

## MS-9200UDLS Rev.3 Battery Calculation

### Secondary Power Source Requirements

Device Type	Standby Current (amps)				Secondary Alarm Current (amps)			
	Qty	x	Current Draw	= Total	Qty	x	Current Draw	= Total
Main Circuit Board	1	x	0.145000	= 0.145000	1	x	0.275000	= 0.275000
XRM-24B	1	x	0.000000	= 0.000000	1	x	0.000000	= 0.000000
4XTMF	0	x	0.005000	=	0	x	0.011000	=
IPDACT-2	0	x	0.093000	=	0	x	0.136000	=
IPDACT-2UD	0	x	0.098000	=	0	x	0.155000	=
<b>ANN-BUS Devices</b>								
ANN-80(-W)	1	x	0.015000	= 0.015000	1	x	0.040000	= 0.040000
ANN-LED	0	x	0.028000	=	0	x	0.068000	=
ANN-RLED	0	x	0.028000	=	0	x	0.068000	=
ANN-RLY	0	x	0.015000	=	0	x	0.075000	=
ANN-I/O	0	x	0.035000	=	0	x	0.200000	=
ANN-S/PG	0	x	0.045000	=	0	x	0.045000	=
<b>ACS Annunciators</b>								
ACM-8RF	0	x	0.030000	=	0	x	0.158000	=
ACM-16ATF	0	x	0.040000	=	0	x	0.056000	=
ACM-32AF	0	x	0.040000	=	0	x	0.056000	=
AEM-16ATF	0	x	0.002000	=	0	x	0.018000	=
AEM-32AF	0	x	0.002000	=	0	x	0.018000	=
AFM-16ATF	0	x	0.040000	=	0	x	0.056000	=
AFM-32AF	0	x	0.040000	=	0	x	0.056000	=
AFM-16AF	0	x	0.025000	=	0	x	0.065000	=
LDM-32F	0	x	0.040000	=	0	x	0.056000	=
LDM-E32F	0	x	0.002000	=	0	x	0.018000	=
LCD-80F	0	x	0.025000	=	0	x	0.064000	=
<b>Resettable Power</b>								
4-Wire Smoke Detectors	0	x	0.000000	=	0	x	0.000000	=
<b>Addressable Devices</b>								
BEAM355	0	x	0.002000	=				
BEAM355S	0	x	0.002000	=				
BEAM1224	0	x	0.017000	=				
CP355	0	x	0.000300	=				
SD355	20	x	0.000300	= 0.006000				
SD355T	0	x	0.000300	=				
AD355	0	x	0.000300	=				
H355	0	x	0.000300	=				
H355R	1	x	0.000300	= 0.000300				
H355HT	1	x	0.000300	= 0.000300				
D350P	4	x	0.000300	= 0.001200				
D350RP	0	x	0.000300	=				
D350PL	0	x	0.000300	=				
D350RPL	0	x	0.000300	=				
D355PL	0	x	0.000300	=				
MMF-300	4	x	0.000400	= 0.001600				
MMF-300-10	0	x	0.003500	=				
MDF-300	4	x	0.000750	= 0.003000				
MMF-301	0	x	0.000375	=				
MMF-302	0	x	0.000270	=				
MMF-302-6	0	x	0.002000	=				
BG-12LX	11	x	0.000300	= 0.003300				
CMF-300	1	x	0.000390	= 0.000390				
CMF-300-6	0	x	0.002250	=				
CRF-300		x	0.000270	=				
CRF-300-6	0	x	0.001450	=				
I300	0	x	0.000400	=				
B501BH-2	0	x	0.001000	=				
B501BHT-2	0	x	0.001000	=				
B224RB	0	x	0.000500	=				
B224BI	0	x	0.000450	=				

B200SR	0	x	0.000500	=					
CDRM-300	4	x	0.001300	=	0.005200				
	Maximum alarm draw for all Addressable devices ----->								0.400000
EOLR-1	0	x	0.020000	=		0	x	0.020000	=
FCPS (Remote Sync)						0	x	0.021700	=
Miscellaneous Device 1	0	x	0.000000	=		0	x	0.000000	=
Miscellaneous Device 2	0	x	0.000000	=		0	x	0.000000	=
Miscellaneous Device 3	0	x	0.000000	=		0	x	0.000000	=
Miscellaneous Device 4	0	x	0.000000	=		0	x	0.000000	=
Miscellaneous Device 5	0	x	0.000000	=		0	x	0.000000	=
NAC 1						1	x	0.825000	= 0.825000
NAC 2						1	x	0.472000	= 0.472000
NAC 3						1	x	0.857000	= 0.857000
NAC 4						1	x	0.714000	= 0.714000
Current Draw from TB3			0.000000	=				0.000000	=
<b>Total Standby Load</b>					<b>0.181290</b>	<b>Total Alarm Load</b>			<b>3.583000</b>

## MS-9200UDLS Rev.3 Battery Calculation

### Calculation in Total Sheet

		<b>Required Standby Time in Hours</b>			
		24 Hours			
<b>Standby Load Current</b>	<b>0.18129 Amps</b>	x	24	=	4.351 AH
		<b>Required Alarm Time in Minutes</b>			
		5 Minutes			
<b>Alarm Load Current (Amps)</b>	<b>3.58300 Amps</b>	x	0.084	=	0.301 AH
<b>Total Current Load</b>					<b>4.652 AH</b>
Multiply by the Derating Factor			1.2	=	x 1.20
<b>Total Ampere Hours Required</b>					<b>5.58 AH</b>

<b>Recommended Batteries:</b>	<b>BAT-1270 - 7AH Batteries</b>
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<b>Battery Check</b>	
The batteries can be charged by the MS-9200UDLS Charger.	
The batteries can be housed in the MS-9200UDLS Cabinet.	

<b>Current Draw Check</b>	
NAC#1 current is within the limitations of the circuit.	
NAC#2 current is within the limitations of the circuit.	
NAC#3 current is within the limitations of the circuit.	
NAC#4 current is within the limitations of the circuit.	
MS 9200UDLS Control Panel:	
The output current is within the panel's limitations.	