CWS1 CP-3600 NAC VOLTAGE DROPS

WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 75 Celsius

											PID	GEC3-24WR	GEC3-24WR
											Setting	15cd	110cd
											Device Type	MC A/V	MC A/V
											Supv. Current	0.0000	0.0000
											Alarm Current	0.0770	0.2560
											Alarm Current @ 23 Volts	0.0770	0.2560
NOTIFICATION CIRCUIT DESCRIPTION	Plan Ckt.	Dist. (D) Feet	Wire Gauge	Wire Res. / Ft. (R)	Total Alarm (A)	V. Drop (A*2D*R)	Volt @ End	% Volt Drop	Min Device Voltage	Max Distance			
SECOND & THIRD FLOOR CKT	AR-5 V1-1	40	14ga	0.0031	0.333	0.107	19.393	19.19%	16vdc	1710 Ft.	1	1	
SPARE	AR-5 V1-2		14ga	0.0031	0.000	0.000	19.500	18.75%	16vdc	0 Ft.			

AR-5 REPEATER BATTERY CALC

Module	Qty	Description		Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment							
AR-5	1	CWSI WIRELESS REPEATER		0.030000	0.030000	0.180	0.180000
				Total Panel Stby	0.030000	Total Panel Alarm	0.180000
Mult-Candela Strobes (Select Candella Rating)							
GEC3-24WR	1	GENTEX HORN STROBE	15cd	0.000000	0.000000	0.077	0.077000
GEC3-24WR	1	GENTEX HORN STROBE	110cd	0.000000	0.000000	0.256	0.256000
				Total Periph Stby	0.000	Total Periph Alarm	0.333
				Total Standby Amps	0.030	Total Alarm Amps	0.513

* Additional Current Draw Included Below With Device Addresses Used
1. 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.

Battery Calculations			Standby Current		Alarm Current
Control Panel Card Power			0.030		0.180
Power For External Peripheral Devices			0.00000		0.33300
			0.030	<-- Totals -->	0.513
Additional Battery Capacity Required	0%		0.000		0.000
Standby Time =	24	Hrs	0.720	Standby Ah	
Alarm Time =	5	Mins.	0.043	Alarm Ah	
Standby + Alarm =			0.763		
Minimum Battery Required	BA-12V-4AHS		0.915	20% Safety Margin	

CWS1 CP-3600 NAC VOLTAGE DROPS

WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL ELECTRICAL CODE (UNCOATED SOLID COPPER WIRE) @ 75 Celsius

											PID	GEC3-24WR	GEC3-24WR	GEC3-24WR
											Setting	15cd	30cd	60cd
											Device Type	MC A/V	MC A/V	MC A/V
											Supv. Current	0.0000	0.0000	0.0000
											Alarm Current	0.0770	0.1020	0.1610
											Alarm Current @ 23 Volts	0.0770	0.1020	0.1610
NOTIFICATION CIRCUIT DESCRIPTION	Plan Ckt.	Dist. (D) Feet	Wire Gauge	Wire Res. / Ft. (R)	Total Alarm (A)	V. Drop (A*2D*R)	Volt @ End	% Volt Drop	Min Device Voltage	Max Distance				
FIRST FLOOR CKT	CP3600 V1-1	100	14ga	0.0031	0.544	0.397	19.103	20.40%	16vdc	1046 Ft.	1	3	1	
SPARE	CP3600 V1-2		14ga	0.0031	0.000	0.000	19.500	18.75%	16vdc	0 Ft.				

CP-3600 BATTERY CALC

Module	Qty	Description		Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment							
CP-3600	1	CWSI WIRELESS CONTROL FACP		0.100000	0.100000	0.250	0.250000
				Total Panel Stby	0.100000	Total Panel Alarm	0.250000
Mult-Candela Strobes (Select Candella Rating)							
GEC3-24WR	1	GENTEX HORN STROBE	15cd	0.000000	0.000000	0.077	0.077000
GEC3-24WR	3	GENTEX HORN STROBE	30cd	0.000000	0.000000	0.102	0.306000
GEC3-24WR	1	GENTEX HORN STROBE	60cd	0.000000	0.000000	0.161	0.161000
				Total Periph Stby	0.000	Total Periph Alarm	0.544
				Total Standby Amps	0.100	Total Alarm Amps	0.794

* Additional Current Draw Included Below With Device Addresses Used
1. 2-wire detector alarm current is included in the alarm current of the Initiating Device Circuit.

Battery Calculations			Standby Current		Alarm Current
Control Panel Card Power			0.100		0.250
Power For External Peripheral Devices			0.00000		0.54400
			0.100	<-- Totals -->	0.794
Additional Battery Capacity Required	0%		0.000		0.000
Standby Time =	24	Hrs	2.400	Standby Ah	
Alarm Time =	5	Mins.	0.066	Alarm Ah	
Standby + Alarm =			2.466		
Minimum Battery Required	BA-12V-7AHS		2.959	20% Safety Margin	

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DISTRICT 1 MT
3190 FALMOUTH ROAD
WESTBROOK, ME 04092
SERVICE 207-842-4440
PHONE 207-842-4440
FAX 207-842-4459

CWSI-735 WASHINGTON AVENUE

WASHINGTON AVENUE APARTMENTS
375 WASHINGTON AVENUE
SOUTH PORTLAND, ME 05104

ISSUE LOG					
MARK	DATE	CAD	CHK	DESCRIPTION	
				Revisions shown with triangle	

DRAWN BY:	DZONA
CHECKED BY:	SKALAFARSKI
ISSUE DATE:	1/12/17
JOB #:	
PROJECT #:	147:147426986

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SYSTEM:
FIRE ALARM SYSTEM

SHEET:
CALCULATIONS AND SCHEDULES

FA-601

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