

INSTRUCTION MANUAL

A121APPX, AL121APPX & MV121 APPELLO Alarm Tone and Voice Annunciation Sounder

1) Introduction

The Appello tone and speech annunciation sounder has three different styles in AC and DC.

- A121APPX & MV121 Sounder
- AL121APPX Sounder-Beacon Combination Sounder-Beacon Combination units are available as either a high output LED or Xenon strobe.

These Sounder units share a common set of functions:-

- 4 stages, each stage can record up to 30 seconds of CD quality audio.
- Facility to record via an on board microphone or a line in input.
- The recorded message can be played back proceeded either with or without the choice of one of forty five tones.

The Beacon functions are either:-

- Xenon Strobe 1Hz flash rate
- LED Either Steady or 2Hz blink rate

2) Operating and Marking

All units have the following operating requirements and limitations.

Unit Type No. Voltage Range Current Sounder only outputs

A121APPX DC 24Vdc 14-30Vdc 1.51A & MV121 DC

Max Current 1.85A @ 30Vdc A121APPX AC 115Vac 90-260Vac 542mA & MV121 AC 230Vac 90-260Vac 517mA

230Vac 90-260Vac 517mA Max Current 668mA @ 90Vac

AL121APPX combined unit - Add selected sounder & beacon currents to calculate total current required.

Beacon only outputs

LED Beacon DC 24Vdc 10-30Vdc 157mA

Max Current 166mA @ 30Vdc LED Beacon AC 115Vac 90-260Vac 60mA

230Vac 90-260Vac 35mA Max Current 60mA @ 90Vac

Xenon Beacon DC 12Vdc 10-14Vdc 500mA

24Vdc 20-28Vdc 250mA Xenon Beacon AC 115Vac +/-10%Vac 100mA

on Beacon AC 115Vac +/-10%Vac =100m/ 230Vac +/-10%Vac = 50mA

Operating Temp: -20 to +55°C

All units IP Rating: Type 4 / 4X / 3R / 13 , IP66 MV121 additional IP Rating: IP67

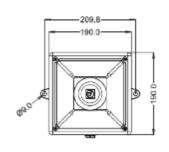
Marking:

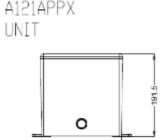




3) Installation & Wiring Requirements

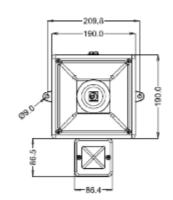
A121APPX



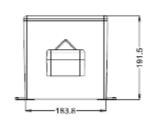


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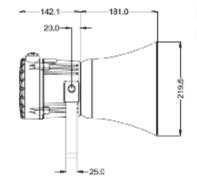
AL121APPX

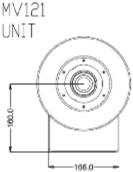


AL121APPX UNIT



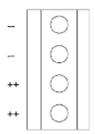
MV121





Always de-energize unit before removing cover. The installation of the units must be in accordance with any local codes that may apply and should only be carried out by a competent trained electrical engineer.

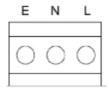
The power terminals on the control unit are clearly marked and will accept up to 1.5mm² cable.



DC Terminals on main PCB. ++ = Positive

++ = Positive





AC Terminals On Sub PCB L = Live N = Neutral

E = Earth

The AL121 units will have the beacon already prewired to the unit so no extra wiring is required.

4) Beacon Set-up

The beacon unit may need to be configured dependant on the type of flash required.

The xenon beacon has a 1Hz flash rate only.

The LED beacon is set as standard to the 2Hz flash mode but it can be set to a steady on mode also. To alter the settings, change the position of the header pin as shown.

- Remove header for steady mode.
- Keep header in standard position for 2Hz flashing mode

Skeady Mode 2Hz Flash (120FPM) Header Pin settings for steady and flashing modes

5) Unit Set-up and Recording

The unit will need to be configured to suit the end user.

If recording either via the onboard microphone or the in-line connector the unit will need to be supplied with power.

DC units can be powered when completing recording and set-up.

Warning!: During set-up on AC units care must be taken not to touch the live terminals. This is because on the AC units there is a risk of electric shock.

See section 7) Appello Setup Guide overleaf for Set-up instructions and functions.

6) Tone Selection Table

The Appello unit has 45 different tones (See Table 1) that can be selected for the first stage alarm. The systems can then be switched to sound second, third and fourth stage alarm tones. The tones are selected by operation of a DIP switch S4 on the main PCB.

The tone table (Table 1) shows the switch positions for the 45 tones and which tones are available for the second third and fourth stages.

Example

S4 Dip Switch -Shown Set for Tone 1 (All switches OFF)



To sound stage one simply connect the supply voltage (+ve and -ve) for DC units and (L, N, E) for AC units, to the supply input terminals on the correct PCB shown.

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<u>DC Units Second, Third and Fourth Stage</u> Selection

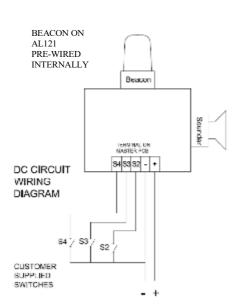
The Appello unit uses –ve switching to change the tone to the second, third and fourth stages.

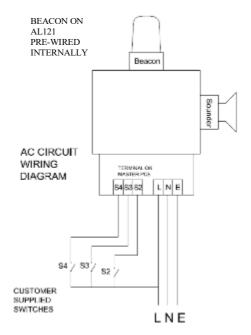
Warning!: The negative supply must remain connected to the -(ve) terminal and a link made from this to the appropriate stage (S2) terminal otherwise the unit will be damaged.

To change to the second, third or fourth stage tone, link the -ve supply line to terminal relevant stage terminal. le. for Stage 2 link the -ve supply to the S2 terminal, for Stage 3 link the -ve supply to the S3 terminal etc.

AC Units Second, Third and Fourth Stage Selection

The Appello unit uses Live switching to change the tone to the second, third and fourth stages. To change to the second, third or fourth stage tone, whilst maintaining the ac supply to the Live and neutral, also link the Live supply line to terminal relevant stage terminal. i.e. for Stage 2 link the Live supply to the S2 terminal, for Stage 3 link the Live supply to the S3 terminal etc.

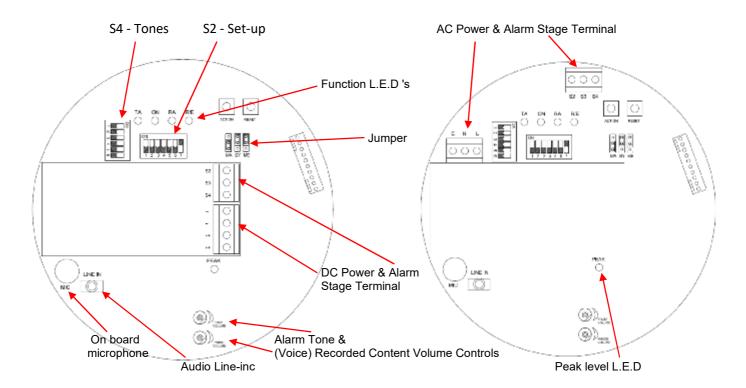






INSTRUCTION MANUAL

A121APPX, AL121APPX & MV121 APPELLO Alarm Tone and Voice Annunciation Sounder



DC A121APPX, MV121 & AL121APPX Board

AC A121APPX, MV121 & AL121APPX Board

7) Appello Setup Guide

The following guide is designed to get the user quickly interfacing with the Appello unit.

- The Appello unit can be set-up to either play an attention seeking tone and then a recorded message or just play the recorded message.
- The user can:
 - Record on each of the 4 stages using either the Line In or Microphone inputs
 - Select the required alarm tone
 - o Delete unwanted messages.
- To re-record a message on a particular stage, the previous message on that stage <u>must</u> be deleted first.
- Once the user has configured the unit, it must be put into it's Playback Mode and S2 switches set to stage 1, as shown in Quick Ref - Playback Mode (Stage 1 illustrated) guide below.
- The "Mass Erase" function will erase all the recorded stages.
- The "Mass Erase" can also be used to reset the unit if any functionality is lost.

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Document No. D166-00-001-IS_Issue_2 01-05-12

Quick ref - Switch 'S2' Dip Switch Function Settings

Switch No.	OFF Position Function		ON Position Function
1	Record Mode		Playback Mode
2	Stage selection switch	<u></u> → S	Switch 2 On & Switch 3 On = Alarm Stage 1 Switch 2 Off & Switch 3 On = Alarm Stage 2
3	Stage selection switch	2 3	Switch 2 On & Switch 3 Off = Alarm Stage 3 Switch 2 Off & Switch 3 Off = Alarm Stage 4
4	Line-In selected	4 5	On board Microphone selected
5	Program – Record & Erase Mode ON	6 7	Playback – Record & Erase Mode OFF
6	Message & Tone Playback		Message only Playback
7	Single Message or Mass Erase Mode OFF		Single Message or Mass Erase Mode ON

Quick Ref - Playback Mode (Stage 1 illustrated)

1	For Stage 1: Set Switch 'S2' positions 1,2,3 & 5 to 'ON' Alternatively for: For Stage 2: Set Switch 'S2' positions 1,3 & 5 to 'ON' For Stage 3: Set Switch 'S2' positions 1,2 & 5 to 'ON' For Stage 4: Set Switch 'S2' positions 1 & 5 to 'ON'	STAGE 1 CY 1 2 3 4 5 5 7 STAGE 3 CY 2 2 4 5 7 7 STAGE 3 CY 2 3 4 5 6 7	O O O O O O O O O O O O O O O O O O O	NO DESIGNATION OF THE PROPERTY	ТА	S ()	RA ()	R/E
2	Switch on power or Press reset button	RESET			ТА	ON ON	RA O	R/E
3а	Unit will sound alarm tone and then recorded content repeatedly				₹ ○((oo O	RA O	R/E

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Quick Ref - Recording Mode (Stage 1 illustrated)

	For Stage 1: Set Switch 'S2' positions 2,3 & 4 to 'ON' Alternatively for : For Stage 2:	STACE 1 OR: 1 2 3 4 0 E 7	TA ON RA R/E
1	Set Switch 'S2' positions 3 & 4 to 'ON' For Stage 3: Set Switch 'S2' positions 2 & 4 to 'ON'	87AGE 3	
	For Stage 4: Set Switch 'S2' position 4 to 'ON'	STAGE 4 27	
	To record from Line-in instead of the on board microphone follow above step 1 but set Switch 'S2' position 4 to OFF		
2	Switch on power or Press reset button	RESET C	TA ON RA R/E
3а	Press action button: Start recording	ACTEON	TA ON RA R/E
	Speak into microphone or plug line-in.		TA ON RA R/E
	It is suggested that a 5cm gap is maintained to the microphone.		//\\\//\\\\/\\\\\\\\\\\\\\\\\\\\\\\\\\
3b	The peak detector L.E.D should flash regularly to maintain a good recording level. However, if it stays on for most of the time, the recording may be distorted.	<u> </u>	PEAK
4	Press action button: Stop recording	ACTEN	TA ON RA R/E

Quick Ref - Erase Single stage Mode (Stage 1 illustrated)

1	For Stage 1: Set Switch 'S2' positions 2,3 & 7 to 'ON' Alternatively for: For Stage 2: Set Switch 'S2' positions 3 & 7 to 'ON' For Stage 3: Set Switch 'S2' positions 2 & 7 to 'ON' For Stage 4: Set Switch 'S2' position 7 to 'ON'	STAGE: ON T 2 3 4 6 6 7 STAGE STAGE ON 1 2 3 4 5 6 7 STAGE 4 ON T 2 3 4 6 6 7	TA ON RA R/E
2	Switch on power or Press reset button	RESET	TA ON RA R/E
3a	Press action button: Erase will begin	ACTION	TA ON RA R/E
3b	erase complete		TA ON RA R/E

Quick Ref - Mass Erase Mode (Erases All Stages)

1	Set Switch 'S2' position 7 to 'ON'	ON 1 2 3 4 5 6	7	TA ON RA R/E
2	Set jumper 'ME' to ON position (centre and bottom pin connected)	O O O O O MA SY ME	RO ON OFF	
3	Switch on power or Press reset button	RESET		TA ON RA R/E
4a	Press action button: Erase will begin	ACTEN		TA ON RA R/E
4b	erase complete			TA ON RA R/E
5	Reset Jumper 'ME' to OFF position	O O O O O O O O O O O O O O O O O O O	ON ODE OFF	

Quick Ref - Synchronising Two Sounders (All stages)

1	Connect Synch cable to Master and Slave PCB	MASTER UNIT	SLAVE UNIT	
2	Set 1 off Units as Master and 1 off Unit as Slave Set jumper to SY on Set jumper MA on Master unit to master position (on)	O O O O O O O O O O O O O O O O O O O	ROO ON	TA ON RA R/E
	Set jumper MA on Slave unit to slave position (off) Position of S2 switch does not affect synch operation.	O O O O O O O O O O O O O O O O O O O	©© ON	
3	Switch on power onto the Master unit first Then switch power onto the Slave unit		Master Unit Slave Unit	TA ON RA R/E TA ON RA R/E TA ON RA R/E
4a	Press action button on the Master Unit: Synchronisation will begin (Duration 13 Minutes)	ACTEN	Master Unit Slave Unit	TA ON RA R/E TA ON RA R/E TA ON RA R/E
4b	Synchronisation complete Switch off Power to units		Master Unit Slave Unit	TA ON RA R/E TA ON RA R/E TA ON RA R/E
5	Reset on both units jumper SY to off Set jumper MA on both units to Master position (on)	O O O O O O O O O O O O O O O O O O O	BBO ON	

Table 1: Tone selection table

Stage 1 Frequency Description				Switch				Stage 2	Stage 3	Stage 4		
Tone 2	Stage 1	Frequency Description		1	2	3	4	5	6	(S2)	(S3)	(S4)
Tone 3 5001/200Hz@ 0.3Hz 0.5 sec Stow Whoop Tone 4 8001/000Hz@ 1Hz Sweeping Tone 5 2400Hz Continuous Tone 6 24000200Hz@ 7Hz Sweeping Tone 7 Tone 5 Tone 29 Tone 8 24002200Hz@ 1Hz Sweeping Tone 7 Tone 5 Tone 20 Tone 8 5001/200500Hz@ 0.3Hz Sweeping Tone 7 Tone 5 Tone 20 Tone 8 5001/200500Hz@ 0.3Hz Sweeping Tone 9 12002000Hz@ 0.3Hz Sweeping Tone 10 Tone 2 Tone 5 Tone 29 Tone 10 24002200Hz@ 0.3Hz Sweeping Tone 11 1000Hz@ 2Hz Intermittent Tone 12 1000Hz@ 2Hz Intermittent Tone 12 1000Hz@ 2Hz Intermittent Tone 13 2400Hz @ Hz Intermittent Tone 13 2400Hz @ Hz Intermittent Tone 14 1000Hz@ 1Hz Intermittent Tone 15 Tone 20 Tone 16 660Hz 156ms on, 156ms off intermittent Tone 15 Tone 20 Tone 16 660Hz 156ms on, 156ms off intermittent Tone 17 Tone 15 Tone 20 Tone 18 660Hz 156ms on, 156ms off intermittent Tone 15 Tone 20 Tone 16 660Hz 156ms on, 156ms off intermittent Tone 17 Tone 15 Tone 20 Tone 18 100Hz Continuous Tone 19 14KtRz 16KHz 1s, 1KtRz 14KHz 0.5s NFC4B-2655 Tone 20 660Hz Continuous Tone 21 Tone 5 Tone 20 Tone 23 800Hz Continuous Tone 24 Tone 5 Tone 29 Tone 25 544Hz 24Hz Intermittent Tone 26 Tone 5 Tone 29 Tone 27 Tone 5 Tone 29 Tone 27 Tone 5 Tone 29 Tone 28 660Hz 156ms on, 156ms off intermittent Tone 28 Tone 5 Tone 29 Tone 29 Tone 5 Tone 29 Tone 20 660Hz Continuous Tone 29 Tone 5 Tone 20 Tone 20 660Hz Continuous Tone 20 Fone 20 Tone 5 Tone 29 Tone 20 660Hz Continuous Tone 20 Fone 20 Tone 5 Tone 29 Tone 20 660Hz Continuous Tone 20 Fone 20 Tone 5 Tone 29 Tone 20 660Hz Continuous Tone 20 Fone 5 Tone 29 Tone 20 Fone 5 Tone 2	Tone 1	340 Hz Continuous	-							Tone 2	Tone 5	Tone 29
Tone 4 80011000Hz @ 1Hz Sweeping Tone 5 2400Hz Confitnous Tone 5 2400Hz Confitnous Tone 6 24001290Hz @ 7Hz Sweeping Tone 7 24001290Hz @ 1Hz Sweeping Tone 10 7001 Tone 5 Tone 29 Tone 9 12001200150Hz @ 1Hz Sweeping Tone 10 12001200150Hz @ 1Hz Sweeping Tone 11 1000Hz @ 1Hz Sweeping Tone 12 12001200150Hz @ 1Hz Sweeping Tone 11 1000Hz @ 1Hz Intermittent Tone 12 12001200150Hz @ 1Hz Intermittent Tone 13 12001200150Hz @ 1Hz Intermittent Tone 14 1000Hz @ 1Hz Intermittent Tone 15 Tone 29 Tone 13 2000Hz @ 2Hz Intermittent Tone 15 Tone 29 Tone 16 800Hz 0.25sec on, 1 sec off Intermittent Tone 15 Tone 20 Tone 20 Tone 16 800Hz 0.25sec on, 1 sec off Intermittent Tone 17 400Hz (10000Hz (100000Hz (10000Hz (10000Hz (100000Hz (100000Hz (100000Hz (100000Hz (100000Hz (100000Hz (100000Hz (100000Hz	Tone 2	800/1000Hz @ 0.25 sec Alternating								Tone 17	Tone 5	Tone 29
Tone 5 240014z Continuous Tone 6 2400029001+2 @ 174z Sweeping Tone 7 2400029001+2 @ 174z Sweeping Tone 8 5001120005001+2 @ 174z Sweeping Tone 8 5001120005001+2 @ 174z Sweeping Tone 9 120002001+2 @ 174z Sweeping Tone 10 2400029001+2 @ 174z Sweeping Tone 10 2400029001+2 @ 174z Sweeping Tone 10 2400029001+2 @ 174z Sweeping Tone 10 120005001+2 @ 174z Sweeping Tone 10 120005001+2 @ 174z Sweeping Tone 10 120005001+2 @ 174z Sweeping Tone 10 1200029001+2 @ 174z Sweeping Tone 10 1200029001+2 @ 174z Sweeping Tone 11 10001+2 @ 174z Sweeping Tone 12 800110001+2 @ 174z Sweeping Tone 13 24001+2 @ 174z Sweeping Tone 14 8001+2 0.25sec on, 1 sec off Intermittent Tone 14 8001+2 0.25sec on, 1 sec off Intermittent Tone 15 8001+2 Continuous Tone 16 8001+2 Sec on, 1 sec off Intermittent Tone 17 5441+2 (100ns)4401+2 (400ns) - NF S 32-001 Tone 18 8001+2 Sec on, 1 sec off Intermittent Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NFC48-265 Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NFC48-265 Tone 20 8001+2 Continuous Tone 21 Tone 27 Tone 29 Tone 23 8001+2 @ 214z Skeemand 1sec off Intermittent Tone 2 Tone 27 Tone 29 Tone 28 80010001+2 @ 714z Skeemand 1sec off Intermittent Tone 2 Tone 5 Tone 29 Tone 29 8001+2 Continuous Tone 2 Tone 5 Tone 29 Tone 20 8001+2 Continuous Tone 2 Tone 5 Tone 29 Tone 20 8001+2 Continuous Tone 2 Tone 5 Tone 29 Tone 20 8001+2 Continuous Tone 2 Tone 5 Tone 29 Tone 20 8001+2 @ 714z Skeeping Tone 2 Tone 5 Tone 29 Tone 20 8001+2 @ 714z Skeeping Tone 2 Tone 5 Tone 29 Tone 20 8001+2 @ 714z Skeeping Tone 20 Fone 5 Tone 29 Tone 21 South 2 @ 714z Skeeping Tone 22 Fone 5 Tone 29 Tone 33 8001+2 @ 714z Skeeping Tone 34 Tone 5 Tone 29 Tone 35 7001001+2 @ 714z Skeeping Tone 36 8001+2 @ 714z Skeeping Tone 37 Tone 5 Tone 29 Tone 38 8001+2 @ 714z Skeeping Tone 39 8001+2 @ 714z Skeeping Tone 30 Tone 4 Tone 5 Tone 29 Tone 31 10001+2 @ 714z Skeeping Tone 30 1001+2 @ 714z Skeeping Tone 30 1001+2 @ 714z Skeeping Tone 30 1001+2 @ 714z Skeeping Tone 31 10001+2 @ 714z Skeeping	Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop								Tone 2	Tone 5	Tone 29
Tone 6 2400/2900Hz @ 7Hz Sweeping	Tone 4	800/1000Hz @ 1Hz Sweeping	$\overline{}$							Tone 6	Tone 5	Tone 29
Tone 7 2400/2900Hz @ 1Hz Sweeping	Tone 5	2400Hz Continuous								Tone 3	Tone 20	Tone 29
Tone 8	Tone 6	2400/2900Hz @ 7Hz Sweeping	$\wedge \wedge \wedge$							Tone 7	Tone 5	Tone 29
Tone 9 1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P. Tone 10 2400/2900Hz @ 2Hz Alternating Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 13 2400Hz @ 1Hz Intermittent Tone 1 Tone 5 Tone 29 Tone 13 2400Hz @ 1Hz Intermittent Tone 1 Tone 5 Tone 29 Tone 13 2400Hz @ 1Hz Intermittent Tone 1 Tone 5 Tone 29 Tone 14 800Hz 0 25sec on, 1 sec off intermittent Tone 1 Tone 5 Tone 29 Tone 15 800Hz 0 25sec on, 1 sec off intermittent Tone 1 Tone 2 Tone 5 Tone 29 Tone 16 660Hz 1.5sec on, 1.5sec off intermittent Tone 1 Tone 2 Tone 5 Tone 29 Tone 18 660Hz 1.ssec on, 1.ssec off intermittent Tone 1 South 2 Tone 2 Tone 5 Tone 29 Tone 18 660Hz 1.ssec on, 1.ssec off intermittent Tone 1 Tone 2 Tone 5 Tone 29 Tone 18 660Hz 1.ssec on, 1.ssec off intermittent Tone 2 Tone 5 Tone 29 Tone 18 660Hz 2 Tone 2 Tone 5 Tone 29 Tone 19 1.4KHz-1 GKHz 1 KHz 1 KHz 0.5s - NFC48-2855 Tone 20 660Hz 2 Continuous Tone 2 Tone 5 Tone 29 Tone 20 544Hz @ 0.875 sec. Intermittent Tone 2 Tone 5 Tone 29 Tone 20 544Hz @ 0.875 sec. Intermittent Tone 2 Tone 5 Tone 29 Tone 20 544Hz @ 0.875 sec. Intermittent Tone 2 Tone 5 Tone 29 Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 26 Tone 27 Tone 29 Tone 27 Tone 29 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 800/1000Hz @ 50Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 20 800Hz @ 20Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 20 800Hz @ 20Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 20 800Hz @ 50Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 21 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 21 Tone 5 Tone 29 Tone 22 Tone 5 Tone 29 Tone 23 Tone 5 Tone 29 Tone 24 Tone 5 Tone 29 Tone 25 Tone 5 Tone 29 Tone 26 Tone 5 Tone 29 Tone 27 Tone 5 Tone 29 Tone 28 Tone 5 Tone 29 Tone 29 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 21 Tone 5 Tone 29 Tone 22 Tone 5 Tone 29 Tone 23 Tone 5 Tone 29 Tone 24 Tone 5 Tone 29 Tone 25 Tone 5 Tone 29 Tone 26 Tone 5	Tone 7	2400/2900Hz @ 1Hz Sweeping								Tone 10	Tone 5	Tone 29
Tone 10 2400/2900Hz @ 2Hz Alternating Tone 11 1000Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 12 800/1000Hz @ 0.875Hz Alternating Tone 13 2400Hz @ 1Hz Intermittent Tone 14 800Hz @ 25sec on, 1 sec off Intermittent Tone 15 Tone 29 Tone 16 800Hz @ 25sec on, 1 sec off Intermittent Tone 17 Tone 18 800Hz @ 25sec on, 1 sec off Intermittent Tone 18 800Hz @ 25sec on, 1 sec off Intermittent Tone 19 Tone 19 Tone 20 Tone 10 800Hz @ 1Hz Intermittent Tone 20 Tone 20 Tone 10 800Hz @ 1Hz Intermittent Tone 20 Tone 20 Tone 20 Tone 11 800Hz @ 1Hz Intermittent Tone 21 Tone 20 Tone 20 Tone 11 800Hz @ 1Hz Intermittent Tone 21 Tone 20 Tone 20 Tone 18 600Hz 1,88ec on, 1 8sec off Intermittent Tone 20 Tone 20 Tone 20 Tone 19 1,4KHz-1,6KHz 1s, 1,6KHz-1,4KHz 0.5s -NFC48-265 Tone 20 660Hz @ 1Hz Alternating Tone 21 Tone 20 Tone 20 Tone 20 Tone 21 So4Hz @ 1Hz Alternating Tone 22 Tone 20 Tone 20 Tone 20 Tone 21 So4Hz @ 1Hz Alternating Tone 22 Tone 20 Tone	Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	$\overline{}$							Tone 2	Tone 5	Tone 29
Tone 11 1000Hz @ 1Hz Intermittent	Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	MMMM							Tone 15	Tone 2	Tone 29
Tone 12 800/1000Hz @ 0.875Hz Alternating	Tone 10	2400/2900Hz @ 2Hz Alternating								Tone 7	Tone 5	Tone 29
Tone 13 2400Hz @ 1Hz Intermittent	Tone 11	1000Hz @ 1Hz Intermittent								Tone 2	Tone 5	Tone 29
Tone 14 800Hz 0.25sec on, 1 sec off Intermittent	Tone 12	800/1000Hz @ 0.875Hz Alternating								Tone 4	Tone 5	Tone 29
Tone 15 800Hz Continuous Tone 16 660Hz 150mS on, 150mS off Intermittent Tone 17 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 18 660Hz 150mS on, 150mS off Intermittent Tone 27 Tone 29 Tone 18 660Hz 1.8sec on, 1.8sec of Intermittent Tone 28 Tone 29 Tone 19 1.4KHz 1.6, IskHz 1.4, IskHz 1.5, IskHz-1.4KHz 0.5s -NFC48-265 Tone 20 660Hz Continuous Tone 20 Tone 57 Tone 29 Tone 21 Tone 57 Tone 29 Tone 22 Tone 57 Tone 29 Tone 22 Tone 57 Tone 29 Tone 23 544Hz (9 0.875 sec. Intermittent Tone 24 Tone 57 Tone 29 Tone 25 544Hz (9 0.875 sec. Intermittent Tone 25 Tone 29 Tone 26 Tone 27 Tone 57 Tone 29 Tone 27 Tone 28 Tone 28 800Hz (9 2Hz Intermittent Tone 29 Tone 57 Tone 29 Tone 29 Tone 57 Tone 29 Tone 29 Tone 58 Tone 29 Tone 29 Tone 58 Tone 29 Tone 29 Tone 59 Tone 29 Tone 29 Tone 59 Tone 29 Tone 29 Tone 50 Tone 29 Tone 29 Tone 59 Tone 29 Tone 29 Tone 50 Tone 29 Tone 20 Tone 50 Tone 29 Tone 20 Tone 50 Tone 29 Tone 21 Tone 50 Tone 29 Tone 22 Tone 50 Tone 29 Tone 23 Tone 50 Tone 29 Tone 24 440Hz Continuous Tone 25 Tone 50 Tone 29 Tone 27 Tone 50 Tone 29 Tone 28 440Hz Continuous Tone 28 Tone 50 Tone 29 Tone 29 Tone 50 Tone 29 Tone 29 Tone 50 Tone 29 Tone 29 Tone 50 Tone 29 Tone 20 Tone 50 Tone 29 Tone 21 Tone 50 Tone 29 Tone 22 Tone 50 Tone 29 Tone 23 Tone 50 Tone 29 Tone 24 Tone 50 Tone 29 Tone 25 Tone 50 Tone 29 Tone 26 Tone 50 Tone 29 Tone 27 Tone 50 Tone 29 Tone 28 Tone 50 Tone 29 Tone 30 Tone 60 Tone 50 Tone 29 Tone 31 Tone 60 Tone 50 Tone 29 Tone 32 Tone 60 To	Tone 13	2400Hz @ 1Hz Intermittent								Tone 15	Tone 5	Tone 29
Tone 16 660Hz 150mS on, 150mS off Intermittent	Tone 14	800Hz 0.25sec on, 1 sec off Intermittent								Tone 4	Tone 5	Tone 29
Tone 17 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 18 660Hz 1.8sec on, 1.8sec off intermittent Tone 2 Tone 5 Tone 29 Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s - NFC48-265 Tone 20 660Hz Continuous Tone 2 Tone 5 Tone 29 Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 21 Tone 5 Tone 29 Tone 22 544Hz @ 0.875 sec. Intermittent Tone 2 Tone 5 Tone 29 Tone 23 800Hz @ 2Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 24 800/1000Hz @ 50Hz Sweeping Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 26 Bell Tone 27 Tone 27 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 26 Tone 5 Tone 29 Tone 27 Tone 29 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 20 Tone 5 Tone 29 Tone 27 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Roo/1000Hz @ 7Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 20 Tone 5 Tone 29 Tone 21 Tone 20 Tone 5 Tone 29 Tone 22 Tone 5 Tone 29 Tone 23 Tone 24 Tone 5 Tone 29 Tone 25 Tone 26 Tone 5 Tone 29 Tone 27 Tone 28 Tone 29 Tone 5 Tone 29 Tone 28 Tone 29 Tone 5 Tone 29 Tone 29 Roo/1000Hz @ 7Hz Sweeping Tone 20 Tone 5 Tone 29 Tone 30 300Hz Continuous Tone 30 To	Tone 15	800Hz Continuous								Tone 2	Tone 5	Tone 29
Tone 18 660Hz 1.8sec on, 1.8sec off Intermittent Tone 19 1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	Tone 16	660Hz 150mS on, 150mS off Intermittent								Tone 18	Tone 5	Tone 29
Tone 19	Tone 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001								Tone 2	Tone 27	Tone 29
Tone 20 660Hz Continuous Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 22 544Hz @ 0.875 sec. Intermittent Tone 22 544Hz @ 0.875 sec. Intermittent Tone 23 800Hz @ 2Hz Intermittent Tone 24 800/1000Hz @ 50Hz Sweeping Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 26 Bell Tone 27 554Hz Continuous Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 27 554Hz Continuous Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Tone 27 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Tone 27 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 27 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 29 Tone 5 Tone 29 Tone 30 300Hz Continuous Tone 31 660/1200Hz @ 1Hz Sweeping Tone 31 660/1200Hz @ 1Hz Sweeping Tone 32 Two tone chime. Tone 33 745Hz @ 1Hz Intermittent Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 500-1200Hz @ 0.5 sec Alternating - Singapore Tone 38 2000Hz Continuous Tone 39 800Hz Continuous Tone 30 800Hz Continuous Tone 30 Tone 29 Tone 30 Tone 20 Tone 5 Tone 29 Tone 31 Tone 32 Tone 5 Tone 29 Tone 33 1000Hz Continuous - PFEER Toxic Gas Tone 39 800Hz Continuous Tone 30 Tone 30 Tone 27 Tone 5 Tone 29 Tone 38 2000Hz Continuous Tone 39 Tone 30 Tone 29 Tone 30 Tone 30 Tone 30 Tone 45 Tone 29 Tone 30 Tone 30 Tone 45 Tone 29 Tone 30 Tone 30 Tone 45 Tone 29 Tone 30 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent								Tone 2	Tone 5	Tone 29
Tone 21 554Hz/440Hz @ 1Hz Alternating Tone 22 544Hz @ 0.875 sec. Intermittent Tone 23 800Hz @ 2Hz Intermittent Tone 24 800/1000Hz @ 50Hz Sweeping Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 26 Bell Tone 27 554Hz Continuous Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Tone 27 Tone 29 Tone 28 440Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Tone 20 Tone 29 Tone 20 Tone 21 Tone 20 Tone 20 Tone 20 Tone 20 Tone 20 Tone 21 Tone 20 Tone 20 Tone 20 Tone 20 Tone 20 Tone 30 300Hz Continuous Tone 20 Tone 30 Tone 20 Tone 30 Tone 20 Tone 31 660/1200Hz @ 1Hz Sweeping Tone 32 Two tone chime. Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 37 1000Hz Continuous Tone 38 2000Hz Continuous Tone 39 800Hz Costinuous Tone 30 Tone 30 Tone 30 Tone 30 Tone 30 Tone 30 Tone 20 Tone 30 800Hz Costinuous Tone 30	Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265								Tone 2	Tone 5	Tone 29
Tone 22 544Hz @ 0.875 sec. Intermittent Tone 23 800Hz @ 2Hz Intermittent Tone 24 800/1000Hz @ 50Hz Sweeping Tone 25 2400/2900Hz @ 50Hz Sweeping Tone 26 Bell Tone 27 554Hz Continuous Tone 28 800Hz Continuous Tone 29 Tone 5 Tone 29 Tone 29 Tone 5 Tone 29 Tone 29 Tone 5 Tone 29 Tone 20 Tone 20 Tone 5 Tone 29 Tone 20 Tone 20 Tone 5 Tone 29 Tone 20 Tone 20 Tone 20 Tone 5 Tone 29 Tone 20 Tone 30 Tone 20 Tone 30 Tone 20 Tone 30	Tone 20	660Hz Continuous								Tone 2	Tone 5	Tone 29
Tone 23 800Hz @ 2Hz Intermittent	Tone 21	554Hz/440Hz @ 1Hz Alternating								Tone 2	Tone 5	Tone 29
Tone 24 800/1000Hz @ 50Hz Sweeping	Tone 22	544Hz @ 0.875 sec. Intermittent								Tone 2	Tone 5	Tone 29
Tone 25 2400/2900Hz @ 50Hz Sweeping	Tone 23	800Hz @ 2Hz Intermittent								Tone 6	Tone 5	Tone 29
Tone 26 Bell Dillimit Tone 27 Tone 26 Tone 15 Tone 29 Tone 27 554Hz Continuous Tone 28 Tone 26 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 27 Tone 27 Tone 5 Tone 29 Tone 29 800/1000Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 29 Tone 31 660/1200Hz @ 1Hz Sweeping Tone 26 Tone 27 Tone 5 Tone 29 Tone 32 Two tone chime. Tone 26 Tone 26 Tone 5 Tone 29 Tone 33 745Hz @ 1Hz Intermittent Tone 26 Tone 5 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 36 Tone 37 Tone 36 Tone 5 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec Australian Evac. Tone 37 Tone 36 Tone 5 Tone 29 Tone 38 2000Hz Continuous - PFEER Toxic Gas Tone 29 Tone 34 Tone 25 Tone 29	Tone 24	800/1000Hz @ 50Hz Sweeping	MWWWWMMM							Tone 29	Tone 5	Tone 29
Tone 27 554Hz Continuous Tone 26 Tone 5 Tone 29 Tone 28 440Hz Continuous Tone 5 Tone 29 Tone 29 800/1000Hz @ 7Hz Sweeping Tone 7 Tone 5 Tone 29 Tone 30 300Hz Continuous Tone 2 Tone 5 Tone 5 Tone 29 Tone 31 660/1200Hz @ 1Hz Sweeping Tone 26 Tone 5 Tone 29 Tone 32 Two tone chime. Tone 26 Tone 26 Tone 15 Tone 29 Tone 33 745Hz @ 1Hz Intermittent Tone 2 Tone 5 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 37 Tone 37 Tone 37 Tone 37 Tone 45 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 37 Tone 34 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 23 Tone 17 Tone 29 Tone 40 544Hz	Tone 25	2400/2900Hz @ 50Hz Sweeping	MWWWWMMM							Tone 29	Tone 5	Tone 29
Tone 28 440Hz Continuous Tone 2 Tone 5 Tone 29 Tone 29 800/1000Hz @ 7Hz Sweeping Tone 7 Tone 7 Tone 5 Tone 29 Tone 30 300Hz Continuous Tone 5 Tone 29 Tone 20	Tone 26	Bell	IIIIIIIIIIII o							Tone 2	Tone 15	Tone 29
Tone 29 800/1000Hz @ 7Hz Sweeping Tone 7 Tone 7 Tone 5 Tone 29 Tone 30 300Hz Continuous Tone 29 Tone 29 Tone 29 Tone 27 Tone 29 Tone 31 660/1200Hz @ 1Hz Sweeping Tone 26 Tone 26 Tone 5 Tone 29 Tone 32 Two tone chime. Tone 26 Tone 15 Tone 29 Tone 33 745Hz @ 1Hz Intermittent Tone 27 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec Australian Evac. Tone 35 Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 37 Tone 34 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 29 Tone 29 Tone 29	Tone 27	554Hz Continuous								Tone 26	Tone 5	Tone 29
Tone 30 300Hz Continuous Tone 2 Tone 5 Tone 29 Tone 31 660/1200Hz @ 1Hz Sweeping Tone 26 Tone 5 Tone 29 Tone 32 Two tone chime. Tone 26 Tone 15 Tone 29 Tone 33 745Hz @ 1Hz Intermittent Tone 27 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 38 Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 35 Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 36 Tone 37 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 45 Tone 29 Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 31 Tone 27 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 31 Tone 27 Tone 29	Tone 28	440Hz Continuous	-							Tone 2	Tone 5	Tone 29
Tone 31 660/1200Hz @ 1Hz Sweeping Tone 32 Two tone chime. Tone 32 Two tone chime. Tone 33 745Hz @ 1Hz Intermittent Tone 24 Tone 5 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 38 2000Hz Continuous - PFEER Toxic Gas Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 29 Tone 30 544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 29	800/1000Hz @ 7Hz Sweeping	$\wedge \wedge \wedge$							Tone 7	Tone 5	Tone 29
Tone 32 Two tone chime. Image: Continuous of the chime. Tone 26 Tone 15 Tone 29 Tone 33 745Hz @ 1Hz Intermittent Image: Continuous of the chime.	Tone 30	300Hz Continuous								Tone 2	Tone 5	Tone 29
Tone 33 745Hz @ 1Hz Intermittent ■ Tone 2 Tone 5 Tone 29 Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore ■ Tone 38 Tone 45 Tone 29 Tone 35 420Hz @ 0.625 sec Australian Alert ■ Tone 36 Tone 5 Tone 29 Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. ■ Tone 35 Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas ■ Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous ■ Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent ■ Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 ■ Tone 31 Tone 27 Tone 29	Tone 31	660/1200Hz @ 1Hz Sweeping	\wedge							Tone 26	Tone 5	Tone 29
Tone 34 1000 & 2000Hz @ 0.5 sec Alternating - Singapore Tone 35 420Hz @ 0.625 sec Australian Alert Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 38 2000Hz Continuous Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 30 500-1200Hz 3.75sec /0.25sec Australian Evac. Tone 31 Tone 32 Tone 33 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 39 500-1200Hz Tone 39 Tone 45 Tone 29 Tone 39 544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 32	Two tone chime.								Tone 26	Tone 15	Tone 29
Tone 35 420Hz @ 0.625 sec Australian Alert	Tone 33	745Hz @ 1Hz Intermittent								Tone 2	Tone 5	Tone 29
Tone 36 500-1200Hz 3.75sec /0.25sec. Australian Evac. Tone 35 Tone 5 Tone 29 Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 45 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 29 Tone 27 Tone 29	Tone 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore								Tone 38	Tone 45	Tone 29
Tone 37 1000Hz Continuous - PFEER Toxic Gas Tone 9 Tone 45 Tone 29 Tone 38 2000Hz Continuous Tone 34 Tone 34 Tone 45 Tone 29 Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 29 Tone 23 Tone 17 Tone 29 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 29 Tone 31 Tone 27 Tone 29	Tone 35	420Hz @ 0.625 sec Australian Alert								Tone 36	Tone 5	Tone 29
Tone 38 2000Hz Continuous	Tone 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.								Tone 35	Tone 5	Tone 29
Tone 39 800Hz 0.25sec on, 1 sec off Intermittent Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001 Tone 29	Tone 37	1000Hz Continuous - PFEER Toxic Gas								Tone 9	Tone 45	Tone 29
Tone 40 544Hz (100mS)/440Hz (400mS) - NF S 32-001	Tone 38	2000Hz Continuous	(I) (I)							Tone 34	Tone 45	Tone 29
	Tone 39	800Hz 0.25sec on, 1 sec off Intermittent								Tone 23	Tone 17	Tone 29
Tone 41 Motor Siren - slow rise to 1200 Hz	Tone 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001								Tone 31	Tone 27	Tone 29
	Tone 41	Motor Siren - slow rise to 1200 Hz								Tone 2	Tone 5	Tone 29
Tone 42 Motor Siren - slow rise to 800 Hz	Tone 42	Motor Siren - slow rise to 800 Hz								Tone 2	Tone 5	Tone 29
Tone 43 1200 Hz Continuous Tone 2 Tone 5 Tone 29	Tone 43	1200 Hz Continuous								Tone 2	Tone 5	Tone 29
Tone 44 Motor Siren - slow rise to 2400 Hz	Tone 44	Motor Siren - slow rise to 2400 Hz								Tone 2	Tone 5	Tone 29
Tone 45 1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm	Tone 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. Alarm								Tone 38	Tone 34	Tone 29