



# System Power Requirements

## Notifier NFS2-640 Fire Alarm Control Panel

Protected Premises: <u>USM - Masterton Building</u>	Date: <u>7/8/2013</u>
Address: _____	
City: <u>Portland</u>	State: <u>Maine</u> Zip: _____
Prepared By: <u>BK Systems, Inc.</u>	Phone: <u>603-647-8775</u>
Address: <u>4 Cote Avenue</u>	Email: _____
City: <u>Goffstown</u>	State: <u>New Hampshire</u> Zip: <u>03045</u>

**AC Branch Current Requirements** 5.00 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

**Primary Standby Load** 1.40 Amps

Current load on the primary power supply during non-alarm conditions.

**Primary Alarm Load** 1.82 Amps

Current load on the primary power supply during alarm conditions.

**Secondary Load Requirements** 40.45 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 1.392 A	x	Required Standby Time	
		24 hours	33.40
Secondary Alarm Load 1.855 A	x	Required Alarm Time	
		0.167 hours	0.31
Total Secondary Load			33.71
Derating factor			x 1.2
<b>Secondary Load Requirements (Amp Hours)</b>			<b>40.45</b> AH

**Battery Selection** 55 Amp Hours

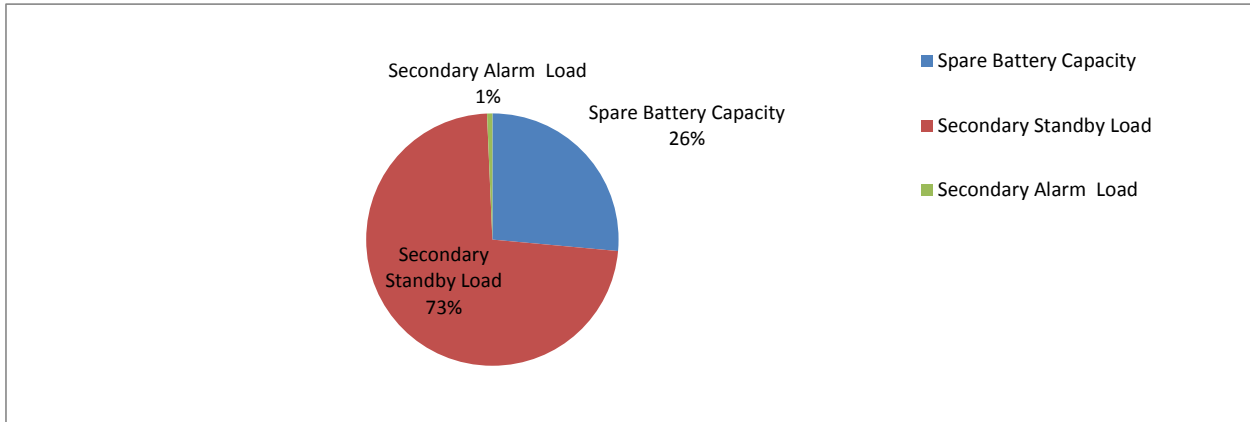
Select batteries from the list below.

55 AH BAT-12550 Battery (12 volt)

- Two
- Four (two 12VDC sets in parallel)

## Battery Distribution Chart

Shows amp-hour distribution of your selections.



### Comments

1. Battery size exceeds FACP capacity. BB-55 or other external battery box
2. Selected battery size meets secondary load requirements.
3. The selected batteries (55AH) are within the charger range of this power supply (18-200AH).

Spare Battery Capacity	14.55	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	40.08	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.37	Secondary Alarm Load (AH) * Derating Factor



## Device Current Draw

### NFS2-640 Fire Alarm Control Panel

Quantity x [device current draw] = total current draw per device (in amps)

Part Number	Qty	Primary Non-Alarm	Primary Alarm	Secondary Non-Alarm
CPU2-640	1	x [0.25000] = 0.25000	x [0.25000] = 0.25000	x [0.25000] = 0.25000
CPS-24	1	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.04000] = 0.04000
NCA2 - Backlight On	1	x [0.40000] = 0.40000	x [0.40000] = 0.40000	x [0.40000] = 0.40000
HPFF8 Power Supplies	2	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.00000] = 0.00000
DAA Series	2	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.00000] =
DVC-EM	1	x [0.44000] = 0.44000	x [0.44000] = 0.44000	x [0.44000] = 0.44000
DVC-KD	1	x [0.06000] = 0.06000	x [0.06000] = 0.06000	x [0.06000] = 0.06000
RM-1 (with DVC-EM)	1	x [0.07500] = 0.07500	x [0.07500] = 0.07500	x [0.07500] = 0.07500
RM-1	1	x [0.02000] = 0.02000	x [0.02000] = 0.02000	x [0.02000] = 0.02000
ACM-24AT	1	x [0.01600] = 0.01600	x [0.07000] = 0.07000	x [0.01600] = 0.01600
LCD-80, LCD-80TM	1	x [0.10000] = 0.10000	x [0.10000] = 0.10000	x [0.05000] = 0.05000
NBG-12LX	15	x [0.00038] = 0.00563	x [0.00000] = 0.00000	x [0.00038] = 0.00563
FSP-851	47	x [0.00030] = 0.01410	x [0.00000] = 0.00000	x [0.00030] = 0.01410
FST-851	15	x [0.00030] = 0.00450	x [0.00000] = 0.00000	x [0.00030] = 0.00450
DNR	6	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.00000] = 0.00000
FSP-851R	6	x [0.00030] = 0.00180	x [0.00000] = 0.00000	x [0.00030] = 0.00180
RTS151	6	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.00000] = 0.00000
FMM-1	27	x [0.00035] = 0.00945	x [0.00000] = 0.00000	x [0.00035] = 0.00945
FMM-101	2	x [0.00035] = 0.00070	x [0.00000] = 0.00000	x [0.00035] = 0.00070
FRM-1	17	x [0.00026] = 0.00434	x [0.00000] = 0.00000	x [0.00026] = 0.00434
SLC Loop Device Activation Current	1	x [0.00000] = 0.00000	x [0.40000] = 0.40000	x [0.00000] = 0.00000
<b>Total (Amperes):</b>		<b>1.4015 A</b>	<b>1.8150 A</b>	<b>1.3915 A</b>

Part Number	Qty	Secondary Alarm
Total Primary Alarm Load - C2	1	x [1.81500] = 1.81500
CPS-24	1	x [0.04000] = 0.04000
<b>Total (Amperes):</b>		<b>1.8550 A</b>