

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
PEARL PLACE II NAC 1 4009 NAC						
Panel Equipment						
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
4009-9807	1	NAC CARD, 4PT, IDNET	0.0400	0.0400	0.0400	0.0400
Panel Totals			0.1250		0.2250	
Notification Appliances						
4906-9103	35	V/O M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0600	2.1000
4906-9103	1	V/O M-C NON-ADDRESS, WHT, WALL	75	0.0000	0.0000	0.1860
4906-9129	32	A/V M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0750	2.4000
4906-9129	3	A/V M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.1160	0.9280
4906-9129	6	A/V M-C NON-ADDRESS, WHT, WALL	75	0.0000	0.2210	1.3260
Peripheral Totals			0.0000			6.9400
RUI Totals			0	0.0000		0.0000
Total Standby			0.1250			7.1650
Total Alarm						7.1650

- ** Current draw included under "Device Addresses Used" (See "Additional Current Draws.")
- 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.
 - Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
4009		0.1250		7.1650
Total		0.1250		7.1650
Standby Time = 24 Hrs x 0.1250 = 3,000 Standby Ah				
Alarm Time = 5 Min 0.08333 x 7.165 = 0.5971 Alarm Ah				
Additional Spare Capacity = 0% + 0.0000				
Battery Discharge Factor = 20% + 0.7194				
Minimum Battery Required 2081-9272 6.2AH (2x) 4.3165				
Battery Supplied 2081-9272 6.2AH (2x)				

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
PEARL PLACE II NAC 3 4009 NAC						
Panel Equipment						
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
4009-9807	1	NAC CARD, 4PT, IDNET	0.0400	0.0400	0.0400	0.0400
Panel Totals			0.1250		0.2250	
Notification Appliances						
4906-9103	29	V/O M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0600	1.7400
4906-9103	9	V/O M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.0000	0.8460
4906-9129	37	A/V M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0750	2.7750
4906-9129	3	A/V M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.1160	0.3480
4906-9129	6	A/V M-C NON-ADDRESS, WHT, WALL	75	0.0000	0.2210	1.3260
Peripheral Totals			0.0000			7.0350
RUI Totals			0	0.0000		0.0000
Total Standby			0.1250			7.2600
Total Alarm						7.2600

- ** Current draw included under "Device Addresses Used" (See "Additional Current Draws.")
- 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.
 - Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
4009		0.1250		7.2600
Total		0.1250		7.2600
Standby Time = 24 Hrs x 0.1250 = 3,000 Standby Ah				
Alarm Time = 5 Min 0.08333 x 7.26 = 0.6050 Alarm Ah				
Additional Spare Capacity = 0% + 0.0000				
Battery Discharge Factor = 20% + 0.7210				
Minimum Battery Required 2081-9272 6.2AH (2x) 4.3260				
Battery Supplied 2081-9272 6.2AH (2x)				

Power Supply	Plan Ckt.	Dist. (Ft)	Wire Gauge	Wire Res. Ft. (R)	Total Alarm (A)	V. Drop (V)	% Volt Drop	Min Device Voltage	Max Distance	PID	4906-9103 15cd V/O	4906-9103 30cd V/O	4906-9103 75cd V/O	4906-9103 110cd V/O	4906-9129 15cd A/V	4906-9129 30cd A/V	4906-9129 75cd A/V	4906-9129 110cd A/V
PEARL PLACE II NAC 1 4009 NAC VOLTAGE DROPS																		
WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 60 Celsius																		
NOTIFICATION CIRCUIT DESCRIPTION																		
4009	SIG1	V1	263	14ga	0.0029	1.042	1.613	17.387	8.49%	16vdc	493 FL	5		4				2
4009	SIG2	V2	345	14ga	0.0029	1.379	2.780	14.63%	16vdc	372 FL	5			4	1			3
4009	SIG3	V3	307	14ga	0.0029	0.716	1.284	17.71%	16vdc	717 FL	5			4	1			
4009	SIG4	V4	354	14ga	0.0029	0.967	2.000	10.53%	16vdc	531 FL	6			5	2			
4009	SIG5	V5	307	14ga	0.0029	0.772	1.385	17.61%	16vdc	665 FL	4			4	2			
4009	SIG6	V6	260	14ga	0.0029	0.521	0.791	18.20%	16vdc	986 FL	3			3	1			
4009	SIG7	V7	237	14ga	0.0029	0.606	0.839	18.16%	16vdc	847 FL	2		1					
4009	SIG8	V8	345	14ga	0.0029	0.937	1.889	17.11%	16vdc	548 FL	5			4	1			1

NOTE:
LUMP SUM METHOD WAS USED TO CALCULATE ALLOWABLE VOLTAGE DROP. THIS METHOD ALLOWS FOR A SMALL MARGIN OF SAFETY, TAKING INTO CONSIDERATION THAT THE ACTUAL INSTALLED CIRCUIT ROUTING MAY DIFFER FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. IF THE ACTUAL CIRCUIT LENGTH IS GOING TO EXCEED THE MAXIMUM ALLOWABLE CIRCUIT LENGTH, CONTACT YOUR LOCAL SIMPLEXGRINNELL DISTRICT OFFICE.

Power Supply	Plan Ckt.	Dist. (Ft)	Wire Gauge	Wire Res. Ft. (R)	Total Alarm (A)	V. Drop (V)	% Volt Drop	Min Device Voltage	Max Distance	PID	4906-9103 15cd V/O	4906-9103 30cd V/O	4906-9103 75cd V/O	4906-9103 110cd V/O	4906-9129 15cd A/V	4906-9129 30cd A/V	4906-9129 75cd A/V	4906-9129 110cd A/V
PEARL PLACE II NAC 3 4009 NAC VOLTAGE DROPS																		
WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 60 Celsius																		
NOTIFICATION CIRCUIT DESCRIPTION																		
4009	V1	367	14ga	0.0029	1.028	2.204	16.79%	16vdc	499 FL	4	2				8			
4009	V2	249	14ga	0.0029	1.166	1.696	17.304	8.93%	16vdc	440 FL	2	2			4	1		2
4009	V3	306	14ga	0.0029	0.997	1.782	17.21%	9.38%	16vdc	515 FL	5				4	1		1
4009	V4	349	14ga	0.0029	0.938	1.913	17.087	10.07%	16vdc	547 FL	6				6			
4009	V5	400	14ga	0.0029	1.170	2.734	16.26%	14.39%	16vdc	439 FL	4	2			4			2
4009	V6	346	14ga	0.0029	0.731	1.478	17.522	7.78%	16vdc	702 FL	4				5	1		
4009	V7	283	14ga	0.0029	0.514	0.850	18.150	4.47%	16vdc	999 FL	2	1			4			
4009	V8	264	14ga	0.0029	0.491	0.757	18.243	3.99%	16vdc	1046 FL	2				2			1

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Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
PEARL PLACE II NAC 2 4009 NAC						
Panel Equipment						
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
4009-9807	1	NAC CARD, 4PT, IDNET	0.0400	0.0400	0.0400	0.0400
Panel Totals			0.1250		0.2250	
Notification Appliances						
4906-9103	28	V/O M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0600	1.8800
4906-9103	9	V/O M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.0000	0.0940
4906-9129	37	A/V M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0750	2.7750
4906-9129	3	A/V M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.1160	0.3480
4906-9129	6	A/V M-C NON-ADDRESS, WHT, WALL	75	0.0000	0.2210	1.3260
Peripheral Totals			0.0000			6.9750
RUI Totals			0	0.0000		0.0000
Total Standby			0.1250			7.2000
Total Alarm						7.2000

- ** Current draw included under "Device Addresses Used" (See "Additional Current Draws.")
- 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.
 - Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
4009		0.1250		7.2000
Total		0.1250		7.2000
Standby Time = 24 Hrs x 0.1250 = 3,000 Standby Ah				
Alarm Time = 5 Min 0.08333 x 7.2 = 0.6000 Alarm Ah				
Additional Spare Capacity = 0% + 0.0000				
Battery Discharge Factor = 20% + 0.7200				
Minimum Battery Required 2081-9272 6.2AH (2x) 4.3200				
Battery Supplied 2081-9272 6.2AH (2x)				

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
PEARL PLACE II NAC 4 4009 NAC						
Panel Equipment						
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
4009-9807	1	NAC CARD, 4PT, IDNET	0.0400	0.0400	0.0400	0.0400
Panel Totals			0.1250		0.2250	
Notification Appliances						
4906-9103	22	V/O M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0600	1.3200
4906-9103	13	V/O M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.0000	0.0940
4906-9129	32	A/V M-C NON-ADDRESS, WHT, WALL	15	0.0000	0.0750	2.4000
4906-9129	7	A/V M-C NON-ADDRESS, WHT, WALL	30	0.0000	0.1160	0.8120
4906-9129	6	A/V M-C NON-ADDRESS, WHT, WALL	75	0.0000	0.2210	1.3260
Peripheral Totals			0.0000			7.0800
RUI Totals			0	0.0000		0.0000
Total Standby			0.1250			7.3050
Total Alarm						7.3050

- ** Current draw included under "Device Addresses Used" (See "Additional Current Draws.")
- 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.
 - Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
4009		0.1250		7.3050
Total		0.1250		7.3050
Standby Time = 24 Hrs x 0.1250 = 3,000 Standby Ah				
Alarm Time = 5 Min 0.08333 x 7.305 = 0.6088 Alarm Ah				
Additional Spare Capacity = 0% + 0.0000				
Battery Discharge Factor = 20% + 0.7218				
Minimum Battery Required 2081-9272 6.2AH (2x) 4.3305				
Battery Supplied 2081-9272 6.2AH (2x)				

Power Supply	Plan Ckt.	Dist. (Ft)	Wire Gauge	Wire Res. Ft. (R)	Total Alarm (A)	V. Drop (V)	% Volt Drop	Min Device Voltage	Max Distance	PID	4906-9103 15cd V/O	4906-9103 30cd V/O	4906-9103 75cd V/O	4906-9103 110cd V/O	4906-9129 15cd A/V	4906-9129 30cd A/V	4906-9129 75cd A/V	4906-9129 110cd A/V
PEARL PLACE II NAC 2 4009 NAC VOLTAGE DROPS																		
WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 60 Celsius																		
NOTIFICATION CIRCUIT DESCRIPTION																		
4009	V1	367	14ga	0.0029	1.028	2.204	16.79%	16vdc	499 FL	4					8			
4009	V2	249	14ga	0.0029	1.166	1.696	17.304	8.93%	16vdc	440 FL	2	2			4	1		2
4009	V3	306	14ga	0.0029	0.997	1.782	17.21%	9.38%	16vdc	515 FL	6				4	1		1
4009	V4	329	14ga	0.0029	0.878	1.688	17.31%	8.88%	16vdc	585 FL	4	2			6			
4009	V5	400	14ga	0.0029	1.170	2.734	16.26%	14.39%	16vdc	439 FL	4	2			4			2
4009	V6	346	14ga	0.0029	0.731	1.478	17.522	7.78%	16vdc	702 FL	4				5	1		
4009	V7	283	14ga	0.0029	0.514	0.850	18.150	4.47%	16vdc	999 FL	2	1			4			
4009	V8	264	14ga	0.0029	0.491	0.757	18.243	3.99%	16vdc	1046 FL	2				2			1

NOTE:
LUMP SUM METHOD WAS USED TO CALCULATE ALLOWABLE VOLTAGE DROP. THIS METHOD ALLOWS FOR A SMALL MARGIN OF SAFETY, TAKING INTO CONSIDERATION THAT THE ACTUAL INSTALLED CIRCUIT ROUTING MAY DIFFER FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. IF THE ACTUAL CIRCUIT LENGTH IS GOING TO EXCEED THE MAXIMUM ALLOWABLE CIRCUIT LENGTH, CONTACT YOUR LOCAL SIMPLEXGRINNELL DISTRICT OFFICE.

Power Supply	Plan Ckt.	Dist. (Ft)	Wire Gauge	Wire Res. Ft. (R)</
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