

Kit Sets + Modules

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ACCOUSTICAL EFFECTS

LC.181 Basic Broadening and Pseudostereo (DIY Kit)

For the artificial broadening of the stereo speakers.

Operating voltage: 4.5 to 16 volts DC



EB7322 Speaker Unit Philips DIY Kit

Info as pdf file on website

Make: Philips

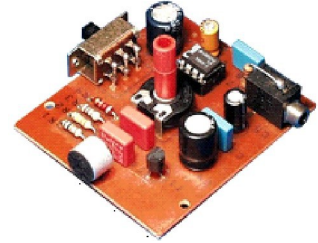
Type: EB 7322 EB7322



LC.110 Parabolic Microphone

You will be able to receive noises and words over large distances with this highly sensitive microphone amplifier. Ideal for observing animals, for detectives etc.

Operating voltage: 6VDC - 9VDC



ALARM AND SECURITY

LC.64 Acoustical Warning Device/Alarm for Refrigerators (Kit)

This device will start a loud sound if the cooling temperature is warming up.

Kit set: to solder yourself

Operating temperature: 9 - 15VDC



BKM.A003 Alarm Contact for Embedding

The contact is closed (NC) when the magnet is connected. The alarm contact is potted humidity-proof. This alarm contact is embedded into the door folding or window rabbet.

Colour: brown

Dimensions: approx Ø 9.2 x 22mm



BKM.B198 Alarm Display (Kit)

This alarm display has been fitted with 2 different coloured light emitting diodes, which are flashing alternatively in short sequences. For use in cars, weekend-houses, etc. in order to simulate an armed alarm set.

Kit set: to solder yourself

Operating voltage: 9 - 12VDC



BKM.FG011 Alarm Flasher 230VAC *Only for indoor use!*

When this unit is plugged into a socket, the integrated light-emitting diode starts to flash. Burglars, who can see the flashing unit through the window, may suspect an active alarm system.

Operating voltage: 230VAC



BKM.M061 Alarm Monitor (Module)

Small alarm monitor with 2 coloured LED's which are fast and alternately flashing.
 Usage: For mounting in cars, window-sills etc. as visible deterrent against thieves. The monitor could be mounted without or in combination with an alarm system.
 Operating voltage: 9 ... 12VDC direct-current voltage



BKM.M188 Battery (Accumulator) Guard 12V

Indicates in 5 steps with 3 LEDs the actual charging condition during operation of an 12 volt accumulator. The easy readable LED display helps prevent a deep discharge of the accumulator which could harm it. The battery guard is checking the accumulator for faults if it is connected to the accumulator during the loading time. The Battery guard is designed to monitor a battery in a closed, active circuit. Very low consumption of less than 4.9mA!

Operating voltage: 10.4 – 15.5VDC
 Current drain: $\emptyset < 4.9\text{mA}$

Display: 3 LEDs showing: full (=green), low (=yellow), empty (=red)
 Measuring range: red = $< 10.4\text{V}$, yellow/red = $10.5 - 10.8\text{V}$, yellow = $10.9 - 12.2\text{V}$, yellow/green = $> 12.3 - 12.6\text{V}$, green = $> 12.7\text{V}$ (Tolerance: max. 5%)
 Dimensions: approx. 40 x 40 x 13mm (without mounting flange)



BKM.M148A Battery Guard 12VDC (Module)

This battery saver protects your car battery from total discharge by switching off consumers such as ice boxes, heaters, radios + television sets, etc. in time. It switches on again automatically after return of the normal voltage. The interrupting voltage is adjustable: approx. 10.4 - 13.3V.
 Operating voltage: 12V battery



EB7811 Energy-Saving Flasher DIY Kit Philips

With this kit you have your heating costs under control. A temperature counter (NTC) with a downstream differential amplifier causes a light-emitting diode to flash if the room temperature exceeds the preset value. A small buzzer can be connected to the existing output if an addition to signal is required. Other applications: Refrigerator freezer alarm
 Operating voltage: 6 to 15V



BKM.M121 Fake CCD Camera (Module)

Fake CCD-camera with lens system and 3 infrared spotlight LEDs. A red flashing LED fakes a working camera. This module should fake a real camera to prevent shoplifting and burglaries.
 Operating indicator: red LED
 Operating voltage: 3VDC (2x AA batteries/UM3 cells)



BKM.B051N Gas Sensor, Alcohol and Spirits Tester (Kit)

This instrument indicates gases such as alcohol, acetone, benzole, propane, carbon monoxide (contained in the smoke of fire). Perfect as alarm for gases and fire.

Kit set: to solder yourself
 Operating voltage: 12VDC



BKM.M128N HF Detector (Mini Spy Finder)

This search device can be used to locate listening transmitters that are active in the room, on the computer or on the telephone. This makes it possible to find hidden listening devices (bugs, mini-spies). The device reacts to eavesdropping transmitters and bugs with normal transmission powers. Display: 1 x LED for the switch-on control, 1 LED for the reception indicator for a transmitter (the closer you get to the transmitter, the faster this LED flashes). A 9V block battery is required for operation.
 Operating voltage: 9V (Batterie, order separately)



EB7812 Ice and Frost Warning DIY Kit Philips

"Beware of the risk of frost". For every driver an additional risk that can be avoided with this kit. A flashing LED warns reliably when the temperature has fallen below the value you have selected. If, in addition to the flashing signal, a warning tone is required, it is possible to connect a small buzzer up to max. 50mA loadable output.
Operating voltage: 6 to 15V



LC.122 Infrared Alarm and People Detector (DIY Kit)

The circuit works with a passive detector based on polymer film. The alarm is triggered via the pyroelectric detector. The detector converts the infrared radiation emitted by moving bodies into electrical signals. The prerequisite for the function is that the bodies to be detected are approx. 5°C warmer or colder than the surroundings. Ideal as an alarm, signaling system and property protection. If the device is only activated in the dark, this can be achieved using the LDR included in the kit. The kit is prepared for connection to 220VAC. The kit comes complete with PIR module, housing and instructions.
Operating voltage: 12 to 18VDC



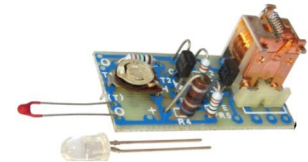
BKM.M167N Level Indicator for Water Tanks (Module)

Operating voltage: 3V (2x AA batteries, not included)
Display: max 10 LEDs and 1 LED for the battery control
Measuring points in the water tank: 1 – 10, switchable



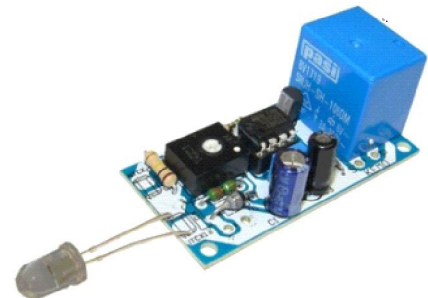
BKM.B123 Light Barrier - Heat Switch - Twilight Switch (Kit)

With this "combination construction set" you can build a light barrier, a heat switch (-40°C to +100°C), an ice alarm or a twilight switch.
Kit set: to solder yourself
Operating voltage: 12VDC



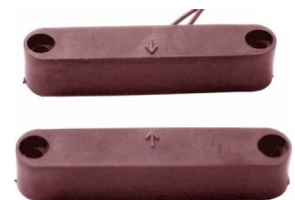
BKM.B045 Light Barrier 12VDC (Alarm Bell)

This light barrier switches a relay on or off if there is light or if there is darkness (e.g. Shadow of someone passing the light ray).
Application: If the light ray of a lamp between doors or windows is interrupted (someone is passing through) the relay is switching on an alarm. Works in twilight as well.
Kit set: to solder yourself
Operating voltage: 12VDC



BKM.A002 Magnetic Alarm Contact Brown

The contact is closed (NC) when the magnet is connected. The alarm contact is humidity-proof resin moulded. The electrical connection is not done by interference-prone threaded terminal ends at the alarm contact, but by cables which have to be soldered on (like prescribed by the VDS-regulations of the insurers a.o.). 1 Set consists of 1 magnet and 1 moulded alarm contact with pigtails.
Rupturing capacity: max 0.3A/40V



BKM.M073N Motorbike Alarm (Module)

Switches automatically a horn or a siren on, if the motorbike is moved from a parking position to any other position. This is a waterproof and shake proof sealed module. Can be also used to protect any other objects, which are not to be moved.

Switching tilt angle: approx 12° to 20° in all directions
Switching capacity: max 25VDC max 1A
Dimensions: approx 30 x 25 x 15mm (without fastening straps)



SFL.BWM51 Movement and Presence Detector 230VAC 10A Finder Series 18

Quick installation thanks to push-in terminals, 1 NO-contact 10A with zero crossing switching, 110...230VAC

Applications: offices, schools, zones of low activity
 Two sensing areas: "presence: 4 x 4m" and "movement 8 x 8m"
 Sensing area 360°
 Number of contacts: 1 NO (SPST-NO)
 Supply Coil: 230 = 110...230 VAC (50/60Hz)
 Covering distance presence: 4 x 4m or movement: 8 x 8m



SFL.BWM41 Movement Detector 230VAC 10A Finder Series 18

Quick installation thanks to push-in terminals, 1 NO-contact 10A with zero crossing switching, 110...230VAC

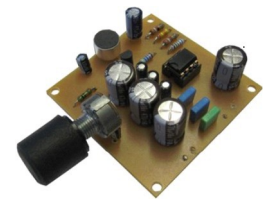
Applications: hotel and office corridors, transit areas
 Sensing area 30 meters length and 4 meters width
 Number of contacts: 1 NO (SPST-NO)
 Supply Coil: 230 = 110...230 VAC (50/60Hz)
 Covering distance 4 x 18/30m



BKM.B085 Parabolic Microphone (Kit)

This highly sensitive microphone needs to be fitted with a parabolic reflector (eg. half-ball-shaped reflector a divided play ball) and is able to receive noises and words from more than some hundred meters away. Ideal for observing animals, for detectives etc.

Kit set: to solder yourself
 Acoustic sensor: high-sensitive FET capacitor microphone
 Operating voltage: 9VDC



BKM.M152 Rain Sensor 12VDC (Module)

If the sensor plate gets into contact with rain or slushy snow / hail, it switches on a relay. Sun blinds may be retracted with that, skylights may be closed or a simple rain alarm can be given. The automatically heated surface of the sensor prevents any freezing or wetting of the sensor surface. 2 installed LEDs indicate the function. Waterproof-encapsulated electronics.

Operating voltage: 12VDC



BKM.B217 Smoke Alarm 12VDC (Kit)

This smoke alarm switches a relay if thick smoke gets between the installed infrared light barrier it will activate sirens, alarm lamps or other devices.

Kit set: to solder yourself
 Operating voltage: 12VDC



EB7810 Smoke Detector Philips DIY Kit EB7810

Timely warning of incipient fire can prevent the destruction of property at a reasonable cost and protect people from harm to health.

This device, which uses an infrared reflective light barrier and is intended for the home use, already alerts you to a smoldering fire before a dangerously high smoke concentration is reached.

The power consumption of the smoke detector is very low. A 9V battery has a life of about 3 months in continuous operation. If the voltage is too low, the appliance will signal the battery change due to an interrupted alarm tone.

All necessary parts are included in this kit: Integrated Circuits, Housing, Infrared Light and Photodiode, Buzzer, Printed Circuit, etc.

Operating voltage: 9V battery



BKM.M173 Soil Humidity Sensor 12VDC

This sensor switches your garden irrigation pump or the magnetic valve on when the soil is dry and switches off when there is enough humidity in the soil.

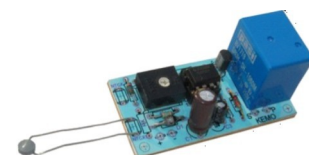
Operating voltage: 12VDC stabilized > 130mA, 3.5mm jack



BKM.B048 Temperature Switch 12VDC (Kit)

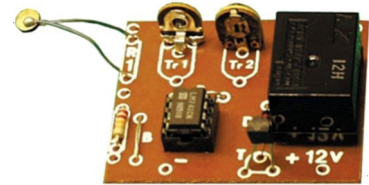
Switches according to a preset temperature a relay on or off. Ideal as thermostat, ice alarm, fire detector, etc. The IC is either TL061 or TL081.

Kit set: to solder yourself
 Operating voltage: 12 – 14VDC



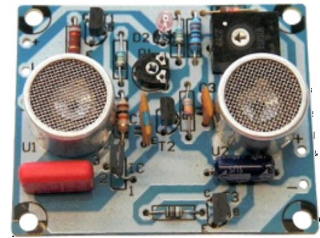
LC.9 Temperature Switch 7VDC – 15VDC (Kit)

A NTC thermistor activates this thermostat and switches devices at a chosen temperature on or off.
 Kit set: to solder yourself
 Operating voltage: 7VDC - 15VDC



BKM.B214 Ultrasonic Proximity Sensor (Kit)

A LED lights up if a body approaches the ultrasonic sensors at a distance of 10 - 80cm (depending on the size of the body). Use: parking-in assistance for cars in garages, alarm signal for persons or animals staying in a certain area.
 This kit may be extended to relay operation with our relay board "B197" (not enclosed).
 Kit set: to solder yourself
 Operating voltage: 9 – 12VDC
 Range: approx 10 – 80cm, depending on the size of the object (approx 0.01 – 0.5m²)



LC.06M Universal Siren (Module)

Siren with loud interval sound of swelling tone.
 Operating voltage: 12VDC
 Current consumption: 250mA
 Dimensions: 68 x 57 x 23mm



BKM.M241 Vibration Switch as Alarm (Module)

Vibration switch, switches 12V devices off when vibrations occur (e.g. motor running noises) and on with a time delay at standstill. For devices up to a current consumption of approx. 1000 mA. Indication by a flashing LED.
 The vibration switch switches on e.g. signal horns when a machine (e.g. pump) switches off and no longer vibrates. Or a marten repellent, if the vehicle has no more engine vibrations or driver vibrations and is parked.
 Operating voltage: 11 ... 15VDC

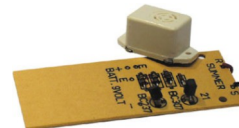


LC.71.1 Video-Alarm-Ringer (Module)



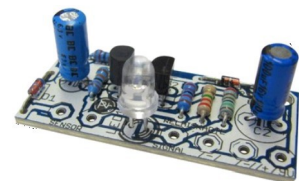
LC.11 Water Detector with Sonorous Alarm (Kit)

Operating voltage: 9VDC (battery)



BKM.B192 Water Level Sensor 9VDC (Kit)

Whenever two bare wires have contact with water, the light emitting diode will light up. The device is suitable to release alarm in case of overflowing rain barrels and gutters.
 Kit set: to solder yourself
 Operating voltage: 9VDC



BKM.M158 Water Switch 9 – 12VDC (Module)

If the 2 sensor connections of the module come into contact with water, the built-in relay switches on. Sirens, other cutoff relays, etc. may be triggered with that.
 Operating voltage: 9VDC are ideal (max 12VDC) please do only use a stabilised power supply



LC.29 Infrared Light Barrier (digitally coded) 25m (Kit)

Operating voltage: 12 VDC
 Range: approx 25 meter



AUTOMOTIVE ELECTRONICS

BKM.B198 Alarm Display (Kit)

This alarm display has been fitted with 2 different coloured light emitting diodes, which are flashing alternately in short sequences. For use in cars, weekend-houses, etc. in order to simulate an armed alarm set.

Kit set: to solder yourself

Operating voltage: 9 – 12VDC



BKM.M061 Alarm Monitor (Module)

Small alarm monitor with 2 coloured LED's which are fast and alternately flashing.

Usage: For mounting in cars, window-sills etc. as visible deterrent against thieves.

The monitor could be mounted without or in combination with an alarm system.

Operating voltage: 9 ... 12VDC direct-current voltage



BKM.M180 Anti Marten Device Splash Proof IP65

To repel martens from cars, houses, etc. Produces aggressive ultrasonic sounds inaudible to humans, which martens find very annoying and will avoid. Because the device is water and dirt resistant this device can be mounted where the martens enter the cars.

*IP 65: No penetration of dust at a low pressure of 20mbar in the case, protected against hose-water from every direction against the case (corresponds to 12.5 ltr./minute e.g. garden hose, test period: approx. 5 minutes, information without engagement).



BKM.M083 Battery Charging Regulator 12VDC (Module)

This module supervises the charging state of a 12V car battery and starts charging automatically, whenever there is a drop of voltage. When the battery is charged the module will switch off and supervise the battery. Suitable for batteries placed in alarm systems, weekend-houses, caravans etc. in order to keep batteries constantly charged without the risk of overcharging. Also suitable as charging regulator for solar panels. Short circuit and reverse current proof.

Automatic charging interruption with battery voltage of approx. 13.8 - 14.2VDC.



BKM.M148A Battery Guard 12VDC (Module)

This battery saver protects your car battery from total discharge by switching off consumers such as ice boxes, heaters, radios + television sets, etc. in time. It switches on again automatically after return of the normal voltage. The interrupting voltage is adjustable: approx. 10.4 - 13.3V.



BKM.M038N DC/DC Converter 24VDC to 12VDC, max 3A (Module)

Converts from 24VDC to 12VDC (13.8VDC), max. 3 A

For operation of 12VDC devices at a 24VDC lorry or boat battery. Short circuit-proof, shock-proof module.

Input voltage: 24 – 26VDC

Output voltage: approx 13.8VDC (equivalent to a full loaded 12VDC battery)



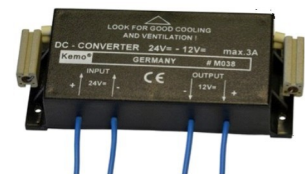
BKM.M038 DC-DC Converter 24VDC to 12VDC max 3A (Module)

...for operation of 12VDC devices at a 24VDC lorry or boat battery. Short circuit-proof, shock-proof module. This power-potential transformer module has to be mounted on a heat sink or the like if the maximum power shall be drawn as continuously.

Application: to operate larger car radios, CB radio equipment etc. at a 24 V lorry or bus battery.

Input voltage: 24 – 26VDC

Output voltage: 12VDC



LC.114M Flasher Unit for Glow Lamps (Module) for 110V or 230VAC

Flasher module with adjustable flashing sequence. Ideal for shop window decorations or advertising displays..

Note: Not suitable for halogen lamps!!

Operating voltage: 110VAC or 230VAC



EB7812 Ice and Frost Warning DIY Kit Philips

"Beware of the risk of frost". For every driver an additional risk that can be avoided with this kit. A flashing LED warns reliably when the temperature has fallen below the value you have selected.

Operating voltage: 6 to 15V



BKM.M202 Lead-Acid Battery Activator and Refresher 12V

Acts against the sedimentation of lead sulfate and increases the service life of the car battery. Lead sulfate is actively removed and the sedimentation is prevented, respectively, through strong and very short current pulses. With LED display.

Operating voltage: 11 – 16V

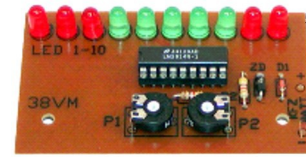


LC.23 LED Voltmeter (Suitable for Car Batteries) (Kit Set)

12V Car battery monitoring with LED display. You can easily check your battery charge condition.

Kit set: to solder yourself

Display range: 10.5VDC - 15VDC

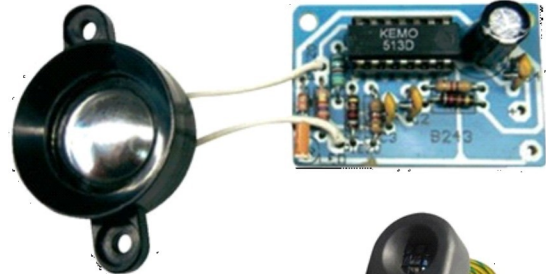


BKM.B243 Marten and Vermin Repellent 12V

This device produces a high ultrasonic sound (approx 23kHz). Martens, mice, etc. find this sound extremely annoying and these animals will leave that place (most likely). Ideal for installation into cars (as protection against martens), in houses against mice, etc.

Kit set: to solder yourself

Operating voltage: 12 – 16VDC



BKM.M186 Marten Defense for Motor Vehicles 12VDC

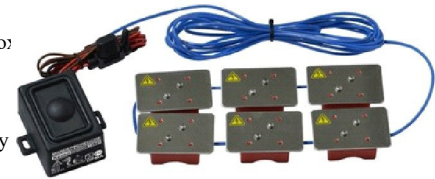
Chases away martens by means of small high-voltage plates charged electrically to approx. 200 - 300VDC through electric shock in the engine compartment of the vehicle (only weak current pulses that chase the marten away, but do not kill it) and through strong, aggressively pulsating ultrasonic sounds. Extremely low power consumption (< 0.005A), switches the battery voltage of < 11.5V automatically off (does not discharge the battery completely if vehicles are being parked for quite some time).



BKM.M176 Marten Defense for Motor Vehicles 12VDC – Splash-Proof with IP65

Chases away the marten through high-voltage plates (movable) charged electrically to approx. 200 - 300VDC through electric shock in the motor compartment of the vehicle (only weak current pulses that merely chase the marten away but do not kill it) and through strong, aggressively pulsating ultrasonic sounds. Extremely low current consumption (< 0.005A), switches off automatically at a battery voltage of < 11.5VDC (does not discharge the battery if vehicles are being parked for quite some time). The basic device with the ultrasound radiation is splash-proof according to IP 65* and may be mounted directly at the vestibule

opening of the marten in the car. Built-in brightly blinking LED.



BKM.M157 Marten Defense Module

...chases away martens from cars, garages, etc. with sharp, high tone bursts (approx 12kHz).

Automatic activation in parked cars.

Operating voltage: 11 - 15VDC



BKM.FG022 Marten Repellent Mobile

This mobile marten repellent operates with latest high-frequency technology (ultrasound) and without assembly work. This marten repellent may be set up where ever martens are present (e.g. in cars, carports, garages and houses), ideal as protection for cars that are parked for a long time. The optimum maintenance-free time of performance of 12 months can only be reached with high-quality alkaline manganese batteries (2 x 1.5V Mignon AA, not enclosed). The device has to be mounted in such a way that no water or dirt can penetrate into the case. May also be used against mice and other rodents.

Range of action: > 55m²

Frequency: approx 24kHz



BKM.M094N Marten Repellent Module

Produces intensively pulsating ultrasonic sounds which martens and similar rodents find unbearable. They will move to a more acceptable place. This „Marten repellent“ includes 4 small ultrasonic loudspeakers to achieve a profitable radiation of the ultrasonic sound. Usage: This module is able to scare away martens from the engine compartment of cars and lorries, place where the animals use to gnaw the cables and other plastic parts! Or to be used in pantries, in the cellar or attic!

Operating voltage: 12 - 15VDC



BKM.M119 Master Slave 6 - 30VDC (Module)

"Current conduction switch", connects or disconnects automatically another device when starting a direct-current device. For example, the radio is disconnected automatically when switching on the CB-radio equipment in the car. Or the amplifier of the radio equipment is connected automatically when the CB-radio transmits. Or the outdoor illumination of a motor caravan is disconnected automatically when switching on the indoor lighting. May also be used for controlling whether lamps at a vehicle light (control of current conduction). The module simply has to be connected in series with the power lead of the device (6 - 30VDC) and connects and disconnects other devices via a potential-free contact (1 x change over, max. 3A). The module reacts on currents between ca. 1 - 5A



BKM.M168 Over-voltage Protection 12VDC (Module)

Voltage spike suppressor for motor vehicles — suppresses constantly all voltage spikes in the supply system of motor vehicles! Prevents damage to the sensitive supply system electronics through voltage spikes in the supply system.
Field of application: 12VDC (supply system of motor vehicles)



BKM.M015N Potential Transformer Adjustable max 1.5A (Module)

The input voltage must be at least 3V higher than the adjusted output voltage. The adjusted output voltage is stabilized or short circuit-proof. For operation of appliances with lower voltages at a 12V or 24V car battery or power supply.
Input voltage: 6 – 28VDC (output voltage 3 - 15VDC)



BKM.M100N Ultrasonic Anti Marten Device for Motor Vehicles

Produces aggressive ultrasonic sounds not audible to men which martens find extremely annoying and so try to avoid them, if possible. To be mounted in the engine compartment of motor vehicles. Ultrasonic marten repellent for use in cars, houses and lofts. Produces enormously loud and pulsating ultrasonic sounds with a special dome speaker.
Available accessory: BKM.M020 DC/DC Converter.
Operating voltage: 11 - 15VDC (car battery)



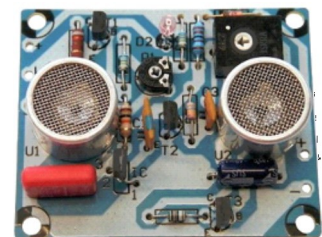
BKM.M048N Ultrasonic Generator (Animal Repellent) (Module)

It is possible to scare away animals and insects: e.g. rats, mice, martens, wild rabbits, mosquitoes with this ultrasonic sound device. If mounted on the car, deer will be scared away (decreased danger of accidents). For connection of a piezo-treble loudspeaker. The module is an ideal aid to scare away destructive animals out of your pantry, kitchen, storehouses, garden, etc. Also to be used as dog whistle. There are some birds species which will be scared away out of your fruit trees.
Operating voltage: 12 – 15VDC



BKM.B214 Ultrasonic Proximity Sensor (Kit)

A LED lights up if a body approaches the ultrasonic sensors at a distance of 10 - 80cm (depending on the size of the body). Use: parking-in assistance for cars in garages, alarm signal for persons or animals staying in a certain area. Operating voltage: 9 - 12VDC. The device works according to the same principle as the ultrasonic echo ranging of bats! This kit may be extended to relay operation with our relay board "B197" (not enclosed).
Kit set: to solder yourself



LC.08M Ultrasonic Proximity Sensor (Module)

A LED lights up if the adjusted distance is reached. The adjustable distance is approx 20cm to 80cm. Application: parking assistance, alarm signal for persons or animals getting into a certain area.
Operating voltage: 12VDC



BKM.M241 Vibration Switch as Alarm (Module)

Vibration switch, switches 12 V devices off when vibrations occur (e.g. motor running noises) and on with a time delay at standstill. Operating voltage: 11 ... 15 V. For devices up to a current consumption of approx. 1000 mA. Indication by a flashing LED. The vibration switch switches on e.g. signal horns when a machine (e.g. pump) switches off and no longer vibrates. Or a marten repellent, if the vehicle has no more engine vibrations or driver vibrations and is parked.
Operating voltage: 11 ... 15VDC



RECEIVER/TRANSMITTER

LC.49.1 6-Channel Infrared Handheld Transmitter (Kit)

Coded infrared system, which means that there are no external influences like sun light or other remote controls which could interfere with switching operations.

You can switch 6 IR-receivers with this hand held transmitter.

Kit set: to solder yourself

Operating voltage: 9VDC

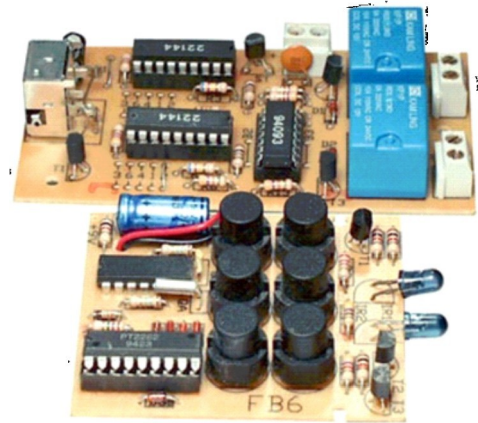
LC.50.1 1-Channel Infrared Receiver (Kit)

Coded infrared system, which means that there are no external influences like sun light or other remote controls which could interfere with switching operations.

The receiver can be used as a switch or a momentary switch. The relay can be used as a NO or NC

Kit set: to solder yourself

Operating voltage: 12VDC



GSF.HT3E 3-Channel Receiver 12VDC with 3 Relay Outputs 230VAC/5A

The 3-channel receiver for 868MHz ISM range has been designed as a tap-proof and tamper free remote control. The connection between the transmitter and the receiver is encrypted by AES128 and contains a "rolling code". This makes each data package sent to the receiver unique and non-repeatable. The learnable receiver allows the operation of up to 32 different transmitters that can be programmed into the receiver by pressing a key. The 3 relay outputs with high switching capacity have a changeover contact that may be freely connected. Due to the characteristics of the device, this remote control system is ideal for general installation purposes and alarm technology. It can be used as a wireless connection for almost all electronic systems at home, in the garden, in the office or in the workshop. You can control your garage door, your window blinds, your home lighting, your alarm system wireless and from the comfort of your chair.



GSF.HT5S 5-Channel Transmitter for 868 MHz ISM-Band

The 5 Channel Transmitter for 868 MHz ISM-Band is a tap-proof and secure remote control. The transmitted data is encrypted according to AES 128 consisting of the so-called "Rolling-Code". This makes each set unique and incompatible to another set. Each transmitter has an unique identification code identifying the device. Copying the device and duplication of the code are not possible in application. The five channels (keys) can be operated parallel and independently from one another giving the device the functionality of a "wireless joystick". In addition to these features the device allows five further settings making the device highly flexible for various applications. The small size of the transmitter allows an universal use e.g. on a key-chain, in a pocket or on the dashboard of the car. To cover the multitude of applications up to 32 transmitters can be programmed into one receiver. Based on the features and functionality this device is an ideal remote control for installation and alarm systems as well as the control of all electrical systems in the house, in the garden or in the office.



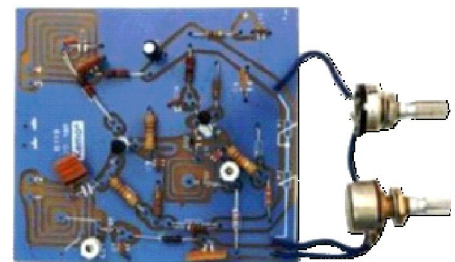
BKM.B119 Converter 100 – 200MHz Special 20.02 (Kit)

The converter has to be placed within the antenna lead! With this converter it is possible to receive frequencies between around 100 – 200MHz with an ordinary FM radio (98 – 104MHz) (e.g. television sound, taxi radio, police radio, marine radio, amateur radio).

Attention: Only radio amateurs who have a valid license are allowed to possess and use this kit (CCT-Law within the EEC)!

Kit set: to solder yourself

Operating voltage: 9 – 12VDC



BKM.B156N FM Receiver (Kit)

Kit for FM radio. With the built-in audio amplifier, speakers with 8 ohms > 1 W can be operated. Pre-assembled SMD ICs and pre-printed coils make assembly easier. The kit can be operated with a 9V battery.

Kit set: to solder yourself

Frequency range: FM approx 87 – 108MHz



BKM.M128N HF Detector (Mini Spy Finder)

This search device can be used to locate listening transmitters that are active in the room, on the computer or on the telephone. This makes it possible to find hidden listening devices (bugs, mini-spies). The device reacts to eavesdropping transmitters and bugs with normal transmission powers. Display: 1 x LED for the switch-on control, 1 LED for the reception indicator for a transmitter (the closer you get to the transmitter, the faster this LED flashes). A 9V block battery is required for operation.

Operating voltage: 9V (Battery)



GSF.HT200E 8-Channel Receiver 12VDC with 8 Relay Outputs 250VAC/12A

The 8-Channel Receiver for 868MHz ISM range has been designed as a tap-proof and tamper free remote control. The connection between the transmitter and the receiver is encrypted by AES128 and contains a "rolling code". This makes each data package sent to the receiver unique and non-repeatable. The learnable receiver allows the operation of up to 32 different transmitters that can be programmed into the receiver by pressing a key. The 8 relay outputs with high switching capacity have a changeover contact that may be freely connected. In addition the device has a display of 17 LEDs, that constantly inform you about the operational state of the system. The receiver also allows you to adjust the frequency and the delay time of the relays. The detachable antenna can optionally be extended, allowing higher flexibility during installation. Due to the characteristics of the device, this remote control system is ideal for general installation purposes and alarm technology. You can control your garage door, your window blinds, your home lighting, wireless and from the comfort of your chair.



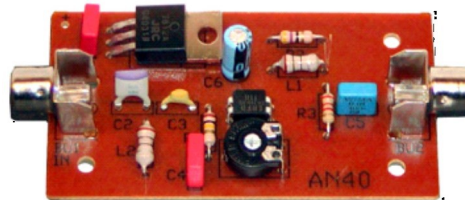
GSF.HT8S 8-Channel Transmitter for 868 MHz ISM-Band

The 8 Channel Transmitter for 868 MHz IS M-Band is a tap-proof and secure remote control. The transmitted data is encrypted according to AES 128 consisting of the so-called "Rolling-Code". This makes each set unique and incompatible to another set. Each transmitter has an unique identification code identifying the device. Copying the device and duplication of the code are not possible in application. The five channels (keys) can be operated parallel and independently from one another giving the device the functionality of a "wireless joystick". In addition to these features the device allows five further settings making the device highly flexible for various applications. The small size of the transmitter allows an universal use e.g. on a key chain, in a pocket or on the dashboard of the car. To cover the multitude of applications up to 32 transmitters can be programmed into one receiver. Based on the features and functionality this device is an ideal remote control for installation and alarm systems as well as the control of all electrical systems in the house, in the garden or in the office.



LC.8A Antenna Amplifier (Kit)

Kit set: to solder yourself
Operating voltage: 15 - 18VDC

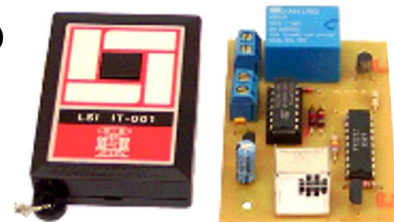


LC.74 Infrared Remote Control Transmitter/Receiver (Kit)

LC.74.2 - Single IR Handheld Transmitter

Coded infrared system, which means that there are no external influences like sun light or other remote controls which could interfere with switching operations. The receiver can be use as a switch or a momentary switch. The relay can be used as a NO or NC.

Kit set: to solder yourself



BKM.M091N Phase Coupler for Power Line Products (Module)

Connects all 3 in-house network phases capacitively with each other, so that transfer rates of up to 650 Mbit are possible via the power network for Internet or computer networking (depending on the nature of the power network). If the signal is only fed into 1 phase, the phase coupler connects all 3 phases together so that they become permeable to the powerline signal and the Internet or computer signal is also available at all other sockets in the house network. Also for wireless intercoms! A significant increase in range and transmission quality can be achieved!

Installation only by an authorized qualified electrician

For electric circuits: 110 - 440VDC For power line products: 10 - 650Mbit

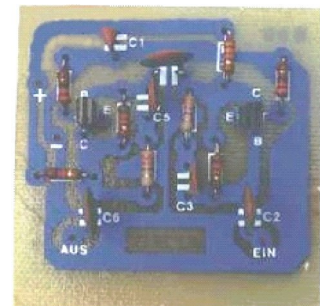


BKM.B099 Special Antenna Amplifier 30 -850MHz (Kit)

Wide-band antenna amplifier, especially suitable for amplification of weak television signals within VHF and UHF range as well as for amateurs receivers.

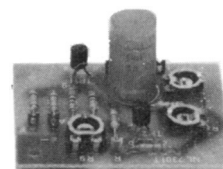
Kit set: to solder yourself

Operating voltage: 9 - 12VDC



EB7412 Tuning Indicator Philips DIY Kit

This tuning indicator simplifies the tuning of the FM receiver EB7409 and also serves as the field strength indicator. The kit comes with all parts including indicator.



POWER CONTROLS

LED.TRD8A LED Dimmer 1-Channel 12...24VDC/8A 96...192W

Input voltage: 12 – 34VDC/8A stabilised
Dimensions: 89 x 58 x 35.5mm
Power: 96W(12V) or 192W(24V)



BTS Phase Fired Controller 25W to 1320W

This phase fired controller is used as brightness control for incandescent bulbs, speed control of electric drills and similar. The circuitry has interference suppression.
Operating voltage: max. 250VAC



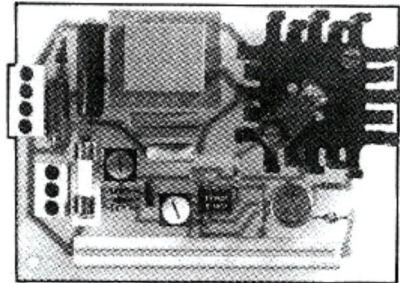
BTD.10 Phase Fired Controller 60W to 1320W Controlled Automatically

Zero-Crossing triggered and interference suppressed, controlled automatically from dark to light or reverse, arbitrary time constant. Another function are two buttons. Button T2 switches the light to bright and then darkens slowly. And button T1 turns off the light.
Operating voltage: max. 250VAC



BTE Phase Fired Controller With Possible Multi-Version

This triac based controller can be used as well as a dimmer control for lighting or as an engine speed control for drills or can be interconnected with 2 to max 10 triac based controllers. That way theater lighting, cinema lighting and lighting in dancing halls can be individually operated. Each triac based controller has its own potentiometer. There is an additional master potentiometer with this multi-version. This potentiometer allows to control all lights at the same time, this equals a lighting mixer console. The wiring for the multi version stays the same but the capacitor C5 (our order no COF.100.100n) with a value of 100nF is changed to 1µF (our order no COF.63.1u0).
Rated voltage: max. 250VAC



BKM.M063N Dimmer 12 – 48VAC max 10A (Module)

Controls continuously 12VAC motors (also direct current motors with added rectifier), incandescent lamps, heating, etc. Only to be operated at a 12VAC transformer (50 - 60Hz), not suitable for DC voltage (battery). It is also possible to control voltages such as 24VAC or 48VAC by exchanging the potentiometer.
Operating voltage: 12VAC 50-60Hz (for normal iron-core transformers only, not for electronic transformers).



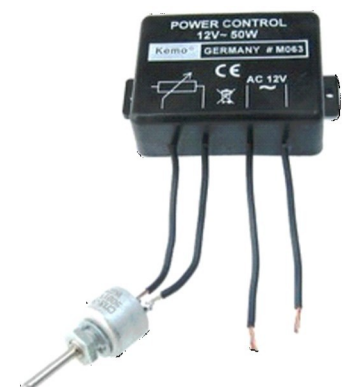
BKM.M012 Power Control 110 – 240VAC 1200VA (Module)

Regulates ohmic or inductive loads like heaters, hand drills, etc. with a potentiometer. When superposing BKM.M150 DC and pulse converter it's also possible to control this power control module (BKM.M012) with control voltages (1 - 5VDC or 3 - 12VDC or 6 - 24VDC) or with TTL pulses (optionally in each case).
Operating voltage: 110 – 240VAC 50-60Hz



BKM.M063 Dimmer 12VAC 50W (or 24 – 48VAC) (Module)

For halogen lamps and motors
Controls continuously 12VAC incandescent lamps (e.g. halogen lamps), 12VAC heating, motors (also direct current motors with added rectifier), etc.. Only to be operated at a 12VAC transformer (50 - 60Hz), not suitable for DC voltage (accumulator)! It is also possible to control 24VAC (potentiometer 2.2 k linear) or 48 V/AC (potentiometer 4.7 k linear) by exchanging the potentiometer.
Operating voltage: 12VAC (10 – 14VAC) alternating voltage 50 – 60Hz (for normal iron core transformers only, not for electronic halogen transformers)



BKM.M204 Power Control 230V 16A for Heaters

Regulates resistive loads such as heaters etc. with pulses at zero crossing without additional interference suppression. The regulation takes place by switching on and off again in pulses. Therefore only suitable for heaters (hot plates, welding rods, thermal welding machines, ovens, etc.). Not for motors + lamps (they would stutter or flash).
Operating voltage: 220-240VAC, 50-60Hz



BKM.FG002N Power Control 230VAC

The output of ohmic or inductive loads 230VAC, which are controllable by phase control is infinitely variable with it. The regulator has a CE approval up to a load of 400 W. It may also control loads up to 800W, but then an additional interference filter has to be connected in series. It is also possible to control temporarily (max. 3 seconds) loads up to 1600 W (e.g. in case of high starting currents for electric motors, only with additional interference filter connected in series). Ohmic loads are e.g. electric heating, soldering irons, etc.. Inductive loads are e.g. motors with carbon brushes (e.g. kitchen machines), electromagnets, vibrating tables, etc.. It is not possible to connect devices, which already have built-in control electronics! Only for indoor use!
Operating voltage: 180 – 240VAC



BKM.M240 Power Control 230VAC 10A Multi-function

Power controller for 230VAC consumers such as motors, lamps, many dimmable LEDs etc. The controller is overload-proof and can be controlled with a potentiometer (100K lin.), a control voltage (0 to 10V) or with PWM signals (0 to 100%, 100 to 10,000 Hz).
Operating voltage: 23VAC, 50-60Hz



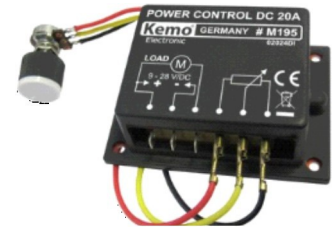
BKM.M160 Power Control for Electric Transformers (Module)

Phase section regulator 110 - 240VAC, short circuit-proof
Output regulator for normal halogen transformers and resistive loads (e.g. heating elements). This output regulator has a soft start (increases the lifetime of lamps) and is short circuit-proof.
Operating voltage: 110 – 240VAC 50-60Hz



BKM.M195 PWM Power Control 9 – 28VDC max 20A (Module)

Power controller for controlling DC loads (DC motors, light bulbs, heaters, LEDs with current limiting resistors, etc.) The use of PWM (pulse width) control works well even with electric motors running at low RPM. Switching frequency: approx. 400Hz (for motors, a humming noise may be heard). The control is via the supplied potentiometer or optional with an external control voltage 0 to 5VDC.
Operating voltage: 9 – 28VDC



BKM.M028 Power Control 110 – 240VAC 2600VA (Module)

Control of resistive + inductive loads (e.g. motors, heating, incandescent lamps, etc., if they are phase controllable). It is not possible to control: e.g. fluorescent lamps, motors with starting capacitor. When superposing the module BKM.M150 DC and pulse converter, it is also possible to control this power control (BKM.M028) with control voltages (1 - 5VDC or 3 - 12VDC or 6 - 24VDC) or with TTL pulses (optionally in each case).
Operating voltage: 110 – 240VAC



BKM.M028N Power Control 110 – 240VAC 4000VA (Module)

Control of resistive + inductive loads (e.g. motors, heating etc., if they are phase-controllable). When superposing the BKM.M150 DC + pulse converter module, it is also possible to control (BKM.M028N) with control voltages (1 - 5VDC or 3 - 12VDC or 6 - 24VDC) or with TTL pulses (optionally in each case).
Operating voltage: 110 – 240VAC



BKM.M171 PWM Power Control 9 – 28VDC, max 10A (Module)

Power control to control direct current loads (motors, lamps, heating, LEDs with protective resistors, etc.). Electric motors start well also at low revolution speeds because of the employed PWM (pulse width) modulation. Modules from serial no. 06022DI (available > 11/2011) can also be connected to a control voltage of 0 - 5 V/DC.
Operating voltage: 9 – 28VDC



BKM.M156 Sensor Power Control 230VAC 1kW (Module)

Power control for resistive loads and motors to be operated by push button or sensor contact. When pressing the key button, the power raises and decreases again automatically and keeps this setting if the key button is detached. If the key button is touched shortly in the desired setting, the power control switches off and upon touching it once again in the last setting it switches on again. It also can be used as a light sweller / pulsator module in the clock frequency of 5 - 9 seconds per rise and decline. Operating voltage: 220 – 240VAC 50-60Hz



BKM.M013N Twilight Switch 240VAC (Module)

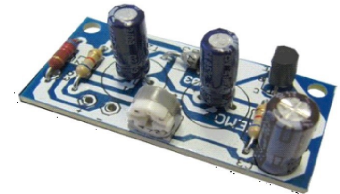
This electronic twilight switch switches devices automatically on by nightfall and off by dawn light through an installed relay. It can switch e.g. Energy saving lamps or other devices on for the night and off at daybreak. The module can be installed in the reversed way of turning devices off for the night and on at daybreak (e.g. Advertising displays, fountains etc.). It can switch potential-free loads up to 3A. Operating voltage: 210 – 240VAC



LIGHTING EFFECTS

BKM.B003 Flasher / Alternating Flasher for 2 Small Light Bulbs

The light bulbs connected to this flasher will flash at an adjustable flashing speed. Can be used as a flasher (max. 300mA) or as an alternating flasher (2 x max. 300mA). Kit set: to solder yourself



BKM.B185 Flasher 6 - 12 V/DC max. 100mA

Electronic flasher for filament bulbs. Also usable as alternating flasher. Flashing frequency: approx. 1 – 3 times per second. Ideal for construction of models. It is possible to expand this flasher for loads up to 3A with the additional kit set BKM.B197 Relay card 12VDC (order separately) Kit set: to solder yourself



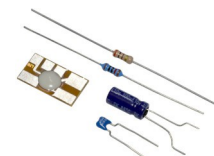
BKM.M206 Flasher for LED- and Incandescent Light Bulbs 9...48VDC

You may connect either incandescent light bulbs or LED lamps with operating voltages ranging from 9 to 48 VDC to this flasher. The flasher is then operated at the operating voltage of the connected lamps. The device is short-circuit proof. Adjustable flash period: approx. 0.15 - 7 seconds. Operating voltage: 9 - 48 V



BKM.M079N Flasher or Alternating Flasher for 1 to up to 10 LEDs (Module)

Suitable as flasher or alternating flasher for light emitting diodes. Protection against change of polarity, short-circuit-safe, built-in current limitation for LED's. Connecting possibilities for 1 - 10 LED's. Ideal for use in model construction, for adornment picture or caps with built-in LED's, warning flashers, etc. Operating voltage: 6 – 12VDC



BKM.M114N Flasher Slow 240VAC or 110VAC (Module)

Flasher with adjustable flashing time: approx. 0.6 – 9 seconds turn-on time. The turn-off time is approx. half of the turn-on time. With built-in fuse. For small incandescent lamps or LED lamps, 10 – 300 watts at 240VAC or up to 150 watts at 110VAC
Uses: billboards, model light house
Operating voltage: 110 – 240VAC



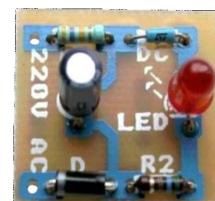
BKM.B204 Flashing LED 230VAC

Flash circuit with one red LED (light emitting diode) Ø 5mm which can be operated with 230VAC.

Uses: Control-lamp for devices and alarm systems, start control for machines

Kit set: to solder yourself

Operating voltage: 220 - 240VAC



BKM.M065 Halogen Light Organ for 12VAC Lamps (Module)

Halogen light organ for 12VAC lamps or halogen lamps up to max. 50W. When connected the lights will be flickering with the musical rhythm. To adjust sensitivity to the music a potentiometer 1k-Ohm linear has to be installed. The potentiometer is not included and has to be ordered separately. The module is working with a 12VAC power transformer(alternating voltage). It is not suitable for direct voltage (accumulator). Operating voltage: 12VAC (power transformer)



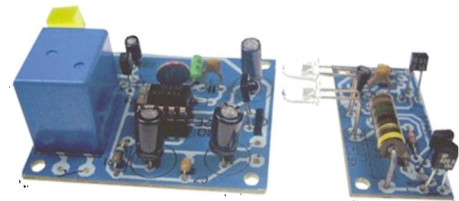
BKM.B062 Infrared Light Barrier > 18m

This light barrier uses the IC U2531B and works with invisible infrared light beams. The transmitter and receiver are included! The coverage range is over 18m and can be extended to up to 30m if two convex lenses are installed.

Ideal for alarm systems, automatic animal picturing, remote control for garage doors, etc. With incorporated infrared filter for day operation!

Applications: installed between posts as door bell, counter of people entering or installed on windows as alarm device.

Kit set: to solder yourself

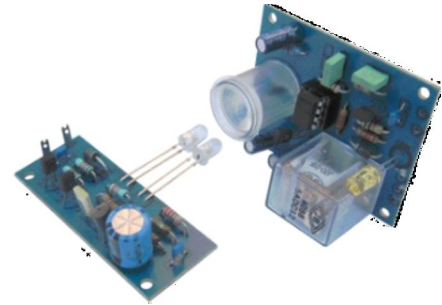


BKM.B213 Infrared Light Barrier max. 50m

The enclosed optics and highly sensitive photo detector allows this light barrier to be used for a range of up to 5m. The infrared light is invisible to the human eye.

When the IR light between the transmitter and receiver is interrupted (a person walks through it) the relay in the receiver switches.

Kit set: to solder yourself



BKM.B223 Infrared Spotlight

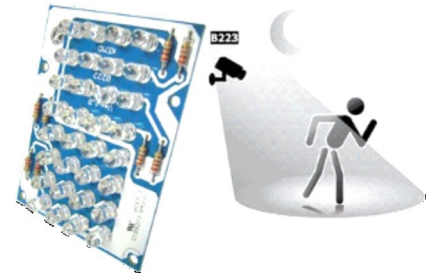
This IR night vision spotlight allows the CCD camera to produce images in levels of light approaching total darkness.

The Infrared light is completely invisible to the human eye.

Ideal for inconspicuous surveillance of entrances, facades and other areas.

Kit set: to solder yourself

Operating voltage: 12 – 14VDC



BKM.M120 Infrared Spotlight for CCD Cameras 12 – 15VDC < 300mA (Module)

This IR night vision spotlight allows the CCD camera to produce images in levels of light approaching total darkness.

The Infrared light is completely invisible to the human eye.

Ideal for inconspicuous surveillance of entrances, facades and other areas.

Operating voltage: 12 – 15VDC

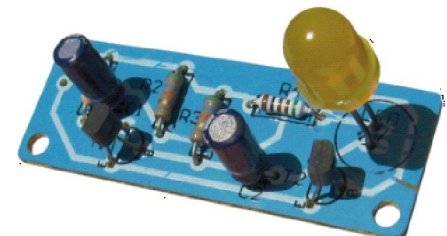


BKM.B186 Jumbo LED Flasher

Electronic flasher unit with a large Ø 8mm light emitting diode. Application: decoration, building models.

Kit set: to solder yourself

Operating voltage: 6 – 12VDC



BKM.B092 LED Alternating Flasher

Two different coloured light emitting diodes are flashing alternately. The flashing time is adjustable. This flasher can be powered with a 9 volt block battery.

Applications: flashing adornments, name-plates, for miniature model construction

Kit set: to solder yourself

Operating voltage: 6 – 12VDC (e.g. 9V block battery)



LC.136M4 LED Signal Lamp Yellow 12VDC or 24VDC (Module)

LC.136M5 LED Signal Lamp Green 12VDC or 24VDC (Module)

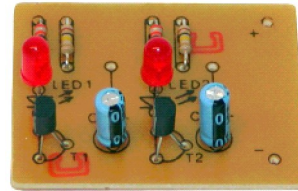
Cast surface mounted module with 39 LEDs. Surface mounted with 2 screws.

Operating voltage: 12VDC or 24VDC



LC.117 LED-Alternating Flasher with 2 LEDs (Kit)

Two LEDs are flashing alternately.
Kit set: to solder yourself
Operating voltage: 6 - 12VDC



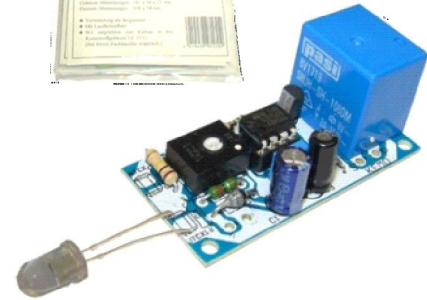
LC.170 LED-Arrow with Running Light Effect (Kit Set)

Application: direction sign, wall decoration, window display
Kit set: to solder yourself
Operating voltage: 9 volt (block) battery



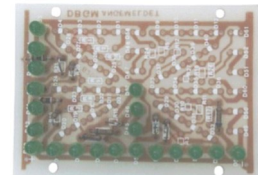
BKM.B045 Light Barrier 12VDC (Alarm Bell)

This light barrier switches a relay on or off if there is light or if there is darkness.
Works in twilight as well.
Kit set: to solder yourself
Operating voltage: 12VDC



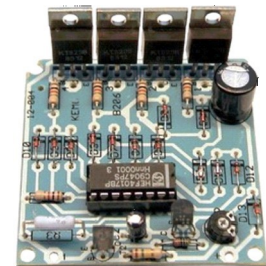
BKM.B200 Luminous Letters

With this kit it is possible to mount any capital letter of the alphabet or any digit from 0 - 9. The concrete description of each letter and of each digit is been enclosed. The kit includes especially bright LED's. The printed wiring board could be equipped also with LED's of any other colour. With each kit it is feasible to mount any digit and putting several kits together, you are capable to build luminous nameplates, signboards, house numbers etc. Fitting letter control see BKM.B206.
Kit set: to solder yourself
Operating voltage: 12VDC



BKM.B206 Luminous Letter Control

...switches luminous letters or lamp groups slowly on one after another, keeps all letters switched on for a while and then switches them off at the same time. Then, the process re-starts again. There are 4 outputs. Each can connect 1 letter or one letter group.
The control is suitable to be used with our BKM.B200 – Luminous Letter Kit Set
Kit set: to solder yourself
Operating voltage: 12 – 15VDC



TESTING AND MEASURING

EMK.FG06 Function Generator (DIY Kit)

This function generator is suitable for universal testing of LF amplifiers, control circuits and digital components.
Initial shapes: sine, triangle and rectangle.
Operating voltage: 230VAC



BKM.B195 Infrared Detector 9VDC (Kit)

With the aid of this circuitry it is possible to carry out functional tests of infrared remote controls used in TV-sets and video devices, etc.
Kit set: to solder yourself
Operating voltage: 9VDC (8 – 12VDC)



LC.224 Digital Compass
with Mounting Brackets



BKM.M087N LED Tester (Module)

With this test module, wired light-emitting diodes can be tested for function, brightness, color and polarity. To select LEDs for the same brightness, there are two test sockets next to each other with the same currents (5mA/10mA). Required: 9V (alkaline) battery.



BKM.M101A Magnetic field generator

Generates alternating magnetic fields that charge trace elements in the water such as lime, metal oxides, etc. with a positive molecular charge. This can prevent them from docking onto molecules that are also positively charged (e.g. pipes). This makes it more difficult or impossible for lime, minerals, etc. to build up in pipes, valves, etc.

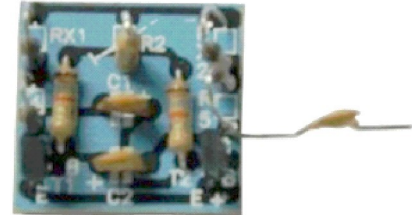
Required plug-in power supply: 6 - 15V/DC with 3.5mm jack plug, < 130mA (not included). For indoor use only!



BKM.B187 Signal Injector (Test Signal Generator) (Kit)

Universal square-wave sound generator with approx. 1000Hz basic frequency and a great number of harmonic waves which lead up to VHF-range. The signal can be listened through a highly ohmic earphone or could be amplified for loudspeakers through an amplifier. Ideal as repair equipment for radios and amplifiers, in order to feed a sound signal at various stages of the defect object.

Kit set: to solder yourself
Operating voltage: 6 - 12VDC



BKM.M048N Ultrasonic Generator (Animal Repellent) (Module)

Animals and insects can be scared away with ultrasonic sounds: e.g. rats, mice, martens, wild rabbits, mosquitoes. When mounted on the car, deer run away (reduced risk of accidents). For connecting a piezo tweeter. The module is ideal for repelling pests from pantries, kitchens, warehouses, gardens, etc. Can also be used as a dog whistle. You can use this to drive away some species of birds from your fruit trees.

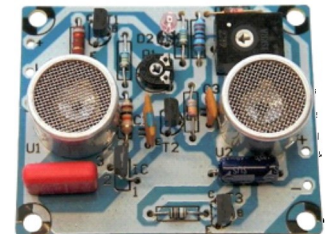
Operating voltage: 12 - 15VDC



BKM.B214 Ultrasonic Proximity Sensor (Kit)

A LED lights up if a body approaches the ultrasonic sensors at a distance of 10 - 80cm (depending on the size of the body). Use: parking-in assistance for cars in garages, alarm signal for persons or animals staying in a certain area. The device works according to the same principle as the ultrasonic echo ranging of bats!

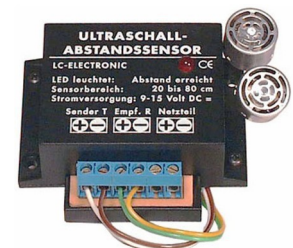
Kit set: to solder yourself
Operating voltage: 9 - 12VDC



LC.08M Ultrasonic Proximity Sensor (Module)

A LED lights up if the adjusted distance is reached. The adjustable distance is approx 20cm to 80cm. Application: parking assistance, alarm signal for persons or animals getting into a certain area.

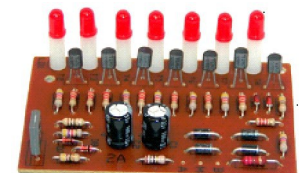
Operating voltage: 12VDC



LC.3.1 Wattmeter for Loudspeakers (Kit)

The loudspeaker output is displayed with 7 LEDs. This wattmeter is connected parallel to the loudspeaker. There is no power supply necessary.

Input A: 0.3W - 35W
Input B: 4.0W - 200W



MIXING CONSOLE UNITS

LC.181 Basic Broadening and Pseudostereo (DIY Kit)

For the artificial broadening of the stereo speakers.
Operating voltage: 4.5 to 16 volts DC

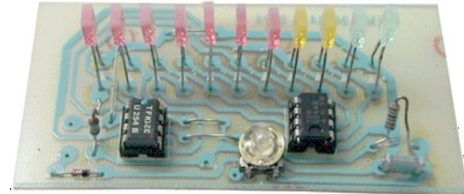


EB7415 Electronic Signal Source Switcher Philips DIY Kit

BKM.B111 LED VU-Meter with 11 LEDs

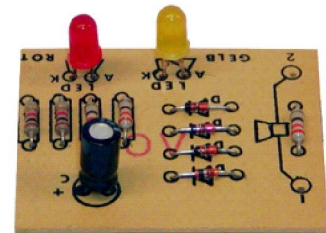
Almost inertia less measuring device with 11-LED-indication. Ideal as volume indicator for amplifiers and cabinets or as volt- or amperemeter for mains supplies, etc.

Kit set: to solder yourself
Operating voltage: 12VDC



LC.115 Loudspeaker Overload Protection (Kit)

Kit set: to solder yourself
Power: 10 - 80W
Impedance: 4 - 16 Ohm



EB7322 Speaker Unit Philips DIY Kit

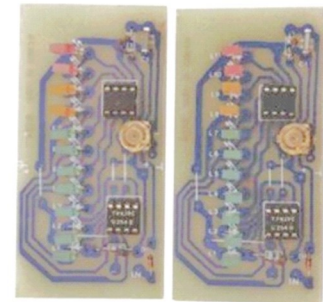


EB7411 Stereo Decoder Philips DIY Kit



BKM.B124 Stereo LED-Volume Indicator

Almost inertialess volume indicator for amplifier units from 2 - 100W. Indication through 22 LEDs (2 x 11 LEDs). Operating voltage: 12VDC.
Easy connection with the loudspeakers.
Kit set: to solder yourself
Operating voltage: 12VDC



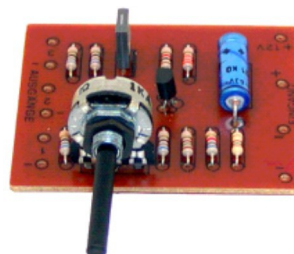
LC.73 Stereo Loudspeaker Guard (Kit)

Can be easily installed between amplifier and loudspeaker.
Kit set: to solder yourself
Operating voltage: 12 - 15VDC



LC.98 Video Transfer Amplifier (Kit)

Kit set: to solder yourself
Operating voltage: 12VDC



PSU POWER SUPPLY UNITS

BKM.M057 Automatic Accumulator Charging Module (Module)

Constant current charger for accumulators 1.2 - 18VDC. Reversible
Accumulators capable of being charged: 1.2 – 18VDC NiCd, NiMH, lead and gel accumulators, not suitable for lithium ion accumulators



BKM.M188 Battery (Accumulator) Guard 12V

Indicates in 5 steps with 3 LEDs the actual charging condition during operation of an 12 volt accumulator. The Battery guard is designed to monitor a battery in a closed, active circuit. Very low consumption of less than 4.9mA!
Operating voltage: 10.4 – 15.5VDC



BKM.M083 Battery Charging Regulator 12VDC (Module)

This module supervises the charging state of a 12V car battery and starts charging automatically, whenever there is a drop of voltage. When the battery is charged the module will switch off and supervise the battery. Suitable for batteries placed in alarm systems, weekend-houses, caravans etc. in order to keep batteries constantly charged without the risk of overcharging. Also suitable as charging regulator for solar panels. Short circuit and reverse current proof.
Input voltage: 16 – 20VDC (solar panel or power supply)



BKM.M148A Battery Guard 12VDC (Module)

This battery saver protects your car battery from total discharge by switching off consumers such as ice boxes, heaters, radios + television sets, etc. in time. It switches on again automatically after return of the normal voltage. The interrupting voltage is adjustable: approx. 10.4 - 13.3V.
Operating voltage: 12V battery



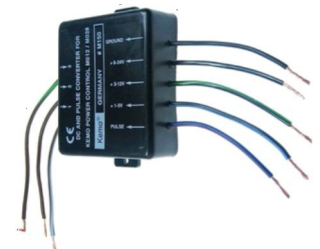
BKM.M172 Bicycle Charge Controller USB (Mini B) (Module)

Allows the operation of navigators, PDAs, MP3 players, etc. if these have a current supply jack "M USB B" with generally usual wiring. The current for the operation and/or for charging the battery is taken from the bicycle dynamo.



BKM.M150 DC and Pulse Converter (Module)

By connecting this module in series, it is possible to control our power control modules (230VAC or 110VAC) BKM.M012, BKM.M028 and BKM.M028N (from microcomputers or PCs) with a DC voltage or a pulse width modulation. This module is connected at the spot of the potentiometer. Galvanic separation of the control circuit via optocouplers. Control may be done optionally (at 230VAC) 1 - 5VDC, 3 - 12VDC, 6 - 24VDC. Or TTL rectangular pulses 5VDC, 1 - 10kHz pulse width 10 - 90% PWM (Pulse width modulation). Regulation is done by changing the pulse width.
Operating voltage: 110VAC or 230VAC (is led to the dimmer module via the connections)



BKM.M029 DC/DC Converter 12VDC to 24VDC max 2A (Module)

DC/DC converter input: 6 - 14VDC, output: 11 - 26VDC
This electronically controllable DC voltage converter transforms a low input voltage into a nearly twice as high output voltage. Output voltage decreases whenever there is a higher load. With the help of an additional potentiometer of 4.7k linear output voltage can be limited towards higher rates at input voltages of over 10V.
Input voltage: 6 – 14VDC



BKM.M020 DC/DC Converter 24VDC to 12VDC, max 1.1A (Module)

24VDC to 13.8VDC max. 1.1A
With this module you can operate 12VDC devices at 24VDC truck or marine engine batteries. Several modules can be connected in parallel if more power is required, e.g. 2 modules do 2.2A.
Input voltage: approx 24 – 30VDC



BKM.M038 DC-DC Converter 24VDC to 12VDC max 3A (Module)

...for operation of 12VDC devices at a 24VDC lorry or boat battery. Short circuit-proof, shock-proof module. This power-potential transformer module has to be mounted on a heat sink or the like if the maximum power shall be drawn as continuously. The module is short circuit-proof and has a built-in thermal circuit breaker which disconnects in case of overheating.
Application: to operate larger car radios, CB radio equipment etc. at a 24 V lorry or bus battery.
Input voltage: 24 – 26VDC



BKM.M038N DC/DC Converter 24VDC to 12VDC, max 3A (Module)

Converts from 24VDC to 12VDC (13.8VDC), max. 3 A
For operation of 12VDC devices at a 24VDC lorry or boat battery. Short circuit-proof, shock-proof module.
Input voltage: 24 – 26VDC
Output voltage: approx 13.8VDC (equivalent to a full loaded 12VDC battery)



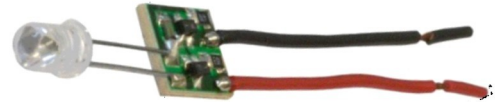
BKM.M155 Discharger for 7.2VDC Racing Packs (Module)

Discharges partially charged 7.2VDC Racing Packs to prevent a memory effect and thus to increase the accumulator's life. The accumulator is discharged to ca. 5.4VDC (display through control LED) through a special protective circuit.
Connection voltage: 7.2VDC (6 NiCd or NiMH cells)



BKM.M142 LED Constant Current 4 -30VDC (Module)

This LED with soldered constant current electronics can be connected to any voltage between 4 - 30VDC. An additional protective resistor is not required. It is also possible to connect several LED's in series.
Operating voltage: 4 – 30VDC



BKM.M101A Magnet Field Generator (Module)

Magnetic field generator for sanitary conduits against lime build-up. Generates alternating magnetic fields that charge trace elements in the water such as lime, metal oxides, etc. with a positive molecular charge. This can prevent them from docking onto molecules that are also positively charged (e.g. pipes). This makes it more difficult or impossible for lime, minerals, etc. to build up in pipes, valves, etc.
Required plug-in power supply: 6 - 15VDC with 3.5mm jack plug, < 130mA (not included).
For indoor use only



LC.25 Nickel Cadmium Battery Charger (for up to 12 Accus) (Kit)

Battery Charger for NiCd-Accus
Up to 12 NiCd accumulators can be charged with this charger. The charging time takes about 10h at 0.1CA.
Kit set: to solder yourself
Operating voltage: 12VDC - 18VDC



BKM.M168 Over-Voltage Protection 12VDC (Module)

Voltage spike suppressor for motor vehicles — suppresses constantly all voltage spikes in the supply system of motor vehicles! Prevents damage to the sensitive supply system electronics through voltage spikes in the supply system.
Field of application: 12VDC (supply system of motor vehicles)



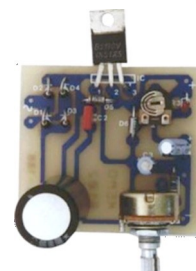
BKM.M015N Potential Transformer Adjustable max 1.5A (Module)

Max. 1.5A, Input: 6 - 28VDC, Output: 3 - 15VDC
The input voltage must be at least 3V higher than the adjusted output voltage. The adjusted output voltage is stabilized or short circuit-proof. For operation of appliances with lower voltages at a 12V or 24V car battery or power supply.



BKM.B102 Power Supply approx 1.2 – 30VDC max 2A (Kit)

Stabilized, electronically controllable power supply with power-IC. Also necessarily is a transformer 24VDC, 2A and a heat sink as a cooling element with min. dimensions: 10 x 10 x 5cm.
Kit set: to solder yourself



LC.07M Racing Pack Charger (7.2V und 1700mA) (Module)

Fast charge possible in just 4 hours with automatic turn-off when charged.
Kit set: to solder yourself
Operating voltage: 12VDC



BKM.M102N Second Battery Charger 6 – 24VDC (Module)

For lead batteries 6 to 24V. With this battery separating filter 2 batteries are charged separately at one source of charging current (vehicle generator, solar systems, windmills, chargers etc). For charging currents up to 10 A at maximum (with cooling 20A). The charging current distributes in such a manner that an empty battery will be charged more than a battery that is almost charged. It is perfect for motor caravans if one battery operates the television, radio etc. and the second battery must remain charged in order to start the motor. Or for weekend cottages if one battery used for the alarm system must not be emptied.
Operating voltage: 6 – 24VDC



BKM.M149 Solar Charging Controller 12VDC 6A/10A (Module)

This solar charging controller is connected between a solar cell 12VDC (open circuit voltage 14 - 30VDC) and a battery 12VDC to prevent an overcharge of the battery. LED displays for "battery full" (approx. 14.4VDC) and "charging".

Input voltage solar cell panels: 14 – 30VDC open circuit voltage
Nominal voltage: 12VDC



BKM.M149N Solar Charging Controller 12VDC 10A/20A (Module)

Same as above but with 10A/20A current

BKM.M174 Solar Charging Regulator Dual 16A (Module)

To be connected between a solar panel 12VDC and 1 or 2 batteries in order to avoid an overload of the batteries. If 2 batteries are connected, they are charged separately from each other. The battery with lowest charging voltage always receives more charging current. With LED displays and high charging capacity: max. 2 x 8A or 1 x 16A.
Input voltage: solar panels 15 – 30VDC open circuit voltage, 12VDC rated voltage



EB7455 Voltage Stabiliser +/- 5 V Philips DIY Kit



SWITCH AND REGULATE

GSF.HT3E 3-Channel Receiver 12VDC with 3 Relay Outputs 230VAC/5A

The 3-channel receiver for 868MHz ISM range has been designed as a tap-proof and tamper free remote control.

Control of doors, gates, barrier systems and electrically controlled windows. Control of lighting circuits and systems; of pumps, air conditioning and water systems; of electrical, hydraulic and pneumatic systems. Operation with up to 32 transmitters which can be programmed in the receiver through keypress. A free range of approximately 200m under normal operating conditions.

Settings will be saved in case of power failure.

Operating voltage: 12VDC



BKM.M104 4 Channel Computer Switch (Module)

...for switching up to 4 different appliances, lamps or motors with operating voltages of 6...24V, max. 2A by computer program. Electrical consumers direct current can be controlled. The module is connected to the printer port of a standard PC.

Diskette 3,5" is enclosed!

Operating voltage: 6 – 24VDC



BKM.B210 8 Channel Relay Board (Kit)

For switching different appliances, lamps or motors by a computer program. The relay points can be loaded up to 3A each at maximum. By means of the enclosed software it is possible to switch on and off up to 8 different appliances at different times. It is also possible to program certain switching sequences (also for several days) or attractive effect lighting for stages and discotheques! The module has to be connected at the printer port of a standard PC.

Software-CD is enclosed!

Kit set: to solder yourself

Operating voltage: 12VDC max 0.8A



**GSF.HT200E 8-Channel Receiver 12VDC with 8 Relay Outputs
250VAC/12A**

The 8-Channel Receiver for 868MHz ISM range has been designed as a tap-proof and tamper free remote control.

Control of doors, gates, barrier systems and electrically controlled windows. Control of lighting circuits and systems; of pumps, air conditioning and water systems; of electrical, hydraulic and pneumatic systems. Operation with up to 32 transmitters which can be programmed in the receiver through keypress. The LED function indicators are located on the front plate of the device, allowing you to see the status of the receiver at a glance.

A free range of approximately 200m under normal operating conditions.
Settings will be saved in case of power failure.
Operating voltage: 12VDC



GSF.HT8S 8-Channel Transmitter for 868 MHz ISM-Band

The 8 Channel Transmitter for 868 MHz IS M-Band is a tap-proof and secure remote control.

Control of doors, gates and barrier systems.
Opening and closing of electrically controlled windows.
Control of lighting circuits and systems.
Control of pumps, air conditioning and water systems.
Control of electrical, hydraulic and pneumatic systems.

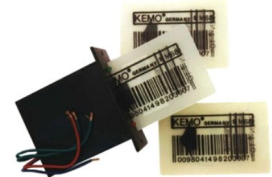
Highest safety standards with "Rolling-Code" security code.
A free range of approximately 200m under normal operating conditions.
Operating voltage: 3V (CR2032 - included)



BKM.M068 Electronic Card Switch (Module)

Whenever the corresponding card has been inserted into the card slot, the card switch will switch on. The card will be read optically by 4 infra-red read-heads and will solely react on the correct card. 3 cards are enclosed, coding can be changed. Usage: switching of devices, machines, alarm systems, door opener, etc. which should be feasible only for a special circle of persons. The lock has an installed relay which switches loads up to 1A, 48V.

Operating voltage: 9VDC



BKM.M068-5 Five Additional Cards

For above module



BKM.B231 Electronic Key Switch (Kit)

When holding the enclosed key pendant in front of the sensor (distance 5 - 15 mm), a relay switches on. Application: non-contact door opener to switch appliances etc. You may hide the sensor behind a nameplate or a door glass panel. In this case only "insiders" know, at which point you have to hold the key pendant in order to open the door. The key pendant does not require any battery!

Replacement keys are available under order no. BKM.M131N.

Kit set: to solder yourself
Operating voltage: 12VDC



EB7811 Energy-Saving Flasher DIY Kit

With this kit you have your heating costs under control. A temperature counter (NTC) with a downstream differential amplifier causes a light-emitting diode to flash if the room temperature exceeds the preset value.

A small buzzer can be connected to the existing output if an addition to signal is required. Other applications: Refrigerator freezer alarm

Operating voltage: 6 to 15V



BKM.M119 Master Slave 6 - 30VDC (Module)

"Current conduction switch", connects or disconnects automatically another device when starting a direct-current device. For example, the radio is disconnected automatically when switching on the CB-radio equipment in the car. Or the amplifier of the radio equipment is connected automatically when the CB-radio transmits. Or the outdoor illumination of a motor caravan is disconnected automatically when switching on the indoor lighting. May also be used for controlling whether lamps at a vehicle light (control of current conduction).

The module simply has to be connected in series with the power lead of the device (6 - 30VDC) and connects and disconnects other devices via a potential-free contact (1 x change over, max. 3A). The module reacts on currents between ca. 1 - 5A.
Switching voltage: 6 - 30VDC



BKM.M103N Master/Slave Switch 230VAC (400VAC) (Module)

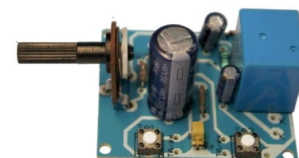
Automatically switches another load on when a machine, lamp etc., is turned on. It can monitor 1-phase or 3-phase machines (where a single phase is sampled). On the output side, 1-phase devices (e.g. vacuum cleaner) are switched on automatically (or three-phase loads with an auxiliary relay, not included). Maximum of 15A each. Total output: 3600W.

Operating voltage: 230VAC



BKM.B133 Precision Timer (Kit)

Adjustable time switch for switching operations from approx 1 second to approx 40 minutes. The device switches on after pressing the key and switches off again when the adjusted time has expired. The lapse of time may be interrupted any time with the reset key. Switching power: max. 25V 3A.
Kit set: to solder yourself



LC.14M Precision Timer (Module)

Timer module for different applications, e.g. photo timer, timer for model railway, short time switch for other uses.

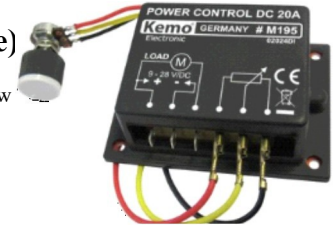
Kit set: to solder yourself
Operating voltage: 12VDC



BKM.M195 PWM Power Control 9 – 28VDC max 20A (Module)

Power controller for controlling DC loads (DC motors, light bulbs, heaters, LEDs with current limiting resistors, etc.) The use of PWM (pulse width) control works well even with electric motors running at low RPM. Switching frequency: approx. 400Hz (for motors, a humming noise may be heard). The control is via the supplied potentiometer or optional with an external control voltage 0 to 5VDC.

Operating voltage: 9 – 28VDC



BKM.M171 PWM Power Control 9 – 28VDC, max 10A (Module)

Power control to control direct current loads (motors, lamps, heating, LEDs with protective resistors, etc.). Electric motors start well also at low revolution speeds because of the employed PWM (pulse width) modulation.

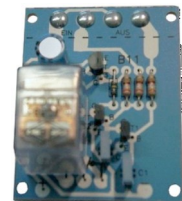
Operating voltage: 9 – 28VDC



BKM.B011 Sensor Touch Switch (Kit)

It is possible to switch devices on and off through a soft touch of the sensor with fingers or the nose. With the first touch a relay with switch devices on and with a second touch will switch them off. In the off-stage the relay uses only $0.1\mu\text{A}$ current consumption. With this low consumption the sensor can be kept on at all the time. This sensor switch can be used as a secret switch if installed at a hidden place.

Kit set: to solder yourself
Operating voltage: 12VD

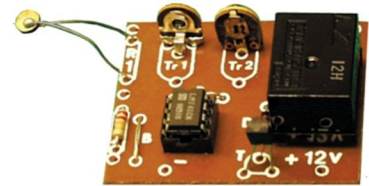


LC.9 Temperature Switch 7VDC – 15VDC (Kit)

Thermo Switch/Thermostat

A NTC thermistor activates this thermostat and switches devices at a chosen temperature on or off.

Kit set: to solder yourself
Operating voltage: 7VDC - 15VDC



BKM.M169A Temperature Switch Thermostat 12VDC (Module)

Adjustable electronic temperature switch. With a cable of up to 1m length can the sensor (\varnothing 5 mm) be connected with the control electronics.

Operating voltage: 12 – 15VDC, stabilised (max 0.1A)



BKM.B042 Time Switch (Short Term) 2 Seconds to 5 Minutes (Kit)

After pushing the button the installed relay switches on for approx. 2 seconds up to approx. 5 minutes (adjustable) and then switches off again.

Kit set: to solder yourself
Operating voltage: approx 12VDC



BKM.M113A Time Switch 12 – 15VDC (Module)

Time switch approx. 2 seconds up to 23 minutes (\pm 30%)

The relay (1x ON max 3A) switches other devices on after pushing the button and switches them off again automatically after the adjusted time has expired. The lapse of time may be interrupted any time by pushing the second push button.

Operating voltage: 12 – 15VDC



BKM.M122 Twilight Switch 12VDC (Module)

The twilight switch switches on e.g. lamps at nightfall and off again at daybreak. (for weekend cottages, sailing yachts, caravans etc.) Distribution output: relay 1 x change over, max. 3 ampere.

Operating voltage: 12VDC (11 – 14VDC)

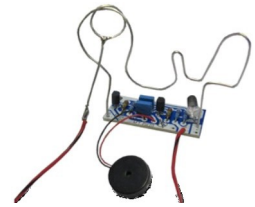


GAMES AND ENTERTAINMENT

BKM.B081 Deftness Game

The matter is to pass a small wire loop through a thread wire with a lot of bends and obstacles. The person who touches the thread wire with the wire loop, will release an acoustic and optic signal. An interesting game for parties and for never-ending evenings.

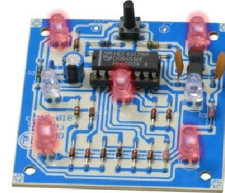
Kit set: to solder yourself
Operating voltage: 9 – 12VDC



BKM.B093 Electronic Dice

After pressing a key this digital die indicates depending on chance a number between 1 - 6. Indication takes place by LED display.

Kit set: to solder yourself



BKM.B239 Electronic Wheel of Fortune

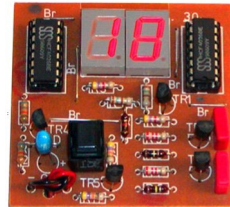
After releasing the push-button, the light signal rotates quickly at the 10 LED's, slows down and then stops at random at one of the LED's. During operation all LED's shine except that LED that just receives the signal. That's why the luminous board looks very decorative.

Kit set: to solder yourself
Operating voltage: 9 – 12VDC



LC.14 Lotto Number Generator 1 to 49

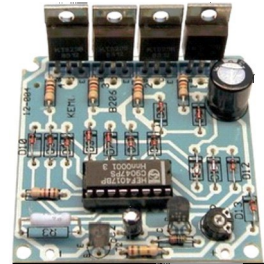
The automatic on-/off-switch displays the selected numbers for 4 seconds. Kit set: to solder yourself



BKM.B206 Luminous Letter Control

...switches luminous letters or lamp groups slowly on one after another, keeps all letters switched on for a while and then switches them off at the same time. Then, the process re-starts again. There are 4 outputs. Each can connect 1 letter or one letter group.

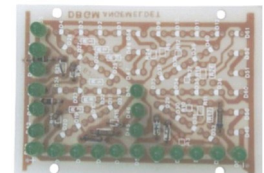
Kit set: to solder yourself
Operating voltage: 12 – 15VDC



BKM.B200 Luminous Letters

With this kit it is possible to mount any capital letter of the alphabet or any digit from 0 - 9. The concrete description of each letter and of each digit is been enclosed. The kit includes especially bright LED's. The printed wiring board could be equipped also with LED's of any other colour. With each kit it is feasible to mount any digit and putting several kits together, you are capable to build luminous nameplates, signboards, house numbers etc. Suitable letter control see BKM.B206.

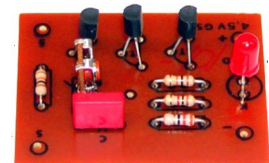
Kit set: to solder yourself
Operating voltage: 12VDC



LC.112 Skin Resistance Lie Detector (Electronic Kit)

The Lie Detector circuit works based on the fact that a person's skin resistance changes when they sweat (sweating because they are lying).

Kit set: to solder yourself
Operating voltage: 4.5VDC



KEEPING ANIMALS AT BAY

BKM.M175 Animal Repellent Ultrasonic High Performance

This ultrasonic generator produces very loud and aggressive ultrasonic sounds pulsating like a siren, which many animals perceive as extremely unpleasant and, therefore, try to avoid them (not always). The generator can be used to keep away rodents, insects, crawling parasites, game and birds. If a larger area needs to be protected from animals there is the possibility to connect up to two more loudspeakers BKM.L020 (please order separately). The audio frequency may be adjusted between ultrasound (inaudible to humans) and loud + high sounds that are audible to humans.

Operating voltage: 12 - 14VDC (stabilised power supply or 12V battery > 12Ah)

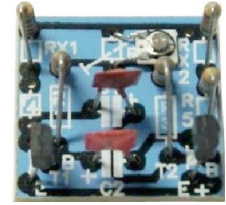


BKM.B189 Anti Flea Generator for the Cat and Dog Basket

This generator produces ultrasonic sounds, which are adjustable within the range of approx. 8 - 35kHz. It is said, that crawling and jumping parasites are banished through the ultrasonic sound. The tone frequency can be adjusted so that the domestic animal will not be disturbed.

Kit set: to solder yourself

Operating voltage: 9VDC



BKM.M180 Anti Marten Device Splash Proof IP65

To repel martens from cars, houses, etc. Produces aggressive ultrasonic sounds inaudible to humans, which martens find very annoying and will avoid. Because the device is water and dirt resistant this device can be mounted where the martens enter the car.

Operating voltage: 11 - 15VDC (car battery)



BKM.FG015F Fox Repellent

To drive away wild animals such as martens, rodents (e.g. out of carports, lofts, camper vans), wild boars, deer, etc. (from gardens, farmland, etc.). The device produces an enormously loud, pulsating and aggressive ultrasonic sound of about 21kHz which is not audible to most people, but represents a considerable annoyance for wild animals which, therefore, try to avoid it. In some cases (not always!) it is also possible to drive away dogs and cats that are used to human community.

Acoustic coverage: > 200m (656 feet). In unobstructed space up to 600 square meter (6458.35 ft²)

Operating voltage: 6V (4 batteries R14 (UM2) which last up to 8 months depending on the quality)



BKM.FG015 High Power Ultrasonic Generator (Animal Repellent)

To deter wild animals such as martens, rodents (e.g. out of carports, lofts, camper vans), wild boars, deer, etc. (from gardens, farmland, etc.). The device produces an enormously loud, pulsating and aggressive ultrasonic sound of about 21kHz which is inaudible to most people, but represents a considerable annoyance for wild animals which, therefore, try to avoid it, in some cases (not always!). It is also possible to deter dogs and cats that are used to human lifestyle. The device is operated with 4 batteries R14 (UM2) which last up to 8 months depending on the quality.

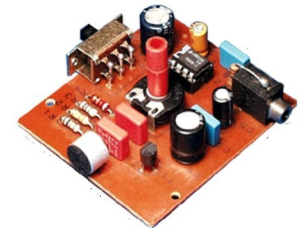


LC.34.1 Listen-Aider Sound Amplifier (Stethoscope)

You are able to listen through thin walls, doors, windows, etc. Highly sensitive pre-amplifier with electret microphone capsule ready to be plugged in with a headphone.

Kit set: to solder yourself

Operating voltage: 9VDC



BKM.FG025 Marten and Raccoon Repellent Electric Fence Set 12VDC

High voltage electric fence for mounting at gutters and down pipes against martens and raccoons in houses. The animals often climb up the down pipes and via gutters into the loft to nest there. An electric shock at this two pole electric fence should expel the animals effectively. A plug power supply 12VDC, output at least 100mA or a 12V car battery > 12Ah is still required for operation (both is not included). In both cases the electric cable requires a barrel connector of 5.5 x 2.1mm.

Operating voltage: 12VDC battery or power supply (not included)



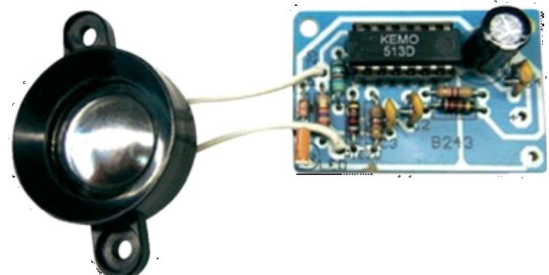
BKM.B243 Marten and Vermin Repellent 12V

This device produces a high ultrasonic sound (approx 23kHz). Martens, mice, etc. find this sound extremely annoying and these animals will leave that place (most likely).

Ideal for installation into cars (as protection against martens), in houses against mice, etc.

Kit set: to solder yourself

Operating voltage: 12 - 16VDC



BKM.M186 Marten Defense for Motor Vehicles 12VDC

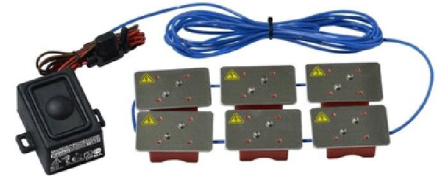
Chases away martens by means of small high-voltage plates charged electrically to approx. 200 - 300VDC through electric shock in the engine compartment of the vehicle (only weak current pulses that chase the marten away, but do not kill it) and through strong, aggressively pulsating ultrasonic sounds. Extremely low power consumption (< 0.005A), switches the battery voltage of < 11.5V automatically off (does not discharge the battery completely if vehicles are being parked for quite some time).



BKM.M176 Marten Defense for Motor Vehicles 12VDC

Splash-Proof with IP65

Chases away the marten through high-voltage plates (movable) charged electrically to approx. 200 - 300VDC through electric shock in the motor compartment of the vehicle (only weak current pulses that merely chase the marten away but do not kill it) and through strong, aggressively pulsating ultrasonic sounds.



BKM.M157 Marten Defense Module

...chases away martens from cars, garages, etc. with sharp, high tone bursts (approx 12kHz). Automatic activation in parked cars.

Operating voltage: 11 - 15VDC



BKM.FG022 Marten Repellent Mobile

This mobile marten repellent operates with latest high-frequency technology (ultrasound) and without assembly work. This marten repellent may be set up where ever martens are present (e.g. in cars, carports, garages and houses), ideal as protection for cars that are parked for a long time. The optimum maintenance-free time of performance of 12 months can only be reached with high-quality alkaline manganese batteries (2 x 1.5V Mignon AA, not enclosed).

Range of action: > 55m²

Operating voltage: 3VDC



BKM.M094N Marten Repellent Module

Produces intensively pulsating ultrasonic sounds which martens and similar rodents find unbearable. This „Marten repellent“ includes 4 small ultrasonic loudspeakers to achieve a profitable radiation of the ultrasonic sound. Usage: This module is able to scare away martens from the engine compartment of cars and lorries, place where the animals use to gnaw the cables and other plastic parts! Or to be used in pantries, in the cellar or attic!

Operating voltage: 12 - 15VDC



BKM.Z100 Marten Repellent Spray

Highly effective (heat-resistant!) concentrate in a pump bottle (no pressurised spray cans). This agent has been proven effective thousands of times over! The natural active ingredient geraniol spray almost always drives away the marten from the engine compartment of your car, from the attic, etc.



BKM.M062 Mini Fence High-Voltage Generator Module

This generator produces a pulsating, weak high-tension of approx. 1000 Volt from a operating voltage of 9 - 12VDC (battery). For electrically operated fences for small animals, as thief-protection etc. The animal (burglar) must touch the two high voltage wires at the same time to induce an electric shock.

Operating voltage: 9 - 12VDC



BKM.B181N Paralyser 15.000 Volt

Produces high-voltage sparks of more than 15.000 volt (the sparks can go through clothes). The sparks are produced by a 9 V battery. Ideal as self-defense weapon against wild animals etc. or may be used for physical laboratory experiments. In several countries (e.g. in the EU) the possession as a weapon is prohibited. A deterrent effect is already achieved through the flashing and crackling of the sparks!

Kit set: to solder yourself

Operating voltage: 9VDC alkaline block battery



BKM.Z101 Scent Marks Remover

For the reliable removal of marten scent marks in the engine compartment. Apply before the use of marten repellent products without the initial removal of scent marks, the marten feels provoked and defends his territory. Not an engine cleaner.



BKM.M100N Ultrasonic Anti Marten Device for Motor Vehicles

Produces aggressive ultrasonic sounds not audible to men which martens find extremely annoying and so try to avoid them, if possible. To be mounted in the engine compartment of motor vehicles. Ultrasonic marten repellent for use in cars, houses and lofts.
Operating voltage: 11 - 15VDC (car battery)



LC.01M Ultrasonic Marten Defense System for Motor Vehicles (Module)

Produces aggressive ultrasonic sounds in intervals. This sound is not audible to men.
Operating voltage: 12VDC



BKM.M161 High-Power Ultrasonic Pulse Generator with Loudspeaker

...to chase away wild animals such as martens, wild boars, deer etc from gardens, farmlands etc. The loudspeaker emits pulsating ultrasonic sounds. The acoustic range can be extended up to 300m with a tube placed over the module (tube is not included).
Operating voltage: 12 - 14.4VDC



BKM.M071N Ultrasonic Vermin Repellent

This ultrasonic generator produces pulsating and aggressive ultrasonic sounds like a siren which many animals perceive as extremely unpleasant and, therefore, try to avoid it. The generator can be used to keep away rodents, insects, crawling parasites, game and birds, etc.

The frequency of the generator is adjustable between approx. 8 - 40kHz. A special loudspeaker with vaulted aluminium dome membrane has been built in to achieve a better sound distribution. A stabilised power supply 12VDC (< 60mA) is necessary for setting into operation. Up to 4 additional loudspeakers BKM.L001 (built-in loudspeaker) or BKM.L002 (on-wall loudspeaker) can be connected, if larger rooms (> 30m²) have to be exposed to ultrasonic waves.

Operating voltage: 12VDC (10-13.8VDC)



BKM.M069N Underground Mole and Vole Repellent Module

This waterproof module emits in rapid intervals aggressive seismic oscillations, which are underground widely radiated and are mostly avoided by root voles, moles and similar rodents. The module has to be dug in near the animal tunnels and is operated through a cable with operating voltage of 9VDC. One module will cover approx. 1.000m² of garden.

Operating voltage: 9VDC



PRE- AND POWER AMPLIFIER

EB7419 0.6 Watt IC-Amplifier Philips DIY Kit



BVM.K8060 200 Watt Discrete Power Amplifier Kit

Ideal for active speaker system or sub-woofer, guitar amplifier, home theater systems, instrument amplifier.
Power supply: 2 x 25-30VAC / 100 - 120VA



EMK.PA10 4.5W-7.5W Hi-Fi Power Amplifier Module

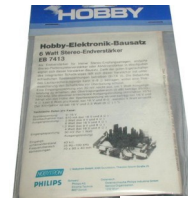
Mono version with different output power. A 12VDC voltage (max. 18V DC current) is required for operation.
RMS output power: 4.5Wrms/4Ω
Music output power: 7.5W/4Ω

EMK.PA20 20W Hi-Fi Power Amplifier Module

Mono version with different output power. A 12VDC voltage (max 18VDC current) is required for operation.
RMS output power: 1x 15Wrms/4Ω, 1x 12Wrms/8Ω
Music output power: 1x 20W/4Ω, 1x 16W/8Ω



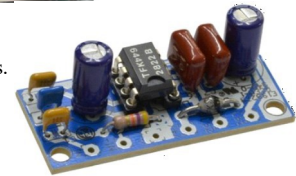
EB7413 6 Watt Stereo Power Amplifier Philips DIY Kit



BKM.B182 Amplifier 1 Watt (Kit)

Small universal amplifier with a peak sound capacity of 2W. A modern, low cost amplifier for many purposes. It works with an 8-pin DIP IC, the design is very small, so that this amplifier can be integrated into many devices.

Kit set: to solder yourself
Power: max 2W music power
Operating voltage: 6 – 9VDC



BKM.M033N Amplifier 18 Watt Universal (Module)

Robust amplifier module for universal use. The module is cast humidity-proof and shake-proof. The casting compound and the module case consist of a special, highly heat-conductive plastic. So no additional heat sinks are needed. The module is protected electronically against overheating and overload.
Operating voltage: 8 – 20VDC



BKM.M031N Amplifier 3.5 Watt Universal (Module)

Robust amplifier module for universal use. The module is cast humidity-proof and shake-proof. The casting compound and the module case consist of a special, highly heat-conductive plastic. So no additional heat sinks are needed. The module is protected electronically against overheating and overload.
Operating voltage: 4.5 – 12VDC



FGA.40 Ground Isolator Carpower by Monacor FGA-40

Stereo line transformer, for preventing signal interference and hum loops which may occur, e.g. when connecting the car radio to an amplifier.

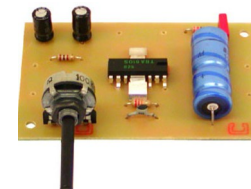
Input/output impedance: 15kΩ
Frequency range: 20-30,000Hz



LC.56 IC Amplifier 5 Watt with Volume Control (Kit)

IC amplifier with volume control. Particularly suitable for portable battery devices and as a monitor or headphone amplifier.

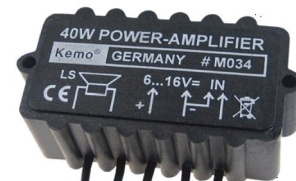
Operating voltage: 9VDC - 18VDC



BKM.M034 40 W Power Amplifier Universal (Module)

Loudspeaker output transformer amplifier for general use: e.g. increase of output of small radio, CD-player, tape recorder, microphone amplifiers etc.

Operating voltage: 6 – 16VDC



BKM.B073 Pre-Amplifier Universal Super Wideband (Kit)

Super wideband 2-step pre-amplifier for high-power amplifier, headphones-amplifier, etc.

Kit set: to solder yourself
Operating voltage: 12 – 30VDC



EVV.4FG Ready-to-Use Audio Stereo Pre-Amplifier

Stereo phono pre-Amplifier for turntables with magneto-dynamic pickup systems.

Also suitable for direct connection of turntable and sound card of your PC.

Included in delivery: AC-DC adapter 230VAC / 12VDC and RCA connecting cable.

Power supply: 12VDC



BKM.M055 Stereo Amplifier 3W (Module)

Universal stereo amplifier with a wattage of max 2 x 1.5W.
Output power: max 3W musical power (2 x 1.5W)
Operating voltage: 3 – 10VDC



ESP.35 Stereo Matching Amplifier for Smartphones

The SLA-35 is used to match the level and the impedance when interconnecting different audio units (e. g. connection of MP3 player, mobile phone, PC to an amplifier or to a mixer). A correct adjustment of the level and the impedance will prevent signal distortion or volume loss.
Frequency range: 5-50000 Hz, -1 dB
Input voltage: max 7V



BKM.M237 Stereo Pre-amplifier (Module)

Universal stereo pre-amplifier for microphones and universal application. The module is simply connected between a stereo power amplifier and a too weak signal source (e.g. microphone).
Operating voltage: approx 9 - 24VDC stabilised (or battery)



BKM.M032S Universal Amplifier 12W "Plug-In and Play" (Module)

Amplifying module with jacks used for the signal input and for the power supply. Inserted loudspeaker regulator and loudspeaker connection are over the cables.
Operating voltage: 6 – 16VDC



BKM.M032N Universal Amplifier 12W (Module)

Robust amplifier module for universal use. The module is cast humidity-proof and shake-proof. The casting compound and the module case consist of a special, highly heat-conductive plastic. So no additional heat sinks are needed. The module is protected electronically against overheating and overload.
Operating voltage: 8 – 16VDC



BKM.M040N Universal Pre-amplifier (Module)

For microphones and different other uses. This mini module is simply connected between a power amplifier (e.g. BKM.M032N Amplifier 12W, universal) and a weak signal source (e.g. microphones).
Operating voltage: approx 9 – 24VDC



MISCELLANEOUS

BTV.10 Dash Cam HD with 1.5" Display

Audio recording, shock sensor, loop recording, auto Start/Stop, USB-Port, HDMI-Port
Voltage: 5V 600mA
Viewing angle: 120°



BKM.B172 The Little Electro-Technician (Kit)

Easy instructional construction set for beginners from 8 years on. The cables are not soldered, solely screwed or twisted. The tests are described through figures and helpful descriptions. As current supply is been used a 4.5VDC flat battery (not included).

Among others there are to be made following tests:

1. Ordinary circuit with small lamp
2. Electromagnetism
3. Current proof through compass needle
4. Radio transmitter system Marconi
5. Generator
6. Selfmade battery etc.
7. Test of conductivity of water
8. LED test I
9. LED test II

