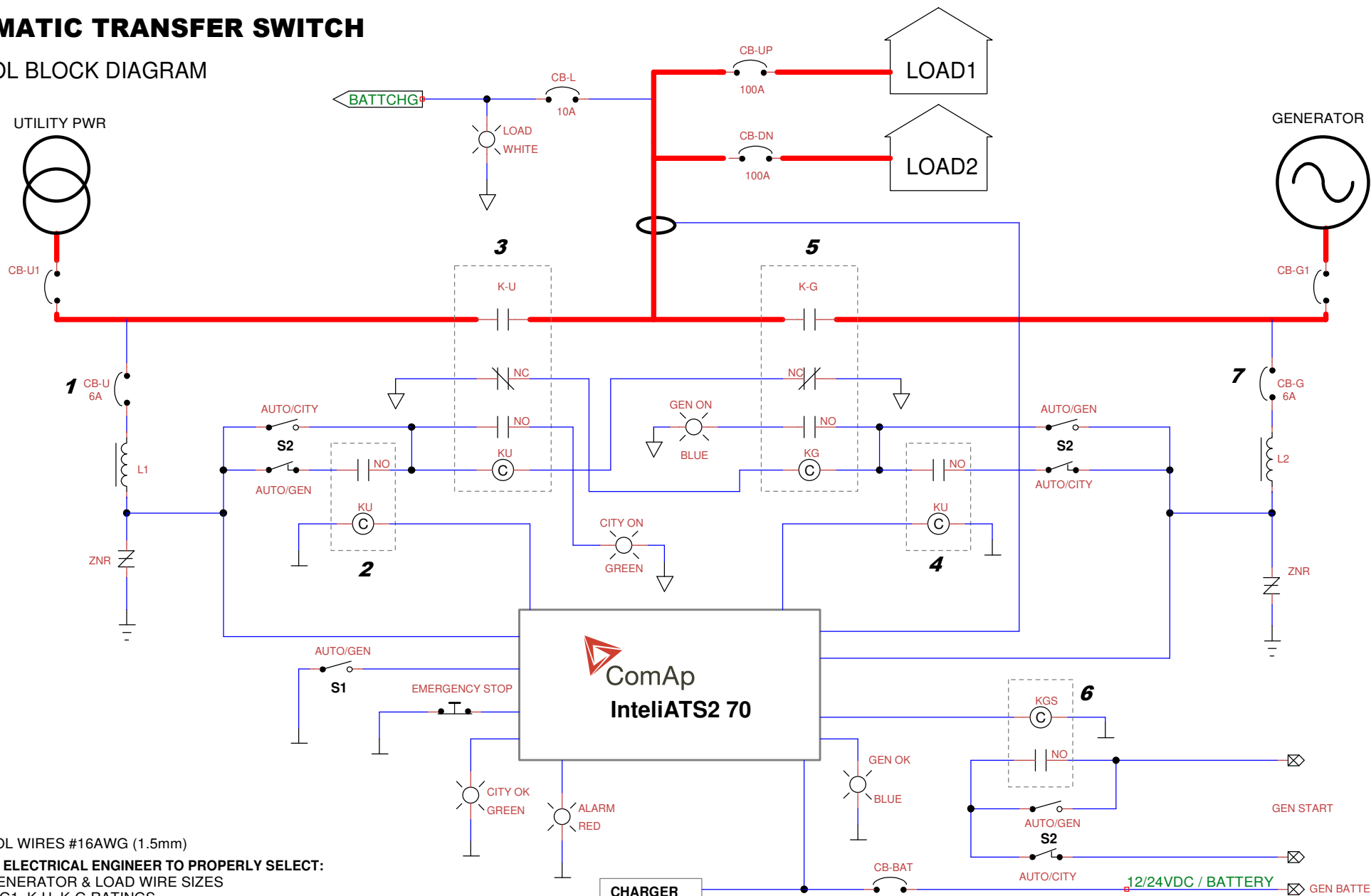
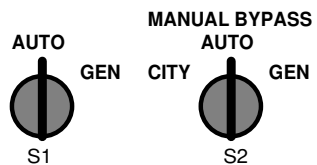


# AUTOMATIC TRANSFER SWITCH

## CONTROL BLOCK DIAGRAM



ALL CONTROL WIRES #16AWG (1.5mm)  
**CONSULT AN ELECTRICAL ENGINEER TO PROPERLY SELECT:**  
 UTILITY, GENERATOR & LOAD WIRE SIZES  
 CB-U1, CB-G1, K-U, K-G RATINGS



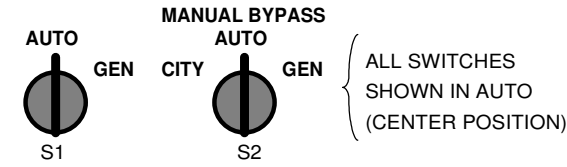
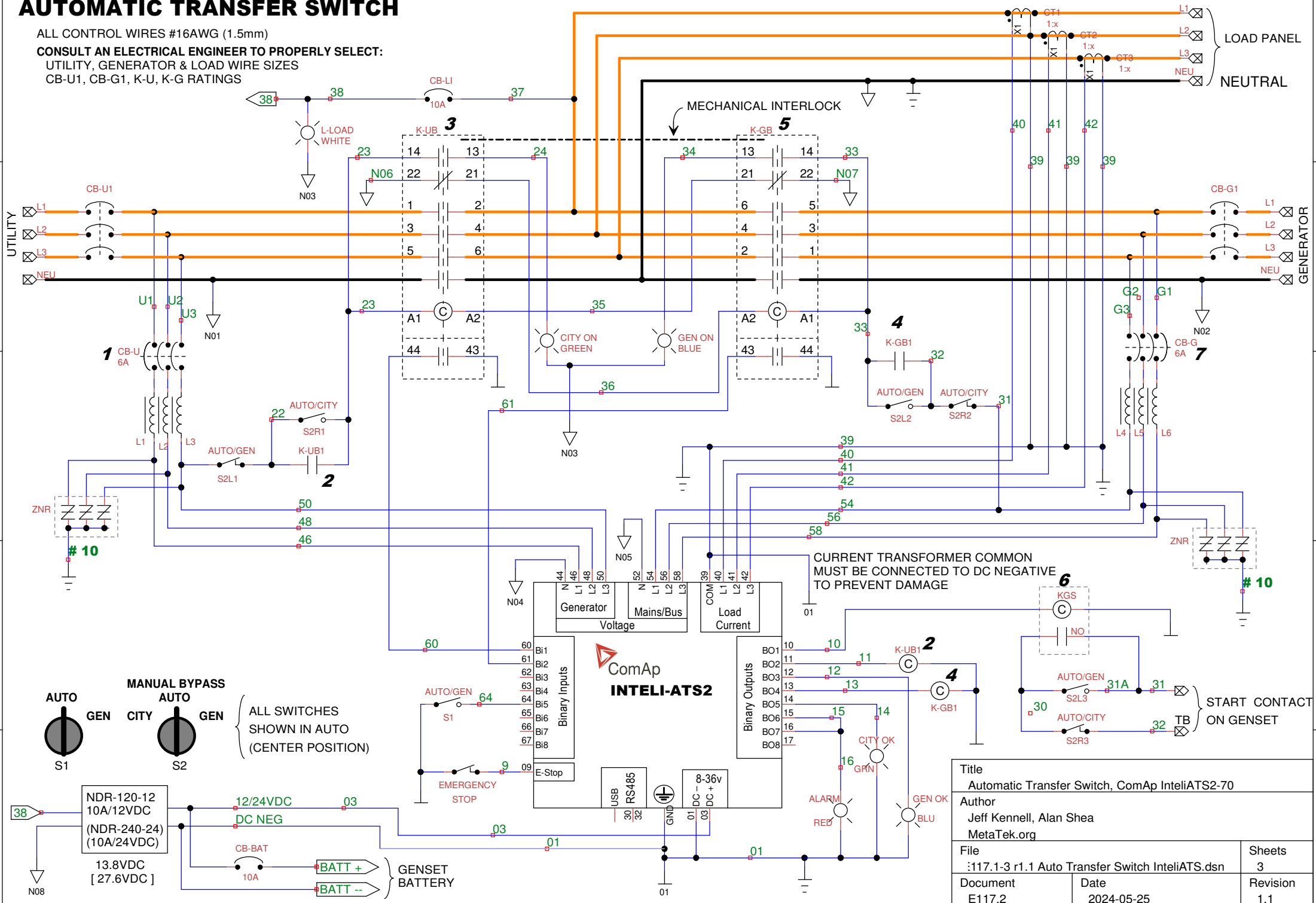
**CHARGER**  
 NDR-120-12  
 10A/12VDC  
 [NDR-240-24]  
 10A/24VDC  
 13.8VDC  
 [ 27.6VDC ]

Title Automatic Transfer Switch, ComAp IntelliATS2-70		
Author Jeff Kennell, Alan Shea MetaTek.org		
File :117.1-3 r1.1 Auto Transfer Switch IntelliATS.dsn	Sheets 3	
Document E117.1	Date 2024-05-25	Revision 1.1

# AUTOMATIC TRANSFER SWITCH

ALL CONTROL WIRES #16AWG (1.5mm)

CONSULT AN ELECTRICAL ENGINEER TO PROPERLY SELECT:  
UTILITY, GENERATOR & LOAD WIRE SIZES  
CB-U1, CB-G1, K-U, K-G RATINGS



CURRENT TRANSFORMER COMMON MUST BE CONNECTED TO DC NEGATIVE TO PREVENT DAMAGE

Title Automatic Transfer Switch, ComAp IntelliATS2-70	
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Revision 1.1	

# CONTACTOR TRANSFER SWITCH

## PARTS LIST

[www.factorymation.com](http://www.factorymation.com)

2 (+1)*	MC-400A-22-AC/DC100-200	POWER CONTACTOR, 400A, COIL: 100-240VAC, 50/60Hz (571VA INRUSH, 14VA HOLDING)
1	AR180	MECHANICAL INTERLOCK
1	RBP-300/400	REVERSING BASE PLATE
4	AJ-400	LUG TERMINALS (3pcs)
2	AP-400	TERMINAL COVER (2pcs)
2	AI-180	INSULATION BARRIER (4pcs)
2	MPDB67111	NEUTRAL & GROUND DISTRIBUTION BLOCK
2 (+1)*	MCB4-L40-3P-C6	3P 6A CIRCUIT BREAKER FOR CONTROLS
1	MCB4-L40-1P-D10	1P 10A CIRCUIT BREAKER FOR INDICATOR
1	MCB1-4D-1P-B10	1P 10A DC CIRCUIT BREAKER FOR BATTERY CHARGER
1	PD22-CE4T-R-1B	EMERGENCY STOP BUTTON + N/C CONTACT BLOCK
1	PDA-SHD2	EMERGENCY STOP SHROUD, FULL
1	093.20	RELAY JUMPER LINK
2 (+2)*	STXR480D05A	SURGE-TRAP, 480V, 3PHASE, 50kA
2	STXRMBK	SURGE-TRAP MOUNTING BRACKET
1	PD22-LS411-B	ILLUMINATED SELECTOR SWITCH, 2 POS, BLU
1	PDA-10	N/O CONTACT BLOCK
1	PDA-LS	LAMP BLOCK
1	ER2.5BEIGE	TERMINAL BLOCK/PKG

**SUBSTITUTION OF ALTERNATE CONTACTORS:**  
 SELECT APPROPRIATE EQUIVALENT ACCESSORIES  
 (MC-185, MC-225, MC-265, MC-330, MC-400, MC-500, MC-630, MC-800)

### MANUAL BYPASS SWITCH (Optional, Recommended)

1	APEG	EMERGENCY STOP SHROUD, PARTIAL (SELECTOR SWITCH)
1	CSW-CK3F45F	3POS SELECTOR SWITCH, 22mm
3	BC10F-CSW	N/O CONTACT BLOCK, STACKABLE
3	BC01F-CSW	N/C CONTACT BLOCK, STACKABLE

### 12VDC SYSTEM

3 (+2)*	38.51.7.012.0050	INTERFACE RELAY, 250VAC/6A, 12VDC COIL w/LED
1	PDA-B12V-B	LED LAMP, 12VAC/DC, BLU

### 24VDC SYSTEM

3 (+2)*	38.51.7.024.0050	INTERFACE RELAY, 250VAC/6A, 24VDC COIL w/LED
1	PDA-B24V-B	LED LAMP, 24VAC/DC, BLU

### L1 -- L6:

20 TURNS OF #12-14 WIRE AROUND SEVEN 4" NAILS, HEADS ALTERNATE ENDS  
 (WRAP NAILS WITH TAPE OR HEAT SHRINK PRIOR TO & AFTER WINDING WIRE)

[www.comap.cz](http://www.comap.cz)

1	ComAp IntelliATS2 70	AUTOMATIC TRANSFER SWITCH CONTROLLER
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[www.digikey.com](http://www.digikey.com)

1 (+1)	1866-3517-ND	MEAN-WELL NDR-120-12, 12VDC/10A POWER SUPPLY/CHARGER, 100-240VAC
1 (+1)	1866-3520-ND	MEAN-WELL NDR-240-24, 24VDC/10A POWER SUPPLY/CHARGER, 100-240VAC (Current-limiting overload protection)

### OTHER THINGS YOU MAY NEED:

FactoryMation: ENCLOSURE, DIN RAIL, COPPER COMPRESSION LUGS  
 WaytekWire.com: 14-16G WIRE IN VARIOUS COLORS, WIRE LABELS

### INDICATORS (optional)

2	PD22-PF-G	GREEN INDICATOR, 22mm
2	PD22-PF-B	BLUE INDICATOR, 22mm
1	PD22-PF-W	WHITE INDICATOR, 22mm
1	PD22-PF-R	RED INDICATOR, 22mm
6	PDA-LS	LAMP SOCKET
1	PDA-B220VAC-G	LED BULB, 220VAC, GREEN
1	PDA-B220VAC-B	LED BULB, 220VAC, BLUE
1	PDA-B220VAC-W	LED BULB, 220VAC, WHITE

### 12VDC SYSTEM

1	PDA-B12V-B	LED BULB, 12VAC/DC, BLU
1	PDA-B12V-G	LED BULB, 12VAC/DC, GRN
1	PDA-B12V-R	LED BULB, 12VAC/DC, RED

### 24VDC SYSTEM

1	PDA-B24V-B	LED BULB, 24VAC/DC, BLU
1	PDA-B24V-G	LED BULB, 24VAC/DC, GRN
1	PDA-B24V-R	LED BULB, 24VAC/DC, RED

**\* (+1) SPARE UNIT**

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