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Power Calculations

FACP - MIRCOM FX-2000MNS									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY***	***STANDBY***	***ALARM***	***ALARM***	***CIRCUIT***		
			CURRENT	***TOTAL***	***CURRENT***	***TOTAL***	***TOTAL***		
FX2000MNS	Main Board	1	0.31000	0.31000	0.73300	0.733			
MIX-2251B	Smoke Det	176	0.00030	0.05280	0.00650	1.144			
MIX-5251B	Heat Det	15	0.00030	0.00450	0.00065	0.010			
MS-710ADU	Dual Action Pull	39	0.00040	0.01560	0.00550	0.215			
MIX M500M	Monitor Mod	54	0.00040	0.02160	0.00550	0.297			
MIX M500R	Relay	25	0.00030	0.00750	0.00550	0.138			
RAXN-LCD	Annunciator	1	0.10000	0.10000	0.15000	0.150			
FDX - 008	Fan Damper	1	0.01500	0.01500	0.03500	0.035			
QMP-5101NV	Mic Control	1	0.00400	0.00400	0.01200	0.012			
AMP-5101N	Master Paging Module	1	0.00400	0.00400	0.01200	0.012			
QAA-5415-70	15W Amplifier	2	0.05500	0.11000	0.35000	0.700			
ALCN-792M/D	Quad Loop	1	0.14500	0.14500	0.14500	0.145			
QAZT-5302DS	Paging/Tele Zone Mod	1	0.01000	0.01000	0.01500	0.015			
UDACT-300A	Dialer	1	0.04500	0.04500	0.12000	0.120			
	Panel Total			**0.8450**		**3.725**			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
	NAC CIRCUIT 1 TOTAL CURRENT						**0.176**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 2 CURRENT DRAW						**0.000**	A	
NAC Trigger	PS TRIGGER WIRE	1	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 3 CURRENT DRAW						**0.000**	A	
NAC Trigger	PS TRIGGER WIRE	1	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 4 CURRENT DRAW						**0.000**	A	
Unused	Unused		0.000	0.00000	0.000	0.000			
	AUX CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.8450**		**3.901**			

NAC Voltage Drop Calculations

NAC	***Total***	***Length & Gauge of Wire run***				***Starting***	***MAX Volt***	***Volt***	***VOLTS***
	Load	***18***	***16***	***14***	***12***	***Voltage***	***Drop***	***Drop***	***AT EOL***
1	0.176			50		20.40	3.06	0.06	20.34
2	0.000					20.40	3.06	0.00	20.40
3	0.000					20.40	3.06	0.00	20.40
4	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Standby Current (Amps)	0.8450	X	60 Hrs	60	50.7
			Required Alarm Time in Min		
Total Alarm Current (Amps)	3.901	X	5 Min	0.083	0.325
Standby and Alarm Load Subtotal					51.025
20% Derating Factor					1.2
Total Ampere Hours Required					61.23

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Power Calculations

PS1 STORAGE 180									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**0.828**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	2	0.000	0.00000	0.091	0.182			
P2/PC2 H/S (30cd)	Horn/Strobe	1	0.000	0.00000	0.116	0.116			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
H-LF Low Frequency	Horn Low Freq	7	0.000	0.00000	0.138	0.966			
	NAC CIRCUIT 2 CURRENT DRAW						**1.572**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.847**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 4 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 5 CURRENT DRAW						**0.567**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.555**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	0.828			151		20.40	3.06	0.79	19.61
2	1.572			284		20.40	3.06	2.80	17.60
3	0.847			228		20.40	3.06	1.21	19.19
4	0.391			45		20.40	3.06	0.11	20.29
5	0.567			65		20.40	3.06	0.23	20.17
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.555	X	5 Min	0.083	0.380
Standby and Alarm Load Subtotal					12.380
20% Derating Factor					1.2
Total Ampere Hours Required					14.86

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Power Calculations

PS2 STORAGE 261									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
H-LF Low Frequency	Horn Low Freq	7	0.000	0.00000	0.138	0.966			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**0.966**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
H-LF Low Frequency	Horn Low Freq	8	0.000	0.00000	0.138	1.104			
	NAC CIRCUIT 2 CURRENT DRAW						**1.503**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.847**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 4 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 5 CURRENT DRAW						**0.567**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.624**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	0.966			160		20.40	3.06	0.97	19.43
2	1.503			262		20.40	3.06	2.47	17.93
3	0.847			228		20.40	3.06	1.21	19.19
4	0.391			45		20.40	3.06	0.11	20.29
5	0.567			65		20.40	3.06	0.23	20.17
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.624	X	5 Min	0.083	0.385
Standby and Alarm Load Subtotal					12.385
20% Derating Factor					1.2
Total Ampere Hours Required					14.86

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Power Calculations

PS3 STORAGE 360									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
H-LF Low Frequency	Horn Low Freq	7	0.000	0.00000	0.138	0.966			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**0.966**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
H-LF Low Frequency	Horn Low Freq	8	0.000	0.00000	0.138	1.104			
	NAC CIRCUIT 2 CURRENT DRAW						**1.503**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.847**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 4 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 5 CURRENT DRAW						**0.567**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.624**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	0.966			160		20.40	3.06	0.97	19.43
2	1.503			262		20.40	3.06	2.47	17.93
3	0.847			228		20.40	3.06	1.21	19.19
4	0.391			45		20.40	3.06	0.11	20.29
5	0.567			65		20.40	3.06	0.23	20.17
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.624	X	5 Min	0.083	0.385
Standby and Alarm Load Subtotal					12.385
20% Derating Factor					1.2
Total Ampere Hours Required					14.86

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Power Calculations

PS4 STORAGE 458									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**0.828**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 2 CURRENT DRAW						**1.227**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.847**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 4 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 5 CURRENT DRAW						**0.567**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.210**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	0.828			160		20.40	3.06	0.83	19.57
2	1.227			262		20.40	3.06	2.02	18.38
3	0.847			228		20.40	3.06	1.21	19.19
4	0.391			45		20.40	3.06	0.11	20.29
5	0.567			65		20.40	3.06	0.23	20.17
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.210	X	5 Min	0.083	0.351
Standby and Alarm Load Subtotal					12.351
20% Derating Factor					1.2
Total Ampere Hours Required					14.82

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Power Calculations

PS5 STORAGE 180									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
SPSC/SPS (15cd)	Speker Strobe	3	0.000	0.00000	0.066	0.198			
S/SC Strobe (75cd)	Strobe	4	0.000	0.00000	0.158	0.632			
S/SC Strobe (110cd)	Strobe	1	0.000	0.00000	0.202	0.202			
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**1.164**	A	
H-LF Low Frequency	Horn Low Freq	1	0.000	0.00000	0.138	0.138			
SPSC/SPS (15cd)	Speker Strobe	2	0.000	0.00000	0.066	0.132			
SPSC/SPS (30cd)	Speker Strobe	2	0.000	0.00000	0.094	0.188			
SPSC/SPS (75cd)	Speker Strobe	4	0.000	0.00000	0.158	0.632			
S/SC Strobe (110cd)	Strobe	1	0.000	0.00000	0.202	0.202			
	NAC CIRCUIT 2 CURRENT DRAW						**1.292**	A	
SPSC/SPS (15cd)	Speker Strobe	6	0.000	0.00000	0.066	0.396			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 3 CURRENT DRAW						**0.721**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 4 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	2	0.000	0.00000	0.325	0.650			
	NAC CIRCUIT 5 CURRENT DRAW						**0.958**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.876**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	1.164			394		20.40	3.06	2.88	17.52
2	1.292			312		20.40	3.06	2.53	17.87
3	0.721			233		20.40	3.06	1.05	19.35
4	0.391			34		20.40	3.06	0.08	20.32
5	0.958			100		20.40	3.06	0.60	19.80
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.876	X	5 Min	0.083	0.406
Standby and Alarm Load Subtotal					12.406
20% Derating Factor					1.2
Total Ampere Hours Required					14.89

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Power Calculations

PS6 STORAGE 261									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
SPSC/SPS (15cd)	Speker Strobe	4	0.000	0.00000	0.066	0.264			
SPSC/SPS (30cd)	Speker Strobe	2	0.000	0.00000	0.094	0.188			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**1.208**	A	
H-LF Low Frequency	Horn Low Freq	4	0.000	0.00000	0.138	0.552			
SPSC/SPS (30cd)	Speker Strobe	1	0.000	0.00000	0.094	0.094			
SPSC/SPS (75cd)	Speker Strobe	1	0.000	0.00000	0.158	0.158			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2/PC2 H/S (110cd)	Horn/Strobe	1	0.000	0.00000	0.221	0.221			
	NAC CIRCUIT 2 CURRENT DRAW						**1.201**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	2	0.000	0.00000	0.091	0.182			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.872**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 4 CURRENT DRAW						**0.985**	A	
DHF 1224	DOOR HOLDER	10	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 5 CURRENT DRAW						**0.000**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.616**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	1.208			322		20.40	3.06	2.44	17.96
2	1.201			308		20.40	3.06	2.32	18.08
3	0.872			395		20.40	3.06	2.16	18.24
4	0.985			433		20.40	3.06	2.68	17.72
5	0.000					20.40	3.06	0.00	20.40
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.616	X	5 Min	0.083	0.385
Standby and Alarm Load Subtotal					12.385
20% Derating Factor					1.2
Total Ampere Hours Required					14.86

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Power Calculations

PS7 STORAGE 360									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
P2/PC2 H/S(15cd)	Horn/Strobe	2	0.000	0.00000	0.091	0.182			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
SPSC/SPS (75cd)	Speker Strobe	1	0.000	0.00000	0.158	0.158			
H-LF Low Frequency	Horn Low Freq	7	0.000	0.00000	0.138	0.966			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**1.482**	A	
SPSC/SPS (75cd)	Speker Strobe	2	0.000	0.00000	0.158	0.316			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 2 CURRENT DRAW						**1.210**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	2	0.000	0.00000	0.091	0.182			
H-LF Low Frequency	Horn Low Freq	5	0.000	0.00000	0.138	0.690			
	NAC CIRCUIT 3 CURRENT DRAW						**0.872**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
	NAC CIRCUIT 4 CURRENT DRAW						**0.985**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 5 CURRENT DRAW						**0.391**	A	
Door Holder	Door Holder	10	0.000	0.00000	0.000	0.000			
	Aux CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**5.290**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	1.482			304		20.40	3.06	2.83	17.57
2	1.210			308		20.40	3.06	2.34	18.06
3	0.872			395		20.40	3.06	2.16	18.24
4	0.985			433		20.40	3.06	2.68	17.72
5	0.391			100		20.40	3.06	0.25	20.15
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	5.290	X	5 Min	0.083	0.441
Standby and Alarm Load Subtotal					12.441
20% Derating Factor					1.2
Total Ampere Hours Required					14.93

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Power Calculations

PS8 STORAGE 458									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
SPSC/SPS (75cd)	Speker Strobe	1	0.000	0.00000	0.158	0.158			
H-LF Low Frequency	Horn Low Freq	8	0.000	0.00000	0.138	1.104			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**1.529**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
SPSC/SPS (15cd)	Speker Strobe	1	0.000	0.00000	0.066	0.066			
SPSC/SPS (75cd)	Speker Strobe	1	0.000	0.00000	0.158	0.158			
H-LF Low Frequency	Horn Low Freq	6	0.000	0.00000	0.138	0.828			
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
	NAC CIRCUIT 2 CURRENT DRAW						**1.209**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	2	0.000	0.00000	0.091	0.182			
H-LF Low Frequency	Horn Low Freq	4	0.000	0.00000	0.138	0.552			
	NAC CIRCUIT 3 CURRENT DRAW						**0.734**	A	
P2/PC2 H/S(15cd)	Horn/Strobe	1	0.000	0.00000	0.091	0.091			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
H-LF Low Frequency	Horn Low Freq	4	0.000	0.00000	0.138	0.552			
	NAC CIRCUIT 4 CURRENT DRAW						**0.709**	A	
Door Holders	Door Holders	10	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 5 CURRENT DRAW						**0.000**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**4.531**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	1.529			298		20.40	3.06	2.86	17.54
2	1.209			285		20.40	3.06	2.16	18.24
3	0.734			345		20.40	3.06	1.59	18.81
4	0.709			355		20.40	3.06	1.58	18.82
5	0.000					20.40	3.06	0.00	20.40
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	4.531	X	5 Min	0.083	0.378
Standby and Alarm Load Subtotal					12.378
20% Derating Factor					1.2
Total Ampere Hours Required					14.85

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Power Calculations

PS9 STORAGE 185									
DEVICE	***DESCRIPTION***	***QNTy***	***STANDBY CURRENT***	***STANDBY TOTAL***	***ALARM CURRENT***	***ALARM TOTAL***	***CIRCUIT TOTAL***		
INX10A	10Amp PS	1	0.20000	0.20000	0.35000	0.350			
	Panel Total			**0.2000**		**0.350**			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
	NAC CIRCUIT 1 TOTAL CURRENT DRAW						**0.567**	A	
P2RH-LF Frequency	Horn/Strobe	1	0.000	0.00000	0.325	0.325			
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
	NAC CIRCUIT 2 CURRENT DRAW						**0.391**	A	
S/SC Strobe (15cd)	Strobe	2	0.000	0.00000	0.066	0.132			
P2/PC2 H/S (75cd)	Horn/Strobe	1	0.000	0.00000	0.176	0.176			
P2RH-LF Frequency	Horn/Strobe	2	0.000	0.00000	0.325	0.650			
	NAC CIRCUIT 3 CURRENT DRAW						**0.958**	A	
S/SC Strobe (15cd)	Strobe	1	0.000	0.00000	0.066	0.066			
P2/PC2 H/S(15cd)	Horn/Strobe	3	0.000	0.00000	0.091	0.273			
H-LF Low Frequency	Horn Low Freq	7	0.000	0.00000	0.138	0.966			
	NAC CIRCUIT 4 CURRENT DRAW						**1.305**	A	
Door Holders	Door Holders	16	0.000	0.00000	0.000	0.000			
	NAC CIRCUIT 5 CURRENT DRAW						**0.000**	A	
Unused	Unused	0	0.000	0.00000	0.000	0.000			
	AUX CIRCUIT CURRENT DRAW						**0.000**	A	
Overall	**TOTALS**			**0.2000**		**3.571**			

NAC Voltage Drop Calculations

NAC	***Total Load***	***Length & Gauge of Wire run***				***Starting Voltage***	***MAX Volt Drop***	***Volt Drop***	***VOLTS AT EOL***
		18	***16***	***14***	***12***				
1	0.567			50		20.40	3.06	0.18	20.22
2	0.391			59		20.40	3.06	0.14	20.26
3	0.958			122		20.40	3.06	0.73	19.67
4	1.305			329		20.40	3.06	2.70	17.70
5	0.000					20.40	3.06	0.00	20.40
6	0.000					20.40	3.06	0.00	20.40

Note: Resistance of conductor value from National Electrical Code (NFPA 70) Chapter 9 , Table Conductor Property

Length of wire run is an estimate of wire to be installed

Visual device operating voltage range UL tested from 20 to 31 VDC nominal voltage

BATTERY POWER CALCULATIONS			Required Standby Time in Hrs		
Total Stadby Current (Amps)	0.2000	X	60 Hrs	60	12
			Required Alarm Time in Min		
Total Alarm Current (Amps)	3.571	X	5 Min	0.083	0.298
Standby and Alarm Load Subtotal					12.298
20% Derating Factor					1.2
Total Ampere Hours Required					14.76