	DESCRIPTION							

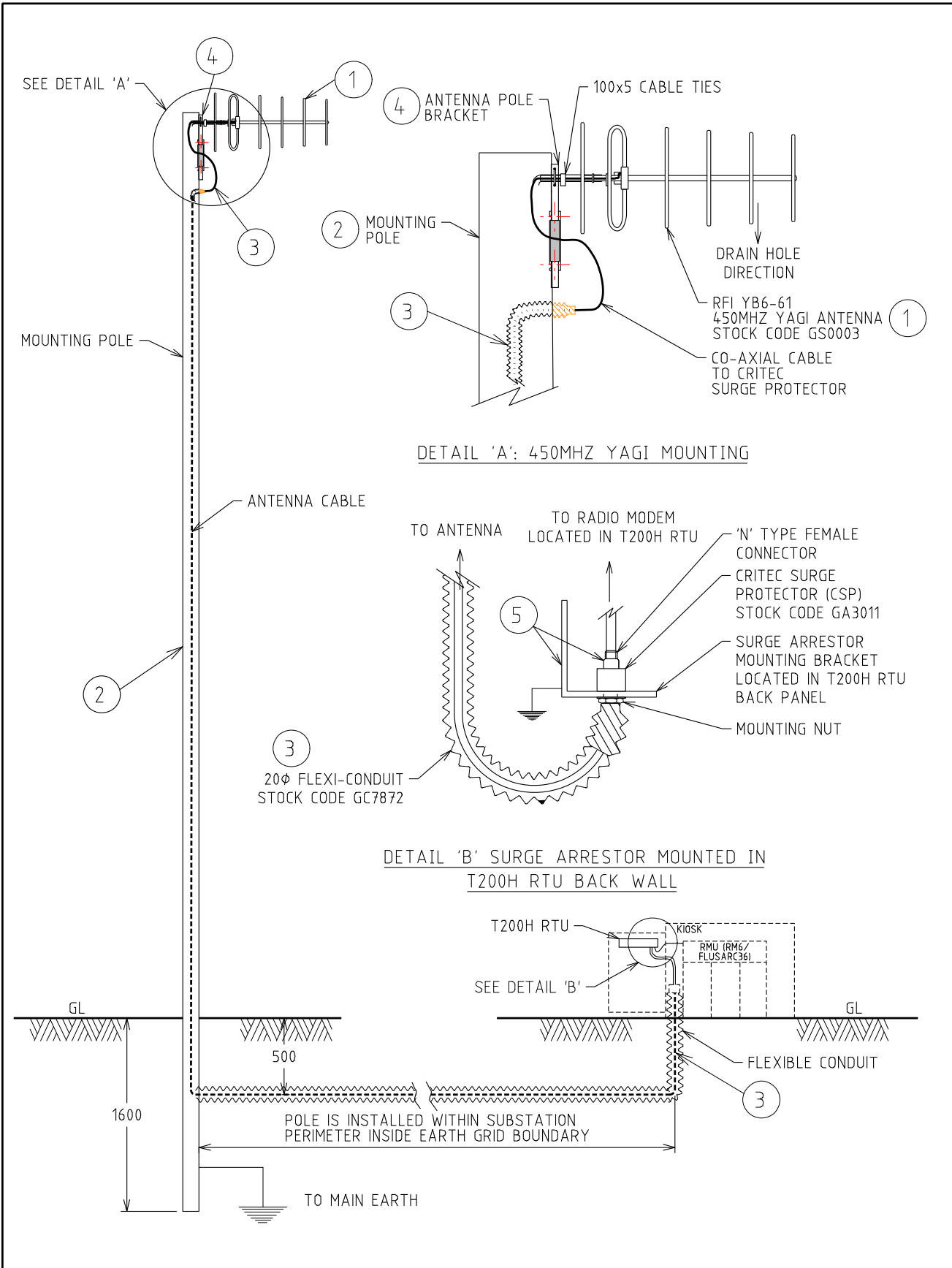
CU	CU Description
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DA10_NEXTG		External Whip Antenna for RMU automation - NextG			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS6027	Whip antenna; 800MHz, CDMA, 6.5dB gain, with 5m RG58 coax cable	1	ea	
2	CW1525	Customer pole 6.5m, 114mm (outer diameter), galvanized. (Drawing No. L10-0001)	1	ea	
3	GC7872	Flexible conduit 20mm NB;corrugated;plastic PVC; UV stable;grey;10m roll	1	roll	
4	CB7552	Angle bracket for antenna mounting; 90deg; aluminium	1	ea	
5	GA3011	Coaxial surge arrester; N-type F-F; bulkhead mounted; with L-mounting bracket	1	ea	
6	-	Non-catalogued miscellaneous materials	1	lot	



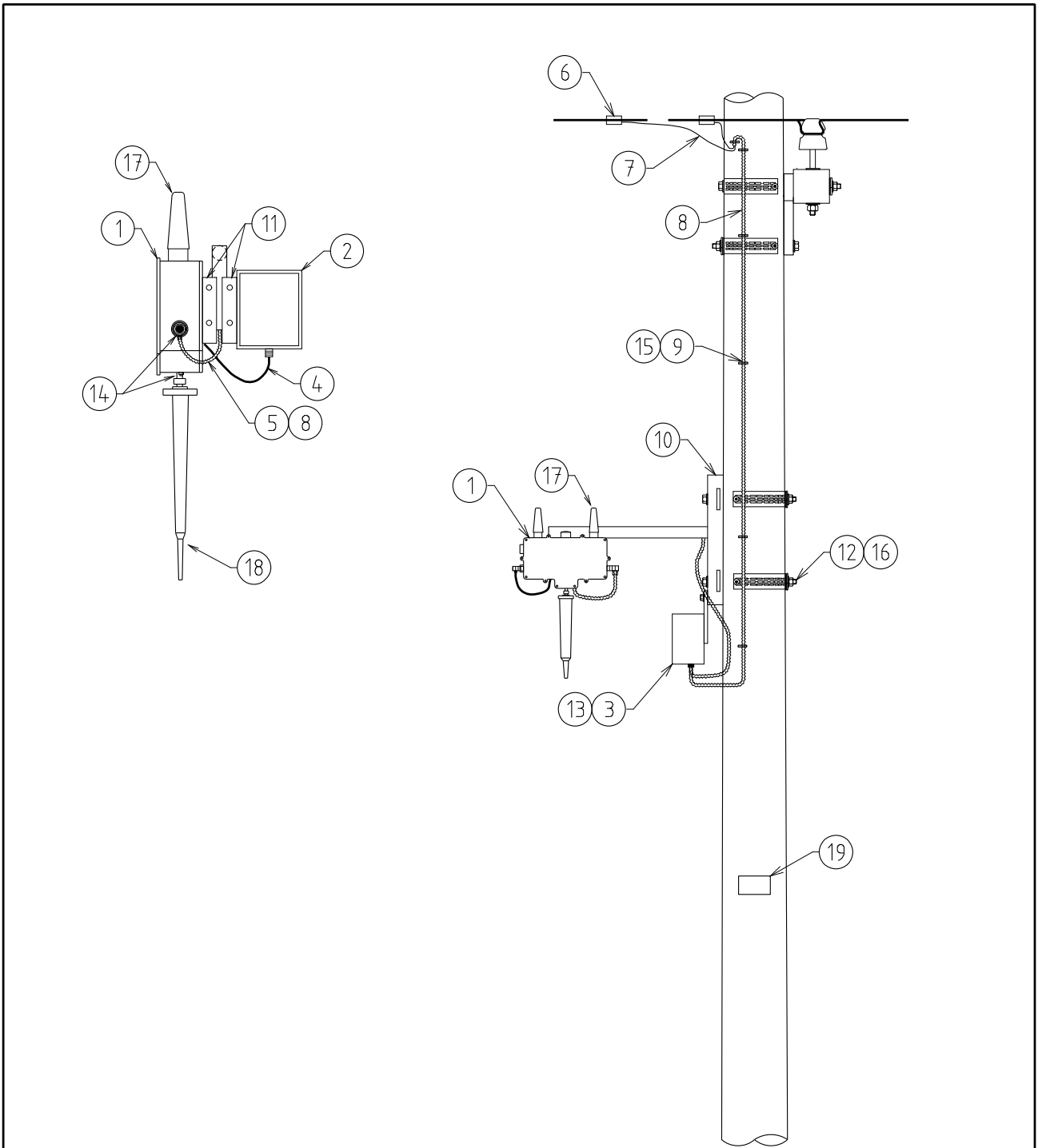
				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				TITLE		DRAWN: JRR		DATE: 27-03-2014	
				SCHNEIDER RM6/FLUSARC36 RMU		ORIGINATED:		SCALE: NTS	
				REMOTE TELEMETRY EQUIPMENT (RTU) 150MHz		CHECKED: DVT		DA10-150MHz	
				ANTENNA ON WOOD POLE ARRANGEMENT		APPROVED:		REV. A	
						GRANT STACY		SHT.	
A	10.04.13	ORIGINAL ISSUE							
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				

CU		CU Description			
DA10_150MHZ		External Yagi Antenna for RMU automation – 150MHz Analogue Radio			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS6023	VHF Antenna; 4 element Yagi (Y34) 150-156 MHz; with 6m tail in flexi loom tube, N-type connector, right angle clamp (P12) and Yagi assembly hardware	1	ea	
2	CW1205	Wood pole 9.5m, 5kN	1	ea	
3	GC7872	Flexible conduit 20mm NB, corrugated;plastic PVC; UV stable;grey;10m roll	1	roll	
4	GS6024	Antenna mounting bracket, right angled, POLAR P12	1	ea	
5	GA3011	Coaxial surge arrester; N-type F-F; bulkhead mounted; with L-mounting bracket	1	ea	
6	-	Non-catalogued miscellaneous materials	1	lot	



				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				TITLE		DRAWN: JRR DATE: 27-03-2014		DRG. No.	
				SCHNEIDER RM6/FLUSARC36 RMU		ORIGINATED: SCALE: NTS		DA10-450MHz	
				REMOTE TELEMETRY EQUIPMENT (RTU) 450MHZ		CHECKED: DVT		REV. A	
				ANTENNA ON STEEL POLE ARRANGEMENT		APPROVED: GRANT STACY		SHT.	
A	10 09 12	ORIGINAL ISSUE							
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.				

CU		CU Description			
DA10_450MHZ		External Yagi Antenna for RMU automation – 450MHz Digital Radio			
ITEM NUMBER	STOCK NUMBER	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	GS0003	UHF Antenna, 6EL Yagi (YB6-61); with 5m tail in flex conduit terminated with N-type connector; and 500mm RF patch cable	1	kit	
2	CW1525	Customer pole 6.5m, 114mm (outer diameter), galvanised (Drawing No. L10-0001)	1	ea	
3	GC7872	Flexible conduit 20mm NB, corrugated;plastic PVC; UV stable;grey;10m roll	1	roll	
4	CB3080	Antenna support bracket; galvanised steel	1	ea	
5	GA3011	Coaxial surge arrester; N-type F-F; bulkhead mounted; with L-mounting bracket	1	ea	
6	-	Non-catalogued miscellaneous materials	1	lot	



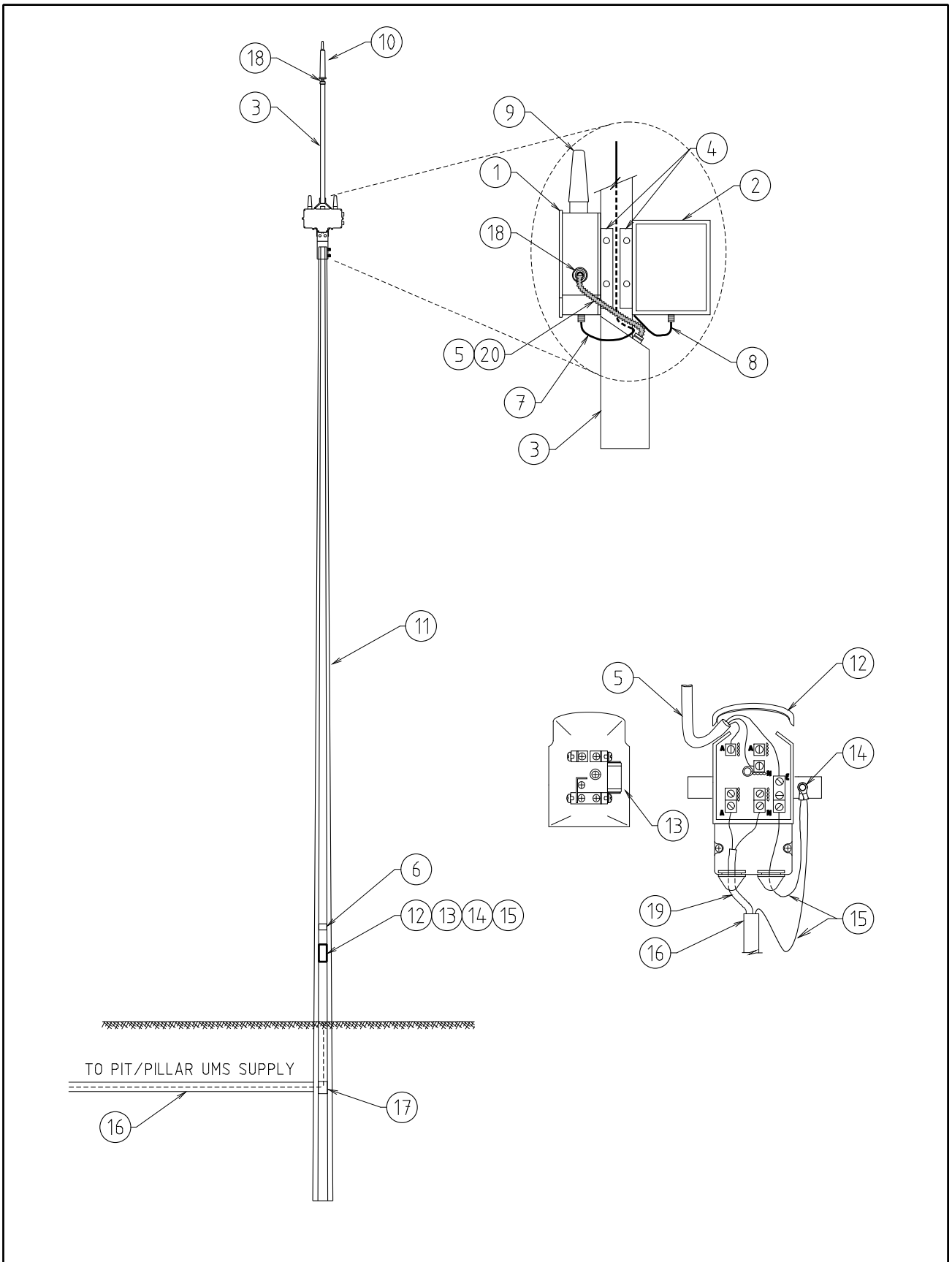
NOTES:-
 1. SCREWS FOR ATTACHING AP/RELAY & BATTERY
 TO DEVICE BRACKETS SUPPLIED WITH COMMS DEVICES.

				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE		westernpower	
				AMI - ADVANCED METERING LV AERIAL SUPPLY ARRANGEMENT		DRAWN: JRR DATE: 05-04-2019 DRG. No.		DA11-1	
						ORIGINATED: NMc SCALE: NTS			
						CHECKED: CO		REV. A	
						APPROVED: GRANT STACY		SHT.	
A	09.04.19	ORIGINAL ISSUE		NMc	CO	GS			
REV	DATE	DESCRIPTION		DRG.	CHKD.	APPR			

CU	CU Description
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DA11_AMI OWA AMI Equipment on Overhead Network – Wood Pole Access Point					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0010	Itron Access Point	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GF1804	Fuse Box	1	ea	
4	RA0015	Itron DC Battery Cable	1	ea	
5	RA0016	Itron AC Supply Cable	1	ea	
6		Select from CN68 / FC0110 / FC0160 - FC0163	1	ea	LV ABC / Cu / Al
7	EE1120	6mm sq service cable 2 core	5	m	
8	GC7872	Flexible Conduit 20mm	1	roll	10m
9	GC7191	Saddles	10	ea	
10	GS6053	Pole Mount Bracket	1	ea	
11	GS6501	Device Plate	2	ea	
12	AB6736	M12 x 400mm Pole Bolt	2	ea	
13	GF0925	10A Fuse	1	ea	
14	HT0175	Self-Amalgamating Tape	1	ea	
14	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
15	AS2511	Wood screws	20	ea	
16	CE7541	Dispersion Plate	2	ea	
17	RA0014	Itron Antenna GSM	2	ea	
18	RA0013	Itron Antenna UHF	1	ea	
19	CZ5005	Label Base	1	ea	Label Truck Stock

DA11_AMI OWR AMI Equipment on Overhead Network – Wood Pole Relay					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0011	Itron Relay	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GF1804	Fuse Box	1	ea	
4	RA0015	Itron DC Battery Cable	1	ea	
5	RA0016	Itron AC Supply Cable	1	ea	
6		Select from CN68 / FC0110 / FC0160 - FC0163	1	ea	LV ABC / Cu / Al
7	EE1120	6mm sq service cable 2 core	5	m	
8	GC7872	Conduit 20mm	1	roll	10m
9	GC7191	Saddles	10	ea	
10	GS6053	Pole Mount Bracket	1	ea	
11	GS6501	Device Plate	2	ea	
12	AB6736	M12 x 400mm Pole Bolt	2	ea	
13	GF0925	10A Fuse	1	ea	
14	HT0175	Self-Amalgamating Tape	1	ea	
14	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
15	AS2511	Wood screws	20	ea	
16	CE7541	Dispersion Plate	2	ea	
17	RA0014	Itron Antenna GSM	1	ea	
18	RA0013	Itron Antenna UHF	1	ea	
19	CZ5005	Label Base	1	ea	Label Truck Stock



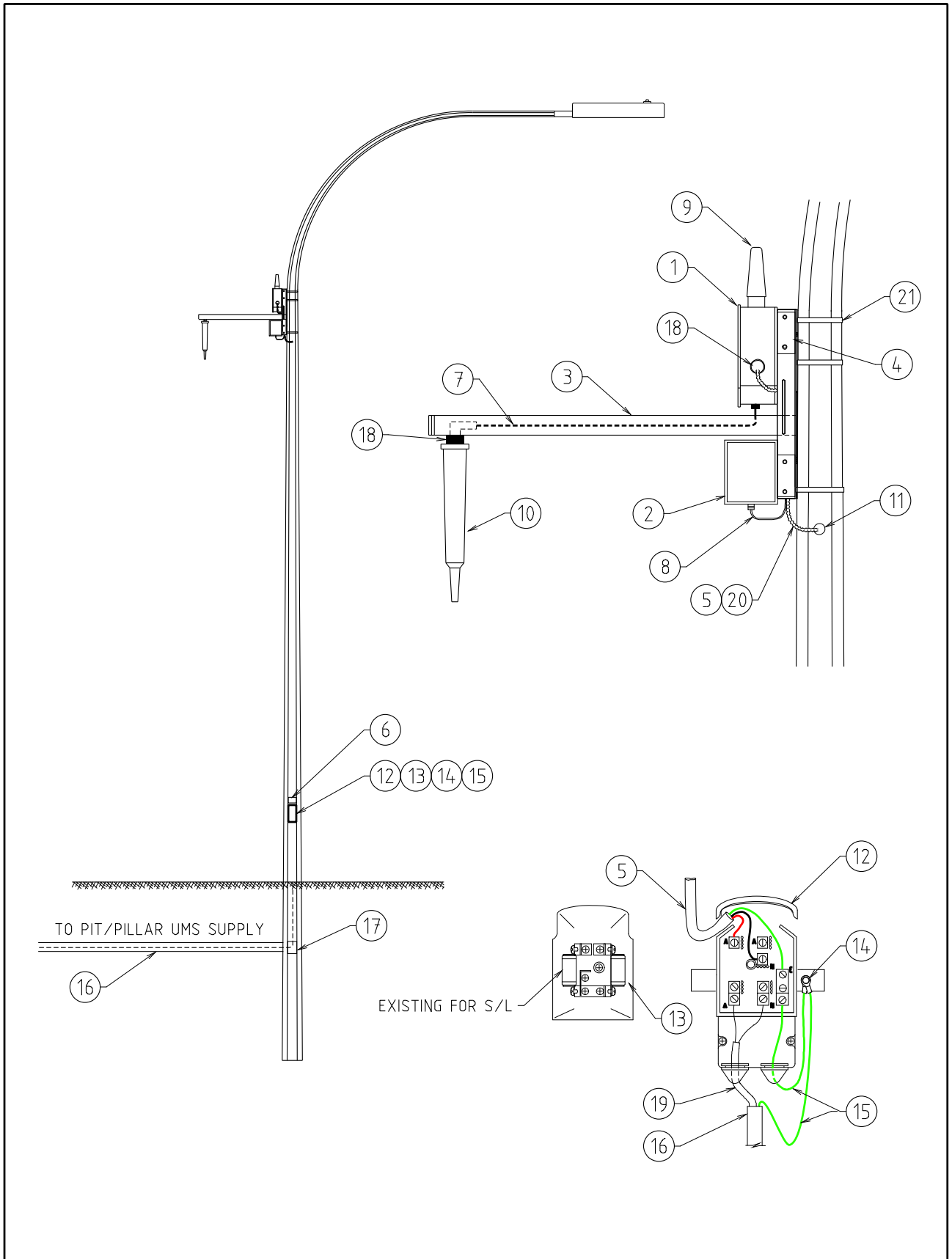
				COMPATIBLE UNIT			DISTRIBUTION DESIGN CATALOGUE			
				AMI - ADVANCED METERING UNDERGROUND SUPPLY FROM PIT OR PILLAR			DRAWN: JRR DATE: 05-04-2019 DRG. No.		DA11-2	
							ORIGINATED: NMc SCALE: NTS			
							CHECKED: CO		REV. ISHT.	
							APPROVED: GRANT STACY		A	
A	09.04.19	ORIGINAL ISSUE		NMc	CO	GS				
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRD.				

CU	CU Description
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DA11_AMI UGA		AMI Equipment Underground Supplied – Access Point – 10m*			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0010	Itron Access Point	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GS6054	Streetlight Bracket	1	ea	
4	GS6501	Device Plate	2	ea	
5	RA0015	Itron DC Battery Cable	1	ea	
6		Label	1	ea	Truck Stock
7	RA0017	Coaxial Cable with connectors	1	ea	
8	RA0016	Itron AC Supply Cable	1	ea	
9	RA0014	Itron Antenna GSM	2	ea	
10	RA0013	Itron Antenna UHF	1	ea	
11	CW0256	Pole	1	ea	
12	HZ0131	Cut-out	1	ea	
13	GF1300	10A Street light Cut-out Fuse	1	ea	
14	FL0163	Lug	2	ea	
15	EE1364	6mm sq earth wire	10	m	*
16	GC0024	Conduit 40mm	3	ea	4m lg *
17	GC0479	Elbow 90 deg for 40mm conduit	2	ea	
18	HT0175	Self-Amalgamating Tape	1	ea	
18	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
19	EE1421	16sqmm LV Supply Cable	10	m	*
20	GC7872	Conduit 20mm	1	roll	10m/1m required
21	HZ0135	Cut-out mounting bracket	1	ea	
New UMS supply from Pillar – LU10 or Pit – UM04					
* - adjust quantity to distance required between supply and pole installation (default 10m)					

CU	CU Description
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DA11_AMI UGR		AMI Equipment Underground Supplied – Relay – 10m*			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0011	Itron Relay	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GS6054	Streetlight Bracket	1	ea	
4	GS6501	Device Plate	2	ea	
5	RA0015	Itron DC Battery Cable	1	ea	
6		Label	1	ea	Truck Stock
7	RA0017	Coaxial Cable with connectors	1	ea	
8	RA0016	Itron AC Supply Cable	1	ea	
9	RA0014	Itron Antenna GSM	1	ea	
10	RA0013	Itron Antenna UHF	1	ea	
11	CW0256	Pole	1	ea	
12	HZ0131	Cut-out	1	ea	
13	GF1300	10A Street light Cut-out Fuse	1	ea	
14	FL0163	Lug	2	ea	
15	EE1364	6mm sq earth wire	10	m	*
16	GC0024	Conduit 40mm	3	ea	4m lg *
17	GC0479	Elbow 90 deg for 40mm conduit	2	ea	
18	HT0175	Self-Amalgamating Tape	1	ea	
18	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
19	EE1421	16sqmm LV Supply Cable	10	m	*
20	GC7872	Conduit 20mm	1	roll	10m/1m required
21	HZ0135	Cut-out mounting bracket	1	ea	
New UMS supply from Pillar – LU10 or Pit – UM04					
* - adjust quantity to distance required between supply and pole installation (default 10m)					



				COMPATIBLE UNIT		DISTRIBUTION DESIGN CATALOGUE			
				AMI - ADVANCED METERING STREETLIGHT COLUMN		DRAWN: JRR DATE: 14-06-2019		DRG. No.	
				DIRECT FROM PIT OR PILLAR		ORIGINATED: NMc SCALE: NTS		DA11-3	
						CHECKED: CO		REV. A	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	NMc	CO	GS	DRGD	CHKD	APRD	
A	21.06.19	ORIGINAL ISSUE							

CU	CU Description
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DA11_AMI SLA		AMI Equipment Streetlight Column – Access Point – 10m*			
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0010	Itron Access Point	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GS6055	Streetlight column Bracket	1	ea	
4	GS6501	Device Plate	2	ea	
5	RA0015	Itron DC Battery Cable	1	ea	
6		Label	1	ea	Truck Stock
7	RA0022	Coaxial Cable with connectors	1	ea	
8	RA0016	Itron AC Supply Cable	1	ea	
9	RA0014	Itron Antenna GSM	2	ea	
10	RA0013	Itron Antenna UHF	1	ea	
11	HG0001	Gland	1	ea	
12	HZ0131	Electrical Cut-out	1	ea	
13	GF1300	10A Street light Cut-out Fuse	1	ea	
14	FL0163	Lug	2	ea	
15	EE1364	6mm sq earth wire	10	m	*
16	GC0023	Conduit 32mm	3	ea	4m lg *
17	GC0478	Elbow 90 deg for 32mm conduit	2	ea	
18	HT0175	Self-Amalgamating Tape	1	ea	
18	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
19	EE1421	16sqmm LV Supply Cable	10	m	*
20	GC7872	Conduit 20mm	1	roll	Only 1m required
21	OZ0017	16mm band-it strap & buckles	3	ea	Strap - Truck stock
22	HZ0135	Cut-out mounting bracket	1	ea	
New UMS supply from Pillar – LU10 or Pit – UM04					
* - adjust quantity to distance required between supply and pole installation (default 10m)					

CU	CU Description
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DA11_AMI SLR AMI Equipment Streetlight Column – Relay – 10m*					
ITEM NUMBER	STOCK CODE	DESCRIPTION	QTY RQD	UNIT OF MEASURE	REMARKS
1	RA0011	Itron Relay	1	ea	
2	RA0012	Itron Battery	1	ea	
3	GS6055	Streetlight column Bracket	1	ea	
4	GS6501	Device Plate	2	ea	
5	RA0015	Itron DC Battery Cable	1	ea	
6		Label	1	ea	Truck Stock
7	RA0022	Coaxial Cable with connectors	1	ea	
8	RA0016	Itron AC Supply Cable	1	ea	
9	RA0014	Itron Antenna GSM	2	ea	
10	RA0013	Itron Antenna UHF	1	ea	
11	HG0001	Gland	1	ea	
12	HZ0131	Electrical Cut-out	1	ea	
13	GF1300	10A Street light Cut-out Fuse	1	ea	
14	FL0163	Lug	2	ea	
15	EE1364	6mm sq earth wire	10	m	*
16	GC0023	Conduit 32mm	3	ea	4m lg *
17	GC0478	Elbow 90 deg for 32mm conduit	2	ea	
18	HT0175	Self-Amalgamating Tape	1	ea	
18	HT0181	Vinyl Tape (applied over self-amalgamating tape)	1	ea	
19	EE1421	16sqmm LV Supply Cable	10	m	*
20	GC7872	Conduit 20mm	1	roll	Only 1m required
21	OZ0017	16mm band-it strap & buckles	3	ea	Strap - Truck stock
22	HZ0135	Cut-out mounting bracket	1	ea	
New UMS supply from Pillar – LU10 or Pit – UM04					
* - adjust quantity to distance required between supply and pole installation (default 10m)					