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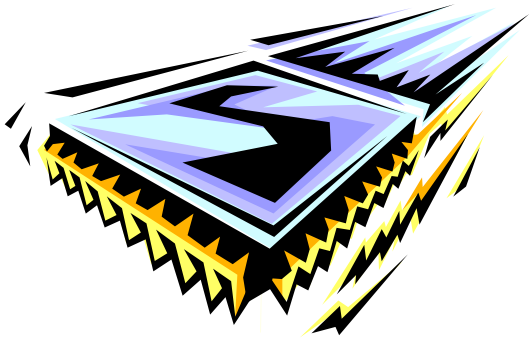

Specialised Embedded Computer and Electronic Designs

Operation Manual for the

VEHICLE ANNOUNCER

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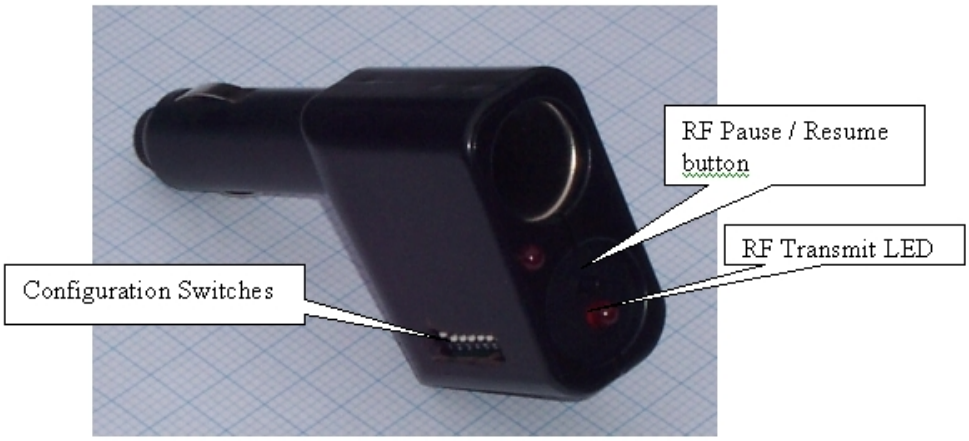
Vehicle Announcer Overview

The VA "Vehicle Announcer" is a plug in module that communicates with your Home Automation system, notifying the system that the vehicle is leaving or arriving. This is done by using X10 RF ON and OFF signals. When the vehicle is leaving the unit transmits a X10 RF ON signal, when the vehicle is arriving it transmits a X10 RF OFF signal.

The house and unit number are programmable as well as other user defined settings.



The VA is designed to plug into the Auxiliary Power (Cigarette Lighter socket) connecter available in virtually all cars and also has a spare socket for other plug-in items such as mobile phone chargers.

Sample Usage
When the car is started in the driveway, the HA system logs that the car has been started, then turns ON the driveway lights and relevant external house lights and announces that "Neil's car is leaving" via the in house audio system. When the car returns and approaches the house the HA system logs that the car is returning, then turns ON the driveway lights and relevant external house lights and announces that "Neil's car is arriving" via the in house audio system.

Features

- RF Transmission LED - This led flashes twice for each RF ON message and once per RF OFF message.

- RF Pause / Resume Pushbutton - Allows the user to pause the transmission of RF messages. Auto pausing after transmission of the ON messages may be set via a dip switch.
- 64 Possible House & Unit numbers - Allows each family member to have their own unique identification.
- RF Range is approximately 50..100m. This is variable and depends on the surroundings, buildings etc.

Configuration

An eight way dip switch is used to program the House and Unit code as well as configuring optional extended setup information.

House & Unit Code setting

Dip switch 1 & 2 define the House code, this ranges from M to P.

House Code

SW1	SW2	House Code
OFF	OFF	M
OFF	ON	N
OFF	OFF	O
ON	ON	P

Unit Code

Dip switch 3..6 define the Unit code, this ranges from 1 to 16.

SW3	SW4	SW5	SW6	Unit Code
OFF	OFF	OFF	OFF	1
OFF	OFF	OFF	ON	2
OFF	OFF	ON	OFF	3
OFF	OFF	ON	ON	4
OFF	ON	OFF	OFF	5
OFF	ON	OFF	ON	6
OFF	ON	ON	OFF	7
OFF	ON	ON	ON	8
ON	OFF	OFF	OFF	9
ON	OFF	OFF	ON	10
ON	OFF	ON	OFF	11
ON	OFF	ON	ON	12
ON	ON	OFF	OFF	13
ON	ON	OFF	ON	14
ON	ON	ON	OFF	15
ON	ON	ON	ON	16

General Setup Options

SW7	SW8	Functions
OFF	X	Resume After button press
ON	X	Always Transmits
X	OFF	Don't Flash RF Led during transmission
X	ON	Flash RF Led during RF transmission

When the SW7 is set to OFF, then the VA unit will transmit the X10 ON code for the setup period and will then pause RF transmissions. Whilst the unit is in the paused mode, the RF Led will show a slow strobe effect. When the RF Pause/Resume button has been pressed, the unit will then start/resume transmitting the OFF command.

Extended Setup Options

These options are programmed into non volatile memory. To set these options ensure that no power is applied to the device (car ignition turned off), set the dip switches to the required positions as per the below tables, depress the RF enable button and apply power whilst holding in the button (turn ON car ignition). After the power has been applied the RF status LED will flash three times indicating that the extended setup options have been set.

Turn off power and set the House, Unit code and General setup option switches (Sw 7,8) to the require positions and Apply power.

On Polling Frequency

This is the delay between sending the ON commands (In Seconds)

SW1	SW2	Seconds
OFF	OFF	1
OFF	ON	2*
ON	OFF	3
ON	ON	4

* Denotes Factory default.

On Duration

This is the number of minutes to transmit the ON commands for.

SW3	SW4	Minutes
OFF	OFF	1
OFF	ON	2*
ON	OFF	3
ON	ON	4

* Denotes Factory default.

Off Polling Frequency

This is the delay between sending the OFF commands (In Seconds)

SW1	SW2	Seconds
OFF	OFF	1
OFF	ON	2*
ON	OFF	3
ON	ON	4

No of Messages

This is the number of actual X10 messages set on each transmission. Unbeknown to most people, most X10 RF keypads, PIR's and remotes actually transmit at least two messages for each button press.

SW1	SW2	Messages
OFF	OFF	1
OFF	ON	2*
ON	OFF	3
ON	ON	4

* Denotes Factory default.