



- International and European Tones (programmable)
- PA and non-PA models available
- Audible sense feature included as standard
- 100w or 60w selectable
- Low current 'standby' feature
- Positive and negative triggers
- 12 or 24 volt models available
- Reduced size due to SMD technology (120x95.5x51.5mm)
- Tone selector accessible externally
- Run cool circuit and aluminium enclosure with improved heat dissipation
- Improved connectors
- EMC/R10 compliant
- 2 year warranty
- Manufactured in the United Kingdom

## Description

The Redtronic siren range have had many improvements including reduced size, easier selectable options, improved aesthetics and heat sinking capability. The latest 2018 release is available from July 2018 onwards. Previous versions will be discontinued.

## Part Numbers

ORDER CODE	DESCRIPTION	WATT	VOLT
EM500.100.12.IN	EM500 SIREN UK/INT TONE (IN DIP1246) {NO SPEAKER}	100W	12V
EM500.100.12.FR	EM500 SIREN FRANCE TONE (EU DIP12) {NO SPEAKER}	100W	12V
EM500.100.12.AU	EM500 SIREN AUSTRIA TONE (EU DIP2) {NO SPEAKER}	100W	12V
EM500.100.12.CY	EM500 SIREN CYPRUS TONE (EU DIP4){NO SPEAKER}	100W	12V
EM500.100.12.DE	EM500 SIREN GERMAN TONES (EU DIP0) {NO SPEAKER}	100W	12V
EM500.100.12.FI	EM500 SIREN FINLAND TONE (IN DIP5) {NO SPEAKER}	100W	12V
EM500.100.12.IT	EM500 SIREN ITALY TONE (IN DIP34) NO SPEAKER	100W	12V
EM500.100.12.NL	EM500 SIREN NETHERLAND TONE (IN DIP1) NO SPEAKER	100W	12V
EM500.100.12.NO	EM500 SIREN NORWAY TONE (IN DIP25) NO SPEAKER	100W	12V
EM500PA.100.12.IN	EM500 SIREN PA & MIC UK/INT TONE (IN DIP1246) {NO SPEAKER}	100W	12V
EM500PA.100.12.FR	EM500 SIREN PA & MIC FRANCE TONE (EU DIP12) {NO SPEAKER}	100W	12V
EM500PA.100.12.AU	EM500 SIREN PA & MIC AUSTRIA TONE (EU DIP2) {NO SPEAKER}	100W	12V
EM500PA.100.12.CY	EM500 SIREN PA & MIC CYPRUS TONE (EU DIP4){NO SPEAKER}	100W	12V
EM500PA.100.12.DE	EM500 SIREN PA & MIC GERMAN TONES (EU DIP0) {NO SPEAKER}	100W	12V
EM500PA.100.12.FI	EM500 SIREN PA & MIC FINLAND TONE (IN DIP5) {NO SPEAKER}	100W	12V
EM500PA.100.12.IT	EM500 SIREN PA & MIC ITALY TONE (IN DIP34) {NO SPEAKER}	100W	12V
EM500PA.100.12.NL	EM500 SIREN PA & MIC NETHERLAND TONE (IN DIP1) {NO SPEAKER}	100W	12V
EM500PA.100.12.NO	EM500 SIREN PA & MIC NORWAY TONE (IN DIP25) {NO SPEAKER}	100W	12V

SPEAKERS SHOULD BE ORDERED SEPERATELY.

## Tones (brief description)

- **EM500:** Standard UK/International tones (Wail, Yelp, Hi/Lo, Phaser & Bullhorn)
- **EM500EUR:** European tones

## Mounting / fixing

- **EM500:** 2 x Screw points
- **EM500EUR:** 2 x Screw points

## Wattage Output

- 60 or 100watt (dipswitch selectable)

## Warranty

- **Siren** (independent unit): 2 years
- **Siren** (fitted inside lightbar): 2 years

## Technical Information

Model	EM500	EM500EUR	EM500/PA	EM500EUR/PA
<b>Tone / Frequency (Hz)</b>	Standard: 600 - 1500	German: 360-630 Austrian: 392-523 Dutch: 375-500 French: 435-740 Italian: TBC Cypriot: TBC Norway: TBC	Standard: 600-1750	German: 360-630 Austrian: 392-523 Dutch: 375-500 French: 435-740H Italian: TBC Cypriot: TBC Norway: TBC
<b>Voltage</b>	12v (10-16V)	12v (10-16V)	12v (10-16V)	12v (10-16V)
<b>Available in 24v?</b>	YES (EM500/24)	YES (EM500EUR/24)	NO	NO
<b>Typical RMS (100w)</b>	105	105	105	105
<b>PA facility</b>	NO	NO	YES	YES
<b>Current draw (100watt)</b>	9 amps	9 amps	9 amps	9 amps
<b>Current draw low power (60watt)</b>	6 amps	6 amps	6 amps	6 amps
<b>Current draw in standby</b>	20ma	20ma	20ma	20ma

## Decibel outputs (with speakers)

Siren	Tone	1 metre	2 metre	3 metre	3.5 metre	7 metre
<b>EM500 STANDARD SIREN (UK &amp; INTERNATIONAL)</b>						
S100SL						
S60C						
S100LP	INT Wail		107.7			
	INT Yelp		110.5			
	INT Hi-Lo		101.5			
	INT Phaser		106.6			
EM60P/RC	INT Wail	115.9		112		97.9
EM60P/PC						
S20IS	INT Wail	121.7		114		101.3
<b>EM500GER – GERMAN TONES</b>						
S100SL						
S60C						
S100LP	GER Country	115.9	110.4	103.1	101.5	100.9
	GER City	112.9	106.7	106.2	102.9	99.1
	GER Komp	110.9	107.3	107.2	105.2	98.4
EM60P/RC						
EM60P/PC						
S20IS						
<b>EM500FRE - FRENCH TONES</b>						
S100SL						
S60C						
S100LP						
EM60P/RC						
EM60P/PC						
S20IS	FR Police Day		113.6			
	FR Police Night		93.7			
	FR Fire Day		112.8			
	FR Fire Night		95.5			
	FR Amb Day		113.2			
	FR Amb Night		89.8			

If fitted															
Code	Tone(s)	Cable	Cable	Cable	Cable	Cable	Notes	1	2	3	4	5	6	7	8
EM500 STANDARD SIREN (UK & INTERNATIONAL)															
IN1	W-Y-OFF-W	+ve	-ve	WH	PH	C/O		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
IN2	W-Y-W	+ve	-ve	WH	PH	C/O		ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
IN3	W-Y-H/L-OFF-W	+ve	-ve	WH	PH	C/O		OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
STANDARD SETTING															
IN4	W-Y-H/L-W	+ve	-ve	WH	PH	C/O		ON	ON	OFF	ON	OFF	ON	OFF	OFF
STANDARD SETTING															
IN5	W-Y-PH-OFF-W	+ve	-ve	WH	PH	C/O		OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
IN6	W-Y-PH-W	+ve	-ve	WH	PH	C/O		ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
IN7	H/L-Y-W-OFF-H/L	+ve	-ve	WH	PH	C/O		OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
IN8	H/L-Y-W-H/L	+ve	-ve	WH	PH	C/O		ON	ON	ON	OFF	OFF	OFF	OFF	OFF
	Double tap off						Enable / disable				ON				
	Bullhorn	+ve	-ve				Enable / disable						ON		
	Bullhorn (only)	+ve	-ve					ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
	PA (only)							OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
EM500 STANDARD SIREN (FINNISH TONES)															
FI1	H/L-Y (6 sec burst)	+ve	-ve					OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
EM500GER – GERMAN TONES															
GE1	Country (+ve)	+ve					+ve	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Country (-ve)		-ve				-ve	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	City			-ve			-ve	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Kompressor				-ve		-ve	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
EM500AUS - AUSTRIAN TONES (FIRE)															
AU1	Fire Plain (+ve)	+ve					+ve	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
	Fire Plain (-ve)		-ve				-ve	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
	Fire Vibrato			-ve			-ve	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
	Fire Vibrato				-ve		w/ brown/blue	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
EM500AUS - AUSTRIAN TONES (RETTUNG)															
AU2	Rettung Plain (+ve)	+ve					+ve	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
	Rettung Plain (-ve)		-ve				-ve	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
	Rettung Vibrato			-ve			-ve	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
	Rettung Vibrato				-ve		w/ brown/blue	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
EM500AUS - AUSTRIAN TONES (SPECIAL)															
AU3	Special Plain (+ve)	+ve					+ve	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
	Special Plain (-ve)		-ve				-ve	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
	Special Vibrato			-ve			-ve	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
	Special Vibrato				-ve		w/ brown/blue	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
EM500AUS - AUSTRIAN TONES (POLICE)															
AU4	Police Plain (+ve)	+ve					+ve	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
	Police Plain (-ve)		-ve				-ve	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
	Police Vibrato			-ve			-ve	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
	Police Vibrato				-ve		w/ brown/blue	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
EM500DUT - DUTCH TONES															
DU1	Standard (+ve)	+ve					+ve	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Standard (-ve)		-ve				-ve	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Vibrato			-ve			-ve	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Vibrato				-ve		w/ brown/blue	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DU2	Add. Vibrato (+ve)	+ve			+ve		+ve	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
	Add. Vibrato (-ve)		-ve		-ve		-ve	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
	Add. vibrato			-ve			-ve	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
EM500FRE - FRENCH TONES															
FR1	Police (+ve)	+ve					+ve	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
	Police (-ve)		-ve				-ve	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
FR2	Fire (+ve)	+ve			Samu		+ve	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
	Fire (-ve)		-ve		Samu		-ve	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
FR3	Samu (+ve)	+ve			Amb		+ve	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
	Samu (-ve)		-ve		Amb		-ve	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
FR4	Gendamerie (+ve)	+ve					+ve	ON	ON	ON	ON	OFF	OFF	OFF	OFF
	Gendamerie (-ve)		-ve				-ve	ON	ON	ON	ON	OFF	OFF	OFF	OFF
FR5	Ambulance (+ve)	+ve					+ve	ON	OFF	ON	ON	ON	OFF	OFF	OFF
	Ambulance (-ve)		-ve				-ve	ON	OFF	ON	ON	ON	OFF	OFF	OFF

EM500ITA - ITALIAN TONES														
IT1	Police (+ve)	+ve					+ve	OFF	OFF	ON	ON	OFF	OFF	OFF
	Police (-ve)		-ve				-ve	OFF	OFF	ON	ON	OFF	OFF	OFF
	Ambulance (-ve)				-ve		-ve	OFF	OFF	ON	ON	OFF	OFF	OFF
EM500ITA - CYPRIOT TONES														
CY1	Police (+ve)	+ve					+ve	OFF	OFF	OFF	ON	OFF	OFF	OFF
EM500NOR - NORWAY TONES														
	Wail (+ve)	+ve					+ve	OFF	ON	OFF	OFF	ON	OFF	OFF
	Wail (-ve)		-ve				-ve	OFF	ON	OFF	OFF	ON	OFF	OFF
	Whoop			-ve			-ve	OFF	ON	OFF	OFF	ON	OFF	OFF
	Yelp (-ve)				-ve		-ve	OFF	ON	OFF	OFF	ON	OFF	OFF
	Yelp (+ve)					+ve	+ve	OFF	ON	OFF	OFF	ON	OFF	OFF

## Fault Finding / Diagnostic LED

If there seems to be a fault with the EM500, your auto electrician should monitor the number of flashes the diagnostic LED provides. The following table should help determine the issue:

LED State / Number of Flashes	Fault
Permanently illuminated	Normal operation
1 Flash	Speaker not connected / weak
2 Flashes	Overload detected after normal operation
3 Flashes	Overload detected as soon as siren started
4 Flashes	Undervoltage detected
5 Flashes	Speaker not connected / weak & undervoltage is detected
6 Flashes	Overload detected after normal operation & undervoltage is detected
7 Flashes	Speaker not connected / weak & overload detected after normal operation & undervoltage detected
8 Flashes	Over temperature trip
16 Flashes	Current detection circuit fault
No illumination	Check power and cable connections

**Dimensions**

