FEDERAL SIGNAL CORPORATION

BACK-UP ALARMS
SPECIALTY ALARMS

Model 861 Mechanical Alarm (210402)

Reactor (210350)

Two-Tone Alarm (210361)

Specialty Alarms

REACTOR®

Reactor® back-up alarms feature solid-state electronics that automatically adjust to changing noise environments. The alarms self-adjust to a minimum of 5 decibels above the surrounding noise levels.

All Reactor models are environmentally sealed in epoxy to protect against moisture, dirt and vibration. Reactor alarms meet SAE J994 and OHSA requirements.

TWO-TONE ALARMS

The two-tone alarms produce a distinct sound to signal hazards other than backup warning. Applications include lift gates, stabilizing outriggers, or any situation where bystanders need to be warned of moving equipment. These alarms are available in multi-volt (12–48 VDC) and 115 VAC versions and can be activated through existing controls. All models feature unique terminal inserts that power the alarm and protect against water and dirt. Universal mounts are included.

ELECTRONIC BACK-UP ALARMS

These alarms are dependable and affordable. Each uses a glass reinforced nylon housing for durability and has an operating temperature range of –40°F to 170°F. Model 258 meets SAE Class B, and models 252 and 256 meet SAE Class C requirements.

ACTIVATING SWITCHES

When it isn't possible to wire your back-up alarm directly to your vehicle's back-up light circuit, these dependable switches fill the need. Installed adjacent to the gear shift lever or linkage, these switches activate the alarm when the actuating shaft is moved.

MODELS 660 AND 861 MECHANICAL ALARMS

These heavy gauge, chrome-plated steel back-up alarms are gravity activated. When the vehicle backs up at a reasonable speed, four heavy steel balls fall and strike the bell housing. Models are also available that sound when the vehicle moves forward. Mechanical alarms do not require a battery and will function with the motor on or off.

EFFECTIVE

- Models available to fit a variety of applications
- Reactor models automatically adjust for ambient noise levels
- Easy to install
- Electronic models feature "Piezo" sound technology

RELIABLE

- Proven in thousands of hours of field use
- Electronic models have reliable solid-state circuitry

DURABLE

- Resistant to heat and weather
- Solid-state units have no moving parts to wear down

APPLICATIONS

- Tow and Recovery vehicles
- Utility trucks
- Waste haulers
- Pickup trucks

APPROVALS

- Reactor – SAE J994 and OSHA requirements
- Electronic:
  258 – SAE Class B
  252 – SAE Class C
  256 – SAE Class C

WARNING FOR MECHANICAL ALARMS: While these alarms should begin to sound after one-quarter revolution of the vehicle's wheel, a half turn may be required in some instances. To avoid serious injury, ensure that no person or obstruction is within 10 feet of the rear of the vehicle. The vehicle must also be backed up at a safe and reasonable speed to assure proper performance of mechanical alarms.

ORDERING INFORMATION

REACTOR MODELS

210504 87-112 dB, plastic housing, 12-24 VDC

210505 87-107 dB, plastic housing, 12-48 VDC

210350 77-102 dB, reinforced nylon housing, 12-24 VDC

210502 107 dB and 112 dB, (manually adjustable), 12-24 VDC

MECHANICAL ALARMS MODELS 660 AND 861

210400 Model 660 for right rear mount, 87 dB (±5 dB), rings only when backing up

210401 Model 660 for right or left rear mount, 87 dB (±5 dB), rings in both directions

210402 Model 861 for right rear mount, 105 dB (±5 dB), rings only when backing up

210403 Model 861 for right or left rear mount, 105 dB (±5 dB), rings in both directions

MODELS 660 AND 861 REPLACEMENT PART

210288 Universal mounting bracket

ELECTRONIC BACK-UP ALARM MODELS

252 97 dB, 12–48 VDC

254 87 dB, 12 VDC

256 97 dB, 6–36 VDC

258 107 dB, 6–36 VDC

ACTIVATING SWITCH MODELS

210298 Activates in all directions

210299 Activates in one direction only

ACTIVATING SWITCH OPTION

200053 Mounting bracket for 210298

210298

TWO-TONE ALARM MODELS

210358 Two-tone, 87 dB, 12–48 VDC

210359 Two-tone, 87 dB, 115 VAC

210361 Two-tone, 97 dB, 12–48 VDC

210363 Two-tone, 107 dB, 12–48 VDC

210365 Two-tone, 112 dB, 12-48 VDC

210366 Two-tone, 112 dB, 115 VAC

SPECIFICATIONS

Reactor Back-Up Alarms

Dimensions (H. × W. × D.):

210504 – 4.0 in × 5.7 in × 3.1 in (102 mm × 145 mm × 79 mm)

210505 – 2.9 in × 5.0 in × 2.7 in (74 mm × 127 mm × 69 mm)

210350 – 2.7 in × 4.0 in × 1.6 in (69 mm × 102 mm × 41 mm)

210502 – 3.0 in × 5.0 in × 4.0 in (76 mm × 127 mm × 102 mm)

Output: 77–112 dB

Voltage: 12–48 VDC

Amp Draw: 0.06 to 1.0

Ship. Weight: 2.0 lbs (0.9 kg)

MECHANICAL ALARMS AND SPECIALITY ALARMS

Model	Sound Frequency	Sound Level	Voltage	Amp Draw	L × W × H in	L × W × H mm	Ship Weight lbs	Ship Weight kg
210400/210401		87dB	N/A	N/A	6.0 × 6.0 × 3.6	152 x 152 x 91	7.0	3.2
210402/210403		105dB	N/A	N/A	8.7 × 8.7 × 3.6	221 x 221 x 91	7.8	3.5
252		97dB	12-48VDC	0.2	4.0 x 3.0 x 1.5	102 x 76 x 38	1.0	0.5
254		87dB	12VDC	0.3	4.0 x 3.0 x 1.5	102 x 76 x 38	1.0	0.5
256		97dB	6-36	0.3	4.0 x 3.0 x 1.5	102 x 76 x 38	1.0	0.5
258		107dB	6-36	0.5	5.0 x 4.0 x 3.0	127 x 102 x 76	2.0	0.9
210358	2.5/2.7kHz	87dB	12-48VDC	0.05@12V	2.9 x 2.9 x 2.4	73 x 73 x 62	0.6	0.3
210359	2.5/2.7kHz	87dB	115VAC	0.01	2.9 x 2.9 x 2.4	73 x 73 x 62	1.2	0.6
210361	2.5/2.7kHz	97dB	12-48VDC	0.1@12V	2.9 x 2.9 x 2.4	73 x 73 x 62	0.6	0.3
210363	2.5/2.7kHz	107dB	12-48VDC	0.12@12V	2.9 x 2.9 x 2.4	73 x 73 x 62	0.6	0.3
210365	2.5/2.7kHz	112dB	12-48VDC	0.14@12V	2.9 x 2.9 x 2.4	73 x 73 x 62	0.6	0.3
210366	2.5/2.7kHz	112dB	115VAC	0.03	2.9 x 2.9 x 2.4	73 x 73 x 62	1.2	0.6