

# Technical Information

LIBRA	COLOUR	SIGNAL 1	SIGNAL 2	BATTERIES	AVERAGE BATTERY LIFE**	VOLTAGE	SOUND LEVEL dB@1m***	SOUND FREQUENCY SIGNAL 1	SOUND FREQUENCY SIGNAL 2	DISPLAY MODULE	
D331E	30m Entrance Chime & Bell Push	White	2-Note		Chime : 3 x LR14 (C) Push : 1 x CR2032 Lithium inc.	1 Year 5 Years		80	740/587		A
D338	50m Chime & Bell Push	Grey	2-Note	4-Note	Chime : 2 x LR6 (AA) Push : 1 x CR2032 Lithium inc.	18 Months 5 Years		82	740/587	740/587/ 660/440	B
D339	50m Chime & Bell Push	White	2-Note	4-Note	Chime : 2 x LR6 (AA) Push : 1 x CR2032 Lithium inc.	18 Months 5 Years		82	740/587	740/587/ 660/440	B
D344	100m Chime & Bell Push*	Grey	2-Note	4-Note	Chime : 2 x LR6 (AA) Push : 1 x CR2032 Lithium inc.	18 Months 5 Years		82	740/587	740/587/ 660/440	A
D346	200m Chime with Light & Bell Push*	Grey	2-Note	4-Note, plus three additional 2-notes	Chime : 2 x LR14 (C) Push : 1 x CR2032 Lithium inc.	1 Year 5 Years		87	740/587	740/587/ 660/440	A
D349	50m Plug-in Chime & Bell Push	White	2-Note	4-Note	Push : 1 x CR2032 Lithium inc.	5 Years	Chime: 220-240V/50Hz	80	740/587	740/587/ 660/440	B
D357	100m Chime & Extender*	White	2-Note	4-Note	Chime : 2 x LR6 (AA) Extender : 1 x 6LR61 (PP3)	18 Months 3 Years		82	740/587	740/587/ 660/440	A
D285	100m Chime*	White	2-Note	4-Note	2 x LR6 (AA)	18 Months		82	740/587	740/587/ 660/440	
D260	Bell Push	Grey			1 x CR2032 Lithium inc.	5 Years					
D261	Bell Push	White			1 x CR2032 Lithium inc.	5 Years					
D271	Extender	White			1 x 6LR61 (PP3)	3 Years					
D254	Mains Adapter	Black									
							Input:220-240V AC Output:3.6V DC				

ADDITIONAL INFORMATION: Operating radio frequency for all Libra products is 433MHz. Operating temperature range for all Chimes is 0°C to +30°C. Operating temperature range for all Pushes is -10°C to +50°C. All Libra products are packed in shipping containers of 4 units. \* Can be powered by Mains Adapter (available separately). \*\* Battery life is dependent on normal usage. \*\*\* Sound levels are measured in free field conditions. Design of Friedland products may be subject to change without prior notice.

CHIMES, BELLS, BUZZERS AND KITS	VOLTAGE	SIGNAL 1	SIGNAL 2	BATTERIES	FRIEDLAND TRANSFORMER	MAX POWER VA/W	SOUND LEVEL dB@1m MAX.	SOUND FREQUENCY NOTE 1 Hz	SOUND FREQUENCY NOTE 2 Hz	DISPLAY MODULE	
D105	Fiesta	8V AC	2-Note		753 or 780	8 VA	75	1480	1174	B	
D107	Facet	6V DC/8V AC	2-Note		4 x R14/C	753 or 780	6 W	80	740	587	B
D108	Carnival	8V AC	2-Note		753 or 780	8 VA	75	1480	1174	B	
D113	Surf	6V DC/8V AC	2-Note		4 x R14/C	753 or 780	6 W	80	740	587	B
D117	Ding Dong	6V DC/8V AC	2-Note		4 x R14/C	753 or 780	6 W	80	740	587	B
D126	Festival	6V DC/8V AC	2 Note		4 x R14/C	753 or 780	6 W	80	740	587	B
D209	Maestro	8V AC	2-Note	1-Note	753 or 780	8 VA	75	1480	1174	B	
D230	Big Ben	6V DC/8V AC	2-Note	1-Note	4 x R14/C	753 or 780	6 W	80	740	587	B
D238	Shield	6V DC/8V AC	2-Note	1-Note	4 x R14/C	753 or 780	6 W	80	740	587	B
D239	Bandera	6V DC/8V AC	2-Note	1-Note	4 x R14/C	753 or 780	6 W	80	740	587	B
404	York Tube Chime	6V DC/8V AC	2-Note		4 x R20/D	753 or 780	6 W	90			A
D426	Festival	6V DC/8V AC	Warbling	1-Note	4 x R14/C	753 or 780	6 W	80	740	587	B
D430W	Chevron	6V DC/8V AC	Warbling	2-Note	4 x R14/C	753 or 780	6 W	87	740	587	A
D454	Warbler	6V DC/8V AC	Warbling	2-Note	4 x R14/C	753 or 780	6 W	87	740	587	A
DE821	Quartet	6V DC/8V AC	4-Note	2-Note	4 x R6/AA	753 or 780	1.2 W	80	660/550/440/370	660/550/440/370	B
D833E	Harmony	3V DC/8V AC	25 Tunes		2 x R6/AA	753 or 780	0.5 W	78			A or B
D852E	Chorus	6V DC/8V AC	29 Tunes	1 Tune	4 x R6/AA	753 or 780	1.8 W	83			A
D182	Minibuzzer	8V AC	Buzzer		743 or 770		90				B
D422	Surf Kit	6V DC/8V AC	2-Note		4 x R14/C	753 or 780	80	740	587		
D424	Facet Kit	6V DC/8V AC	2-Note		4 x R14/C	753 or 780	80	740	587		
D792	Underdome	8V AC	Bell		743 or 770		85				
D902	Bell-in-One	3V DC	Bell		2 x RD20/D		80				B
D973	Bell Kit	3V DC	Bell		2 x R20/D		80				
D128	Hockey Chime		2-Note		753 or 780	6 W	80	740	587	B	

MAINS VOLTAGE CHIMES WITH BUILT-IN TRANSFORMERS		VOLTAGE	SIGNAL 1	MAX. POWER V/A/W	SOUND LEVEL dB@1m MAX	SOUND FREQUENCY NOTE 1 Hz	SOUND FREQUENCY NOTE 2 Hz	DISPLAY MODULE
D3126	Festival (incl. Transformer)	220-240V AC 50Hz	2-Note	16 VA	80	740	587	B
D3230	Big Ben (incl. Transformer)	220-240V AC 50Hz	2-Note	16 VA	80	740	587	B

PUSHES			LIGHTED	SPARE LAMP	FINISH	DISPLAY MODULE
D2105	Fiesta	110-120V AC, 2	2-Note	14 VA	75	1480
D534	Lightspot		Yes	D70		B (1)
D534W	Lightspot		Yes	D70		
D611	Gem					
D620	Elite	16mm hole req.			Brass	B (1,2,7)
D622	Ducat				Brass	B (2,7)
D624	Halo		Yes	1114	Brass	B (1,2)
D630	Luna				Chrome	
D639	Mesa	16mm hole req.	Yes	1114		B (3)
D642	Button	16mm hole req.				
D6421	Button	16mm hole req.				
D647	Pear Push					
D660	Rosario	16mm hole req.			Brass	B (3)
D663	Florian	16mm hole req.	Yes	1114	Brass	B (3,4)
D664	Medallion	16mm hole req.	Yes	1114	Brass	B (3)
D665	Union	16mm hole req.	Yes	1114	Brass	B (4)
D667	Benton	16mm hole req.	Yes	1114	Brass	B (4,7)
D669	Legion	16mm hole req.			Brass	B (3,4)
D680	Quadra					
D681	Quadra		Yes	D72		
D723	Pushlite		Yes	D70		B (1,2)
D723W	Pushlite		Yes	D70		
D814	Sesame					B (1,2)
D824	Dimex					B (1,2)
D1053	Door Contact					
D1225	Index					
D1226	Index	-	Yes	D72		

TRANSFORMERS	SWITCH	MOUNTING TYPE	PRIMARY	SECONDARY	DISPLAY MODULE
D743 Transformer	No	Surface	220-240V 50Hz	8V 0.5A	B (5)
D753 Transformer	No	Surface	220-240V 50Hz	8V 1A	B (5,6,7)
D770 Transformer	No	DIN/Surface	220-240V 50Hz	8V 0.5A	
D780 Transformer	No	DIN/Surface	220-240V 50Hz	8V 1A	B (6)
D780S Transformer	Yes	DIN/Surface	220-240V 50Hz	8V 1A	
D765 Transformer	No	DIN/Surface	220-240V 50Hz	12V 1A	
E3549 Transformer	No	DIN/Surface	220-240V 50Hz	8V 1.5A	
E3554N Transformer	No	DIN/Surface	220-240V 50Hz	8V 2A	
E3554SN Transformer	Yes	DIN/Surface	220-240V 50Hz	8V 2A	
E3538N Transformer	No	DIN/Surface	220-240V 50Hz	12V 1.5A	
E3538SN Transformer	Yes	DIN/Surface	220-240V 50Hz	12V 1.5A	
E3539N Transformer	No	DIN/Surface	220-240V 50Hz	12V 2A	

WIRING CONNECTIONS	BATTERY OPERATION		TRANSFORMER OPERATION		
	PUSH 1	PUSH 2	TRANSFORMER	PUSH 1	PUSH 2
105, 108	For use with external battery only		1 + 3	0 + 1	
209	For use with external battery only		0 + 3	0 + 2	0 + 1
107,113,117,126,128	1 + 2		1 + 3	0 + 1	
230,238,239	0 + 2	0 + 1	0 + 3	0 + 2	0 + 1
404	0 + 2		0 + 1	0 + 2	
426	0 + 1	0 + 2	0 + 3	0 + 1	0 + 2
430W,454	0 + A	0 + B	0 + 3	0 + A	0 + B
E821, 852E	0 + 1	0 + 2	3 + 4	0 + 1	0 + 2
833E	0 + 1		2 + 3	0 + 1	
902	0 + 1				
792,182			*	*	

\* Terminals are unmarked, Push should be wired in series with Bell and Transformer.  
Two incoming wires are then connected to either terminal.

# Technical Information

SPECTRA RANGE	CATALOGUE No. AND COLOUR	COVERAGE	RANGE	TILT	SWIVEL	"TIME ON" DURATION	IP RATING	LAMP MAX. WATTAGE	MAXIMUM SWITCHING LOAD GLS	MAXIMUM SWITCHING LOAD HALOGEN
360° PIR	6013e White 6014e Black	360°	12m	25°	20°	15sec - 15min	IP 44		1000 Watts (1kW)	1000 Watts (1kW)
200°	6015eWhite 6016e Black	200°	15m	50°	20°	5sec - 5min	IP 54		1000 Watts (1kW)	1000 Watts (1kW)
140°	6017eWhite 6018e Black	140°	15m	50°	40°	5sec - 5min	IP 44		1000 Watts (1kW)	1000 Watts (1kW)
Maxiflood	6025eWhite 6026e Black	200°	15m	50°	20°	5sec - 5min	IP 54	500W	1000 Watts (1kW)	500 Watts (0.5kW)
Miniflood	6035eWhite 6036e Black	140°	15m	50°	40°	5sec - 5min	IP 44	150W		
Superflood	6028eWhite 6027e Black	140°	15m	50°	40°	5sec - 5min	IP 44	500W		
Spectra Lite	6006e White	110°	8m		40°	5sec - 5min	IP 44	60W	1200 Watts (1.2kW)	1000 Watts (1kW)
Wirefree Kit	6551e White 6550e Black	140°	15m	50°	20°	15sec - 15min	IP 54		1000 Watts (1kW)	1000 Watts (1kW)
Wirefree PIR	6501e White 6500e Black	140°	15m	50°	20°	15sec - 15min	IP 54			

ADDITIONAL INFORMATION: All models conform to European Low Voltage Directive 73/23/EEC and EMC Directive 89/336EEC

## Useful Information – Wirefree Chimes and Pushes

- Please note that positioning of the Libra Wirefree Bell Push or Door Chime on or near metal structures, reinforced PVC doors or door frames may reduce the transmission range
- To ensure weatherproofing is maintained, always mount Bell Pushes the correct way up, as shown in the product instructions or on the packaging. Then replace the front cover securely

## Useful Information – Wired Chimes and Pushes

- Wired-in Chimes should be mounted vertically on a wall, ideally at 2 metres high, for best sound coverage
- When battery-operated, wired-in Chimes and Bells can be mounted up to a maximum of 15 metres from the push, using standard Friedland bell wire
- When transformer operated, wired-in Chimes and Bells can be mounted up to 60 metres from the Push, using standard Friedland bell wire
- D902/D973 Bell In One can be mounted up to a maximum of 9 metres from the push
- The use of wire not intended for Door Chimes/Bells (e.g. telephone wire) may affect Chime/Bell performance
- Do not mount wired-in Chimes on the back of a door, as the chime bars or batteries may dislodge if the door is slammed
- All terminal screws should be tightened down, including those which are not being used
- All wired-in Chimes can operate from either batteries or a suitable transformer
- Additional Chimes can be wired to the original Chime, to provide better sound coverage – an additional or alternative transformer may also be required
- Electro-mechanical Chimes and Electronic Chimes cannot be wired together
- Lit Pushes require the use of a transformer
- Lit Pushes cannot be used with Electronic Chimes, with the exception of a transformer-operated D852E Chorus
- An extra slave light can be wired to a Spectra PIR Product, providing the maximum load is not exceeded. Wire the slave to N + L1 terminals

# Questions and Answers

LIBRA WIREFREE		
PROBLEM	POSSIBLE CAUSE	SOLUTION
Chime not sounding	Chime may not be powered	Check all batteries have been inserted correctly or, if Chime is mains powered, check that the adapter lead is connected and/or that the mains is switched on
	Chime may be positioned out of range of the Bell Push	Move the Chime closer to the Bell Push
	A metallic object or structure may be blocking the signal from the Bell Push	Experiment with the location of the Chime or Push, to see if it can be positioned in a more suitable place
	The battery in the Bell Push may need replacing	Replace the Bell Push battery
	The Bell Push and Chime may have different system codes	Check the system codes inside both the Chime and Bell Push
	The Chime may be turned off	Check the volume/off controls on the Chime
False activation of the Chime	Another Friedland wirefree product may be using the same system code	Change the system codes inside both the Bell Push and Chime to another setting

TRADITIONAL CHIMES		
PROBLEM	POSSIBLE CAUSE	SOLUTION
Chime emits wrong signal	Chime may be mounted incorrectly	Mount chime, following instructions
Chime rings continually	Possible short circuit Water on Push contacts	Check wiring against instructions Check contacts for moisture – Push may be mounted wrong way up, allowing rain to enter Adjust Push contacts
	Closed Push contacts	
Chime not working	Loose screws Failed power source	Tighten all terminals screws Check power source – battery or transformer Check wiring continuity

SPECTRA		
PROBLEM	POSSIBLE CAUSE	SOLUTION
Light stays on permanently	Wired incorrectly	Mains supply may be connected to the output (L1) terminal by mistake
Light stays on permanently at night	PIR may be suffering from false activation	Cover Detector's lens completely with a thick cloth or masking tape, to stop it from 'seeing' anything. If the Detector now lets the light switch off after the set time and does not light again, this indicates that it has been picking up movement within its range. Need to adjust position/angle of the PIR.
Light activates for no obvious reason, at random	False activation Wind may be activating the Detector Small animals and pets may be activating Detector	See above Mount Detector in a different location Try masking the bottom half of the lens, to stop Detector picking up low-level objects
Detector is picking up movement from outside area wanted to be covered	Wrong position of Detector head	Tilt/swivel Detector head, to adjust position
PIR Detector will not operate at night	Ambient light level too high	Adjust Lux control slowly clockwise, until lamp illuminates
PIR detection range varies, day to day	Climate changes	Climate can cause the PIR to be 30% more sensitive in winter than in summer Seasonal adjustment of the Lux control can help
Halogen floodlight keeps on blowing the bulb	Grease on the bulb	Make sure not to handle the bulb with your fingers, when installing it Fingertip grease can cause the bulb to blow
Coverage from PIR is poor	Mounting position	Alter the mounting position so it picks up across, rather than head on
Fuse blows when switching the power on	Wiring	Check that earth or neutral is not connected to the L1 terminal