

SPEAKERS & SOUNDERS

MINI LOUDSPEAKERS



BUZZERS



SIRENS



EAR PHONES



MICROPHONE INSERTS



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SQUIRES MODEL & CRAFT TOOLS

SPEAKERS

ULTRA SLIM SUBMINIATURE LOUDSPEAKER a subminiature speaker measuring just 40mm in diameter with an overall depth of just 9.5mm. Paper cone and alnico magnet. Solder tag connection.

Technical Specification

Dimensions	40mm(w) x 9.5mm (d)
Impedance	8Ω
Max. power (rms)	0.25W
Frequency range	450Hz - 5kHz
Magnet weight	1.5g



CODE	TYPE	PRICE
800-265	Ultra Slim Submin Loudspeaker 40mm 8Ω.....	£1.99

MINIATURE LOUDSPEAKER a miniature speaker for use in small portable equipment. Fitted with paper cone and ferrite magnets. Solder tag connection. Both types 66mm diameter, 21mm deep. Handling capacity 300mW.



CODE	TYPE	PRICE
800-269	Miniature Loudspeaker 66mm 8Ω.....	£1.79
800-270	Miniature Loudspeaker 66mm 64Ω.....	£1.79

ULTRA SLIM PAPER CONE LOUDSPEAKER these miniature ultra slim loudspeakers are just 17mm in thickness with paper cones and suitable for a wide range of applications. 50mm diameter with a wide frequency response that enables the speakers to be used for speech, music or high frequency alarm output. Fitted with a flange to assist mounting and solder tag termination. Available in 8Ω and 64Ω options.



CODE	TYPE	PRICE
29-0414	Ultra Slim Paper Cone L/speaker 50mm 8 Ohm..	£1.49
29-0416	Ultra Slim Paper Cone L/speaker 50mm 64 Ohm	£1.49

ULTRA SLIM MYLAR CONE LOUDSPEAKER these miniature ultra slim loudspeakers are just 17mm in thickness. With Mylar cones and suitable for a wide range of applications. Wide frequency response enables the speakers to be used for speech, music or high frequency alarm output. 50mm diameter, fitted with flange to assist mounting and solder tag termination. Available in 8Ω and 64Ω options.



CODE	TYPE	PRICE
29-0410	Ultra Slim Mylar Cone L/speaker 50mm 8 Ohm...	£1.89
29-0412	Ultra Slim Mylar Cone L/speaker 50mm 64 Ohm.	£1.89

WEATHERPROOF LOUDSPEAKER a mylar cored loudspeaker with ferrite magnet for use in exterior environments or where moisture is a problem as the mylar core is unaffected by water. Ideal for use as sounders or warning devices where a wide frequency response is required, door entry systems etc. Nominal 8 ohms impedance, max power (rms) 0.6W, frequency range 350-4.5KHz. 66mm diameter x 20mm depth.



CODE	TYPE	PRICE
SPK150	Weatherproof Loudspeaker 66mm 8Ω.....	£2.45
29-0408	Weatherproof Loudspeaker 66mm 64Ω.....	£2.45

MINI LOUDSPEAKER WITH PLASTIC DIAPHRAGM 5cm a high quality 5cm round speaker particularly well suited to outdoor applications and where ambient conditions are generally unfavourable. Magnetically shielded with a plastic diaphragm and metal basket. A full-range driver with good efficiency and broad frequency response and good voice reproduction. It is extremely small in size due to a neodymium magnet system. Typical applications include electronic devices and outdoor systems.



Technical Specification

Rated power:	2W
Maximum power:	3W
Nominal impedance:	8Ω
Frequency response:	-10dB 180-17000Hz
Mean sound pressure level:	86dB
Resonance frequency fs:	300Hz
Voice coil diameter:	10mm
Cutout diameter:	46mm
Net weight:	48g
Protective system:	IP65

CODE	TYPE	PRICE
29-0418	Mini Loudspeaker with Plastic Cone 5cm 8 Ohm.	£3.50

MINI MYLAR CONE LOUDSPEAKERS these miniature speakers feature Mylar cones and are suitable for a wide range of applications such as speech and music modules for greeting cards, etc. With a low profile and high sound output level.



Technical Specification

	29-0334	29-0336
Rated impedance:	32Ω ±15%	8Ω ±15%
Nominal power:	0.25W	1W
Maximum power:	0.5W	1.5W
Resonant frequency:	500Hz ±25Hz	350Hz ±20Hz
Frequency range:	0 to 5.5kHz	0 to 20kHz
Sound output level @ 0.1W/0.1m:	92dB ±3dB	94dB ±3dB
Speaker ø:	45mm	50mm
Overall thickness:	5.8mm	7.6mm
Operating temperature:	-20°C to +60°C	-10°C to +40°C
Storage temperature:	-30°C to +70°C	-20°C to +60°C
Weight:	12g	13.2g

CODE	TYPE	PRICE
29-0334	Mini Mylar Cone L/Speaker ABS-209 45mm.....	£1.69
29-0336	Mini Mylar Cone L/Speaker ABS-210 50mm.....	£3.39

MINI RECTANGULAR LOUDSPEAKER a range of miniature loudspeakers that are available in 4Ω or 8Ω impedance. With high power handling capacity and a low profile. Size 40 x 20mm.



Technical Specification

	29-0358	29-0360
Rated impedance:	8Ω ±15%	4Ω ±15%
Nominal power:	2W	2W
Maximum power:	3W	3W
Resonant frequency:	400Hz ±20%	400Hz ±20%
Frequency range:	200Hz to 20kHz	200Hz to 20kHz
Sound output level:	93dB ±3dB	93dB ±3dB
Dimensions:	40 x 20 x 5.8mm	40 x 20 x 5.8mm
Operating temperature:	-20°C to +60°C	-20°C to +60°C
Storage temperature:	-30°C to +70°C	-30°C to +70°C
Weight:	7.6g	7.6g

CODE	TYPE	PRICE
29-0358	Mini Loudspeaker Rectangular 40 x 20mm 8Ohm.	£3.39
29-0360	Mini Loudspeaker Rectangular 40 x 20mm 4Ohm.	£3.59

SQUIRES ELECTRONIC COMPONENTS

MINI RECTANGULAR LOUDSPEAKER a 4Ω loudspeaker that features high power handling capacity. With high sound pressure level and a frequency range up to 20kHz in an ABS housing.

Technical Specification

Rated impedance: 4Ω ±15%
 Nominal power: 2W
 Maximum power: 4W
 Resonant frequency: 380Hz ±20%
 Frequency range: 0Hz to 20kHz
 Sound output level: 84dB
 Dimensions: 40 x 28.3 x 11.5mm
 Weight: 12g



CODE	TYPE	PRICE
29-0332	Mini Loudspeaker Rectangular 40 x 28mm.....	£5.50

MINI RECTANGULAR LOUDSPEAKER a miniature loudspeaker that has mounting lugs and flying leads. It has high sound pressure level with a frequency range up to 20kHz. Mounting lugs hole diameter 5.8mm and flying lead length 180mm. Molex connectors.

Technical Specification

Rated impedance: 8Ω ±15%
 Nominal power: 1W
 Maximum power: 2W
 Resonant frequency: 700Hz ±20%
 Frequency range: 0Hz to 20kHz
 Sound output level: 93dB ±3dB
 Dimensions (excluding lugs): 57.5 x 23 x 14.85mm
 Weight: 38g



CODE	TYPE	PRICE
29-0392	Mini L/Speaker Rectangular with Mounting Lugs.	£7.99

FULL RANGE LOUDSPEAKER 7.5cm a quality and good sounding full range loudspeaker. Suitable for all applications with a foam edged paper cone and chrome HF dome.

Technical Specification

Impedance: 8Ω
 Power rating: 10W
 Frequency response: 120Hz - 16kHz
 Resonant frequency: 120Hz
 Sensitivity 1W: 1m 88dB
 Magnet weight: 150g
 Overall weight: 415g
 Dimensions: 78 (dia.) x 45mm



CODE	TYPE	PRICE
29-0420	Full Range Loudspeaker 7.5cm 10W.....	£5.99

FULL RANGE LOUDSPEAKER 5cm a high quality 5cm full range speaker particularly well suited to outdoor applications. It has a moulded plastic cone and plastic basket and is absolutely corrosion-resistant and waterproof due to encased magnet and silicon-coated leads. With broad frequency response and good voice reproduction it's typical applications include outdoor systems and electronic devices. CE approved.

Technical Specification

Rated power: 2W
 Maximum power: 3W
 Nominal impedance: 8Ω
 Frequency response: -10dB 180-17000Hz
 Mean sound pressure level: 86dB
 Resonance frequency fs: 300Hz
 Voice coil diameter: 10mm
 Cutout diameter: 46mm
 Net weight: 48g
 Protective system: IP65



CODE	TYPE	PRICE
29-0406	Full Range Loudspeaker 5cm 8 Ohm.....	£8.45

EARPHONES

MAGNETIC AND CRYSTAL EARPHONES a range of traditional earphones fitted with 1.8m of twin cable and terminated with a 3.5mm jack plug. Available in either magnetic (low impedance 8Ω) or crystal (high impedance 3MΩ).



CODE	TYPE	PRICE
800-130	Earphone Magnetic 8Ω.....	£0.79
800-135	Earphone Crystal 3MΩ.....	£1.89

ACTIVITY STEREO EARPHONES trendy stereo earphones, with soft flexible 'earhook' to keep the earpiece in place. Ideal for sports or at the gym. Features soft, flexible earhook, mylar speakers with anisotropic ferrite magnets

Specification

Cable 1.2m
 Speaker size 15mmØ
 Impedance 32 ohms
 Frequency response 20Hz - 20kHz
 Sensitivity 105dB @ 1kHz
 Connector 3.5mm stereo



CODE	TYPE	PRICE
29-0318	Activity Stereo Earphones.....	£3.99

ELECTRONIC BUZZERS

MINI PCB ELECTRONIC BUZZERS these electronic buzzers offer a high but rich sound. They are ideal for all applications and can be applied to telephone times, calling devices, time pieces electronic toys, safety equipment. The base of the buzzer is potted to maximise protection against flux contamination and a masking label is included over the sound emission hole to permit board cleaning. Supplied with PCB pins for direct mounting to PCBs and encapsulated in a low profile housing. Suitable for inclusion in miniature electronics instrumentation. Available in 5, 12V operating versions. 7.6mm pitch. Dimensions 12mm dia x 7.5(H)mm.



Technical Specification

	29-0390	29-0388
Order code:	12V DC	5V DC
Rated voltage:	3 - 15V DC	3 - 8V DC
Operating voltage max.:	88dB	85dB
Sound output:	2300 ±300Hz	2300 ±300Hz
Frequency:	50ms	50ms
Response time:	PST	PST
Housing material:	-20°C to +85°C	-20°C to +85°C
Operating temperature:	-20°C to +88°C	-20°C to +88°C
Storage temperature:	7.6mm	
Pitch:	12mm diameter 7.5mm(H)	
Dimensions:	2g	2g
Weight:		

CODE	TYPE	PRICE
29-0388	Mini PCB Electronic Buzzer 5Vdc.....	£1.19
29-0390	Mini PCB Electronic Buzzer 12Vdc.....	£1.19

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SQUIRES MODEL & CRAFT TOOLS

ELECTRONIC BUZZER a range of miniature high output electronic buzzers which incorporate an internal oscillator drive circuit. Supplied with PCB pins for direct mounting to PCB's.



Technical Specification

	800-010	800-015
Rated Voltage	6V dc	12V dc
Operating Voltage	4-8V dc	7-15V dc
Current	35mA	35mA
Sound Output	85dB @ 60cm	
Frequency	3.6kHz	
Weight	17.0g	
Operating Temp.	-20°C to +60°C	

CODE	TYPE	PRICE
800-010	Electronic Buzzer 6 V dc.....	£1.49
800-015	Electronic Buzzer 12V dc.....	£1.49

ELECTRONIC BUZZERS a range of compact, low-cost electronic buzzers. Available with either flying leads (10cm long) or PCB mounting pins. Resonant frequency is 400Hz and available in 3V, 6V or 12V operating versions. Black ABS case material.



Technical Specification

Operating voltage:	2V to 5V DC or 4V to 8V DC or 9V to 15V	
Rated voltage:	2V to 5V type	3V DC
	4V to 8V type	6V DC
	9V to 15V	12V DC
Max rated current:	2V to 5V type	25mA @ 3V DC
	4V to 8V type	30mA @ 6V DC
	9V to 15V	30mA @ 12V DC
Min sound pressure level:	2V to 5V type	70dB @ 3V DC/20cm
	4V to 8V type	75dB @ 6V DC/20cm
	9V to 15V	80dB @ 12 DC/20cm
Resonant frequency:	400Hz ± 100Hz	
Operating temperature:	-20°C to +60°C	
Weight PCB type:	10g	
with lead:	8g	
Dimensions:	PCB type - 23 x 17 x 15mm with PCB pins on 7.6mm centres	
	with lead - 33.5 x 17 x 15mm with 100mm leads	
	fixing centres - 27.5mm, 2mm dia fixing hole	

CODE	TYPE	PRICE
29-0376	Electronic Buzzer 3Vdc with Leads.....	£1.69
29-0378	Electronic Buzzer 3Vdc PCB Mounting.....	£1.69
29-0380	Electronic Buzzer 6Vdc with Leads.....	£1.69
29-0382	Electronic Buzzer 6Vdc PCB Mounting.....	£1.69
29-0384	Electronic Buzzer 12Vdc with Leads.....	£1.69
29-0386	Electronic Buzzer 12Vdc PCB Mounting.....	£1.69

BUZZERS miniature transistor oscillator buzzers with flying leads or without leads for PCB mounting, offering long life, maximum efficiency with minimum current dissipation. Operating voltages:- 3V, 6V & 12V dc.



Technical Specification

3V type	2-5V dc
6V type	4-9V dc
12V type	9-20V dc
Current	25mA
Frequency	400hZ
Sound output	75dB @ 30cm

CODE	TYPE	PRICE
800-100	Transistor Buzzer 3V With Leads.....	£1.99
800-105	Transistor Buzzer 6V With Leads.....	£1.99
800-110	Transistor Buzzer 12V With Leads.....	£1.99
800-115	Transistor Buzzer 6V PCB Mounting.....	£1.99
800-120	Transistor Buzzer 12V PCB Mounting.....	£1.99

ELECTRONIC BUZZERS a range of electronic buzzers offering a high but rich sound. Supplied with 20cm flying leads and 2mm fixing holes in base.



Technical Specification

Operating voltage:	6V DC	29-0324
	12V	29-0326
Sound output:	75dB	
Rated current max.:	20mA	
Response time:	<50ms	
Operating temperature:	-20°C to +60°C	
Dimensions:	34(L) x 16(W) x 15(H)mm	
Weight:	10g	

CODE	TYPE	PRICE
29-0324	Electronic Buzzer with Leads 6Vdc.....	£1.99
29-0326	Electronic Buzzer with Leads 12Vdc.....	£1.99

ELECTRONIC BUZZERS WITH LEADS a range of electronic buzzers offering a high but rich sound. Supplied with 20cm flying leads and 2mm fixing holes in base. Available in 3, 6 and 12V operating versions.



Technical Specification

Operating voltage:	3V DC
	6V DC
	12V DC
Sound output:	80dB
Rated current max.:	40mA
Response time:	<50ms
Operating temperature:	-20°C to +60°C
Dimensions:	25mm diameter x 18mm (height)
Weight:	20g

CODE	TYPE	PRICE
29-0352	Electronic Buzzer with Leads 3V.....	£1.89
29-0354	Electronic Buzzer with Leads 6V.....	£1.89
29-0356	Electronic Buzzer with Leads 12V.....	£1.95

PULSATING BUZZER a high pitched buzzer with a pulsating sound. Flying lead connection, operating voltage 1 - 2Vdc, 15mA. Sounds similar to a UK pelican crossing sound signal.



CODE	TYPE	PRICE
800-055	Pulsating Buzzer 1 - 2Vdc 15mA.....	£3.99

ELECTRONIC BUZZERS Electronic musical alarm unit which plays seven different tunes (full verse of each) after each touch of the leads. 75mm leads. black plastic body with metal cap.

Technical Specification

Output	80dB
Frequency	500Hz
Power	9Vdc
Current	50mA
Centres	34m
Dims	28(dia) x 20mm



CODE	TYPE	PRICE
561-095	Electronic Musical Alarm.....	£3.50

SQUIRES ELECTRONIC COMPONENTS

PIEZO BUZZERS

PIEZO ELEMENT 27mm a 27mm diameter piezo element that comes with 200mm flying leads. Reliable and lightweight with low power consumption. Just 0.52mm thick.

Technical Specification

Rated voltage (max.): 30V pk-pk
 Capacitance: 20000pF ±30%
 Resonant frequency: 4.2kHz ±500Hz
 Operating temperature: -20°C to +60°C
 Storage temperature: -20°C to +70°C
 Overall diameter: 27mm
 Overall thickness: 0.52mm
 Wire type: AWG28 UL1095
 Lead length: 200mm



CODE	TYPE	PRICE
29-0344	Mini Piezo Element with Leads 4200Hz 27mm....	£1.10

MINIATURE PIEZO BUZZER a miniature piezo buzzer with flying leads. Offers a rich high output sound with low power consumption.

Technical Specification

Voltage 3-30V dc
 Sound output 90dB
 @ 50cm
 Current @ 12V 10mA
 Frequency 2.7kHz



CODE	TYPE	PRICE
BZP115	Piezo Buzzer 3-30V dc.....	£1.90

PIEZO INDICATOR a piezo audio indicator that is epoxy sealed at base and suitable for PCB mounting. It has a built-in oscillating circuit and is wave solderable and washable with low power consumption.

Technical Specification

Rated voltage: 12V DC
 Operating voltage: 3-16V DC
 Rated current at rated voltage: 7mA
 Sound output at rated voltage: >80dB
 Resonant frequency at rated voltage: 4000 ±500Hz
 Operating temperature: -20°C to +70°C
 Storage temperature: -30°C to +80°C
 Housing material: Noryl
 Weight: 1g



CODE	TYPE	PRICE
29-0320	PCB Piezo Indicator 3 - 16Vdc.....	£2.99

PIEZO INDICATOR 95dB a Piezo audio indicator that is epoxy sealed at base and suitable for PCB mounting. It has a built-in oscillating circuit and is wave solderable and washable with low power consumption. 12V operation.

Technical Specification

Rated voltage: 12V DC
 Operating voltage: 3 - 20V DC
 Rated current at rated voltage: 15mA
 Sound output at rated voltage: >95dB
 Resonant frequency at rated voltage: 3400 ±500Hz
 Tone: Continuous
 Operating temperature: -20°C to +60°C
 Storage temperature: -30°C to +70°C
 Weight: 4g



CODE	TYPE	PRICE
29-0400	Piezo Indicator 95dB.....	£2.99

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PCB ELECTRO MECHANICAL PIEZO INDICATOR a piezo audio indicator that is epoxy sealed at base and suitable for PCB mounting. It has a built-in oscillating circuit and is wave solderable and washable with low power consumption. Available in two voltage ratings 6 and 12V.



Technical Specification

Rated voltage: 29-0366 6V DC
 29-0368 12V DC
 Operating voltage: 29-0366 4 - 8V DC
 29-0368 8 - 16V DC
 Rated current at rated voltage: 30mA
 Sound output at rated voltage: >85dB
 Resonant frequency at rated voltage: 2300 ±500Hz
 Operating temperature: -20°C to +70°C
 Storage temperature: -30°C to +80°C
 Housing material: Noryl
 Weight: 2g

CODE	TYPE	PRICE
29-0366	PCB Electro Mech Piezo Indicator 6Vdc.....	£2.79
29-0368	PCB Electro Mech Piezo Indicator 12Vdc.....	£2.79

CT PIEZO SOUND GENERATOR this piezoelectric sound generator module has a reduced thickness and superior mountability while ensuring good sound pressure characteristics. It is an economical compact, low profile and low power 3V piezo surface mount sounder having the sound output hole in its side surface. It has reliable Solid State Piezoelectric Technology, its height above the board is just 2.5mm and the sound port is on the side wall. Requires drive circuit. Dimensions, 16 x 16 x 2.5mm.



Technical Specification

Rated voltage: 12V peak to peak square wave
 Allowable voltage max.: 30V peak to peak square wave
 Current consumption: 2mA /12V peak to peak square wave
 Sound output: >85dB /12V peak to peak square wave
 Frequency: 4.0kHz ±5kHz
 Housing material: PPS
 Weight: 1.5g
 Operating temperature: -20°C to +80°C
 Storage temperature: -20°C to +100°C

CODE	TYPE	PRICE
29-0322	CT Piezo Sound Generator.....	£1.79

MINI PCB PIEZO TRANSDUCER this piezo transducer is able to generate a range of audible tones and frequencies when energised by a 12V peak square wave. Provided it is mounted rigidly in the prescribed manner, outputs of up to 80dB can be achieved. Ideal for toys, clocks and watches, calculators and electronic games, using the transducer in place of a speaker and suitable for use in professional, commercial and industrial applications. It is durable in domestic appliances and is mounted on a PCB. Requires drive circuit. Dimensions: 16(dia) x 8mm (depth). **Not suitable for speech and music.**

Technical Specification

Rated voltage: 12V peak to peak
 Allowable voltage max.: 30V peak to peak
 Current consumption: 4mA at 4.0KHz
 Sound output: 80dB
 Frequency: 4.0 ± 0.5KHz
 Housing material: ABS / black
 Weight: 1g
 Operating temperature: -20°C to +60°C
 Storage temperature: -30°C to +70°C



CODE	TYPE	PRICE
29-0362	Mini PCB Piezo Transducer.....	£0.59

SQUIRES MODEL & CRAFT TOOLS

MINI PIEZO TRANSDUCER this piezo transducer is able to generate a range of audible tones and frequencies when energised by a 12V peak square wave. Provided it is mounted rigidly in the prescribed manner, outputs of up to 80dB can be achieved. Ideal for toys, clocks and watches, calculators and electronic games, using the transducer in place of a speaker and suitable for use in professional, commercial and industrial applications. It is durable in domestic appliances and is mounted on a PCB. Requires drive circuit. Available in 12.5, 23 and 30mm diameter options with flying leads. **Not suitable for speech and music.**



Technical Specification

Order code	29-0338	29-0340	29-0342
Rated voltage:	12V peak to peak	0.15V peak to peak	12V peak to peak
Allowable voltage max.:	25V peak to peak	0.3V peak to peak	30V peak to peak
Current consumption:	2mA at 4.0KHz	3mA at 4.0KHz	8mA at 4.0KHz
Sound output:	75dB	80dB	80dB
Frequency:	4.0 4± 0.5KHz	4.0 4± 0.5KHz	3.6 4± 0.5KHz
Housing material:	ABS / black	ABS / black	ABS / black
Weight:	1.3g	1g	3g
Operating temperature:	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
Storage temperature:	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C

CODE	TYPE	PRICE
29-0338	Mini Piezo Transducer 12.5mm.....	£0.99
29-0340	Mini Piezo Transducer 23mm.....	£0.99
29-0342	Mini Piezo Transducer 30mm.....	£0.99

PCB PIEZO TRANSDUCER 1mA 80dB a piezo audio transducer that is epoxy sealed at base and suitable for PCB mounting. It is wave solderable and washable with low power consumption. Available in black.



Technical Specification

Rated voltage:	5V DC
Operating voltage:	1 - 20V DC PP
Rated current at rated voltage:	1mA
Capacitance:	13000 ±30%pF
Sound output at rated voltage:	>80dB
Resonant frequency at rated voltage:	4000 ±500Hz
Operating temperature:	-20°C to +70°C
Storage temperature:	-30°C to +80°C
Housing material:	Noryl
Weight:	1g

CODE	TYPE	PRICE
29-0402	PCB Piezo Transducer 5Vdc.....	£1.89

PCB PIEZO TRANSDUCER a piezo audio transducer that is epoxy sealed at base and suitable for PCB mounting. It is wave solderable and washable with low power consumption. Available in two voltage ratings 6 and 12V.

Please note: This transducer requires a drive circuit.



Technical Specification

Rated voltage:	9V DC
Operating voltage:	1 - 30V DC
Rated current at rated voltage:	3mA
Capacitance:	17000 ±30%pF
Sound output at rated voltage:	>85dB
Resonant frequency at rated voltage:	4000 ±500Hz
Operating temperature:	20°C to +60°C
Storage temperature:	30°C to +70°C
Housing material:	Noryl
Weight:	3g

CODE	TYPE	PRICE
29-0370	PCB Piezo Transducer 9Vdc.....	£2.90

UNCASED PIEZO TRANSDUCER an uncased miniature piezo transducer offering an ultra low profile. Ideal for use with speech and music modules as fitted to greetings cards and toys. Connection is by means of 95mm flying leads.



Technical Specification

Overall diameter:	20mm
Ceramic plate diameter:	15mm
Overall thickness:	0.42mm excluding leads
Brass plate thickness:	0.21mm
Resonant frequency:	6.8 ±0.7KHz
Resonant resistance:	LE 300Ω
Capacitance:	15,000pF ±30%

CODE	TYPE	PRICE
29-0404	Uncased Piezo Transducer FT-20T-6A1.....	£0.49

ELECTRO MAGNETIC SOUND GENERATOR a miniature electro-magnetic sound generator with a sealed base. Encapsulated in a low profile housing making them particularly suitable for inclusion in miniature electronics instrumentation. It is positive terminal marked and supplied with PCB pins for direct mounting to PCBs. Requires external drive circuit. Dimensions, 10 x 10 x 5mm, Operating voltage 12V.



Technical Specification

Rated voltage:	12V
Operating voltage:	7-16V
Rated current:	±60mA
Coil resistance:	140 ±4mA
Sound output:	±85dB
Rated frequency:	2400Hz
Dimensions:	10 x 10 x 5mm
Operating temperature:	-40°C to +85°C

CODE	TYPE	PRICE
29-0008	Electro Magnetic Sound Generator 5V.....	£0.89

8 OHM SPEAKER SOUND GENERATOR a low-cost, low power good quality sound generator that has been designed for use in toy and other applications. This very compact sound module is ideal for PCB fitting and produces a sound of up to 83dB. Suitable for soldering directly to a circuit board. Dimensions: 30mm (dia) x 11mm (depth).

Technical Specification

Rated power:	0.15W
Input power max.:	0.3W
Frequency range:	700 - 5000Hz
Rated frequency:	1200 ±200Hz
Rated impedance:	8Ω
Sound pressure level:	83dB
Housing material:	ABS/black
Operating temperature:	-20°C - +60°C
Weight:	12g



CODE	TYPE	PRICE
29-0348	8 Ohm Speaker Sound Generator.....	£1.49

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SQUIRES ELECTRONIC COMPONENTS

ELECTRO MECHANICAL PCB TRANSDUCER a mechanical transducer that is suitable for PCB mounting. Small in size with high sound output and low power consumption.

Technical Specification

Rated voltage (square wave): 1.5V p-p
 Operating voltage: 1.3V p-p
 Rated current at rated voltage: 15mA
 Resonant frequency: 2048Hz
 Coil resistance: 42 ±6Ω
 Coil impedance at 2048Hz: 120Ω
 Operating temperature: -25°C to +70°C
 Storage temperature: -30°C to +80°C
 Housing material: Noryl SE1
 Weight: 2g



CODE	TYPE	PRICE
29-0350	PCB Piezo Transducer 1.5V.....	£1.49

COMPACT PIEZO SIREN a compact high output piezo siren housed in a black ABS case. Output is a warble at a 1Hz alternating rate. Fitted with a swivel mounting bracket.

Technical Specification

Operating frequencies: 2.5kHz and 3.5kHz
 Operating voltage: 5V to 15V DC
 Rated voltage: 12V DC
 Current consumption: 200mA max @ 12V DC
 SPL: 105dB @ 100cm (12V DC)
 Tone/pulse rate: 1.2Hz
 Dimensions: 84.5 x 61.5 x 55mm excluding bracket
 Weight: 109g



CODE	TYPE	PRICE
29-0428	Compact Piezo Siren 1Hz.....	£8.99

SIRENS

MINI PIEZO SIREN a compact housed mini piezo sounder with a very loud 102dB output. Supplied with flying leads.

Technical Specification

Operating voltage: 6V to 12V DC
 Rated voltage: 12V DC
 Current: 100mA max.
 Frequency: 2 - 4kHz
 Sound output: 102db @ 1m
 Operating temperature: -10°C to +60°C



CODE	TYPE	PRICE
29-0346	Mini Piezo Siren 102dB.....	£5.99

MINIATURE PIEZO SIREN a compact high output piezo siren housed in a black ABS case. Output is a warble at a 1Hz alternating rate.

Technical Specification

Operating frequencies: 2.5kHz and 3.5kHz
 Operating voltage: 5V to 15V DC
 Rated voltage: 12V DC
 Current consumption: 200mA max @ 12V DC
 SPL: 105dB @ 100cm (12V DC)
 Tone/pulse rate: 1.2Hz
 Dimensions: 57.5 x 44.5 x 40mm excluding bracket
 Weight: 54g



CODE	TYPE	PRICE
29-0430	Miniature Piezo Siren 1Hz.....	£5.99

PIEZO SIREN a high power two tone piezo siren with a very loud warbling sound ideal for alarm use. Supplied with mounting bracket and 450mm wire leads.

Technical Specification

Frequency 1.5-2.0 kHz
 Current 350mA at 12V
 Sound output 120 db at 1M
 Temp range -20°C to +60°C
 Dimensions L85 x W62 x H56mm



CODE	TYPE	PRICE
800-802	Piezo Two Tone High Power Siren 12V DC SP7.	£11.99

ULTRASONIC TRANSDUCERS

ULTRASONIC TRANSDUCERS an ultrasonic transmitter and high sensitivity receiver designed for sending and receiving continuous or modulated waves in the 40kHz region through air. Applications include remote control, data transmission, etc. These units are not watertight.

Technical Specification

	Transmitter	Receiver
Sensitivity	106dB	-65dB
Resonant frequency	40kHz ± 1kHz	
Directional angle	Approx 20°	
Max. input voltage	20V rms	
Impedance	500Ω	30KΩ
Capacitance	1100pF±20%	



CODE	TYPE	PRICE
800-272	Ultrasonic Transducer Transmitter.....	£3.75
800-274	Ultrasonic Transducer Receiver.....	£3.75

MICROPHONE INSERTS

ELECTRET MICROPHONE INSERT a sub-miniature electret microphone insert available with solder pads or PCB pins for direct mounting to printed circuit boards.

Technical Specification

Impedance 300Ω
 Freq. Response 50Hz to 12kHz
 Sensitivity (@1kHz) -60dB ±3dB (0dB =1V/1μ bar, 1kHz, Vcc=4.5V, RL=1K)
 Operating Voltage 1.5V to 10V (standard 4.5V)
 Dimensions 10mm x 7mm
 Signal to Noise Ratio >40dB
 Current Drain 0.4mA max.
 Dimensions 23mm x 11mm.



CODE	TYPE	PRICE
800-220	Electret Microphone Insert (Solder pad).....	£0.90
800-225	Electret Microphone Insert (PCB pins).....	£0.95

NOISE CANCELLING MICROPHONE a noise cancelling microphone. Signal-to-noise ratio >58dB.

Technical Specification

Operating voltage nom.: 2V
 Operating voltage max.: 10V
 Current consumption max.: 0.5mA
 Output impedance: <2.2kΩ
 Frequency: 100Hz to 10kHz
 Sensitivity: -40dB ±3dB
 SNR: >58dB
 +ve Terminal: Terminal 1
 Dimensions: ø9.7 x 5mm



CODE	TYPE	PRICE
29-0364	Noise Cancelling Microphone 9.7mm.....	£2.15

SQUIRES MODEL & CRAFT TOOLS

OMNI-DIRECTIONAL MICROPHONES a range of omnidirectional microphones. Available as PCB mount with $\varnothing 6\text{mm}$ or $\varnothing 9.7\text{mm}$ or $\varnothing 6\text{mm}$ solder pads version. Frequency range up to 16kHz and Signal-to-noise ratio >60dB.



Technical Specification

Order code	29-0394	29-0396	29-0398
Termination:	PCB mount	Solder pads	PCB mount
Operating voltage nom.:	2V	2V	1.5V
Operating voltage max.:	10V	10V	10V
Current consumption max.:	0.5mA	0.5mA	0.5mA
Output impedance:	<2.2k Ω	<2.2k Ω	<2.2k Ω
Frequency:	100Hz to 16kHz	50Hz to 16kHz	50Hz to 16kHz
Sensitivity:	-40dB $\pm 3\text{dB}$	-42dB $\pm 3\text{dB}$	-41dB $\pm 3\text{dB}$
SNR:	>60dB	>60dB	>60dB
+ve Terminal:	Terminal 1	Terminal 1	Terminal 1
Dimensions:	$\varnothing 6 \times 2.2\text{mm}$	$\varnothing 6 \times 2.2\text{mm}$	$\varnothing 9.7 \times 4.5\text{mm}$

CODE	TYPE	PRICE
29-0394	O/Directional Microphone PCB 6mm ABM-703....	£1.69
29-0396	O/Directional Microphone S/Pad 6mm ABM-705.	£1.39
29-0398	O/Directional Microphone PCB 9.7mm ABM-707.	£1.19

INTERCOMS

2-WAY INTERCOM a two station telephone style intercom allowing 2-way conversation. It features a call button with adjustable call tone level and simple two wire connection. It can be wall mounted (brackets supplied) or free standing. Master station powered by battery or optional AC/DC adaptor. Power supply 6Vdc (4 x AA), dimensions 215 x 96 x 68mm.



CODE	TYPE	PRICE
800-064	2-Way Intercom.....	£36.99

2 STATION HANDSET INTERCOM SYSTEM Ideal for shops, restaurants and in the home, it is supplied as a complete 2 station system. One station is designated the 'master': this has a power indicator and volume control. Stations may be desktop or wall mounted. The system is simply wired using 2-core cable and runs off either batteries or an external power supply.



Cable.....2 core 0.5mm
(for best results max. run 400 metres approx)
Power requirements.....6 volt power supply (not supplied)
or 4 x AA type batteries for system (not supplied)
Dims.....210 x 110 x 80mm

CODE	TYPE	PRICE
561-020	T12 Handset Intercom System.....	£39.99

DOORPHONE INTERCOM

TALK THROUGH GLASS INTERCOM designed to allow conversation through a glass partition. Typical applications are ticket booth, bank counter, petrol station and reception. Features desk mount base station with condenser gooseneck microphone, glass mount remote station. Red LED power ON indication, call tone to alert base station, rotary switched volume control. Supplied with interconnection cable and AC/DC adaptor.

Specification

Power supply
9Vdc, 300mA
Cable 3m
Consumption
150mA
Speaker output
400mW max
Dimensions mm
Base unit 115x62x173mm
Glass unit 35x85mm \varnothing



CODE	TYPE	PRICE
29-0827	Talk Through Glass Intercom.....	£64.99

WIRELESS DOORBELLS

WIRELESS REMOTE CHIME a compact, low profile unit which can be used as a door bell or as an alert call for the sick or elderly. Easy to install with no wiring required, pleasant sounding tone. Battery operated with low power consumption, the remote unit is IP44 rated for outside use. Batteries not supplied.

Specification

Batteries
Chime 3Vdc (2 x AA)
Remote 12Vdc (1 x 23A)
Frequency 433.92MHz
Range 50m (Open Air)
Dimensions:
Chime 120 x 45 x 28mm
Remote 92 x 43 x 20.5mm
Weight:Chime 60g
Weight:Remote 42g



CODE	TYPE	PRICE
29-0195	Wireless Remote Chime.....	£7.99

WIRELESS DOOR CHIME a portable, battery operated wire free door chime that can be taken around the home or outdoors as required. Easy to install, choice of 2 melodies, free standing or wall mounted. Selectable channels to prevent external interference. Batteries required; receiver 4.5V (3 x C batteries) Transmitter 12V (23A) not supplied

Specification

Frequency
433.92MHz ($\pm 150\text{kHz}$)
Range 100m (Open Air)
Dimensions (mm):
Receiver 140 x 327 x 90
Transmitter 72 x 20 x 41
Weight:Receiver 120g
Weight:Transmitter 26g



CODE	TYPE	PRICE
29-0294	Wireless Door Chime.....	£9.65

SQUIRES ELECTRONIC COMPONENTS

WIRELESS DOOR CHIME WITH LIGHT INDICATOR a portable, battery operated wire free door chime with visual indication that can be taken around the home or outdoors as required. Easy to install, choice of 16 melodies, free standing or wall mounted. Digital coded radio signal to prevent external interference. Selectable channels to prevent external interference. Batteries required; receiver 4.5V (3 x AA batteries) Transmitter 12V (23A), not supplied.

Specification
 Frequency
 433.92MHz (±150kHz)
 Range 100m (Open Air)
 Dimensions (mm):
 Receiver 118 x 39 x 85
 Transmitter 88 x 20 x 37
 Weight: Receiver 103g
 Weight: Transmitter 25g



CODE	TYPE	PRICE
29-0297	Wireless Door Chime with Light Indicator.....	£10.99

PLUG THROUGH WIRELESS DOOR CHIME a plug-in mains operated wire free door chime with integral 13A socket. Easy to install, choice of 16 melodies. Digital coded signal to prevent outside interference Indoor use only.

Specification
 Power supply:
 Receiver 230Vac, 50Hz
 Transmitter 12V cell (23A)
 Frequency
 433.92 MHz (±150kHz)
 Range 80m (Open air)
 Dimensions:
 Receiver 116 x 47 x 68mm
 Transmitter 88 x 20 x 36.5mm
 Weight:Receiver 129g
 Weight:Transmitter 25g



CODE	TYPE	PRICE
29-0300	Plug Through Wireless Door Chime.....	£13.99

ALARM/CHIME PIR SENSOR WITH REMOTE CONTROL a PIR detector with a dual function as a chime announcer or loud alarm which is ideal for home, office, shop, garage and shed. The Alarm or chime mode is selected with slide switch. Features infra-red remote control for On/Off. Ball swivel wall mounting bracket or keyhole for hanging. Battery operated or optional adaptor (6V, 600mA) not supplied. (Batteries not supplied).

Specification
 Power supply:
 Detector 6V (4 x AA alkaline)
 Battery:Remote 3 x LR44
 Detection range 6m
 Detection angle 90°
 Dimensions
 132.5 x 71 x 61mm
 Weight 161g



CODE	TYPE	PRICE
29-0045	Alarm/Chime PIR Sensor with Remote Control....	£19.99

**FREE PARKING FOR 2 HOURS
 OUTSIDE OF OUR SHOP**

MINI VISITOR CHIME a light sensitive, motion activated entry chime suitable for office and retail locations. Sensing distance up to 4m in normal light conditions, high/low volume and Off selector switch. "Ding Dong" melody, mounting by keyhole or adhesive pad. Batteries not supplied.

Specification
 Power supply
 2 x AAA (alkaline)
 Dimensions
 72.5 x 53.5 x 26mm
 Weight 42g



CODE	TYPE	PRICE
29-0042	Mini Visitor Chime.....	£9.50

VISITOR DOOR CHIME an attractively styled light sensitive, motion activated entry chime to welcome visitors at shops and offices. 3 selectable melodies, high and low volume settings. Keyhole for wall mounting or can be free standing. Sensing distance up to 5m (depending on light conditions). Batteries not supplied.

Specification
 Power supply
 4 x AA (alkaline)
 Dimensions
 112 x 64 x 79mm
 Weight 144g



CODE	TYPE	PRICE
29-0039	Visitor Door Chime.....	£11.99

PERSONAL ALARMS

PERSONAL ALARM a very loud alarm (>100dB) to signal for help in an emergency. Ideal for the elderly, joggers etc. to protect against intruders and attackers. Easy to activate, keyring chain attachment and keyhole for hanging. Compact, lightweight design. Powered by 3 x LR44 button cells (included).

Specification:
 Battery 3 x LR44
 Dims 66 x 38 x 25mm
 Weight 32g



CODE	TYPE	PRICE
29-0051	Personal Alarm.....	£5.99

PERSONAL ALARM WITH LED an attractively styled personal alarm with integral warning red LED for protection against intruders and attack. Easy to activate, loud alarm output (>100dB) with red LED for visible alert. Keyring chain attachment, compact, lightweight design.

Specification:
 Battery 3 x LR44
 Dims 69.5 x 38.6 x 20.7mm
 Weight 27g



CODE	TYPE	PRICE
29-0048	Personal Alarm with LED.....	£6.20

SQUIRES MODEL & CRAFT TOOLS

VOICE & MUSIC MODULES

CIRCULAR VOICE MODULES voice modules with a choice of messages. The modules use a 29mm mylar speaker for sound quality, and are powered by two L1131 replaceable button cells (supplied). To operate, the top of the module is simply pushed. Replacement cells are available.



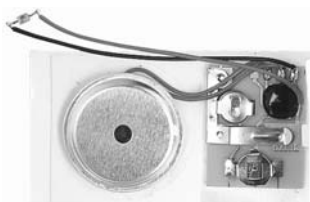
CODE	TYPE	PRICE
800-336	Voice Module Snore.....	£2.99
800-768	Voice Module Laughter.....	£2.99
800-770	Voice Module I Love You.....	£2.99
800-342	Voice Module Lion.....	£2.99

CIRCULAR MUSIC MODULES music modules available with a variety of tunes. The modules are activated by simply pressing the metal top. A 27mm piezo sounder produces the melody, the module being powered by two replaceable L736 button cells (supplied). Replacements cells are available.



CODE	TYPE	PRICE
800-760	Music Module Love Me Tender.....	£1.75
800-762	Music Module Rock A By Baby.....	£1.75
800-330	Music Module Happy Birthday to You.....	£1.75
800-334	Music Module Lambada.....	£1.75
800-764	Music Module Match Of The Day.....	£1.75

TELEPHONE RING SOUND MODULE WITH LED a sound module as fitted to greetings cards, featuring an electronic telephone ring sound and a flashing miniature red LED. When mounted, the module is activated by opening the card which removes an insulating tongue from between a pair of switch contacts on the module. The module is supplied mounted on a self-adhesive pad which is peeled from its backing paper and attached to the card. Powered by two L736 button cells (supplied). Replacement cells are available. Approx overall dims 90 x 38 x 5.5mm.



CODE	TYPE	PRICE
800-756	Telephone Ring Sound Module With LED.....	£1.99

LIGHT ACTIVATED MUSIC MODULES

LIGHT ACTIVATED MUSIC MODULES a range of light activated music modules as found in novelty mugs etc. When light is excluded the music switches off, when the mug etc is lifted the music plays. Available with a range of tunes. The modules are fitted with 29mm mylar speakers and are powered by a replaceable button cell. Dims 40 x 30 x 5mm.



CODE	TYPE	PRICE
800-746	Light Activated Mod You're The One I Want.....	£2.50
800-748	Light Activated Mod Old MacDonald Had A Farm.....	£2.50
800-750	Light Activated Mod Football Crazy.....	£2.50

BENCH LAMPS

MINI ROUND DAYLIGHT FLUORESCENT MAGNIFYING LAMP a good quality magnifying lamp which is ideal for all hobby and craft work. The lamp is supplied with a 22W circular daylight fluorescent tube providing high light output with an even light distribution and virtually no heat being emitted. The lamp features a 5" diameter glass lens providing x1.75 magnification. The magnifying head is mounted on a spring balanced arm which allows universal positioning. The arms have a good reach of over 80cm. The lamp arms are metal, the lamp head is impact resistant plastic. The lamp is supplied with a strong table clamp. Ideal for extended periods of work and for colour matching if required. Spare tubes are available.



CODE	TYPE	PRICE
120-066	Mini Round D/light Fluorescent Bench Magnifier.....	£44.99
120-067	Spare Daylight Fluorescent Tube for 120-066.....	£7.99

L/C TWIN TUBE FLUORESCENT LAMP a high quality lamp with 2 x 15W 45cm daylight fluorescent tubes providing high light output with an even light distribution and virtually no heat being emitted. The lamp head is mounted on a spring balanced arm and may be rotated in two planes to allow universal positioning. Robust metal construction and supplied with a robust table clamp. Clamp capacity 57mm. The lamp is ideal for extended periods of work and for when accurate colour matching is required.



CODE	TYPE	PRICE
120-011	L/C Twin Tube Fluorescent Lamp.....	£69.99
120-111	Fluorescent Tube 45cm 15 Watt.....	£8.99

L/C TRIPPLE TUBE FLUORESCENT LAMP a high quality lamp with 3 x 14W 45cm daylight fluorescent tubes providing high light output with an even light distribution and virtually no heat being emitted, with the flexibility of being used in either two tube or three tube mode. The lamp head is mounted on a spring balanced arm and may be rotated in two planes to allow universal positioning. Robust metal construction and supplied with a robust table clamp. Clamp capacity 57mm. The lamp is ideal for extended periods of work and for when accurate colour matching is required.



CODE	TYPE	PRICE
120-013	L/C Tripple Tube Fluorescent Lamp.....	£79.99
120-111	Fluorescent Tube 45cm 15 Watt.....	£8.99