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MODEL LP4

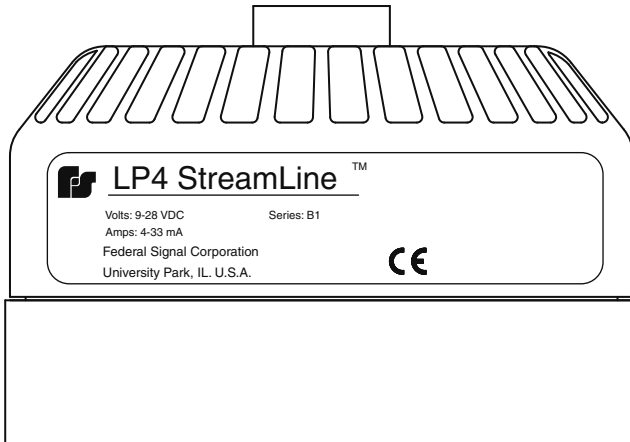
**INSTALLATION AND SERVICE INSTRUCTIONS
FOR STREAMLINE LP4 SOUNDER**

MODELO LP4

**INSTRUCCIONES DE INSTALACION Y REPARACION
PARA EL RESONADOR STREAMLINE LP4**

MODÈLE LP4

**INSTRUCTIONS D'INSTALLATION ET D'ENTRETIEN
DU RÉSONATEUR STREAMLINE LP4**



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Warranty – Seller warrants all goods for five years on parts and 2-1/2 years on labor, under the following conditions and exceptions: Seller warrants that all goods of Seller's manufacture will conform to any descriptions thereof for specifications which are expressly made a part of this sales contract and at the time of sale by Seller such goods shall be commercially free from defects in material or workmanship. Seller reserves the right at the Seller's discretion to "Repair and Return" or "Replace" any item deemed defective during the warranty period. This warranty does not cover travel expenses, the cost of specialized equipment for gaining access to the product, or labor charges for removal and reinstallation of the product. This warranty shall be ineffective and shall not apply to goods that have been subjected to misuse, neglect, accident, damage, improper maintenance, or to goods altered or repaired by anyone other than Seller or its authorized representative, or if five years have elapsed from the date of shipment of the goods by Seller with the following exceptions: lamps and strobe tubes are not covered under this warranty. Outdoor warning sirens and controllers manufactured by Federal Warning Systems are warranted for two years on parts and one year on labor. No agent, employee, representative or distributor of Seller has any authority to bind the Seller to any representation, affirmation, or warranty concerning the goods and any such representation, affirmation or warranty shall not be deemed to have become a part of the basics of the sales contract and shall be unenforceable. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR MERCHANTABILITY, FITNESS FOR PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED. These warranties shall not apply unless Seller shall be given reasonable opportunity to investigate all claims for allegedly defective goods. Upon Seller's instruction a sample only of allegedly defective goods shall be returned to Seller for its inspection and approval. The basis of all claims for alleged defects in the goods not discoverable upon reasonable inspection thereof pursuant to paragraph 8 hereof must be fully explained in writing and received by Seller within thirty days after Buyer learns of the defect or such claim shall be deemed waived.



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INSTALLATION AND SERVICE INSTRUCTIONS FOR STREAMLINE LP4 SOUNDER

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product.

Selection of mounting location for this device, its controls and routing of wiring should be made by the Facilities Engineer and the Safety Engineer. Listed below are other important safety instructions and precautions you should follow.

- This unit must be installed and maintained by a qualified electrician in accordance with National and local Electrical Codes, under the direction of the authority having jurisdiction.
- Do not connect this unit to system wiring when circuits are energized.
- For optimum sound distribution do not install this device where objects would block the front of the sounder.
- All effective warning horns produce loud sounds which, in certain circumstances, may cause permanent hearing loss. Take appropriate precautions such as wearing hearing protection. Recommendations in OSHA Sound Level Standard (29 CFR 1910) should not be exceeded.
- After installation, be sure that all threaded joint are securely tightened.
- After installation and completion of initial systems test, a program for periodic testing of this device must be established.
- After installation and completion of initial system test, provide a copy of this instruction sheet to all personnel responsible for operation, periodic testing and maintenance of this equipment.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

I. GENERAL.

The Federal Signal Model LP4 sounder provides an audible signal when activated by a remotely located control panel. The sounder is a polarized device rated at 9–28 Vdc. The sounder is suitable for indoor/outdoor use. The LP4 can provide one of 32 different tones by setting the dip switches, located on the inside of the unit. A second or alternative tone can be activated by connecting a third wire to the negative supply. The LP4 also provides an adjustable volume control. The sound output levels, typical current consumption, and tone variations are shown in Table 1.

Electrical Details:

Termination:	Screw terminals for 23 AWG to 13 AWG conductors.
Voltage Range:	9–28 Vdc
Starting Current:	30 mA for 2 ms
Starting Time:	1.5 ms
Running Current:	Varied according to tone selected. See Table 1.
Monitoring:	Polarizing diode

Mechanical Details:

Diameter:	3.66" (93 mm)
Overall Depth:	Shallow: 2.48" (63 mm) Deep: 4.13" (105 mm)
IP Rating:	Shallow: IP54 Deep: IP65
Temp. range:	–13° F to 158° F (–25 °C to 70 °C)
Case Material:	ABS plastic body

Table 1.

No.	Tones	2nd Tone No.	Code	Typical Current (mA)		Typical Output (dBa at 1 m)	
			12345	12 V	24 V	12 V	24 V
1	Alternating 800/970 Hz at 2 Hz (250 ms–250 ms)	14	11111	6	13	95	101
2	Sweeping 800–970 Hz at 7 Hz (7/s)	14	11110	8	12	94	100
3	Sweeping 800–970 Hz at 1 Hz (1/s)	14	11101	6	12	95	102
4	Continuous at 2850 Hz Steady	14	11100	16	32	99	105
5	Sweep 2400–2850 Hz at 7 Hz	4	11011	16	32	103	109
6	Sweep 2400–2850 Hz at 1 Hz	4	11010	16	32	105	112
7	Slow Whoop 500–1200 Hz, 3 s Sweep, 0.5 s silence, then repeat	14	11001	6	12	97	103
8	Sweep (DIN) 1200–500 Hz at 1 Hz	14	11000	7	15	96	103
9	Alternating 2400/2850 Hz at 2 Hz (250 ms–250 ms)	4	10111	15	31	99	105
10	Inter. 970 Hz at 0.5 Hz (1 s On/1 s Off)	14	10110	5	8	95	101
11	Alternating 800/970 Hz at 1 Hz (500 ms–500 ms)	14	10101	6	12	95	101
12	Intermittent 2850 Hz at 0.5 Hz (1 s On/1 s Off)	4	10100	9	17	99	105
13	Intermittent 970 Hz at 0.8 Hz (250 ms On/1 s Off)	14	10011	3	5	94	101
14	Continuous at 970 Hz Steady	14	10010	7	14	95	101
15	Alternating 554/440 Hz (100 ms–400 ms)	14	10001	8	17	96	102
16	Intermittent 660 Hz at 3.3 Hz (150 ms On/150 ms Off)	16	10000	4	6	94	100
17	Intermittent 660 Hz at 0.28 Hz (1.8 s On/1.8 s Off)	17	01111	4	7	95	101
18	Intermittent 660 Hz at 0.05 Hz (6.5 s On/13 s Off)	18	01110	3	6	95	101
19	Continuous at 660 Hz Steady	19	01101	5	10	95	101
20	Alternating 554/440 Hz at 0.5 Hz (1 s On/1 s Off)	20	01100	7	16	96	102
21	Intermittent 660 Hz at 1 Hz (500 ms–500 ms)	21	01011	4	6	94	101
22	Intermittent 2850 Hz at 4Hz (150 ms On/100 ms Off)	14	01010	12	27	98	104
23	Sweeping 800–970 Hz at 50 Hz	14	01001	6	12	93	100
24	Sweeping 2400–2850 Hz at 50 Hz	4	01000	15	32	102	108
25	Intermittent 970 Hz at 3 x 500 ms pulses, 1.5 s silence, then repeat	25	00111	4	7	95	101

continued

No.	Tonalités	2e Tonalité No.	Code	Courant Typique (mA)		Sortie Typique (dBa à 1 M)	
			12345	12 V	24 V	12 V	24 V
26	Intermittente 800–970 at 3 x 500 ms variable poussé, 1.5 s silence, répète alors	26	00110	4	6	95	102
27	Intermittente 970/800at 3 x 500 ms variable, 1,5 silence, répète alors	27	00101	3	6	94	101
28	Alternative 800/970 à 2 Hz (250 ms–250 ms)	10	00100	6	12	95	101
29	Tonalités alternatives 990/650 Hz à 2 Hz (250 ms–250 ms) (Symphoni Tones)	988 Hz	00011	10	20	99	105
30	Alternating 510/610 Hz at 2 Hz (250 ms–250 ms) (Squashni Micro Tones)	510 Hz	00010	8	16	94	100
31	Sweeping 300–1200 Hz à 1 Hz	14	00001	10	14	98	103
32	Variable 500/610 Hz à 1 Hz (500 ms–500ms)	510 Hz	00000	8	16	95	100

II. INSTALLATION.

A. Déballage.

Après avoir déballé le résonateur, examinez-le pour tout dommage de transit. SI l'équipement a été endommagé, n'essayez pas de l'installer ou de le faire fonctionner. Déposez immédiatement une réclamation auprès du transporteur indiquant l'étendue des dommages. Vérifiez avec soin toutes les enveloppes, étiquettes d'expédition et étiquettes avant de les retirer ou de les détruire.

B. Connexions Électriques.

⚠ AVERTISSEMENT

Pour éviter tout choc électrique, n'essayez pas de connecter les fils lorsque le courant est en marche. Le non respect de cet avertissement peut entraîner des blessures graves, voire mortelles.

Un bornier est fourni sur le LP4 pour le câblage sur le terrain. Dénudez 1/2 po (1,26 cm) d'isolant des fils. Fixez les fils appropriés aux bornes correspondantes. Resserrez les vis pour vous assurer que les fils sont bien en place. Les bornes conviennent pour les tailles de conducteur de 23 à 13 AWG.

C Configurations de Montage.

La base du LP4 dispose de six (6) fentes en retrait pour le montage et un orifice d'accès pour un (1) câble de 15/32" (12 mm).

III. ESSAI/FONCTIONNEMENT.

⚠ AVERTISSEMENT

Sous certaines circonstances, ces dispositifs peuvent provoquer des pertes auditives permanentes.

Portez les protections auditives voulues si vous tenez près de ce dispositif durant les essais.

Il ne faut pas dépasser les recommandations sous la norme OSHA en matière de niveau de son (29 CFR 1910).