



## Device Compatibility Document



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## Control Panel Circuit Specifications

### MP-12

Initiating Device Circuit Voltage: 8.6 - 12.2VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MP-24 and MP242FC

Initiating Device Circuit Voltage: 18 - 26.2VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Waved Rectified

### MS-124

Initiating Device Circuit Voltage: 18 - 26.4VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-2/MS-2E, MS-4/MS-4E

Initiating Device Circuit Voltage: 17.3 - 24.6  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified (Special Application)

### MS-424A

Initiating Device Circuit Voltage: 18 - 25.2VDC  
Max Detector Circuit Standby Current: 2.5mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-2410B

Initiating Device Circuit Voltage: 18.62 - 25.43 VDC  
Max Detector Circuit Standby Current: 2.0 mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-4012

Initiating Device Circuit Voltage: 8.62 - 12.7VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-4024

Initiating Device Circuit Voltage: 18 - 26.3VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-4424, MRP-4424, and MS-4424B

Initiating Device Circuit Voltage: 17.5 - 26.5VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-4412B

Initiating Device Circuit voltage: 8.8V - 13.62VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-5012

Initiating Device Circuit Voltage: 8.6 - 13.5VDC  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-5024 and MS-5024UD

Initiating Device Circuit Voltage: 17.1 - 25.0 VDC  
Max Detector Circuit Standby Current: 2.0 mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-5210UD

Initiating Device Circuit Voltage: 17.9 - 26.4 VDC  
Max Detector Circuit Standby Current: 2.0 mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-9200/AMS-9200 (M302, MMF-302)

Initiating loop voltage: 16 - 27.5 VDC  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### MS-9200UD/MS-9200UDE/MS-9200UDLS/ MS-9200UDLSE/MS-9200UDLSC (M302, MMF-302)

Initiating loop voltage: 19.05 - 25.18 VDC  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified (Special Application)

### MS-9600/MS-9600E (M302, MMF-302)

Initiating loop voltage: 16 - 27.5 VDC  
Compatibility Identifier: "A"  
NAC Power: Filtered

### MS-9050UD, MS-9050UDE (M302, MMF-302)

Initiating loop voltage: 18.75 - 26.1 VDC  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

### S200 (IZ-4F / IZ-4AF / IZ-8F)

#### Canada Only

Initiating Device Circuit Voltage: 17 - 26.5VDC  
Max Detector Circuit Standby Current: 2.5mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified

### S1000

Initiating Device Circuit Voltage: 18 - 25.7VDC  
Max Detector Circuit Standby Current: 2.5mA/circuit  
NAC Power: Full Wave Rectified

### S2000 (IZ-4F / IZ-4AF / IZ-8F)

Initiating Device Circuit Voltage: 17 - 26.5VDC  
Max Detector Circuit Standby Current: 2.5mA/circuit  
Compatibility Identifier: "A"  
NAC Power: MPS-24A Filtered

### MS-5UD-3(E), MS-10UD-3(E)

Initiating Device Circuit Voltage: 15.98 - 21.47  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Full Wave Rectified (Special Application)

**MS-5UD-7(E), MS-10UD-7(E), MS-5UD-7C,  
MS-10UD-7C**  
Initiating Device Circuit Voltage: 17.18 - 20.48  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

**MRP-2001(E), MRP-2002(E)**  
Initiating Device Circuit Voltage: 17.18 - 20.48  
Max Detector Circuit Standby Current: 2.0mA/circuit  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

## Accessories Circuit Specifications

**ECC-50/100(E)**  
**Emergency Command Center**  
NAC Power: Filtered (Special Application, Regulated)  
Nominal operating voltage: 24 VDC  
Maximum signaling current for special application power:  
2.0 amps  
Maximum signaling current for regulated power: 200 mA

**411-UDAC**  
**Universal Digital Alarm Communicator**  
Compatibility Identifier: "A"  
PCA Board Revision: All  
Max Detector Circuit Standby Current: 2.0mA/ckt  
Initiating Device Circuit Voltage: 8.6 - 13.5VDC  
NAC Power: Full Wave Rectified (Special App)  
PCB Board Revision: Revision E  
Max Detector Circuit Standby Current: 1.8mA/ckt  
Initiating Device Circuit Voltage: 8.5 - 13.1VDC  
NAC Power: Filtered (Special Application)  
PCB Board Revision: Revision F or later  
Max Detector Circuit Standby Current: 2.0mA/ckt  
Initiating Device Circuit Voltage: 10.3 - 12.6VDC  
NAC Power: Filtered (Special Application)  
Revision level can be found on lower right edge of board

**ES-50X, ES-50XC**  
Initiating loop voltage: 20.13 – 28.13V  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

**ES-200X, ES-200XC**  
Initiating loop voltage: 20.13 – 28.13V  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

**APS-6RF**  
**Auxiliary Power Supply**  
Use with the S-2000 control panels  
NAC Power: Filtered

**AVPS-24F**  
**Audio Visual Power Supply**  
Use with the S-2000 control panels  
NAC Power: Full Wave Rectified

**FCPS-24F**  
**Field Charger Power Supply**  
Input voltage: 9 to 32VDC  
Notification Circuit output: 19.1 to 26.4VDC  
NAC Power: Filtered

**FCPS-2404**  
**Field Charger Power Supply**  
Input Voltage 9 to 32 VDC  
NAC Power: Filtered

**FCPS-24FS6(E)(C), FCPS-24FS8(E)(C)**  
**Field Charger Power Supply**  
Input Voltage 9 to 32 VDC  
NAC Power: Filtered (Special Application)

## Fire Alarm Equipment – Controls & Systems Tested to ANSI Standards By Factory Mutual

**MS-9050UD, MS-9050UDE(M302, MMF-302)**  
Initiating loop voltage: 18.75-26.1 VDC  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

**MS-9600LS(E), MS-9600UDLS(E) (M302, MMF-302)**  
Compatibility Identifier: "A"  
NAC Power: Filtered (Special Application)

## Compatible Two-Wire Smoke Detectors

### Various Manufacturers

Model	Detector ID	Detector Type	Base Model	Base ID	Standby Current (uA)
Detection Systems DS200	A	Photoelectric	MB200-2W	A	200
Detection Systems DS200HD	A	Photo / Thermal	MB200-2W	A	200

Model	Detector ID	Detector Type	Base Model	Base ID	Standby Current (uA)
Edwards 6250B	001	Ionization	6251B-001	001	50
Edwards 6264B	001	Ionization	N/A	N/A	50
Edwards 6270B	001	Photoelectric	6251B-00	001	65
Fenwal CPD-7021	I1FE1	Duct	70-211002-000	D22FE1	60
Fenwal CPD-7021	I1FE1	Ionization	70-201000-001 70-201000-002 70-201000-003 70-201000-005	FEO1A FEO2A FEO3A FEO5A	60
Fenwal PSD-7125	P5FE1	Photoelectric	70-201000-001 70-201000-002 70-201000-003 70-201000-005	FEO1A FEO2A FEO3A FEO5A	100
Fenwal PSD-7126	P6FE1	Photo / Thermal	70-201000-001 70-201000-002 70-201000-003 70-201000-005	FEO1A FEO2A FEO3A FEO5A	100
Fenwal PSD-7129	P9FE1	Duct	70-211002-000	D22FE1	100
Fire-Lite LPSD-12	HD-4	Photo	BLP-12	HB-80	200
Fire-Lite LPSD-12	HD-4	Photo	BLP-12-R	HB-83	200
Simplex 2098-9201	HD-3	Photoelectric	2098-9211	HB-54	45
Simplex 2098-9202	HD-3	Photoelectric	2098-9211	HB-54	45
Simplex 2098-9576	HD-3	Ionization	2098-9211	HB-54	40
System Sensor 2W-B	A	Photoelectric I <sup>3</sup>	N/A	N/A	100
System Sensor 2WT-B	A	Photoelectric I <sup>3</sup>	N/A	N/A	100
System Sensor 1100/D	A	Ionization	N/A	N/A	100
System Sensor 1151	A	Ion	B401 / B110LP / B116LP	A	120
System Sensor 1400	A	Ion	N/A	N/A	100
System Sensor 1451	A	Ion	B401B / B406B / B110LP / B116LP	A	120
System Sensor 1451DH	A	Ion	DH-400	A	120
System Sensor 1800	A	Ion	N/A	N/A	120
System Sensor 1851B	A	Ion	B101B / B107B	A	120
System Sensor 1851DH	A	Ion	DH1851DC	A	120
System Sensor 2151	A	Photo	B401 / B110LP / B116LP	A	120
System Sensor 2300T	A	Photo / Therm.	N/A	N/A	120
System Sensor 2400	A	Photo	N/A	N/A	120
System Sensor 2400AIT	A	Photo / Iso. Therm. / Horn	N/A	N/A	120
System Sensor 2400AT	A	Photo / Therm. / Horn	N/A	N/A	120
System Sensor 2400TH	A	Photo / Therm.	N/A	N/A	120
System Sensor 2451	A	Photo	B401B / B406B / DH-400 / B110LP / B116LP	A	120
System Sensor 2451TH	A	Photo / Therm.	B401B / B406B / B110LP / B116LP	A	120
System Sensor 2800	A	Photo	N/A	N/A	120
System Sensor 2800TH	A	Photo / Therm.	N/A	N/A	120
System Sensor 2851B	A	Photo	B101B / B107B	A	120

Model	Detector ID	Detector Type	Base Model	Base ID	Standby Current (uA)
System Sensor 2851BTH	A	Photo / Therm.	B101B / B107B	A	120
System Sensor 2851DH	A	Photo	DH2851DC	A	120
System Sensor 2100/D/S	A	Photoelectric	N/A	N/A	100
System Sensor 2100T/D/S	A	Photoelectric	N/A	N/A	100
System Sensor DH100P	A	Photoelectric	N/A	N/A	120
System Sensor DH100LP	A	Photoelectric	N/A	N/A	120
System Sensor 2WTA-B	A	Photoelectric	N/A	N/A	100
System Sensor 2WTAR-B	A	Photoelectric	N/A	N/A	100

## Maximum Number of Detectors per Zone

When using two-wire smoke detectors containing supplementary relays or indicators, the operation of more than one detector per zone cannot be ensured.

## System Sensor

System Sensor & Fenwal Detectors can be mixed or matched in any zone, provided maximum detector standby current per loop is not exceeded.

Detector Model Number	Base Model Number	MP-12	MP-24	MS-124	MS-424A	MS-2410B
1100/D	N/A	20	20	N/A	N/A	20
1151	B401/B110LP/B116LP	16 / 16 / N/A	16 / 16 / 1	N/A	N/A	16 / 16 / 1
1400	N/A	16	16	16	20	20
1451	B401B / B406B / B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	16 / 1 16 / 1
1451DH	DH-400	16	16	16	20	16
1851DH	DH1851DC	16	16	16	20	16
2100/D/S	N/A	16	16	N/A	N/A	20
2100T/D/S	N/A	16	16	N/A	N/A	20
2151	B401 / B110LP / B116LP	16 / 16 / N/A	16 / 16 / 1	N/A	N/A	16 / 16 / 1
2300T	N/A	16	16	16	20	16
2400	N/A	16	16	16	20	16
2400AIT	N/A	N/A	1	1	1	1
2400AT	N/A	N/A	1	1	1	1
2400TH	N/A	16	16	16	20	16
2451	B401B / B406B / B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	16 / 1 16 / 1
2451	DH-400	16	16	16	20	16
2451TH	B401B / B406B / B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	16 / 1 16 / 1
2851DH	DH2851DC	16	16	16	20	16
1800	N/A	N/A				
1851B	B101B	N/A				
1851B	B107B	N/A				
2800	N/A	N/A				
2800TH	N/A	N/A				
2851B	B101B	N/A				
2851B	B107B	N/A				
2851BTH	B101B	N/A				
2851BTH	B107B	N/A				

Detector Model Number	Base Model Number	MP-12	MP-24	MS-124	MS-424A	MS-2410B
DH100P	N/A	20	20	N/A	N/A	N/A
DH100LP	N/A	16	16	N/A	N/A	16

System Sensor Detectors - continued:

Model Number	Base Model	MS-4012	MS-4024	MS-4424 MS-4424B MRP-4424	MS-4412B	MS-5012 411-UDAC (PCA revision)	411-UDAC (PCB revision)	
1100/D	N/A	N/A	N/A	20	20	20	N/A	
1151	B401 / B110LP / B116LP	16 / 16 / N/A	16 / 16 / 1	15 / 15 / 1	16 / 16 / N/A	16 / 16 / N/A	16 / 16 / N/A	
1400	N/A	16	16	20	20	16	20	
1451	B401B / B406B / B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	15 / 1 15 / 1	16 / N/A 16 / N/A	16 / N/A 16 / N/A	16 / N/A N/A / N/A	
1451DH	DH-400	16	16	15	16	16	16	
1851DH	DH1851DC	16	16	15	16	16	N/A	
2100/D/S	N/A	N/A	N/A	16	16	16	20 / N/A / 20	
2100T/D/S	N/A	N/A	N/A	16	16	16	20 / N/A / 20	
2151	B401 / B110LP / B116LP	16 / 16 / N/A	16 / 16 / 1	15 / 15 / 1	16 / 16 / N/A	16 / 16 / N/A	16 / 16 / N/A	
2300T	N/A	16	16	15	16	16	16	
2400	N/A	16	16	15	16	16	16	
2400AIT	N/A	N/A	1	1	N/A	N/A	N/A	
2400AT	N/A	N/A	1	1	N/A	N/A	N/A	
2400TH	N/A	N/A	16	15	16	16	16	
2451	B401B / B406B B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	15 / 1 15 / 1	16 / N/A 16 / N/A	16 / N/A 16 / N/A	16 / N/A N/A / N/A	
2451	DH-400	16	16	15	16	16	16	
2451TH	B401B / B406B B110LP / B116LP	16 / N/A 16 / N/A	16 / 1 16 / 1	15 / 1 15 / 1	16 / N/A 16 / N/A	16 / N/A 16 / N/A	16 / N/A N/A / N/A	
2851DH	DH2851DC	16	16	15	16	16	N/A	
1800	N/A	N/A						
1851B	B101B	N/A						
1851B	B107B	N/A						
2800	N/A	N/A						
2800TH	N/A	N/A						
2851B	B101B	N/A						
2851B	B107B	N/A						
2851BTH	B101B	N/A						
2851BTH	B107B	N/A						
DH100P	N/A	N/A	N/A	20	20	20	16	
DH100LP	N/A	N/A	N/A	16	16	N/A	N/A	
2W-B	N/A	N/A						20
2WT-B	N/A	N/A						20

System Sensor Detectors - continued:

Model Number	Base Model	MS-5024 MS-5024UD MS-5210UD	MS-2 MS-4 MS-5UD MS-10UD MRP-2001 MRP-2002	M-302 MMF-302	S1000	S200 S2000
2W-B	N/A	N/A	16	20	N/A	N/A

Model Number	Base Model	MS-5024 MS-5024UD MS-5210UD	MS-2 MS-4 MS-5UD MS-10UD MRP-2001 MRP-2002	M-302 MMF-302	S1000	S200 S2000
2WT-B	N/A	N/A	16	20	N/A	N/A
1100/D	N/A	20	20	24	N/A	25
1151	B401 / B110LP / B116LP	16 / 16 / 1	16/16/1	20 / 20 / 1	N/A	20 / 20 / 1
1400	N/A	20	20	24	20	25
1451	B401B / B406B / B110LP / B116LP	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	20 / 1 20 / 1	20 / 1 20 / 1
1451DH	DH-400	16	16	20	20	20
1800	N/A	N/A	N/A	24	N/A	
1851B	B101B	N/A	N/A	20	N/A	
1851B	B107B	N/A	N/A	1	N/A	
1851DH	DH1851DC	16	16	20	20	20
2100/D/S	N/A	16	16	20	N/A	20
2100T/D/S	N/A	16	16	20	N/A	20
2151	B401 / B110LP / B116LP	16 / 16 / 1	16/16/1	20 / 20 / 1	N/A	20 / 20 / 1
2300T	N/A	16	16	20	20	20
2400	N/A	16	16	20	20	20
2400AIT	N/A	1	1	1	1	1
2400AT	N/A	1	1	1	1	1
2400TH	N/A	16	16	20	20	20
2451	B401B / B406B / B110LP / B116LP	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	20 / 1 20 / 1	20 / 1 20 / 1
2451	DH-400	16	16	20	20	20
2451TH	B401B / B406B / B110LP / B116LP	16 / 1 16 / 1	16 / 1 16 / 1	20 / 1 20 / 1	20 / 1 20 / 1	20 / 1 20 / 1
2800	N/A	N/A	N/A	20	N/A	
2800TH	N/A	N/A	N/A	20	N/A	
2851B	B101B	N/A	N/A	20	N/A	
2851B	B107B	N/A	N/A	1	N/A	
2851BTH	B101B	N/A	N/A	20	N/A	
2851BTH	B107B	N/A	N/A	1	N/A	
2851DH	DH2851DC	16	16	20	20	20
DH100P	N/A	20	16	24	N/A	25
DH100LP	N/A	16	16	20	N/A	20
2WTA-B	N/A	N/A	1	N/A	N/A	N/A
2WTAR-B	N/A	N/A	1	N/A	N/A	N/A

## Fenwal

Fenwal & System Sensor Detectors can be mixed or matched in any zone, provided maximum detector standby current per loop is not exceeded.

Detector Model Number	Base Model Number	MP-24	MS-124	MS-424A	MS-4024	MS-4424 MS-4424B MRP-4424
CPD-7021	70-201000-001 70-201000-002 70-201000-003 70-201000-005	33	33	40	30	30
CPD-7021	70-211002-000	1	1	1	1	1



Detector Model Number	Base Model Number	MP-24	MS-124	MS-424A	MS-4024	MS-4424 MS-4424B MRP-4424
PSD-7125	70-201000-001 70-201000-002 70-201000-003 70-201000-005	20	20	25	20	20
PSD-7126	70-201000-001 70-201000-002 70-201000-003 70-201000-005	20	20	25	20	20
PSD-7129	70-211002-000	1	1	1	1	1

Detector Model Number	Base Model Number	MS-5024 MS-5024UD MS-5210UD	M-302 MMF-302	S1000	S200 S2000
CPD-7021	70-201000-001 70-201000-002 70-201000-003 70-201000-005	25	40	40	41
CPD-7021	70-211002-000	1	1	1	1
PSD-7125	70-201000-001 70-201000-002 70-201000-003 70-201000-005	20	24	25	25
PSD-7126	70-201000-001 70-201000-002 70-201000-003 70-201000-005	20	24	25	25
PSD-7129	70-211002-000	1	1	1	1

### Fire•Lite Detectors

Only those control panels listed allow for the use of these detectors.

Detector Model Number	Base Model Number	MP-12	MS-4012	MS-5012 411-UDAC (PCA revision)	MS-4412B
LPSD-12	BLP-12	N/A	N/A	11	11
LPSD-12	BLP-12-R	11	11	11	11

### Edwards Detectors

Only those control panels using the monitor modules listed allow for the use of these detectors.

Detector Model Number	Base Model Number	M-302 MMF-302
6250B	6251B-001	20
6264B	N/A	1
6270B	6251B-001	20

## Simplex Detectors

Only those control panels using the monitor modules listed allow for the use of these detectors.

Detector Model Number	Base Model Number	M-302 MMF-302
2098-9201	2098-9211	20
2098-9202	2098-9211	20
2098-9576	2098-9211	20

## Detection Systems Detectors

Only those control panels listed allow for the use of these detectors.

Detector Model Number	Base Model Number	MP-24	MS-124	MS-424A	MS-4024	S1000
DS200	MB200-2W	10	10	15	10	15
DS200HD	MB200-2W	10	10	15	10	15

## Four-Wire Smoke Detectors/Devices

Smoke Detector/Base	Detector Type	Max Standby Current (mA)	Alarm Current (mA)
Fenwal CPD-7021 (w/70-201000-005 Base)	Ionization	0.10	*
Fenwal PSD-7125	Photoelectric	0.10	*
Fenwal PSD-7126 (w/70-201000-005 Base)	Photoelectric	0.10	*
Fire-Lite BLP-12-4W	Base	*	*
Gentex 824 <sup>†</sup>	Photoelectric	0.50	*
Gentex 824T <sup>†</sup>	Photoelectric	0.50	*
Gentex 824CP <sup>†</sup>	Photoelectric	0.50	*
Gentex 824CPT <sup>†</sup>	Photoelectric	0.50	*
Hochiki HSC-4R <sup>†</sup>	Base	*	*
Hochiki SPB-24 <sup>†</sup>	Projected Beam	0.25	*
System Sensor B112LP	Base	0.12	36
System Sensor B114LP	Base	*	*
System Sensor B404B	Base	*	*
System Sensor DH100ACDC	Photoelectric	0.15	0.70
System Sensor DH100ACDCLP	Photoelectric	0.15	0.70
System Sensor DH100ACDCLWP	Photoelectric	0.15	0.70
System Sensor DH400ACDCI <sup>†</sup>	Ionization Duct	25	95
System Sensor DH400ACDCP <sup>†</sup>	Photoelectric Duct	25	95
System Sensor 1112/24/D	Ionization	0.05	50
System Sensor 1424	Ionization	0.10	41
System Sensor 1451 (w/ B402B/B112LP Base)	Ionization	0.10	39
System Sensor 2112/24ATR	Photoelectric	0.50	60/70
System Sensor 2112/24AIR	Photoelectric	0.50	60/70
System Sensor 2112/24/D	Photoelectric	0.05	50
System Sensor 2112/24R	Photoelectric	0.50	60/70
System Sensor 2112/24TR	Photoelectric	0.50	60/70

Smoke Detector/Base	Detector Type	Max Standby Current (mA)	Alarm Current (mA)
System Sensor 2112/24T/D	Photoelectric w/135° Thermal	0.05	50
System Sensor 2112/24TSRB	Photoelectric w/135° Thermal Supervisory Relay	15	45
System Sensor 2312/24TB	Photoelectric	0.12	50
System Sensor 2412 (12 volt)	Photoelectric	0.12	77
System Sensor 2412AT (12 volt)	Photoelectric	0.12	58
System Sensor 2412TH (12 volt)	Photoelectric	0.12	77
System Sensor 2424†	Photoelectric	0.10	41
System Sensor 2424TH†	Photoelectric	0.10	41
System Sensor 2451	Photoelectric	0.10	39
System Sensor 2451TH (with B402B/B112LP Base)	Photoelectric	0.10	39
System Sensor 2W-MOD	Loop Test/Maintenance Mod.	30	50
System Sensor 4W-B (12/24 Volt)	Photoelectric I <sup>3</sup>	.05	23
System Sensor 4WT-B (12/24 Volt)	Photoelectric I <sup>3</sup> w/Therm	.05	23
System Sensor 4WTA-B (12/24 Volt)	I <sup>3</sup> Photo w/ Therm/Sounder	.05	35
System Sensor 4WTR-B (12/24 Volt)	I <sup>3</sup> Photo w/ Therm/Relay	.05	35
System Sensor 4WTAR-B (12/24 Volt)	I <sup>3</sup> Photo w/ Therm/Sounder/Relay	.05	50
System Sensor 4WITAR-B (12/24 Volt)	I <sup>3</sup> Photo w/ IsolatedTherm/Sounder/Relay	.05	50
System Sensor 2W-MOD2	I <sup>3</sup> Loop Test/Maintenance Mod.	.05	*
System Sensor RRS-MOD	I <sup>3</sup> Reversing Relay/Sync Module	.05	*
System Sensor 6424†	Projected Beam	10	28.4
System Sensor Beam 1224(S)	Projected Beam	17	38.5

\* Contact manufacturer for current draws

† Not Compatible with the MS-2410B

## Notification Appliances

Control panels with Notification circuits supplied by Special Application power must use appliances listed in this table.

- Refer to manufacturer's installation instructions for more information.
- Contact manufacturer for current draws or additional options

## System Sensor - 12VDC

Use only 12VDC devices with 12 volt control panels.

MODEL NUMBER & NOMENCLATURE (System Sensor)
CH12/24 Electronic Chime/Sounder
H12 SpectraAlert Horn
MA-12/24D Electronic Sounder
MA12/24EH Multi Alert Horn with Mechanical Tone
MAEH1215ADA, MAEH121575ADA Multi Alert Horn with Mechanical Tone/Strobe
MASS12D, MASS12LO Electronic Sounder/Strobe
MASS1215ADA, MASS121575ADA Sounder/Signaling Strobe
MDL / MDLW Sync Modules for use with SpectraAlert series
PA400R, PA400W, PA400B, H12/24

PS12LO Add-on Strobe
P1215, P121575 SpectrAlert Horn/Strobe
RP1215ADA, RP121575ADA Retrofit Strobe Plate
SS12, SS12LO Strobe
S1215, S121575 SpectrAlert Strobe
SS1215ADA, SS121575ADA Signaling Strobe

## System Sensor - 24VDC

Use only 24VDC devices with 24 volt control panels.

MODEL NUMBER & NOMENCLATURE (System Sensor)
CH12/24 Electronic Chime/Sounder
CH2415, CH241575, CH2475, CH24110 SpectrAlert Chime with Strobe
MA-12/24D Electronic Sounder
MA12/24EH Multi Alert Horn with Mechanical Tone
MAEH24LO, MAEH24LOC, MAEH24LOLA, MAEH24M, MAEH24MC, MAEH2415ADA, MAEH2475ADA, MAEH241575ADA, MAEH24110ADA, MAEH2415ADAS, MAEH241575ADAS Multi Alert Horn with Mechanical Tone/Strobe
MASS24D, MASS24LO, MASS24M Electronic Sounder/Strobe
MASS24LOC, MASS24MC Electronic Ceiling Sounder/Strobe
MASS24LOLA Electronic Sounder/Strobe with Fuego lens
MASS2415ADA, MASS2475ADA, MASS24110ADA, MASS241575ADA Sounder/Signaling Strobe
MASS2415ADAS, MASS241575ADAS Sounder/Signaling Strobe w/ Synch. Ckt.
MDL / MDLW Sync Modules for use with SpectraAlert series
P2415, P241575, P2430, P2475, P24110 SpectrAlert Horn/Strobe
PA400R, PA400W, PA400B Sounder
PC24115, PC24177 SpectrAlert Ceiling Mount Horn/Strobe
PS24LO Add-on Strobe
RP2415ADA, RP241575ADA, RP2475ADA, RP24110ADA Retrofit Strobe Plate
S2415, S241575, S2430, S2475, S24110 SpectrAlert Strobe
SC24115, SC24177 SpectrAlert Ceiling Mount Strobe
SP100W24LOC, SP100W24MC Ceiling Speaker/Strobe, 8" round grille
SP101R24LO, SP101R24M Speaker/Strobe, 5" square grille
SP2C24115, SP2C24177 SpectrAlert Ceiling Mount Speaker Strobe
SP2C2415, SP2C2430, SP2C2415/75, SP2C2475, SP2C24110 SpectrAlert Speaker Strobe
S1224MC, P1224MC, SP1224MC SpectrAlert Strobe
SS24, SS24LO, SS24M, Strobe
SSM24-6, SSM24-8, SSM24-10 Alarm Bell
SS24LOC, SS24LOBC(beige), SS24MC Ceiling Strobe
SS2415ADA, SS2475ADA, SS24110ADA, SS241575ADA Signaling Strobe
SS2415ADAS, SS241575ADAS Signaling Strobe with Synch. Circuit
V4R2415ADA, V4R2475ADA, V4R24110ADA, V4R241575ADA Speaker/Signaling Strobe
SPH-15R, SC2415, SC241575, SC2430, SC2475, SC2495, PC2415, PC242575, PC2430, PC2475
PC2495, SP2C2415, SP2C242575, SP2C495

## System Sensor SpectrAlert Advance

System Sensor Spectralert Advance chimes, chime strobes, horns, horn strobes, and strobes base models: CHR, CHW, CHSR, CHSW, HR, HW, MDL3R, MDL3W, P2R, P2W, P2RH, P2WH, P4R, P4W, P4RH, P4WH, PC2R, PC2W, PC2RH, PC2WH, PC4R, PC4W, PC4RH, PC4WH, SCR, SCW, SCRH, SCWH, SR, SW, SRH, SWH, SW-ALERT, SWH-ALERT, MHR, MHW followed by suffixes denoting application (K=outdoor), market (A=Canada) and / or markings (P=Plain, SP=Spanish, FR=French, B=Bi-lingual and PG=Portugese).

System Sensor Spectralert Advance speakers and speaker strobes base models: SEP-SW, SEP-SPSW, SPR, SPW, SPRV, SPWV, SPSR, SPSR-P, SPSW, SPSW-P, SPSW-ALERT, SPSW-CLR-ALERT, SPSRH, SPSRH-P, SPSWH, SWSWH-P SPSRV, SPSWV, SPCR, SPCW, SPCRV, SPCWV, SPSCR, SPSCW, SPSCW-CLR-ALERT, SPSCW-P, SPSCRH, SPSCWH, SPSCWH-P, SPSCRV, SPSCWV, SPSCRVH and SPSCWVH followed by suffixes denoting application (K=outdoor), market (A=Canada) and/ or markings (P=Plain, SP=Spanish, FR=French, B=Bi-lingual and PG=Portugese).

System Sensor Spectralert Advance horns, horn strobes, speakers, and speaker strobes, also for use in low frequency (UL 464) applications: HR-LF, HW-LF, P2RH-LF, P2WH-LF, SPR, SPW, SPCR SPCW, SPSR, SPSRH, SPSW, SPSCR, SPSCW, SPSCHW, SPSCRH, SPSCW-CLR-ALERT, SPSCW-P, SPSCWH-P, SPSR-P, SPSRH-P, SPSW-ALERT, SPSW-CLR-ALERT, SPSW-P, SPSWH, SPSWH-P followed by suffixes denoting application (K=outdoor), market (A=Canada) and/ or markings (P=Plain, SP=Spanish, FR=French, B=Bi-lingual and PG=Portugese).

UL 864 8th Edition (All UL 864 8th Edition must use MDL Module)	UL 864 9th Edition	UL 864 10th Edition	Tested to ANSI Standards By Factory Mutual
MS-9200	MS-9200UD, MS-9200UDE, MS-9200UDLS, MS-9200UDLSE	ES-50X	MS-9600LS, MS-9600LSE, MS-9600UDLS. MS-9600UDLSE
MS-5210UD - 2 amps per NAC Maximum	MS-2/MS-2E, MS-4/MS-4E	ES-200X	MS-9050UD, MS-9050UDE
MS-5024UD	FCPS-24FS6(E), FCPS-24FS8(E)		
MS-4424	MS-9050UD, MS-9050UDE		
MS-2410B	MS-5UD-3(E), MS-10UD-3(E), MS-5UD-7(E), MS-10UD-7(E), MS-5UD-7C, MS-10UD-7C		
S-2000 (MPS-24AF) 2 amps max	MRP-2001(E), MRP-2002(E)		
MS-5012			

## System Sensor L Series

System Sensor L Series chimes, chime strobes, horns, horn strobes, and strobes base models: P2RL, P2WL, PC2RL, PC2WL, P4RL, P4WL, PC4RL, PC4WL, SRL, SWL, SWL-CLR-ALERT, SWL-ALERT, SCRL, SCWL, SCWL-CLR-ALERT, HWL, HRL, CHWL, CHRL, CHSRL, CHSWL, CHCSRL, CHCSWL, P2GRL, P2GWL, SGRL, SGWL, HGRL, HGWL followed by suffixes denoting market (A=Canada) and / or markings (P=Plain, SP=Spanish, F=French, and E=English).

System Sensor L Series speakers, speaker strobes, bezels, and backboxes for use in low frequency (UL 464) applications: SPCRL, SPCWL, SPRL, SPWL, SPSCRL, SPSCWL, SPSRL, SPSRL-SP, SPSWL, SPSCWL-P, SPSWL-P, SPSCWL-CLR-ALERT, SPSWL-ALERT, SPSWL-CLR-ALERT, BZSPR, BZSPW, BZSPRC, BZSPWC, SBBSPL, SBBSPL, SBBCRL, SBBCWL followed by suffixes denoting markings [A=Canada (E=English, F=French), F=Fire, P=Plain, AL=Alert, AG=Agent, EV=Evac, SP=Spanish, PG=Portugese].

System Sensor L Series Expander Plates: SEP-SPSWL (Speaker strobe expander, amber lens, white) and SEP-SPSWL-P (Speaker Strobe Expander, White, Plain).

UL 864 8th Edition (All UL 864 8th Edition must use MDL Module)	UL 864 9th Edition	UL 864 10th Edition	Tested to ANSI Standards By Factory Mutual
MS-9200	MS-9200UD, MS-9200UDE, MS-9200UDLS, MS-9200UDLSE	ES-50X	MS-9600LS, MS-9600LSE, MS-9600UDLS. MS-9600UDLSE

<b>UL 864 8th Edition (All UL 864 8th Edition must use MDL Module)</b>	<b>UL 864 9th Edition</b>	<b>UL 864 10th Edition</b>	<b>Tested to ANSI Standards By Factory Mutual</b>
MS-5210UD - 2 amps per NAC Maximum	MS-2/MS-2E, MS-4/MS-4E	ES-200X	MS-9050UD, MS-9050UDE
MS-5024UD	FCPS-24FS6(E), FCPS-24FS8(E)		
MS-4424	MS-9050UD, MS-9050UDE		
MS-2410B	MS-5UD-3(E), MS-10UD-3(E), MS-5UD-7(E), MS-10UD-7(E), MS-5UD-7C, MS-10UD-7C		
S-2000 (MPS-24AF) 2 amps max	MRP-2001(E), MRP-2002(E)		
MS-5012			

## Gentex - 12VDC

Use only 12VDC devices with 12 volt control panels.

<b>MODEL NUMBER &amp; NOMENCLATURE (Gentex)</b>
GX-90-2 Horn
GXS-2-15, GXS-2-1575 Strobe
GX90S-2-15 Horn with Strobe
GX90S-2-1575 Horn with Strobe
HG124 Electronic Horn
SHG12-15, SHG12-1575 Electronic Horn with Strobe

## Gentex - 24VDC

Use only 24VDC devices with 24 volt control panels.

<b>MODEL NUMBER &amp; NOMENCLATURE (Gentex)</b>
GEC-24-15, GEC-24-30, GEC-24-60, GEC-24-75, GEC-24-110, GEC-24-15/75W Horn/Strobe
GES-24-15, GES-24-30, GES-24-60, GES-24-75, GES-24-110, GES-24-15/75W Strobe
GMH-24 Electro-Mechanical Horn
GMS-24-15, GMS-24-15-1, GMS-24-110, GMS-24-110-1, GMS-24-1575-1, GMS-24-3075, GMS24-30W, GMS24-60W Electro-Mechanical Horn with Strobe
GOT-24 Multi-Tone Horn
GOS-24-15-1, GOS-24-110-1, GOS-24-1575-1, GOS-24-3075-1 Multi-Tone Horn/Strobe
GXS-4RH, GXS-4BH, GXS-4RL, GXS-4BL Strobes
GXS-4-15, GXS-4-15-1, GXS-4-1575, GXS-4-30, GXS-4-60, GXS-4-110, GXS-4-110-1, GXS-4-3075 Strobe
GX-90-4 Horn
GX-90S-4BH, GX-90S-4BL, GX-90S-4RL, GX-90S-4RH, GX-90S-4-15, GX-90S-4-15-1, GX-90S-4-110, GX-90S-4-110-1, GX-90S-4-1575 Horn with Strobe
HG124 Electronic Horn
HS24-15, HS24-15/75, HS24-30, HS24-60, HS24-110, HS24-110W, HS24-75W, HS24-60W, HS24-30W, Multi-Tone Horn/Strobe
SHG-24L, SHG-24H, SHG24-15, SHG24-15-1, SHG 24-60, SHG24-110, SHG24-110-1, SHG24-1575, SHG24-30, SHG24-60, SHG24-3075 Electronic Horn with Strobe
SPK4-15, SPK4-15-1, SPK4-1575, SPK4-110, SPK4-110-1, SPK4-24-3075 Speaker with Strobe
SPK8-15, SPK8-15-1, SPK8-1575, SPK8-110, SPK8-110-1B, SPK8-24-3075 Speaker with Strobe

<b>MODEL NUMBER &amp; NOMENCLATURE (Gentex)</b>
SPKE4, SPKE4-15-1, SPKE4-15/75, SPKE4-15/75-C SPKE4-30/75, SPKE4-60, SPKE4-110-1, SPKE4-60W, SPKE4-30W Speaker with Strobe
SPKE8, SPKE8-15-1, SPKE8-15/75, SPKE8-15/75-C, SPKE8-30/75, SPKE8-60, SPKE8-110-1, SPKE8-1575W, SPKE8-30W Speaker with Strobe
ST24-15, ST24-15/75, ST24-30, ST24-60, ST24-110, ST24-75W, ST24-110W, ST24-30W Strobe
WGMS-24-75 Weatherproof Electro-Mechanical Horn with Strobe

## Cooper-Wheelock - 12VDC

Use only 12VDC devices with 12 volt control panels.

<b>MODEL NUMBER &amp; NOMENCLATURE (Cooper-Wheelock)</b>
AMT-12/24 Multi-Tone Horn
AMT-12-LS-VFR, AMT-12-LSM-VFR Multi-Tone Horn Strobe
AS-1215, AS-1230, AS-121575 Audible Strobe
DSM-12/24 Dual Synchronization Module
LS1-12-VFR, LS1M-12-VFR Strobe
LSP-12-VFR, LSPM-12-VFR Strobe
MS1-12-VFR Strobe
MSP-12-VFR Strobe
MT-12/24-R MultiTone
NS-121575W-FR, NS4-121575W-FR Horn Strobe
RS-1215, RS-121575 Strobe
SM-12/24 Synchronization Module
AH-12-R,AH-12-W, AH-12WP-R, AS-12157SW-FR/FW, NH-12/24R/W

## Cooper-Wheelock - 24VDC

Use only 24VDC devices with 24 volt control panels.

<b>MODEL NUMBER &amp; NOMENCLATURE (Cooper-Wheelock)</b>
7002T-24 Horn with Strobe
AES-DL1-WM-24-VF-R, AES-EL1-WM-24-VF-R Multi-Tone Signals
AES-DL1-LSM-24, AES-EL1-LSM-24 Horn Strobe
AH-24, AH-24WP Horn
AMT-12/24 Multi-Tone Horn
AMT-24-IS-VFR, AMT-24-LS-VFR, AMT-24-LSM-VFR, AMT-241575-FR Multi-Tone Horn Strobe
AS-2415, AS-2430, AS-2430C, AS-2475, AS-24110, AS-241575 Audible Strobe
AS-2415W, AS-2430W, AS-2475W, AS-24110W, AS-241575W Horn/Strobe
AS-24MCW-FR/FW, AS-24MCC-FR/FW Multi-Candela Appliance
ASWP-2475W-FR/FW Weatherproof Audible Strobe
CH-CF1-IS-24-CFW, CH-CF1-LS-24-CFW, CH-CF1-MS-24-CFW Chime
CH-DF1-IS-24-VFR, CH-DF1-LS-24-VFR, CH-DF1-LSM-24-VFR, CH-DF1-MS-24-VFR Chime
CH70-24-R/W, CH90-24-R/W Chime
CH70-2415W, CH70-2430, CH70-2475, CH70-241575 Chime with Strobe
CH70-24MCW-FR/FW Multi-Candela Appliance
CH90-2475C, CH90-24100C Chime with Strobe
DSM-12/24 Dual Synchronization Module
EH-DL1-WM-24-VF-R, EH-EL1-WM-24-VF-R Electronic Horn Strobes

<b>MODEL NUMBER &amp; NOMENCLATURE (Cooper-Wheelock)</b>
HSW-24-HFR, HSPW-24-HFR, HS2W-HFR Strobe
IS-24-VFR, IS1-24-VFR, IS3-24-VFR Strobe
ISP-24-VFR Strobe
LS-24-VFR, LS1-24-VFR, LS1M-24-VFR LS3-24-VFR, LS3M-24-VFR Strobe
LSM-24-VFR Strobe
LSP-24-HFR, LSPM-24-VFR Strobe
MB-G6-24-R Motor Bell, 6" gong
MB-G10-24-R Motor Bell, 10" gong
MBS-G6-24-R Motor Bell/Strobe, 6" gong
MBS-G10-24-R Motor Bell/Strobe, 10" gong
MIZ-24 Mini Piezo Horn
MIZ-24-HSW-HFR, MIZ-24-IS-VFR, MIZ-24-LS-VFR, MIZ-24-LSM-VFR, MIZ-24-MS-VFR, MIZ-24-WM-VFR, MIZ-TC24-R, MIZ-TC24-W Mini-Horns Strobe
MS-24-VFR, MS1-24-VFR, MS3-24-VFR Strobe
MSP-24-HFR Strobe
MT-12/24-R MultiTone
MT-24-WM, MT-24-WM-VFR MultiTone Strobe 117cd
MT-24-IS-VFR, MT-24-LS-VFR, MT-24-LSM-VFR, MT-24-MS-VFR MultiTone Strobe
MT-24-SL-VFR, MT-24-SLM-VFR Multi-tone/Strobe
MT4-24-IS-VFR, MT4-24-LS-VFR, MT4-24-LSM-VFR, MT4-24-MS-VFR MultiTone Strobe
NS-2415W-FR, NS-2430W-FR, NS-2475W-FR, NS-24110W-FR, NS-241575W-FR Horn Strobe
NS4-2415W-FR, NS4-2430W-FR, NS4-2475W-FR, NS4-24110W-FR, NS4-241575W-FR, NS4-24MCW-FR, NS-24MCW-FW, NS-24MCW-FR Horn Strobe
RS-1230, RS-2415, RS-2430, RS-2475, RS-24110, RS-241575 Strobe
RS-2415W, RS-241575W Strobe
RSS-2415W, RSS-2415/75W, RSS-2430W, RSS-2475W, RSS-24110W Strobe
RSS-24MCW-FR/FW Strobe
RSS-2415-CR-FW, RSS-2430-CR-FW, RSS-2475-CR-FW, RSS-24100-CR-FW Strobe
RSS-24150-CR-FW, RSS-24177-CR-FW Strobe
RSSP-24MCW-FR/FW strobe
RSSP-2415W, RSSP-2415/75W, RSSP-2430W, RSSP-24185W Strobe
SCM-24-R Synchronized Controller Module
SHW-24-HFR, SH2W-24-HFR, SHPW-24-HFR Strobe
SL-24-VFR, SL1-24-VFR, SL3-24-VFR, SLP-24-VFR Strobe
SLM-24-VFR, SL1M-24-VFR, SL3M-24-VFR, SLPM-24-VFR Strobe
SM-12/24 Synchronization Module
SR-2415, SR-241575 Synchronized Strobe
WMT-24-FR, WM1T-24-FR, WM3T-24-FR Strobes
AS-24MCC-FW, CH90-24-MCC-FW, E90-24MCC-FW, ET90-24MCC-FW, HS-24-R/W
MIZ-24S-R/W, RSS-24MCC-FW, NH-12/24R/W
ZNH-R, ZNH-W, ZNS-MCC-FR, ZNS-MCC-FW, ZNS-MCCH-FR, ZNS-MCCH-FW, ZNS-MCW-FR
ZNS-MCW-FW, ZNS-MCWH-FR, ZNS-MCWH-FW, ZRS-MCC-FR, ZRS-MCC-FW, ZRS-MCCH-FR
ZRS-MCCH-FW, ZRS-MCW-FR, ZRS-MCW-FW, ZRS-MCWH-FR, ZRS-MCWH-FW
AMT-241575W-FR , AMT-241575W-FW, AS-241575W-FR , AS-241575W-FW, CH90-24MCC-FR
CH90-24MCC-FW, CSX10-24-R, CSXG10-24-R, DSM-12/24-R, HS-24-R , HS-24-W
HS4-241575W-FR, HS4-241575W-FW, HS4-24MCW-FR, HS4-24MCW-FW, HS4-24MCWH-FR



<b>MODEL NUMBER &amp; NOMENCLATURE (Cooper-Wheelock)</b>
HS4-24MCWH-FW, MT-24MCW-FR, MT-24MCW-FW, MT4-115-R, MT4-115-W,
MT4-115-WH-VFR, MTWP-2475W-FR, MTWP-2475W-FW, NS-24MCW-FR, NS-24MCW-FW
RSS-121575W-FR, RSS-121575W-FW, RSS-241575W-FR, RSS-241575W-FW, RSS-2415C-FR
RSS-2415C-FW, RSS-2475W-FR, RSS-2475W-FW , RSS-24MCC-FR, RSS-24MCC-FW,
RSS-24MCCH-FR , RSS-24MCCH-FW, RSS-24MCCHR-FR, RSS-24MCCHR-FW, RSS-24MCCR-FR
RSS-24MCCR-FW, RSSP-241575W-FR, RSSP-241575W-FW, RSSWP-2475W-FR, RSSWP-2475W-FW

### Cooper-Wheelock Exceder Series

HSR, HSW, STR, STW, HNR, HNW, HSRC, HSWC, STRC, STWC, HNRC, HNWC

Fire-Lite certifies the Exceder product line for synch compatibility based on documentation provided by Underwriters Laboratories.

Fire-Lite requires that the current draw data from legacy products (RSS, AS, NS, ZRS, and ZNS series) be used for the purpose of determining the number of devices allowed per circuit.

### Cooper-Wheelock Speakers

<b>MODEL NUMBER &amp; NOMENCLATURE (Cooper-Wheelock)</b>
E70, E70-R, E90, E90-W Speaker
ET70, ET90 Speaker with Strobe
E70-24MCW Speaker Strobe
S25W, S70W Speaker
STH-15S Loud Speaker
ET70-2415W, ET70-2430W, ET70-2475W, ET70-24110W, ET70-241575W, ET70-24MCW-FR Speaker with Strobe
E-70-IS-24, E-70-LS-24, E-70-LSM-24, E-70-MS-24 Low Profile Speaker/Strobe
E70-2415W, E70-2430W, E70-2475W, E70-24110W, E70-241575W, E70-24185W-FR Speaker with Strobe
ET90-2415C, ET90-2430C, ET90-2475C, ET90-24100C, ET70-24185W-FR Speaker with Strobe
E-90-IS-24, E-90-LS-24, E-90-MS-24 Low Profile Speaker/Strobe
E90-2415C, E90-2430C, E90-2475C, E90-24100C Speaker with Strobe
E-7025-SL-VFR, E-7025-SLM-VFR, E-7070-SL-VFR, E-7070-SLM-VFR Speaker with Strobe
E-9025-SL-CFW, E-9070-SL-CFW Speaker with Strobe
ET-1070-IS-24-VFR, ET-1070-LS-24-VFR, ET-1070-LSM-24-VFR, ET-1070-MS-24-VFR Speaker with Strobe
ET-1070-SL-VFR, ET-1070-SLM-VFR Speaker with Strobe
ET-1080-IS-24-VFR, ET-1080-LS-24-VFR, ET-1080-LSM-24-VFR, ET-1080-MS-24-VFR Speaker with Strobe
ET-1080-SL-VFR, ET-1080-SLM-VFR Speaker with Strobe
ET-1090-IS-24-CFW, ET-1090-LS-24-CFW, ET-1090-MS-24-CFW Speaker with Strobe
ET-1090-SL-CFW Speaker with Strobe
E50-241575W-FR, E50-241575W-FW, E50-24MCW-FR, E50-24MCW-FW, E50-24MCWH-FR
E50-24MCWH-FR , E50-24MCWH-FW, E50-R, E50-W , E60-24MCC-FR, E60-24MCC-FW
E60-24MCCH-FR, E60-24MCCH-FW, E60-R, E60-W, E70-241575W-FR , E70-241575W-FW
E70-24MCC-FR, E70-24MCC-FW, E70-24MCW-FR, E70-24MCW-FW, E70-24MCW-FW
E70-24MCWH-FR, E70-24MCWH-FW, E-7070-R-ULC, E70-R, E70-W, E90-24MCC-FR
E90-24MCC-FW, E90-24MCCH-FR, E90-24MCCH-FW, E90-R, E90-W, ET-1010-R, ET-1010-W
ET-1080IS24VFR, ET-1080IS24VFW, ET-1080LS24VFR, ET-1080LS24VFW, ET-1080-R, ET-1080-W
ET70-241575W-FR, ET70-241575W-FW, ET70-24MCW-FR, ET70-24MCW-FR, ET70-24MCW-FW
ET70-24MCW-FW, ET70-24MCWH-FR, ET70-24MCWH-FW, ET70-R , ET70-W, ET70WP-2475W-FR

ET70WP-2475W-FW, ET90-24MCC-FR, ET90-24MCC-FW, ET90-24MCCH-FR, ET90-24MCCH-FW
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ET90-R, ET90-W
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## Amseco

Compatible with the following:

**MS-5UD-3(E), MS-10UD-3(E), MS-5UD-7(E), MS-10UD-7(E), MS-5UD-7C, MS-10UD-7C, MRP-2001(E), MRP-2002(E)**

SH24W-153075, SAD24-153075, SAD24-75110, SL24W-75110, SL24C-3075110, SLB24-75
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RSD24-153075, RSD24-75110, SH24W-75110, SH24W-3075110, SHB24-75,
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SCM24W-153075, SCM24W-75110, SCM24C-3075110, SCM24C-177, H24W, H24R
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## Faraday

Compatible with the following:

**MS-5UD-3(E), MS-10UD-3(E), MS-5UD-7(E), MS-10UD-7(E), MS-5UD-7C, MS-10UD-7C, MRP-2001(E), MRP-2002(E)**

2830, 2831, 2836, 2834, 2837
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## Quam-Nichols Speakers

UL22/25, UL22/70
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## Notification Appliances For Canadian Applications

- Refer to manufacturer's installation instructions for more information.
- Contact manufacturer for current draws or additional options

## System Sensor

MDLA / MDLWA Sync Modules, H24A, P1224MCA, P2415A, P241575A, P2475A, P24110A, PC2415A, PC241575A, PC2430A, PC2475A, PC24115A, PC24177AS1224MCA, S2415A, S241575A, S2475A, SC24110A, SC2415A, SC241575A, SC2430A, SC2475A, SC2495A, SC24115A, SC24177A,
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SSM24-6A, SSM24-8A, SSM24-10A - Alarm Bells
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CHWA, CHRA, HRA, HWA, SRA, SWA, SCRA, SCWA, SRHA, SWHA, SCRHA, SCWHA, P2RA, P2WA, PC2RA, PC2WA, P4RA, P4WA, PC4RA, PC4WA, CHSRA, CHSWA
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## Gentex

**Strobe lights, synchronizable type**, Models ST24-15, -15/75, -30, -60, -75, -110; Models GES24-15, -15/75, -30, -60, -75, -110, -177. Models may be followed by suffix -P (plain), followed by W (wall), followed by W or R (white or red color). Intended for indoor use on a wall.

**Strobe light, synchronizable type**, Model GES3-24, may be followed by suffix -P (plain), followed by W (wall), followed by W or R (white or red color). Selectable candela (15cd, 30cd, 60cd, 75cd and 110cd). Intended for indoor use on a wall only.

**Strobe light, synchronizable type**, Model GES3-12, may be followed by suffix -P (plain), followed by W (wall), followed by W or R (white or red color). Selectable candela (15cd, 30cd, 60cd, 75cd). Intended for indoor use on a wall only.

**Strobe light, synchronizable type**, Model GCS24, may be followed by suffix -P (plain), followed by C, followed by W or R (white or red color). Selectable candela (15cd, 30cd, 75cd, 95cd, 115cd and 150cd). Intended for indoor use on a wall or a ceiling.

**Sync modules**, Models AVS44 and AVSM, may be followed by Suffix W or R (white or red color). Intended for indoor use with Gentex synchronizable strobe lights.

**Horns**, Models GEH24, GEH12 followed by P, R or W, indoor use only; Models GX91 and GX93 for indoor use.

**Horn/strobes**, Models GEC24-15, -15/75, -30, -60, -75, -110, -177 may be followed by P, R or W; HS24-15, -15/75, -30, -60, -75, -110, may be followed by -C or -W (ceiling or wall), -R or -W (red or white), -P (plain) and -Z (synchronized); Model GCC24-C ceiling horn/strobe followed by -R, -W or -P; Model GEC3-24 multi-candella horn strobe, may be followed by -R, -W or -P, intended for indoor use, wall mount

## Cooper-Wheelock

AH-24, AH-24WP, AMT-24AMT-2475-FR, AMT-24-LS-VFR, AS-2415C, AS-2415W, AS-2475C, AS-2475W, AS-24100C, AS-24110W, AS-24MCW, HS-24-MCW, HS4-241575W, HS4-24MCW, HS4-24MCWH, MIZ-24, MIZ-24S-R/W, MIZ-TC24, MT-24-R, NS-24MCW-FR, NS4-24MCW-FR, RSS-241575W, RSS-24-2415-CR-FW, RSS-2430-CR-FW, RSS-2475-CR-FW, RSS-24100-CR-FW, RSS-24150-CR-FW, RSS-24177-CR-FW, RSS-24MCC-FR/W, RSS-24MCW-FR/W, RSSP-24MCW-FR/W, RSSP-241575W

## Automatic Water Control Valves (FM-Approved) For Preaction and Deluge Sprinkler Releasing Applications

(Section not recognized by UL)

S2000 (TC-2F/TC-4F)

S200 (TC-2F/TC-4F) Canada Only

MRP-2001(E)

Refer to the FM approval guide for automatic water control valves which are compatible with solenoids listed.

Manufacturer	Model	Voltage	Watts	Amps	NPS	Orifice	PSI
<b>Solenoid Group A</b>							
Skinner	LV2LBX25	24 VDC	11	458 mA	1/2"	5/8"	
<b>Solenoid Group B - These valves are interchangeable</b>							
ASCO	T8210A107	24 VDC	16.8	700 mA	1/2"	5/8"	
ASCO	R8210A107	24 VDC	16.8	700 mA	1/2"	5/8"	
ASCO	8210A107	24 VDC	16.8	700 mA	1/2"	5/8"	
<b>Solenoid Group C</b>							
Star Sprinkler Corp.	p/n 5550	24 VDC	part of Model D Deluge Valve				
<b>Solenoid Group D</b>							
ASCO	8210G207	24 VDC	10.6	440 mA	1/2"	1/2"	
<b>Solenoid Group E</b>							
Skinner	73218BN4UNLVNOC111C2	24 VDC	10.0	420 mA	1/2"	5/8"	
<b>Solenoid Group F</b>							
Skinner	73212BN4TNLVNOC322C2	24 VDC	22.0	0.92	1/2"	1/2"	250
<b>Solenoid Group G</b>							
Skinner	71395SN2ENJ1NOH111C2	24 VDC	10.0	420 mA	1/4"	1/16"	250

## Releasing Applications

MRP-2001(E), MRP-2002(E)

## Compatible Solenoids

Manufacturer	Model	Rated Current DC Milliamps	Rated Voltage DC Volts
Asco	HV2740607	375	24
Asco	HV2838521	375	24
Asco	HV2740608	375	24
Barnbrook Systems	EA45	200	24
Fireaway	Stat-X 30E*	1000	24
Fireaway	Stat-X 60E*	1000	24
Fireaway	Stat-X 100E*	1000	24
Fireaway	Stat-X 250E*	1000	24
Fireaway	Stat-X 500E*	1000	24
Fireaway	Stat-X 1000E*	1000	24
Fireaway	Stat-X 1500E*	1000	24
Fireaway	Stat-X 2500E*	1000	24
Honeywell / Skinner	701X7028	917	24
Kidde-Fenwal	890181	2000	24
Kidde-Fenwal	486500	290	24
Kidde-Fenwal	895630	2000	24
Kidde-Fenwal	897494	1500	24
Minimax	88 7363	1040	24
Minimax	88 5738	1040	24
Minimax	88 9323†	500	24
Parker Hannifin	70610006‡	417	24
Parker Hannifin	10610707**	417	24
Snap-Tite	2823A-2NB-A4F6	458	24
Snap-Tite	2823A-2NB-A4F5	917	12
TLX	PA0036-A	600	24
Versa	CGS-4232-NB3-S2	438	24
Victaulic	753E	364	24
Victaulic	767	364	24
Viking	11591	417	24
Viking	11595	417	24
Viking	11592NC	416	24
Viking	16360††	500	24

\* NAC circuits must be capable of sourcing 1A.

Series circuit only

Each canister must be connected to a protection device (Fireaway P/N 3005014).

Limit of 10 Canisters with protection devices per NAC

Canisters must be replaced after each activation event.

Canisters must be replaced after 10 yrs. in service.

Supervisory current must be below 5ma DC.

† Component of Models MX1230 and MX200 Engineered Clean Agent Extinguishing System Units

‡ Component of Chemetron, Model HFC-227ea Clean Agent Extinguishing System Unit

\*\* Component of Chemetron, Argonite (IG-55) or Chemetron, Nitrogen (IG-100) Extinguishing System Units

†† Component of Models VK1230 and VK200 Engineered Clean Agent Extinguishing System Units

## Door Holders

MANUFACTURER	MODEL	TYPE	Current (mA)
Edwards	DH150A	Floor Mount	96
Edwards	DH154A	Flush Mount	96
Edwards	DH158A	Surface Mount	96
Rixon Firemark	FM-980	Floor Mount, single	68
Rixon Firemark	FM-996	Surface Wiring	68
Rixon Firemark	FM-998	Concealed Wiring	68

## Relays

MANUFACTURER	MODEL	Current (mA)
Air Products & Controls, LTD	MR-101/C	15
	MR-201/C	35
	PAM-1	15
	PAM-2	15
	PAM-SD	15
System Sensor	A77-716B	20
	PR-1	15
	PR-2	30
	PR-3	30
	EOLR-1	30
	R-10T	23
	R-14T	23
	R-20T	40
	R-24T	40
	R-10E	23
	R-14E	23
	R-20E	40
	R-24E	40

## SLC Loop Surge Suppressors (UL Compatible)

Surge suppressors are not required in Canadian applications.

MANUFACTURER	Model Number
Ditek	2LVLP-F
Edco	SLCP-30
Northern Technologies	PLP-42N

## PF24, PF24V Directional Sounder Compatibility

### (Supplemental use Only)

UL 464 Directional Sounder, supplemental notification appliance. The directional sounder can be installed in systems using 24 Volt DC regulated power supplies only. It is not approved for use with FWR unregulated power supplies. Therefore, the following panels/power supplies are compatible:

- MS-9600
- S-2000 with MPS-24A/APS-6R
- FCPS-24FS6(E), FCPS-24FS8(E)
- FCPS-24
- FCPS-2404

- MS-9050UD
- MS-5UD-7(C)(E), MS-10UD-7(C)(E)
- MRP-2001(E),MRP-2002(E)
- MS-9600LS, MS-9600UDLS