



WITH COLLIMATOR



WITHOUT COLLIMATOR



The Long Range Fire Simulators are specifically designed for use with various SharpEye Optical Flame Detectors.

The Fire Simulators emit electromagnetic radiation in a unique sequential pattern corresponding and recognizable by the specific SharpEye Flame Detectors different models as fire. This allows the detectors to be tested under real fire conditions without the associated risks of an open flame.

Models selection:

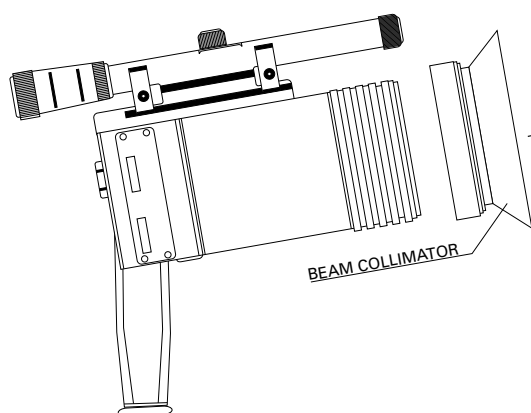
- **20/20-310** Fire Simulator is used for the Triple IR (IR3) Flame Detectors models 20/20I, 20/20XI, 20/20SI, 20/20MI, 20/20FI, 20/20CTIN and CTIP.
- **20/20-311** Fire Simulator is used for the UV/IR Flame Detectors models 20/20L-LB, 20/20ML and 20/20F and UV Flame Detectors 20/20U-UB and 20/20MU.

- **20/20-312** Fire Simulator is used for the Single IR Flame Detector models 20/20R and 20/20MR.

- **20/20-313** Fire Simulator is used for Hydrogen Flame Detector models 20/20H, 20/20SH and 20/20MH.

The Fire Simulators use NiCd batteries as a rechargeable power source. When the batteries are fully charged the Fire Simulator will operate for at least 50 uses without recharging.

A specially designed beam collimator (model number 20/20-190) is used for extended range applications.



*The drawing is for demonstration only*

# Long Range Fire Simulators

## 20/20-310, 20/20-311, 20/20-312, 20/20-313

### GENERAL SPECIFICATIONS

Temperature Range	-4°F (-20°C) to 122°F (50°C)
Vibration Protection	1g (10-50hz)

### ELECTRICAL SPECIFICATIONS

Power	8 VDC Max. 6 Rechargeable, 1.2 VDC NiCd Batteries
Current	2.5A Avg.
Charge	400mA for 14 Hours

### PHYSICAL SPECIFICATIONS

Dimensions	11 x 10.1 x 3.9 in (292 x 258 x 100 mm)
Weight	7.5 lb. (3.4 Kg)

### EXPLOSION PROOF ENCLOSURE

ATEX Approved	EX II 2G, Nemko 02ATEX255 EExd IIB T5 (50°C), IP67
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### OPERATING DISTANCE / RANGES

Model Type	Detector Sensitivity Setting <i>(1 ft<sup>2</sup> (0.1m<sup>2</sup>) gasoline pan fire)</i>		Standard Range		Extended Range with collimator	
<b>20/20-310 Fire Simulator</b>						
<b>20/20I, XI, SI, CTIN &amp; CTIP</b>	50 ft	(15m)	3.8 ft	(1.2m)	7 ft	(2.2m)
	100 ft	(30m)	7 ft	(2.2m)	14.5 ft	(4.5m)
	150 ft	(45m)	10 ft	(3.2m)	22 ft	(7.0m)
	200 ft	(60m)	14.5 ft	(4.5m)	29 ft	(9m)
<b>20/20FI</b>	6.6 ft	(2m)	NA		NA	
	13.2 ft	(4m)	1.3 ft	(0.4m)	NA	
	20 ft	(6m)	2 ft	(0.6m)	2.6 ft	(0.8m)
	33 ft	(10m)	3.3 ft	(1m)	5 ft	(1.5m)
<b>20/20MI-1</b>	33 ft	(10m)	2.3 ft	(0.7m)	3.3 ft	(1m)
	65 ft	(20m)	4 ft	(1.2m)	8.2 ft	(2.5m)
	100 ft	(30m)	6.6 ft	(2m)	13.2 ft	(4m)
	132 ft	(40m)	10 ft	(3m)	20 ft	(6m)
<b>20/20MI-3</b>	8.2 ft	(2.5m)	NA		NA	
	16.4 ft	(5m)	1 ft	(0.3m)	NA	
	24.7 ft	(7.5m)	1.6 ft	(0.5m)	NA	
	33 ft	(10m)	2.3 ft	(0.7m)	3.3 ft	(1m)
<b>20/20-311 Fire Simulator</b>						
<b>20/20U-UB, L-LB, MU &amp; ML</b>	50 ft	(15m)	14.5 ft	(4.5m)	29 ft	(9m)
<b>20/20F</b>	18 ft	(6m)	2.4 ft	(0.75m)	NA	
<b>20/20-312 Fire Simulator</b>						
<b>20/20R &amp; MR</b>	16.5 ft	(5m)	NA		NA	
	50 ft	(15m)	2.4 ft	(0.75m)	NA	
<b>20/20-313 Fire Simulator**</b>						
<b>20/20SH &amp; H</b>	100 ft	(30m)	29 ft	(9m)	NA	
	75 ft	(22m)	22 ft	(7m)	NA	
	50 ft	(15m)	14.5 ft	(4.5m)	NA	
	25 ft	(7.5m)	11 ft	(3.5m)	NA	
<b>20/20MH</b>	66 ft	(20m)	20 ft	(6m)	NA	
	50 ft	(15m)	14.5 ft	(4.5m)	NA	
	33 ft	(10m)	10 ft	(3m)	NA	
	16.2 ft	(10m)	7 ft	(2.2m)	NA	

\* At extreme temperatures 15% Max. Reduction

\*\* The Hydrogen Detector Sensivity Setting: 8" (0.2m) wide 20" (0.5m) high plume fire

NA - Not Applicable

Specifications subject to changes

For more information view manual or website [www.spectrex-inc.com](http://www.spectrex-inc.com)

DS-F-Simulator, July 2006