

MINNESOTA RULES 1985

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EMERGENCY VEHICLE SIRENS 7420.0400

CHAPTER 7420 DEPARTMENT OF PUBLIC SAFETY STATE PATROL DIVISION EMERGENCY VEHICLE SIRENS

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7420.0200 PURPOSE AND SCOPE.

Subpart 1. **Purpose.** The purpose of parts 7420.0200 to 7420.9930 is to carry out the mandate of the legislature and to effectuate that mandate as set forth in Minnesota Statutes 1957, section 169.68.

Subp. 2. **Scope.** The scope of parts 7420.0200 to 7420.9930 is confined within the framework of and consistent with Minnesota Statutes 1957, section 169.68.

Statutory Authority: *MS s 169.68*

7420.0300 APPROVED SIRENS.

Subpart 1. **Type of sirens.** The following types of sirens are established:

A. Type I: high performance siren approved for outside mounting or mounting behind a grill or under the hood of an emergency vehicle.

B. Type II: medium performance siren approved for outside mounting only.

Subp. 2. **Fully approved sirens.** The sirens listed in Table 1 and Table 2 are approved as to type. See Table 1, part 7420.9910, for mechanical sirens. See Table 2, part 7420.9920 for electronic sirens.

Subp. 3. **Conditionally approved sirens.** Any siren listed in Table 3, part 7420.9930, which is in good condition, which was installed on an authorized emergency vehicle prior to the date of adoption of parts 7420.0200 to 7420.9930, and which is currently in use on that vehicle is approved for use on such vehicle. Such sirens (except engine-driven sirens) must be mounted on the outside of the vehicle as required herein for Type II sirens. Such sirens shall not otherwise be installed on any other authorized emergency vehicle unless it is submitted for approval and is found to meet the test requirements set forth in part 7420.0400, subpart 8.

Statutory Authority: *MS s 169.68*

7420.0400 APPROVAL OF OTHER SIRENS.

Subpart 1. **Unlisted sirens.** Sirens not listed in parts 7420.0200 to 7420.9930 will be considered for approval as follows.

Subp. 2. **Letter of application.** A letter of application, including specifications or a description of the siren, shall be submitted to the Commissioner of Public Safety, Transportation Building, Saint Paul, Minnesota 55155. Applications for electronic sirens shall list the speaker manufacturer and manufacturer's model number for horn and driver unit.

Subp. 3. **Samples.** One siren of each type or model for which approval is desired, complete with cable, switch, and instruction sheets, shall be delivered, freight or express prepaid, to the address in subpart 2. The siren will be returned by railway express collect after the tests have been completed.

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Subp. 4. **Identification.** The siren shall be marked with the trademark or name and the model designation. Such markings shall be readily visible and legible from the outside of the siren when it is properly mounted on the vehicle.

Subp. 5. **Waiver of sample.** Submittal of a photostatic copy of a test report from the California Highway Patrol, or a test report from an independent testing laboratory approved by the department, showing compliance with the minimum sound level output requirements of subpart 8, may be considered in lieu of a sample.

Subp. 6. **Fee.** A check payable to the commissioner of public safety in the amount of \$25 shall be submitted for each siren to be tested.

Subp. 7. **Supplements.** Supplements to Table 1 and Table 2, parts 7420.9910 and 7420.9920, respectively, will be issued periodically listing sirens approved under this subpart.

Subp. 8. **Test requirements.** Sound level measuring equipment conforming to standards of the American Standards Association will be used to determine the sound level output of the siren. The siren will be mounted in the open, away from large reflecting objects, with due regard given to wind and background noises. The minimum sound level output measured at 100 feet from the siren shall be as follows:

A. Type I

- | | |
|---------------------------------|-------------|
| (1) In the axis | 95 Decibels |
| (2) At 45 degrees from the axis | 90 Decibels |
| (3) At 90 degrees from the axis | 85 Decibels |

B. Type II

- | | |
|---------------------------------|-------------|
| (1) In the axis | 85 Decibels |
| (2) At 45 degrees from the axis | 80 Decibels |
| (3) At 90 degrees from the axis | 80 Decibels |

The fundamental frequency should be in the range of 800 to 1000 cycles per second.

Statutory Authority: *MS s 169.68*

TABLES, FORMS, AND EXHIBITS

7420.9910 TABLE 1: MECHANICAL SIRENS.

Manufacturer	Model-Markings	Type
American Fire Equipment Co. 11 Mission Street San Francisco 5, California	DICTATOR	
	D8	I
	D8B	I
	D8BH	I
	D8H	I
B & M Siren Manufacturing Co. 763 East Pico Boulevard Los Angeles 21, California	B & M	
	C-B & M-8	I
	CS8	I
	CS8B	I
(Motor numbers M-1 through M-9 may be included with model number on B & M sirens, depending on	E-B & M-8 Highway Special	I
	Motorcycle Rear Wheel	
	Drive	II
	SC8	I
	SC8B	I

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type of motor used and year of manufacture.)	S8	I
	S8B	I
	Friction Drive 8FA (8" diameter only)	I
Cam Manufacturing Co. Ross, California	CAM	
	3	I
	3B	I
	4	I
	70	I
	104	I
W.S. Darley & Company 2810 Washington Boulevard Chicago 12, Illinois	CHAMPION	
	C389	II
	F591	II
Federal Laboratories, Inc. 185 - 41st Street Pittsburgh, Pennsylvania	FEDERAL LABORATORIES	
	35A	II
	35B	II
	53A	I
	53B	II
	53D	I
	54	II
	85A	II
	85B	II
	85C	II
	85D	II
	85E	II
	85EB	II
	86A	II
	86B	II
	100A	I
	100B	II
	100C	I
	100D	II
	100E	I
	100EB	I
	101A	II
101B	II	
102A	I	
102B	I	
103A	I	
103B	I	
Federal Sign & Signal Corp. or Federal Enterprises, Inc. 8700 South State Street Chicago, Illinois	FEDERAL SIGN AND SIGNAL	
	28	I
	28H	I
	57FD	I
	57FS	I
	5876A	II
	5876B	II
	58C4A	I
	58C4B	I
	58CD	I
58CS	I	
58FD	I	
(Federal sirens equipped with a red light on the rear of the housing or having the suffix "R" added to the approved model number are also approved.)		

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	58FS	I
	59FS	I
	60FS	I
	66G	I
	66GH	I
	66L	II
	67	II
	76	II
	76A	II
	76B	II
	77GA	II
	77GB	II
	77L	II
	77LA	II
	77LB	II
	78A	II
	78B	II
	C4	I
	C4A	I
	C4B	I
	C4BB	I
	C5	I
	C5B	I
	C5GA	I
	C5GB	I
	C5GBB	I
	C5LA	II
	C5LB	II
	C6A	II
	C6B	II
	EG	II
	EGH	II
	EP	II
	EPH	II
	Q1A	I
	Q1B	I
	Q2A	I
	Q2B	I
	WG	II
	WGH	II
	WL	II
	WLH	II
	XG	II
	XL	II
	Y	II
	YH	II
Harley-Davidson Motorcycle Co. Milwaukee 1, Wisconsin	HARLEY-DAVIDSON 58 Motorcycle Rear Wheel Drive	II II
Hedberg Manufacturing Co. 321 West Reed Street San Jose, California	HEDBERG 1WSLR 2WSLR 8RLR	II II I

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	Engine Drive	I
	Motorcycle Rear Wheel Drive	II
Mars Signal Light Co. 4322 West Chicago Avenue Chicago 51, Illinois	MARS G-1G G-1GB	I I
North American Signal Co. P.O. Box 216 Wilmette, Illinois	SIREN-MASTER 1136	I
(Formerly Manufactured By The Pyle-National Co.)	PYLE 710 720	II II
The Seagrave Corporation Columbus 7, Ohio	SEAGRAVE Twin Blast	I
The Sireno Company, Inc. 214 William Street New York 38, New York	SIRENO 7 10 C-52 ED-1 ED-10 F-52 J-1-8 M-1 R-5 R-5-R R-6 R-6-R RJ-1-8 RV-9 SJ-8 SV-9 V-9	I I I I I I I I II II II I I I I I I I
Sterling Siren Fire Alarm Co., Inc. Rochester 8, New York	STERLING 20 Freerolling 20 Jr. Sirenlite 30 Freerolling 30 Sirenlite	II II I I

Statutory Authority: *MS s 169.68*

7420.9920 TABLE 2: ELECTRONIC SIRENS.

Manufacturer	Model-Markings	Speaker Markings	Type
Associated Designers 223 West Second Street Los Angeles 12,	SIROVOX 452A 453 MK II 657 MK IV 659	Not marked MODEL 1 B 8 SIROVOX MK II 657 SIROVOX RE-30	II II II I

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California	MK IV 659	SIROVOX RE-50	I
Dazl-Lite Products or Dominator Corp. Kansas City, Missouri	DOMINATOR ES50	DOMINATOR S-50F	I
Federal Sign & Signal Corp. or Federal Enterprises Inc. 8700 South State Street Chicago, Illinois	FEDERAL PA-1 PA-1 PA-1 PA-1 PA-2 PA-2 PA-2 PA-2 PA-2	FEDERAL PDCJ FEDERAL SA-24 FEDERAL CP--24 FEDERAL CJ-24 UNIVERSAL MM-2L FEDERAL PDCJ FEDERAL SA-24 FEDERAL CP-24 FEDERAL CJ-24 UNIVERSAL MM-2L	II I II I II II I II I I
Fyr-Fyter Co. 132-140 Hawthorne St. San Francisco, California or Electronic Engineering Ent.	PENETRATOR 12PT30 12PT30 12PT30 12PT50	12SP30 A9SP30 A14SP30 A9SP30	II I I I
General Electric Co. Nela Park Cleveland 12, Ohio	G. E. 4EZ6A1	UNIVERSITY MM2L	II
Selectronics, Inc. 1600 Adams St. St. Helena, California	SELECTRONIC 17A 17B 25S 625S	SELECTRONIC 17A SELECTRONIC 17B UNIVERSITY MA-25 UNIVERSITY MA-25	II II I I
Winsby- Fleming Co. 4802 East 14th St. Oakland 1, California	WINSBY-FLEMING 17A 17B	WINSBY-FLEMING 17A WINSBT-FLEMING 17B	II II

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7420.9930 TABLE 3: CONDITIONALLY APPROVED SIRENS.

Manufacturer	Model-Markings
Art Burnside Company	ABCO B
Bell Machinery & Industrial Supplies	BELL-EVANS Freewheeling
B&M Siren & Manufacturing	B&M 6-F-A Friction Drive
Cam Manufacturing Co.	CAM 2 F Freewheeling
C.A.M. Siren & Mfg. Co.	CAM 2 3 4 DICTATOR D8P DICTATOR JUNIOR JD6B JD6BH JD6P Automobile Friction Motorcycle Friction
Capital Signal Co.	CAP 2 3
Dozier Manufacturing	DYNO-O-SIREN U.L. Friction Drive
Duncan Siren Co.	DUNCAN 1 2 3 4
E.D. Bullard Co.	BULLARD 1/4 F.W. 1/2 F.W. 1/4 H.A. 1/2 H.A. 1/4 H.D. Motorcycle Friction SIRACODE D8A
Federal Electric Co.	FEDERAL

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66
77
78
C2
C3
C6
E
W
Z

Federal Laboratories, Inc.

FEDERAL LABORATORIES

35
45
48
53
85
100
101

Glen W. Nagle

NAGLE

N-5

H.O.R. Company, Inc.

H.O.R.

A-1 Belt Driven
A-2 Belt Driven
Si-Rex Commander, Senior

J.N. Hedberg

HEDBERG

1 Long Roll
2 Long Roll
3 Long Roll
3R Long Roll
3 1/2R Long Roll
1 Semi-Long Roll
2 Semi-Long Roll
1 Friction
2 Friction
B1 Motorcycle Friction Rear
B2 Motorcycle Friction Rear
F1 Motorcycle Friction Front
F2 Motorcycle Friction Front
F3 Motorcycle Friction Front

The Seagrave Corporation

SEAGRAVE

D Rite-O-Way

The Sireno Company, Inc.

SIRENO

(Letter "A" with Models
M, R and ED indicates
Freerolling.)

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ED, Municipal Only
ED-1, Municipal Only
F-1 Motorcycle Friction
FH Motorcycle Friction
M
M-1
M-4

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M-5
R2A

Sterling Siren Fire Alarm
Co., Inc.

STERLING
12
B Motorcycle Electric
J Motorcycle Front Wheel
Drive
S Freerolling

Statutory Authority: *MS s 169.68*