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MODEL UTM

**INSTALLATION INSTRUCTIONS FOR MODEL UTM
UNIVERSAL TONE MODULE**

MODELO UTM

**INSTRUCCIONES DE INSTALACION PARA EL MODULO DE
TONOS UNIVERSAL, MODELO UTM**

MODÈLE UTM

**INSTRUCTIONS D'INSTALLATION POUR LE MODULE SONORE-
MODÈLE UTM UNIVERSAL**

INSTALLATION INSTRUCTIONS FOR MODEL UTM - UNIVERSAL TONE MODULE

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to follow all instructions shipped with the products. This device is to be installed by a trained electrician who is thoroughly familiar with the NFPA 72 National Electrical Code and will follow the NEC Guidelines as well as state and local codes.

The selection of the mounting location for the device, its controls and the routing of the wiring is to be accomplished under the direction of the Facilities Engineer and the Safety Engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Read and understand all instructions before installing or operating this equipment.
- Do not connect this unit to the system when power is on.
- Optimum sound distribution will be severely reduced if any objects are in front of the speaker. You should ensure that the front of the speaker is clear of any obstructions.
- All effective warning speakers produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as wearing hearing protection.
- After installation, ensure that all bolts and threaded joints are tightened.
- Establish a procedure to routinely check the sound system for proper activation and operation.
- Provide a copy of these instructions to the Safety Engineer, operator(s) and maintenance personnel.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the device.
- Consult the authority having jurisdiction in your area regarding the proper use and installation of this product.
- After installation, test the sound system to ensure proper operation.
- All effective warning speakers produce loud sounds, which may cause, in certain situations, permanent hearing loss. The device should be installed far enough away from potential listeners to limit their exposure while still maintaining its effectiveness. The OSHA Code of Federal Regulations 1910.95 Noise Standard provides guidelines which may be used regarding permissible noise exposure levels.

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

A. General

The Federal Universal Tone Module (UTM) is a microcontroller based product capable of generating one of 32 different tones. Tone selection is accomplished by programming the 5 position DIP Switch on the top of the module. The tones are then amplified by a SelecTone Speaker Amplifier or SelecTone Control Unit. It can be programmed at a later time to produce a different tone simply by changing the settings of the DIP Switch.

B. Unpacking

After unpacking the UTM, examine it carefully for possible damage that may have occurred in transit. If the equipment has been damaged, immediately file a claim with the carrier stating the extent of damage. Carefully check all shipping labels and tags for special instructions before removing or destroying them.

C. Installation

CAUTION

Improper installation could render this system inoperable, interfering with the warning nature of this product. The installation must conform to applicable local and/or NFPA 72 National Electrical codes.

When using this device in Class I, Division 2 equipment, this equipment is suitable for use in Class I, Division 2, Groups A, B, C, D or non-hazardous locations only.

CAUTION

Cross talk, interference, or hum can be induced in signal lines, causing poor audio output or confusing messages, which interferes with the emergency warning capability of this equipment. Do not install power lines in the same conduit as signal lines.

Carefully place the UTM into the edge connector on the Speaker Amplifier or Selectone Control Unit. For specifications on installation of the particular SelecTone Unit, refer to its corresponding Federal Signal Instruction Sheet.

NOTE

Users are supplied with a piece of insulated paper. This insulator is provided to eliminate the possibility of a ground fault occurring.

D. Tone Selection

The UTM comes factory set and tested with the DIP switches set to produce a Wail tone.

If another tone is desired, simply set the DIP switches to one of the positions shown in Table 1 to obtain the corresponding sound.

E. Operation

SAFETY MESSAGE TO OPERATORS

Listed below are some important safety instructions you should follow:

- Read and understand all instructions before operating this unit.
- All effective warning speakers produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as ensuring that the recommendations in OSHA Sound Level Standard (29CFR 1910) 1910.95 are not exceeded.
- Although your warning system is operating properly, it may not be completely effective. People may not hear or heed your warning signal. You must recognize this fact and ensure that your warning signal is achieving the desired effect.

Single unit installations are activated by a user-supplied switch. Units installed as part of a system are activated by a SelecTone Command unit. Refer to the SelecTone Command manual for additional information.

F. Maintenance

SAFETY MESSAGE TO MAINTENANCE PERSONNEL

- Read and understand all instructions before performing any maintenance to this unit.
- To reduce the risk of electrical shock or ignition of hazardous atmospheres, do not perform maintenance/service on this device when circuits are energized.
- Any maintenance to the unit **MUST** be performed by a trained electrician in accordance with NFPA 72 NEC Guidelines and state and local codes.
- Never alter the unit in any manner. Safety in hazardous locations may be endangered if additional openings or alterations are made in units specifically designed for use in these locations.
- **Warning – Explosion Hazard – Substitution of any components may impair suitability for Class I, Division 2.**
- **Warning – Explosion Hazard – Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.**

- The nameplate, which may contain cautionary or other information of importance to maintenance personnel, should not be obscured if exterior of housings used in hazardous locations are painted.

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

Other than cleaning, no regularly scheduled maintenance is required. To ensure unit is operating properly, it should be tested at regularly scheduled intervals.

In the event that volume adjustment, tone module replacement, or repair is required, refer to the Safety Message to Maintenance Personnel before proceeding.

G. Service

The UTM contains no user serviceable parts inside.

Federal Signal Corporation will service your equipment or provide technical assistance with any problems that cannot be handled locally.

Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization. This R.M.A. can be obtained from the local Distributor or Manufacturer's Representative.

At this time a brief explanation of the service requested, or the nature of the malfunction, should be provided.

Address all communications and shipments to:

Federal Signal Corporation

Industrial Systems

2645 Federal Signal Drive

University Park, IL 60484-3167

Tel: 708-534-4756

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Table 1.

DIP Switch Setting	Tone	Sound	Audible Frequency	Repetition Rate
↑↑↑↑↑ 12345	WAIL TM1	Conventional Siren	560-1055 Hz	11 Cycles/min.
↑↑↑↑↓ 12345	YELP TM2	Rapid Siren	560-1055 Hz	3.3 Cycles/sec
↑↑↑↑↓ 12345	HI-LO TM3	Alternating High & Low	Low Tone 561 Hz Hi Tone 760 Hz	50 Cycles/min.
↑↑↑↓↓ 12345	BELL TM4	Bell, Struck Rapidly	801 Hz	50 Cycles/min
↑↑↑↓↓ 12345	YEOW TM5	Descending high to low-repeated	High freq 1295 Hz Low freq. 545 Hz	36 Cycles/min
↑↑↑↓↓ 12345	HORN TM6	Steady Horn	470 Hz	Continuous
↑↑↑↓↓ 12345	BEEP TM7	Slow intermittent horn	435 Hz	50 Cycles/min
↑↑↓↓↓ 12345	STUTTER TM8	Rapid intermittent horn	470 Hz	5 Cycles/sec.
↑↑↑↑↑ 12345	SLOW WHOOP TM9	Slow ascending, low to high repeated	Low freq. 424 Hz Hi freq. 1163 Hz	15 Cycles/min
↑↑↑↑↓ 12345	GRADUAL HORN TM10	Steady horn—Gradually increasing in volume	514 Hz	Continuous
↑↑↑↑↓ 12345	TEMPORAL SLOW WHOOP TM11	NFPA coded slow Whoop	500-1200 Hz	15 Cycles/min
↑↑↑↓↓ 12345	WESTMINSTER CHIME TM12	Westminster Chime	Musical Tones	1 Cycle, 8 notes
↑↑↑↑↓ 12345	EVAC TM13	Amplitude modular horn	479 Hz	4.3 Cycles/sec
↑↑↑↓↓ 12345	AIR HORN TM14	Steady Horn	Low Tone 800 Hz Hi Tone 1600 Hz	Continuous
↑↑↑↓↓ 12345	CHIME TM15	Single Strike Chime	Musical Tone	49 Cycles/min
↑↑↓↓↓ 12345	PHASER TM16	Rapid Siren	600 Hz-1200-Hz	15 Cycles/sec
↓↑↑↑↑ 12345	ALTERNATE HI-LO TM17	Alternating hi-lo	Low Tone 425 Hz Hi Tone 572 Hz	60 Cycles/min
↓↑↑↑↓ 12345	WARBLE TM18	Extremely Rapid Siren	560-1055 Hz	6.3 Cycles/sec
↓↑↑↑↓ 12345	ALERT TM19	Slow Sweep Tone	400-1560 Hz	Ascending
↓↑↑↓↓ 12345	EURO-POLICE TM20	Alternating Hi-Lo	Hi Tone 969 Hz Low Tone 800 Hz	30 Cycles/min
↓↑↑↓↓ 12345	EURO-FIRE TM21	Sweep Tone	900-800	Continuous
↓↑↑↓↓ 12345	EURO-SLOW WHOOP TM22	Slow Sweep Tone	650-1290 Hz	17 Cycles/min
↓↑↑↓↓ 12345	EURO-GENERAL TM23	Intermittent Horn	969 Hz	60 Cycles/sec
↓↑↑↓↓ 12345	EURO-TOXIC TM24	Steady Horn	969 Hz	Continuous
↓↑↑↑↑ 12345	EURO-POLICE II TM25	Slow Alternating Hi-Lo	Hi Tone 554 Hz Low Tone 440 Hz	Alternating Slow
↓↑↑↑↓ 12345	EURO-STUTTER TM26	Intermittent Beep	2840 Hz	252ms/cycle
↓↑↑↑↓ 12345	EURO SWEEP TM27	Sweep Tone	1163-397 Hz	Descending
↓↑↑↓↓ 12345	RINGER TM28	Continuous Ringing Tone	Hi Tone 660 Hz Low Tone 426 Hz	Fast Alternating
↓↑↑↓↓ 12345	BUZZER TM29	Buzzer Tone	Hi Tone 1318 Hz Low Tone 760 Hz	Continuously Alternating
↓↑↑↓↓ 12345	ATTENTION TM30	Extremely Rapid Siren	Multiple Frequency	1 cycle 8 tones
↓↑↑↓↓ 12345	MULTI-TONE TM31	Extremely Rapid Siren	Multiple Frequency	1 cycle 8 tones
↓↑↑↓↓ 12345	CAUTION TM32	Steady Horn	880 Hz	Continuous

NOTE: TM12 (Westminster Chime) is not a repeating tone.