MARMITEK X-10 PRODUCT INFORMATION
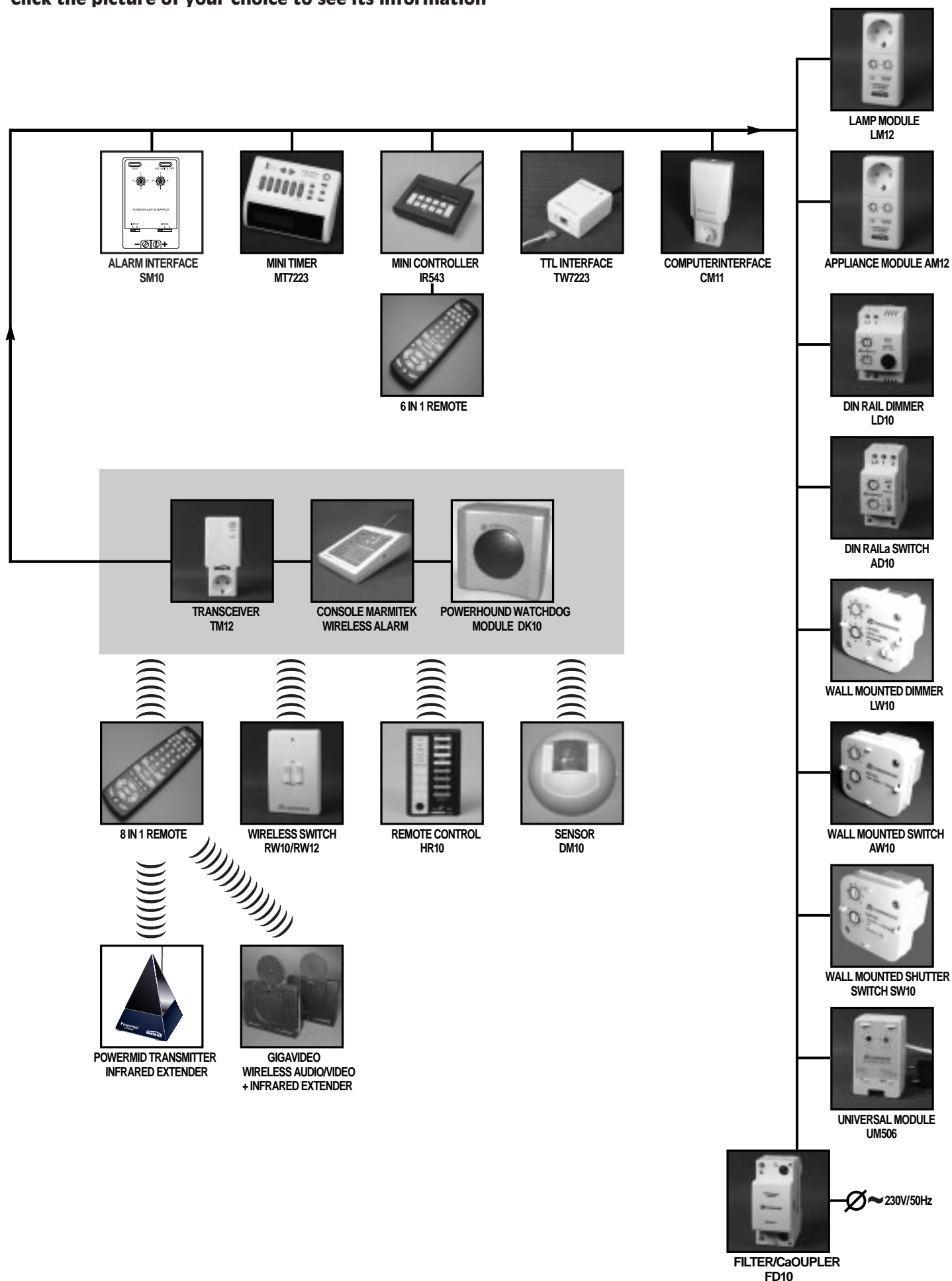
MARMITEK

MARMITEK X-10 HOME CONTROL

Click the picture of your choice to see its information

**ALARM INTERFACE
SM10**

**MINI TIMER
MT7223**

**MINI CONTROLLER
IR543**

**TTL INTERFACE
TW7223**

**COMPUTERINTERFACE
CM11**

6 IN 1 REMOTE

**TRANSCEIVER
TM12**

**CONSOLE MARMITEK
WIRELESS ALARM**

**POWERHOUND WATCHDOG
MODULE DK10**

8 IN 1 REMOTE

**WIRELESS SWITCH
RW10/RW12**

**REMOTE CONTROL
HR10**

**SENSOR
DM10**

**POWERMID TRANSMITTER
INFRARED EXTENDER**

**GIGAVIDEO
WIRELESS AUDIO/VIDEO
+ INFRARED EXTENDER**

**LAMP MODULE
LM12**

APPLIANCE MODULE AM12

**DIN RAIL DIMMER
LD10**

**DIN RAILa SWITCH
AD10**

**WALL MOUNTED DIMMER
LW10**

**WALL MOUNTED SWITCH
AW10**

**WALL MOUNTED SHUTTER
SWITCH SW10**

**UNIVERSAL MODULE
UM506**

⌀~230V/50Hz

**FILTER/CaOUPLER
FD10**

Voice dialer security system

Wireless security system - 433 MHz RF operating frequency

Key Features

- ◆ Modular, upgradeable security system includes base console, door/window sensors, motion detectors, lamp module, keychain remote and security/home control remote, external motion sensors, plug in sirens. Easily expandable to include more sensors/remotes/modules (up to 16 sensors , 8 remotes and 16 home automation modules).

- ◆ Programmable voice dialler calls up to four friends or neighbours.

- ◆ Flashes X-10 controlled lights; fully compatible with Marmitek X-10 home-control products.

- ◆ Easy to install-- no wiring.

Benefits

The voice dialler security kits are fully supervised systems that gives you the power to protect your home whether you are home or away. These kits are easily installed (no wires).

If a window or door sensor or motion detector is activated, sirens of 95 dBs will sound and make your house physically uncomfortable for a burglar thus forcing him/her to leave as quickly as possible. A voice dialler system will immediately call a friend or neighbor, playing your pre-recorded message indicating that there is a problem at your residence. A listen-in feature allows the friend or neighbour to hear what is going on inside the home and take appropriate action.

In total, the console can monitor up to 16 door/window sensors or motion detectors, 8 remote controls, and 16 lamp or appliance modules. Additionnal sirens can be plugged-in everywhere and anywhere in the house.

In times of peace, the security console can also be used to control any light or appliance. For example, you can turn out a child's bedroom lamp, your television set or computer or you can set the console to make fresh, hot coffee in the morning before you even get out of bed.

In protecting yourself, your home and your loved ones, the voice dialler security kit makes life easier and more secure.

The voice dailler security kits are available in two packages, a seven piece MS7000 kit and a four piece MS4000 kit.

The MS4000 kit consists of:

- SC12 Voice dailler console- DS10 Door / Window sensor
- MS10 Motion Detector
- Keychain Remote

MS7000 kit same as MS4000 plus:

- Extra DS10 Door/Window sensor
- Full System Remote SH624
- Lamp Module LM12

Technical data

Security console:

- CE Mark

- PTT approved dialer

- 433.92 RF operating frequency. Other frequencies available on request.

- 230V 50 Hz supply. 9 V PP3 back up battery - 20 hours stand-by time

- Integral 95 dB siren

- Monitors up to 16 sensors (door/window and/or motion detector) plus 8 remotes

- Dimensions: L180-W128-H52 mm

Keychain remote: KR10 (Arms and disarms the security system and has ON/OFF feature for lamps and/or appliance modules)

- CE Mark

- 2 years operating life using 2 x alkaline AAA batteries

- Dimensions: L63-W40-D14 mm

HandHeld remote: SH624 (Arms and disarms the security console and controls up to 4 light and appliance modules, including dimming control of incandescent lights. Panic and Silent Alarm.)

- CE Mark

- 1 year operating life using 4 x alkaline AAA batteries

- Dimensions: L115-W72-D20 mm

Door/window sensor: DS10 (Transmits wireless signals to the console when a door or window is opened)

- CE Mark

- 2 years operating life using 2 x alkaline AA batteries

- Dimension: H83-W54-D22 mm

Motion detector: MS10 (Protects areas that have more than one entry point. Wireless battery operated.)

- CE Mark

- Built in test function

- Double knock sensitivity adjustment

- 1year operating life using 4 x alkaline AA batteries

- Dimensions: H120-W75-D42 mm

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FEATURES

- UNIVERSAL INFRARED REMOTE CONTROL FOR TV AND VIDEO RECORDER AND SATELLITE RECEIVER
- PRE-PROGRAMMED FOR ALMOST EVERY BRAND AND MODEL
- REPLACES THREE EXISTING REMOTE CONTROLS
- REPLACEMENT FOR DEFECTIVE OR LOST REMOTES
- EASY TO SET UP WITH 3 DIGIT CODES
- CONVENIËNT AND EASY TO USE KEYBOARD
- COMPREHENSIVE OWNERS' MANUAL IN 4 LANGUAGES (ENGLISH, FRENCH, GERMAN AND DUTCH)
- RED INDICATOR LIGHTS WHEN IR COMMANDS ARE TRANSMITTED

Description

With this 3 in 1 Universal Remote Control (URC), almost every piece of video equipment (except B&O) can be controlled. This URC replaces three existing remote controls. Now only one remote is needed to control a TV, a video recorder and a satellite receiver.

The 3 in 1 URC is pre-programmed at the factory for most brands and models. By pressing the Set Up key and entering 3 digit codes from the comprehensive brand list (included with the unit), the URC is ready for use with one TV, one satellite receiver and one Video recorder.

The URC has function keys for TV, VCR and SAT mode. When pressing the TV key, the keyboard will be set to the chosen TV, pressing the VCR key will set the keyboard for the chosen video recorder while pressing the SAT key will set the keyboard for the chosen satellite receiver.

The 3 in 1 URC has keys (Fast) Text and hidden functions for Color and Brightness (through the Shift key). Beside entering a channel number, the P+ and P- keys can be used to scan through channels (only when this function is available on the equipment).

TECHNICAL SPECIFICATIONS

Batteries: 2 x AAA

KEYS

TV MODE:	TELETEXT:	VCR MODE:	SAT MODE:	
Power	On	Power	Power	Volume V+
Program P+ (Brightness +)*	Off	Program P+	Program P+	Volume V-
Program P - (Brightness -)*	Red	Program P -	Program P-	Shift / Set Up
Mute	Yellow	Shift, Set Up	Mute	0 - 9
Volume V+ (Colour +)*	Green	-/--, Enter	- / --, Enter	
Volume V - (Colour -)*	Blue	Record		
Shift, Set Up	Mix	Play		
-/--, Enter	Info	Rewind		
0 - 9	Hold	Pause		
		Fast Forward		
* through Shift key		Stop		

Art. No.

08970

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- UNIVERSAL PREPROGRAMMED REMOTE CONTROL FOR ALMOST ALL VIDEO EQUIPMENT AND MARMITEK X-10 HOME AUTOMATION MODULES
- PRE-PROGRAMMED FOR MOST ALMOST EVERY BRAND AND MODEL (EXCEPT B&O)
- REPLACES 6 EXISTING REMOTES
- CODE READOUT
- WORKS IN COMBINATION WITH THE IR 543 MINI CONTROLLER TO CONTROL LIGHTS AND APPLIANCES
- BACKLIT KEYS
- BIG BUTTONS FOR EASY USE
- EASY TO SET UP
- RED INDICATOR LIGHTS WHEN COMMANDS ARE TRANSMITTED

Description

The Marmitek 6 in 1 Universal Remote Control (URC) will control most video equipment (except B&O). On top of that, this URC can also control lights and appliances anywhere in a home when used with a IR 543 IR Interface (optional).

The 6 in 1 remote is capable of controlling TV's, Video recorders, Satellite receivers, Cable boxes and Marmitek X-10 Home Automation Modules. With the use of the units two AUX buttons, a second TV, Video recorder, etc. can be controlled.

The 6 in 1 URC is capable to control up to ten (groups) Marmitek X-10 Modules, with keys for the ON, OFF, DIM, BRIGHT, ALL UNITS OFF and ALL LIGHTS ON commands.

The House Code for the Marmitek X-10 system is easy to set up via the keypad.

The remote is supplied with a comprehensive owners' manual in four languages (English, French, German and Dutch). Simply enter the 3 digit code from the enclosed code list, and the URC is ready to use.

The Remote features Back Lit and Auto Power Off. Secondary functions can be activated by use of the Shift key.

TECHNICAL SPECIFICATIONS

| Batteries: | 4 x AAA |
| Approvals: | CE |

KEYS

Power / All lights on	Channel Up / Down / On / Off
Setup	Mute / All lights Off
Backlight On / Off	Volume Up / Down / Dim / Bright
TV	Teletext On
VCR	Teletext Off
SAT	Teletext Hold
AUX 1	Teletext Mix
AUX 2	Play / Fast text
Cable	Rew / Fast text
Marmitek X-10	Pause
0 - 9	FF / Fast text
A • B	Stop / Fast text
Enter	Record
Info	

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| 08971 | **MARMITEK.** |

- UNIVERSAL PREPROGRAMMED REMOTE CONTROL FOR AUDIO / VIDEO EQUIPMENT AND MARMITEK X-10 HOME AUTOMATION MODULES
- SENDS BOTH INFRARED AND RF COMMANDS TO ALLOW ROOM TO ROOM APPLICATION
- PRE-PROGRAMMED CODES FOR ALMOST EVERY BRAND AND MODEL (EXCEPT B&O)
- CAPABLE OF LEARNING IR COMMANDS
- BIG BUTTONS FOR EASY USE
- RED INDICATOR LIGHTS WHEN COMMANDS ARE TRANSMITTED
- CODE READOUT

Description

The Marmitek 8 in 1 Universal Remote Control (URC) will control most video and audio equipment (except B&O). On top of that, this URC can also control lights and appliances anywhere in your home when used with Marmitek X-10 Home Automation Modules.

With the use of a Marmitek PowerMid receiver, audio and video equipment can be controlled by the URC throughout the house. The URC's RF signals travels through walls and floors for real room to room operation.

The 8 in 1 URC is capable to controll all kinds of Marmitek X-10 Modules, with keys for the ON, OFF, DIM, BRIGHT, ALL UNITS OFF and ALL LIGHTS ON commands. The 8 in 1 Remote works in combination with the TM12 Transceiver Module, the IR 543 Mini Controller and the console of Marmitek alarm systems.

The House Code for the Marmitek X-10 system is easy to set up via the keypad

The Remote Control is supplied with a comprehensive owners' manual in four languages (English, French, German and Dutch). Simply enter the 3 digit code from the enclosed code list, and the URC is ready to use.

The 8 in 1 URC is also capable of learning additional IR commands of almost any infrared remote control to provide extra functions, not included in the standard library.

Secondary functions can be activated by use of the Shift key.

KEYS

Power / All lights on	Channel Up / Down / On / Off
Setup	Mute / All lights Off
CD	Volume Up / Down / Dim / Bright
TV	Teletext On
VCR	Teletext Off
SAT	Teletext Hold
CBL	Teletext Mix
SHIFT	L1
LEARN	L2
AUX 1	Play / Fast text
AUX 2	Rew / Fast text
Marmitek X-10	Pause
0 - 9	FF / Fast text
A ● B	Stop / Fast text
Enter	Record
Info	

TECHNICAL SPECIFICATIONS

Batteries:	4 x AAA
RF frequency:	433, 92 Mhz / 418 Mhz
Radiated Power:	<5883 µV/m @ 3 m
RF operating range:	30 m (open field)
Approvals:	CE, CEPT / LPD, MPT 1340

CE

Art. No.

08972

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MARMITEK.

DIN Rail Switch (AD10)

230 VAC - 50 Hz - 16A LOAD RATING

Key Features

* Install at the breaker panel/fuse box for X-10 control of branch lighting circuits or appliances rated up to 16 A- ideal for aircon, heaters etc.

* Works with X-10 controller and standard latched or momentary action wall switches - including "designer" wall switches.

Benefits

The X-10 DIN rail switch is a remote controlled relay. Discretly installed at the junction box, it switches hard-wired circuits with several switches (e.g. hallway lighting).
The internal relay can be tripped either by external latched or momentary action wall switches or by an X-10 controller.

The AD10 responds to "standard" X-10 that is: "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On" and "Off".

When the relay is energized, the LED above the slide switch is illuminated.

Slide switch:
Position 0: the connected load is switched off permanently and cannot be switched on by the wall switches or an X-10 controller.
Position 1: the connected load is switched on permanently and cannot be switched off by the wall switches or an X-10 controller.
Position auto: the connected load can be switch by the wall switches or an X-10 controller.

Terminal 1 is designed for toggle switches: the relay picks up when phase is present and releases when there is no voltage at the terminal.
T**erminal 2** is designed for pulse contacts : each time phase is applied the relay switches.
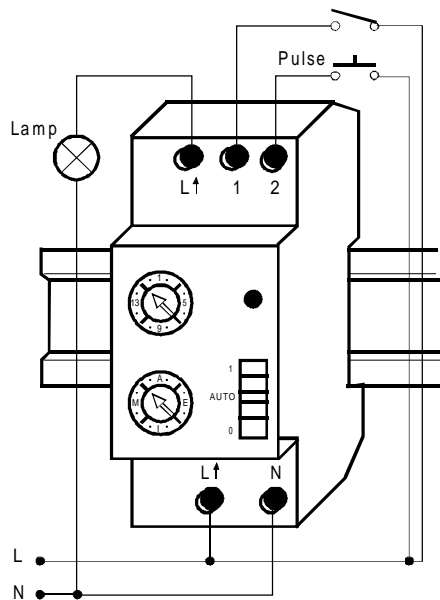
Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Supply current :	$\leq$ 20 mA capacitive
Making capacity:	2000 W (incandescent lamp)
	3 A (motors)
	16 A (resistive loads)
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	$\geq$180 Ohms (L - N) at 120 kHz
Connections:	screw type terminals for phase, neutral, switched phase, control 1 and 2.
Ambient temperature:	- 10° C to + 40° C (operation)
	- 20° C to + 70° C (storage)

Typical applications

This unit can replace any pulse contact relay that is commonly used for multi switched hall and entry lighting. In discrete locations, eg kitchen lighting, you may prefer to install the AD10 in a small sub-junction box.

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INSTALLATION

Switch off appropriate mains fuse and master switch !

- Mount switch by snapping it onto the DIN rail.
- Connect phase (L) and neutral (N) to the corresponding terminals at the bottom of the switch.
- Connect load cable (light) to terminal L at the top of the switch.
- If there are several push-button switches for relay tripping (e.g hallway lighting switches), connect their cable(s) (switched phase) to terminal 2 at the top of the switch.
- In case of toggle wall switches, connect their cable (switched phase) to terminal 1 at the top of the switch.

Terminal 1 of the switch is designed for toggle switches: the relay picks up when phase is present and releases when there is no voltage at the terminal.

Terminal 2 is designed for pulse contacts each time phase is applied, the relay switches (i.e from OFF to ON or vice versa).

Now check the correct operation of the switch by using the slide switch on the front side:

- Switch on appropriate mains fuse and master switch.
- Set slide position to "I".
- The connected load (e.g.hallway lighting) is now switched on permanently and cannot be switched off even by the wall switches. The LED above the slide switch is illuminated.
- Set slide switch to position "O".
- The connected load (e.g.hallway lighting) is now switched off permanently and cannot be switched on by the wall switches, either.
- Now set the slide switch to position "Auto".
- The connected load (e.g.hallway lighting) can now be switched by the wall switches. Remote control by MARMITEK X-10 controller is now possible.
- Finally, set the rotary code switches on the front side to the desired device address (e.g.B8) with a screwdriver and note this address down in a list.

As with the other receiver modules, the device can be changed easily at any time without disconnecting any cables. Just the slide switch has finally to be in the "Auto" position, so that the relay can be controlled by the wall switches or Marmitek X-10 controllers.

Important notice:
After the installation of the Marmitek X-10 controllers, all receiver modules have first to be checked for correct function and address !

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Switch plug-in module (AM12)

230 VAC - 50 Hz - 500W LOAD RATING

Key Features

♦ On/Off function to control fluorescent lamp, air conditioner, fan, coffe pot, etc .

♦ Available in a wide range of plug style (British, German, French, Italian, Euro-style, Australian/New Zealand, Swiss, Danish, etc.).

♦ Designed to operate with 230VAC 500W loads .

Benefits

The switch plug-in module is a 500 W receiver unit that works as a remote controled switch/relay.

The connected load can also be switched on and off localy.

The switch can be used at any wall outlet in the house.

The switch plug-in module can switch incandescent lamps up to 500 W, appliances with electric motors up to
250 W or halogen floor lamps with foot dimmer up to 500 W (refer also to "technical data").

As the X-10 switch is simply inserted into wall outlets like an ordinary plug, there is no installation to be carried out. Just set the wheels on the front side to the desired device address (e.g. G7) and note this address down in a list.

The load connected to the switch module can still be controlled locally by its own switch, but do not forget to leave the local switch in the "ON" position, as other wise the load cannot be controlled by an X-10 controller. Switch the load off by remote control.

The AM12 responds to "standard" X-10 that is: "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On" and "Off".

Technical data

Supply voltage:	230 V ±10% 50 Hz
Supply current :	≤ 20 mA capacitive
Making capacity:	500 W (incandescent lamps only)
	1 A (motors)
	10 A (resistive loads)
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	≥ 180 Ω (L - N) at 120 kHz
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	52 x 122 x 33 mm
	(width x height x depth without plug)

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Wall-mounted switch (AW10)

230 VAC - 50 Hz - 10A LOAD RATING

Key Features

- Replaces any normal switch for X-10 control of lighting (includingfluorescent lighting) or appliances such as heater/fans etc. rated up to 10 A.

- Works with X-10 controller and momentary action wall switches - including "designer" wall switches.

⊠ Can also be used like an ordinary switch.

Benefits

The X-10 wall mounted light switch is a receiver module that is controled by any X-10 controler.

It can be used like an ordinary switch.
The wall-mounted light switch simply replaces the normal light switch and is mounted into a flush box.

It can also be controlled by external momentary action switches connected to terminal 2.

The AW10 responds to "standard" X-10 that is: "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On" and "Off".

The unit is currently supplied with 3 different cover plates: Busch Jaeger Duro 2000, Jung CD500 and Gira (the mounting frame is available from your nearest wholesaler). Check with X-10 for the latest available cover plate.

Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Power consumption:	< 2,5 W
Supply current:	≤ 20 mA capacitive
Making capacity:	2000 W (incandescent lamps only)
	10 A (resistive load)
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min. 50 mVpp max. at 120 kHz
Input impedance:	≥ 180 Ω (L - N) at 120 kHz
Connections:	screw type terminals for phase, neutral, switched phase, control 2.
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

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Universal Computer Interface (CM11)

Control X-10 Home Automation with any Multimedia PC

Key Features

* Stand alone operation - runs scheduled events automatically even when unplugged from the PC.

* Easy to use Windows 3.1 and '95 compatible software supplied on CD ROM including multimedia product catalog.

* Controls timed events and macros - responds to a single function from a controller to automaticallly carry out a group of events.

* AAA Battery backup - scheduled events resume automatically after a power outage.

* Compatible with full range of X-10 compatible home automation products.

The Universal Computer Interface is programmed from a Windows based Multimedia PC to control the full range of X-10 compatible devices. Functions include timed events and macros - groups of commands that take place with a single press of a button on a controller.

Works with the PC switched off

Once the interface has been programmed, the PC is no longer needed. Two standard AAA batteries retain the built-in time clock's accuracy. The macros are held in E^2 and retained even if the power fails. You can even unplug the interface after programming it and plug it in elsewhere in the home.

Connections

The Computer Interface fits between the AC outlet and the computer's power plug. A grounded AC socket is provided on the front of the interface for the computer's power plug (3A max.).

A cable with an RJ11 connection on one end and a 9-pin 'D' type connector on the other is provided to connect the Interface to the serial port of the PC.

Two-way

The Computer Interface is fully two-way, both generating and receiving X-10 powerline commands.

ActiveHome™ Software

User friendly Windows 3.1 and '95 compatible software is provided with the Interface which includes graphical representations of switches, modules etc. to provide point-and-click control of modules, and easy setting of scheduled events and macros.

Scheduled Events

Events may be scheduled to occur at a particular time every day, on chosen days only, between chosen dates etc.

You can also program the interface to turn lights on at dawn and off at dusk just by choosing your location from a worldwide list.

Macros

A command from a controller (such as a mini controller) normally operates a device directly, e.g. pressing 'A1 ON' switches on the module with code A1.

The computer interface, however, can be programmed to intercept a command, and respond to it by automatically generating a whole group of commands called a 'macro'. For example, pressing 'A1 ON' on a controller might turn on stair lights and bedroom lights, then after 20 mintues dim the bedroom lights to 50% and turn off the stair lights, and finally turn all lights off 30 minutes later.

Options

CK11 kit including:

- CM11 computerinterface
- 2 x Lampmodule LM12
- Transceiver Module TM12
- Appliance Module AM12
- Remote HR10
- ActiveHome software on CD-Rom

Controls and Indicators

Connections

* AC outlet on front of module for computer power cord.
* RJ11 socket at base of module for serial connections.

Specifications

AC supply:	*220VAC/50 Hz*
X-10 Powerline:	*120KHz/2.5vp-p*
Backup battery:	*2 x AAA cell*
Backup time:	*1 Week typ*
Events/macros stored*:	*25 typ, 39 max*

varies with mix of events & macros.

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PowerHound™ Watchdog (DK10)

Watchdog System - Deters intruders *before* they break in

Key Features

∗ Automatically activates a high quality digital recording of a dog barking when the outdoor PIR senses movement from an approaching intruder.

∗ Automatically turns on a light a few seconds after barking starts (with Lamp Module) to increase realism.

∗ Automatically turns on one or more lights at dusk and turns them off again at dawn.

∗ Compatible with the full range of Marmitek X-10 home automation products including HR10 and RW10 Home Automation remotes.

∗ PIR also works with Marmitek X-10 transceivers and security systems.

The FBI rates sound and light as the two best intruder deterrents. PowerHound is an innovative and yet attractively simple product that provides both - it barks when an intruder approaches and switches on lights a few seconds later, just as the owner would if he were there. It also turns lamps on at dusk and off at dawn while the owner is away.

Conventional burglar alarm systems are very effective; but, they do have one drawback: the intruder has already forced the door or entered the home by the time the alarm is triggered.

What is really needed is a system that can protect the home *before* the burglar breaks in - a first line of defence.

The solution is man's best friend. No-one complains about the occasional barking of a dog from inside the house, but it is a highly effective deterrent when someone approaches the door, especially when lights turn on as 'the owner comes to investigate'.

A weatherproof infrared motion detector discretely mounted above the front door detects an approaching person and sends a radio message to trigger the base unit.

A powerful loudspeaker in the base unit plays back a high quality digital recording of a barking dog. In the next few seconds a light comes on in the hallway and the effect is complete - a convincing demonstration that this is one home that should well be left alone.

Additionally, at night, a light sensor built into the motion detector automatically triggers the base unit to turn on other lights in the home - a well proven intruder deterrent. You can even control the lights yourself using a Marmitek X-10 wireless remote.

Using the PIR Motion Detector with other X-10 products.

The Outdoor PIR Motion Detector can also be used with other Marmitek security systems or transceiver modules to turn lights on at dusk and when someone approaches.

Options

Option 1	*PIR only*
Option 2	*Dog + Keychain*
Option 3	*Dog + Keychain + PIR*

Controls and Indicators

Base Unit

• Push button on/off at back of unit.

• Rotary code wheel at back of unit to set X-10 House Code.

• Rotary volume control.

PIR Motion Detector

• LED indicator lights when motion detected.

Specifications

Base Unit

AC supply:	*220 VAC/50 Hz*
Batteries:	*9 x 'C' cells*
RF receiver frequency:	*418 or 433 MHz*
X-10 Powerline:	*120KHz/5 V pk-pk*
Approvals:	*CE Mark*
	MPT1340 or ETS 300220

PIR Motion Detector

Batteries:	*4 x 'AA' cells*
RF frequency:	*418 or 433 MHz*
Approvals:	*CE Mark*
	MPT1340 or ETS300220

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Outside PIR Motion Detector (DM10)

For external use - With built-in light sensor

Key Features

∗ When the outdoor PIR senses movement from an approaching intruder, automatically activates a high quality digital recording dog barking from the PowerHound, and turns on an Marmitek X-10 module.

∗ Automatically turns on one or more lights at dusk and turns them off again at dawn when used with Marmitek X-10 transceivers or security systems.

∗ Compatible with the full range of Marmitek X-10 home automation products .

The Police Department rate sound and light as the number one intruder deterrent. The PIR motion detector is an innovative and yet attractively simple product that activates both - it signals when an intruder approaches causing an Marmitek X-10 transceiver to switch on lights and appliances just as the owner would if he was there. It also signals when it is dusk and dawn while the owner is away.

Conventional burglar alarm systems are very effective, but they do have one drawback: the intruder has already forced the door or entered the home by the time the alarm is triggered.

What is really needed is a system that can protect the home before the burglar breaks in - the first line of defence.

A weatherproof infrared motion detector discretely mounted detects an approaching person and sends a radio message to an Marmitek X-10 transceiver - PowerHound, Security System or Homecontrol.

The outdoor PIR performs three separates functions:

1. When used with the dog console and set with the same House / Device code as that of the dog it initiates a barking sequence when it detects motion.

2. When used with a standard Marmitek X-10 transceiver or security product it turns on an Marmitek X-10 module when motion is detected.

3. It turns on a second module when dusk is sensed and turns off the same module when dawn is sensed.

When used with any Marmitek X-10 transceiver, the customer should adjust the House code wheel in the battery compartment of the PIR to match the one on the transceiver. After setting the code wheels install 4 "AA" batteries as illustrated in the battery compartment. On initial power up the PIR will be inactive for sixty seconds to allow the amplifier time to stabilize. The PIR once stabilized will transmit Marmitek X-10 code every time it detects motion. However there is a minimum time between detections of thirty seconds i.e. after motion has been detected and RF transmitted the PIR becomes inactive for a period of thirty seconds. The unit will transmit every time the test button is pressed.

A red LED inside the Fresnel lens will illuminate when an RF transmission takes place.

When Dusk level light is sensed by the detector it turns on all those Marmitek X-10 modules set to the House / Device code matching those in the detectors battery compartment + 1. E.G. If the code wheels on the PIR are set to A1 then when dusk light is detected all X-10 modules set to A2 will be turned on. Similarly when Dawn is detected the PIR turns off all those modules it turned on at Dusk.

Specifications

Batteries:	*4 x 'AA' cells*
RF Frequency:	*418 or 433.92 MHz*
Output:	1mW
PIR Range:	12m at 90°
Approvals:	
Radio:	*I-ETS 300220*
EMC:	*prETS 300683*
	CE Mark

MARMITEK.

DIN Filter/Coupler (FD10)

230 VAC - 50 Hz - 63A

Key Features

- Installed at the breaker panel/fuse box, prevents X-10 signals from leaving/entering the home.

- Couples signals across phases.

- Rated 230V/63A.

Benefits

The signal transmission of high frequency pulses via the mains network can be affected by active or passive interferences. When used correctly, the filter/phase coupler will extensively suppress these interferences.

Typical active interference sources are appliances that do not dispose of a regular interference suppression according to the norms, as well as wireless intercommunication systems which use mains borne signaling, as they transmit high frequency signal resp, interferences into the mains network.
These disturbances are usually carried into the house network from outside, e.g. from neighbours or industrial installations. they are suppressed by the filter/phase coupler. Remaining interferences generated within the house network are without significance as the special dynamic filtering techniques of the X-10 system ensure undisturbed performance.
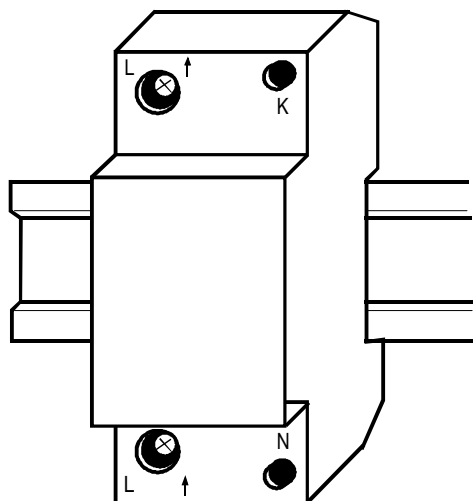
The FD10 also include the ability to couple X-10 signals across phases. For installation with three phases, use three FD10 filters and couples the filters by connecting their terminals K to the next phase, respectively.

Technical data

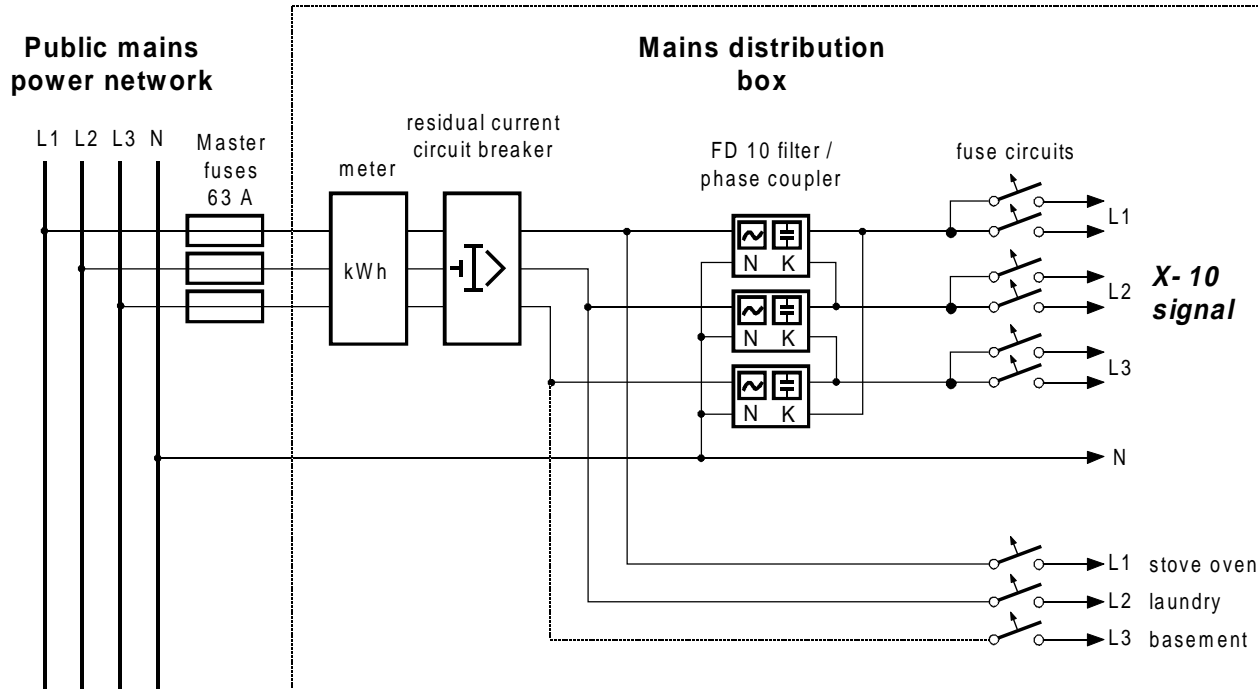|	
Supply voltage:	230 V +10% -15% 50 Hz
Maximum current:	63 A
Filter centre frequency:	120 kHz
Filter band width:	5 kHz min. (3 dB points)
Forward attenuation:	20 dB min. at zero current
	15 dB min. at 63 A
Reverse attenuation:	15 dB min.
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Forward input impedance:	20 Ω min. at 120 kHz
Coupling loss:	2 dB max. at 120 kHz
Connections:	screw type terminals for phase (supply), phase (house), neutral, coupling
Ambient temperature:	- 10° C to + 40° C (operation)
	- 20° C to + 70° C (storage)

MARMITEK.

INSTALLATION

Switch off mains master switch before carrying out installation work inside the mains distribution box !

The connection diagram shows how to install the DIN 63 A FD 10 filter coupler correctly: <u>behind</u> the residual current circuit breaker, yet <u>in front of</u> the fuses for separate circuits. The filter is mounted by simply snapping it onto the DIN rail (see figure) and has the following screw-type terminals:
- L (below) for the phase input (from residual current breaker)
- N for neutral
- L (above) for the phase output (to the fuses/separate circuits).

Use additional Marmitek X-10 filters (up to three) for installations with more than one phase. Couple the filters by connecting their terminals K to the next phase, respectively (see figure). For connecting, use a wire of 1mm² cross section.

Installation Diagram

MARMITEK.

FEATURES

- 2.4GHz transmitter and receiver set for high quality wireless transmission of video and audio signals
- Stereo audio with high dynamic range
- Video and audio inputs via SCART or RCA
- Video and audio outputs via SCART, RCA or channel 36 RF (PAL B/G) via a built-in modulator with IEC coax connector
- Video transmitter has a built-in RF receiver for Marmitek wireless remotes
- Model 130 includes a wireless IR/RF 8 in 1 Preprogrammed & Learning Universal Remote Control for controlling video and audio sources (e.g. video recorder or satellite receiver) connected to the transmitter side.
- Up to 4 channels available for combining multiple transmitters.
- Multiple receivers can be combined with up to 4 transmitters.
- Audio (mono or stereo) only transmission possible.

APPLICATION INFORMATION

Connecting a second TV without pulling extra cable by using model 130. The transmitter will be connected to a video source like video recorder and/or satellite receiver. By means of the universal remote control supplied with model 130, the video source now can be remotely controlled. Any channel can now be selected or video controlled from the receiver side.

Wireless surveillance of camera's for security, baby or patient care. Model 120 is most suitable for this application. When the camera also provides audio signals both audio and video can be transmitted.

A useful tool for (in store) presentations. By combining one transmitter with multiple receivers, making presentations can be simplified by using a number of monitors. When used in combination with a VGA to CVBS converter (not supplied), PC monitor screens can be transmitter to e.g. TV's or other monitors.
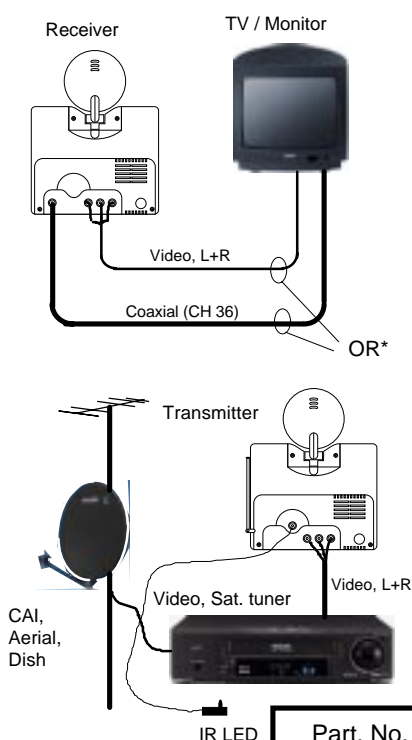
TECHNICAL SPECIFICATION

Wireless transmission:
Frequency:	2,4 GHz
Channels:	4
Range:	100 meters open air, 10-35 meters in house

Sender inputs:
Video:	1 Vpp, 75 Ohm
Audio L + R:	1 Vpp, 600 Ohm

Receiver outputs:
Video:	1 Vpp, 75 Ohm
Audio L + R:	1 Vpp, 600 Ohm
RF output:	A/V modulated CH 36

Dimensions:	160 x 215 x 88
Remote Control:	Built-in 433,92 MHz receiver in transmitter. Equipment controlled via external LED
Power:	230 VAC - 50 Hz
Accessories:	AV RCA leads + SCART adapters, IR LED with 1,5m lead

CE

Receiver — TV / Monitor

Video, L+R

Coaxial (CH 36)

OR*

Transmitter

Video, Sat. tuner — Video, L+R

CAI, Aerial, Dish

IR LED

* When available, use either SCART/AV or Coax input on TV SCART/AV gives highest picture quality)

Part. No.	
GV 130:	08966
GV 120:	08965
GV 110:	08967
GV 100:	08983

Gigavideo 130
Part. No. 08966

Transmitter, Receiver and 8/1 universal remote control

Gigavideo 120
Part. No. 08965

Transmitter and Receiver

Gigavideo 110
Part. No. 08976

Separate Transmitter for 120 and 130 sets

Gigavideo 100
Part. No. 08983

Separate Receiver for 120 and 130 sets

© 980201

MARMITEK.

Remote controller (HR10)

16 channel RF remote controller

Key Features

- Lets you control up to sixteen X-10 modules.

- Sends wireless RF signals to the transceiver module TM12 or to any X-10 wireless security system

- Compatible with the full range of X-10 home automation products .

Benefits

The HR10 lets you control up to sixteen X-10 modules (lights and appliances) remotely from anywhere inside or outside your home even from your car as you enter your driveway.

You can turn on and off, bright and dim any X-10 module set to same house code than the HR10.

A slide switch allows you to control module set to house code 1 thru 8 and 9 thru 16.

The wireless remote control HR 10 is normally used with the TM12 transceiver which passes through all codes from the wireless wall switches onto the powerline to control X-10 modules. You can also use the wireless remote control HR10 with any X-10 security system instead of the TM12.

Technical data

Batteries:	4 x AAA
RF frequency:	418 or 433;92 MHz
Radiated output:	< 5833 µV/m @ 3m
RF operating range:	30 m (open field)
Approvals:	MPT 1340 or ETS 300220
	CE Mark
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

Typical   application

Control lights or appliances from anywhere inside or outside your house - in the yard or from your car.

Attach the wireless remote control to the wall inside a doorway (using Velcro) so you can turn on lights as you enter the room.

Keep one by the bedside so you can turn on lights if you hear a strange noise in the middle of the night.

Add additional wireless remote controls, leave one in your house and have one in your car.

A disabled personcould use the wireless remote control from a weelchair . The severely disabled could use a mouthstickto operate the buttons on the wireless remote controlwhich could be easily mounted on the wheelchair's armrest

MARMITEK.

Mini Controller IR543

Mini Controller / IR Interface

Key Features

◆ Controlls up to eight Marmitek X-10 Modules

◆ Converts IR commands from any infrared Remote capable of transmitting X-10 commands, such as Marmitek 6in1, Marmitek 8in1, Fox and One for All.

Benefits

The IR543 Mini Controller lets you use an infrared remote controller capable of transmitting X-10 commands to turn on lights and appliances connected to Marmitek X-10 modules.

The unit itself also includes buttons to control up to 8 Marmitek X-10 modules directly from the keypad.

Buttons for All lights On and All Units Off, Dim and Bright are available on the keypad.

When receiving an Marmitek X-10 command from a remote, a red LED lights up to show that a transmission is taking place.

Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Stand by Power consumption:	≤ 2 W
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Control from keypad:	Unitcode 1 to 8
Control with IR remote:	Unitcode 1 to 10

Simultanious actions to different adresses are possible

Typical applications

The unit is used as a simple but powerfull controller, and in places where IR remotes (line of sight) are preffered to RF remotes.

MARMITEK.

DIN Rail Dimmer (LD10)

230 VAC - 50 Hz - 700W LOAD RATING

Key Features

◆ Installs at the breaker panel/fuse box for X-10 control of branch lighting circuits rated up to 700W .

◆ Works with X-10 controller and momentary action wall switches - including "designer" wall switches.

◆ Designed to operate with 230V, 12 and 24V lighting including halogen.

◆ Remember its light level for smooth dimming

Benefits

The X-10 DIN rail dimmer is a 700 W receiver module that serves as remote controlled dimmer.

Mounted on the DIN rail in the mains distribution box, it dims/ switches hard -wired circuits with several wall switches (e.g. living room lighting).

It is designed to operate with 230V, 12 V and 24 V lighting including halogen.

The LD 10 can be turned on/off, and brightened/dimmed either by an X-10 controller or by external momentary action switches connected to terminal 2.

The LD10 responds to "standard" X-10 that is: "All lights on" or "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On", "Off", "Bright" and "Dim".

The LD10 also responds to "professional " X-10". Combinned with the memory dim feature, the LD10 can change the room lighting instantly or progressively.
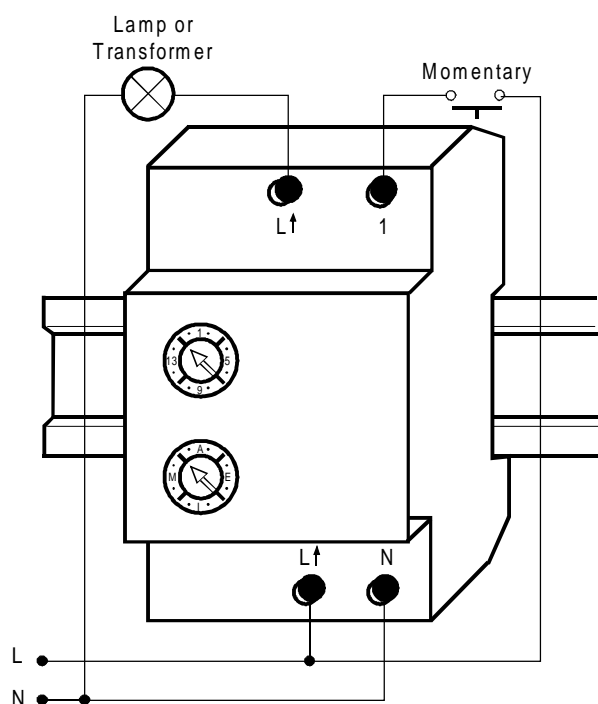
This unit is especially designed for scene lighting where very often the lighting is 12 V halogen. commonly used in living room, study/reading rooms. The unit can be installed in sub-junction boxes for discrete control.

Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Supply current :	≤ 20 mA capacitive
Making capacity:	60 to 700 W (incandescent lamps only)
Regulating time:	3,5 sec +/- 0,2sec from fully on to off
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	≥ 60 Ω (L - N) at 120 kHz
Fuse:	2,5 A (T)
Connections:	screw type terminals for phase, neutral, switched phase, control 2.
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

MARMITEK.

INSTALLATION

Switch off appropriate mains fuse and master switch !

- Mount dimmer by snapping it onto the DIN rail.

- Connect phase (L) and neutral (N) to the corresponding terminal at the bottom of the dimmer.

- Connect load cable (light) to terminal L at the top of the dimmer.

- Connect the cable coming from the push-button wall switches (switched phase) to terminal at the top of the dimmer.

Now, check the correct operation of the dimmer:

- Switch on appropriate mains fuse and master switch.
- Press one of the connected wall switches **briefly**. The lighting is switched on.
- Press the same or another push-button **briefly** once again. The lighting is switched off.
- Now press and hold one of the connected push buttons for sometime: the lighting is switched on and then dimmed darker and darker. When the push-button is released, the brightness of the light stays constant.
- When the push-button is pressed for a very long time, the lighting is dimmed down to OFF: then it picks up gradually in brightness again until maximum, and the cycle starts over.
- Finally, set the rotary code switches on the front side to the desired device address (e.g. C5) with a screwdriver and note this address down in a list.
- The AD10 DIN rail dimmer includes the MEMORY DIM feature which allows the unit to DIM or BRIGHTEN directly to the next Marmitek X-10 initiated light level.

NOTE:
When using the DIN dimmer with low voltage lights, install the transformer as if it was the lamp as indicated in the wiring diagram.

As with the other receiver modules, the device address can be changed easily at any time without disconnecting any cables.

MARMITEK.

Dimmer plug-in module (LM12)

230 VAC - 50 Hz - 300W LOAD RATING

Key Features

- On/Off and dimmer control of incandescent lighting.

- Available in a wide range of plug style (British, German, French, Italian, Euro-style, Swiss, Australian/Newzealand, Danish, etc.).

- Designed to operate with 230VAC 60 W to 300W incandescent lamps.

Benefits

The Dimmer plug-in module is a 300 W receiver unit that works as a remote dimmer.
The connected lamp can still be switched on and off localy. The dimmer function, however, is an X-10 remote control.
The dimmer module can be used at any wall outlet in the house with incandescent lamps between 40 W and 300 W.

As the dimmer is simply inserted into wall outlets like an ordinary plug, there is no installation to be carried out. Just set the wheels on the front side to the desired device address (e.g. F9) and note this address down in a list.

The lamp connected to the dimmer module can still be controlled locally by its own switch, but do not forget to leave the local switch in the "ON" position, as other wise the lamp cannot be controlled by an X-10 controller. Switch the lamp off by remote control.

The LM12 responds to "standard" X-10 that is: "All lights on" or "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On", "Off", "Bright" and "Dim".

Technical data

Supply voltage:	230 V ±10% 50 Hz
Supply current :	≤ 20 mA capacitive
Making capacity:	60 to 300 W (incandescent lamps only)
Regulating time:	4,4 sec ± 0,2sec from fully on to off
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	≥ 55 Ω (L - N) at 120 kHz
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	52 x 122 x 33 mm
	(width x height x depth without plug)

MARMITEK.

Wall-mounted dimmer (LW10)

230 VAC - 50 Hz - 500W LOAD RATING

Key Features

- ◆ Replaces any normal dimmer for X-10 control of branch lighting circuit rated betwen 60W and 500W.

- ◆ Works with X-10 controller and momentary action wall switches - including "designer" wall switches.

- ◆ Can also be used like an ordinary dimmer

- ◆ Remembers its light level for smooth dimming

Benefits

The X-10 wall mounted dimmer is a 500 W receiver module that is controlled by any X-10 controler.

It can be used like an ordinary dimmer . The wall-mounted dimmer simply replaces the normal dimmer and is mounted into a flush box.

It can also be controlled by external momentary action switches connected to the terminal 2

The LW10 responds to "standard" X-10 that is: "All lights on" or "All units off" from any X-10 controller set to its house code regardless of unit code or alternatively individual unit control by "On", "Off", "Bright" and "Dim".

The LW10 also responds to "pro-fessional " X-10". Combinned with the memory dim feature, the LW10 can change the room lighting instantly or progressively.

The unit is currently supplied with with 3 different cover plates: Busch Jaeger Duro 2000, Jung CD500 and Gira (the mounting frame is available from your nearest wholesaler).
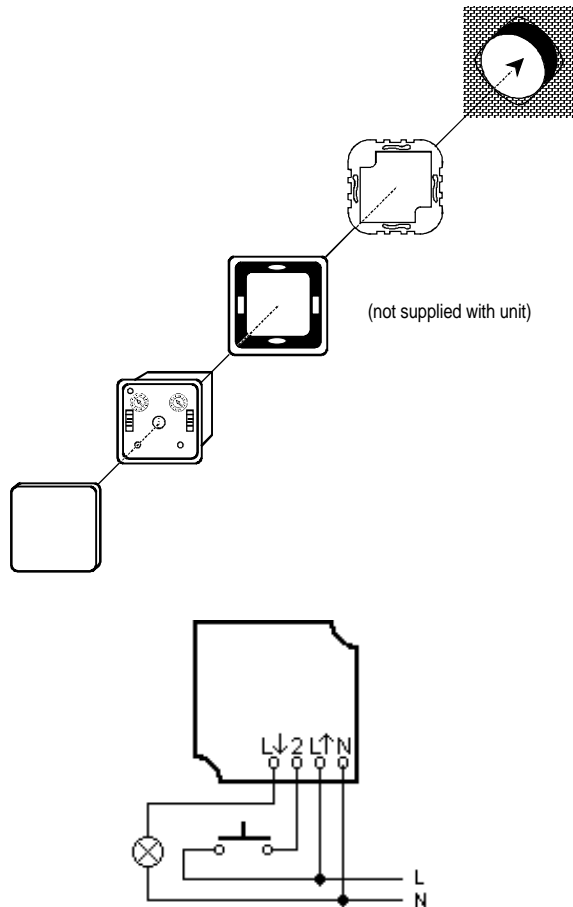
Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Supply current :	≤20 mA capacitive
Making capacity:	60 to 500 W (incandescent lamps only)
Regulating time:	3,7 sec ±0,2sec from fully on to off
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at120 kHz
Input impedance:	≥60 Ω (L - N) at 120 kHz
Fuse:	2,5 A (F)
Connections:	screw type terminals for phase, neutral, switched phase.
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

Typical applications

This unit is used for scene lighting, typically in living rooms, dining rooms and study/reading rooms. The ideal light level can be pre-programmed in your controller or Marmitek CM11.

MARMITEK.

INSTALLATION

Switch off appropriate mains fuse !

- Take off switch cover, remove both screws and take off the mounting plate.

- Mount the mounting plate onto the flush mounting box with four countersunk screws. Position the plastic decor frame ; supplied by others.

(not supplied with unit)

- Connect cables: phase to L, neutral to N, light cable (switched phase) to L1.

- When connected, position light switch on the mounting plate and reinsert both screws.

- Finally, set the rotary code switches on the front side to the desired device address (e.g. E13) with a screwdriver, and note this address down in a list.

- Put the switch cover back on.

Now check the correct operation of the dimmer:
- Switch on mains fuse.
- Press push-button ↑ **briefly**, the light is switched on.
- Press push-button ↓ **briefly** once again. The lighting is switched off.
- Now press and hold push-button ↑ of some time: the lighting is switched on, its brightness gradually increasing to maximum. When the push-button is released, the brightness of the light stays constant.
- Now press and hold push-button ↓ for some time: the lighting is gradually dimmed downed to OFF. When the push-button is released, the brightness of the light stays as selected.
- Any external push-button wired to terminal 2 as shown above will operate the same way.

When the unit receives a message, it will operate as follows:
*   "OFF" message   - full off.
*   "ON", BRIGHT   - brightens from current light level.
*   "ON" DIM   - dims from current light level.
*   "All lights ON"   - brings light 100 % on.
*   "All units OFF"   - full off.

As with the other receiver modules, the device address can be changed easily at any time without disconnecting any cables.

Important notice:
After the installation of the Marmitek X-10 controllers, all receiver modules have first to be checked for correct function and address !

MARMITEK.

Mini-timer (MT7222)

4 Channel timer/controller

Key Features

- Independent on/off timer control of four groups of Marmitek X-10 modules.

- Security random lamp switching function.

- Buttons to turn on/off and dim 8 light or appliance modules.

- 230V ~ 50Hz with battery backup (9 V).

Benefits

The Mini-timer MT7222 controls four light or appliance modules, turning each one on or off up to twice a day at the time you choose. With the mini-timer you can wake up to hot coffe, turn on a heater, switch off children's lights at bed time, or come home to a lighted entrance.

The Mini-timer also incorporates a special security function that you can use when you are away. This function randomly adjusts switching times by up to 30 minutes each side of the set time, so your home looks convincingly "lived-in"- a highly effective intruder deterrent.

The Mini-timer allows you turn on and off, up to eight modules instantly by pressing any of the four on/off rocker keys after setting the 1-4/5-8 slide switch to the desired position. You can also dim and brighten lights connected to lamp modules, DIN dimmer modules and wall dimmer modules at the touch of a button.
There is an All Lights On/All Units Off button to instantly turn on all lights connected to Lamp modules DIN dimmer modules and wall dimmer modules or turn off everything in your system.

Technical data

Supply voltage:	230 V ±10% 50 Hz
Battery:	9V 6LR61
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
X-10 Powerline:	120 kHz ± 2 kHz / 5 Vpk-pk
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	136 x 53 x 85 mm
	(width x height x depth)

The battery back-up will protect the time and programmed events during a power outage of up to 48 hours

The mini-timer makes an ideal bedside unit with its big bright LED clock display, built-in alarm buzzer, sleep function and buttons to control up to eight light or appliance modules without getting out of bed!

MARMITEK.

FEATURES

POWERMID PLUS

- Control your video recorder and satellite receiver from every location in the house, e.g. bedroom, study, etc.
- The supplied remote transmits RF as well as IR commands
- Completely preprogrammed for almost all brands and models
- Additional IR codes can be learned
- Capable of controlling TV's, video recorders, satellite receivers and Marmitek X-10 systems*
- One remote control for audio, video, lights and air conditioner.

*lights, appliances, etc., in combination with a Marmitek X-10 TM12 or IR543

MARMITEK POWERMID PLUS

The first remote control which you can use everywhere in the entire house

The Marmitek PowerMid Plus sends not only the normal IR command but also RF commands, going through walls and ceilings by means of a built-in RF transmitter. There is no need to point the remote control towards the equipment anymore and equipment can now be controlled from other rooms (e.g. the satellite receiver and video recorder from the bedroom).

The PowerMid receiver is positioned in the room where the equipment is placed. When a command is transmitted by the supplied 8 in 1 remote control, the PowerMid receiver will pick up the RF signal and convert it into IR signal. With this signal, the equipment placed in line of sight with the PowerMid receiver can be controlled. The preprogrammed 8 in 1 remote control is capable of operating most brands and models. All these codes are stored in an internal library.

The remote control is not only preprogrammed, it is also has a learning function. In an extra learning memory, every command from another IR remote control can be added. The user can determine under which key the learned command needs to be memorized. This makes this remote control very useful for all audio applications while also commands for air conditioners can be logged.

The remote control is Marmitek X-10 compatible which means that you can switch appliances and dim lights (in combination with a Marmitek X-10 TM12 Transceiver Module or IR543 IR to PLC Converter).

TECHNICAL SPECIFICATIONS

Dimensions receiver:	75 x 75 x 110 mm
Dimensions remote control:	215 x 60 x 25 mm (max)
Frequency:	433,92 MHz
Range:	10-20 meters (50 meters open air)
Power supply receiver:	220 - 240 VAC 50 Hz 2,5 W
Power supply remote control:	4 x AAA 1,5 V batteries (not included)
Multiple receivers can be used:	yes
Multiple remotes can be used:	yes
Works with all brands:	Except B&O

CE

Art. No.	© 980202
08982	MARMITEK.

Wireless wall switch

RW10 - RW12

Key Features

- Lets you control two (RW10E) or three (RW12 incl. Dim / Bright) Marmitek X-10 modules in your home.

- Sends wireless RF signals to the transceiver module TM12 or to any Marmitek X-10 wireless security system

- Compatible with the full range of Marmitek X-10 home automation products .

Benefits

The wireless wall switch lets you control two (RW10) or three (RW12) Marmitek X-10 modules from any where in your home.

The RW10 has two buttons and can be set to control X-10 modules with codes 1 & 2, or 5 & 6, or 9 & 10, or 13 & 14. This pair of codes is selected by the position of the slide switch inside the battery compartment.

The RW12 has four buttons and can be set to control X-10 modules with codes 1 thru 3, or 5 thru 7, or 9 thru 11, or 13 or 15. This group of codes is selected by the position of the slide switch inside the battery compartment. The fourth button is a bright/dim switch allowing you to brighten and dim Marmitek X-10 lamp and wall switch modules which are set to the same unit codes as the group of modules that the RW12 controls.

The wireless wall switches are normally used with the TM12 transceiver which passes through all codes from the wireless wall switches onto the powerline to control Marmitek X-10 modules. You can also used the wireless wall switch with any Marmitek X-10 security system instead of the TM12.

Technical data

Batteries:	4 x AAA
RF frequency:	418 or 433;92 MHz
Radiated output:	< 5833 µV/m @ 3m
RF operating range:	30 m (open field)
Approvals:	MPT 1340 or ETS 300220
	CE Mark
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

Typical application

Use the wireless wall switch anywhere you want to control something but don't presently have a switch.

Attach them to the wall with Velcro for convenience.

Place one on the wall near your bedside.

Place one near your entrance.

Use them with the universal computer interface CM11 to provide "Virtual Wiring" (macros).

MARMITEK.

Burglar alarm interface (SM10)

230 VAC - 50 Hz

Key Features

* Connects to an existing alarm system and sends Marmitek X-10 codes on the power line when an alarm is tripped.

* Provided with three selectable programs.

* Triggered by a contact closure or a low voltage input.

Benefits

Connects to an existing alarm system and turns on lights when alarm trips. It has 3 modes of opération:

In mode 1 the SM10 will turn On all Lamp Modules and Wall Switch Modules set to its House code and will also turn On any other Modules set to its Unit code, a stereo connected to an Appliance Module for example. All Lamp Modules and Wall Switch Module are left in the On state when the alarms is de-activated but the Module set to the same Unit code as the SM10 will be turn Off.

In mode 2 the SM10 will FLASH all lights connected to Lamp Modules or Wall Switch Modules. All Lamp and Wall Switch Modules will be left in the On state when the alarm is de-activated but Appliance modules set to the same House code as the SM10 will be turn Off.

In mode 3 the SM10 will turn On all Lamp Modules and Wall Switch Modules set to the address as programmed with de House and Unit Code dails on the interface. When releasing the terminals an Off command is send to the set-up address.

Set the input switch to A for triggering the interface by a low voltage input (6-8 V AC, DC or audio), to B for triggering the interface by a dry contact closure. Do not connect 220 V to the input terminal!

The SM10 has a test button which allows

Technical data

Supply voltage:	230 V ±10% 50 Hz
Supply current :	≤ 20 mA capacitive
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
X-10 Powerline:	120 kHz ± 2 kHz / 5 Vpk-pk
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	55 x 90 x 38 mm
	(width x height x depth)

you to activate it whether or not it is connected to an alarm system. The *All light off* button allows you to turn off anything which has been turned on by the interface.

To install the SM10: (It is expected to be installed inside the security controller panel)
- Connect the alarm output of the security panel to the screw terminals
- Connect the flying lead to the 230 V power supply, most likely at the 230 V side of the transformer.

Typical applications

- Flash all the lights in your home when your existing burglar alarm trips.

- Blast your stereo when your alarm trips.

- Connect the SM10 directly to a magnetic switch to turn on lights when a door or window opens, i.e. you don't have to own a burglar system.

- Trigger it from sensors such as a photo cell to turn on lights when it gets dark, from a motion detector to turn on lights when someone enters a room, from a microphone to turn on lights or appliance when a sound from an intruder is detected, from a moisture sensor to sound an alarm if your basement is flood, from a garage door opener to turn on lights when you open your garage door, etc..

MARMITEK.

Wall-mounted motor drive switch (SW10)

230 VAC - 50 Hz - 6A LOAD RATING

Key Features

♦ Replaces the normal wall switch for the shutter, curtain or sunshade motor control and and responds to Marmitek X-10 signals

♦ Works with any Marmitek X-10 controller and   can also be used as an ordinary switch.

Benefits

The Marmitek X-10 wall mounted motor drive switch is a receiver module that is controled by any Marmitek X-10 controler. It can be used for curtains, sun shades and shutters. The most common application is shutter control.

The unit controls the position of a shutter or a blind either in response to Marmitek X-10 signals received on the powerline or manualy from pushbuttons on the front face of the unit.

If the serial control message is in "standard" X-10 format, the unit can be:
 - Fully opened in response to "unit code" "On"
- Fully closed in response to "unit code" "Off"
- Adust to every position in response to "unit code" "Dim" for down or "unit code" "Bright" for up.

If the message is in "professional" X-10 format, then intermediate openings are also possible.

The unit is currently supplied with 3 different cover plates: Busch Jaeger Duro 2000, Jung CD500 and Gira (the mounting frame is available from your nearest wholesaler).
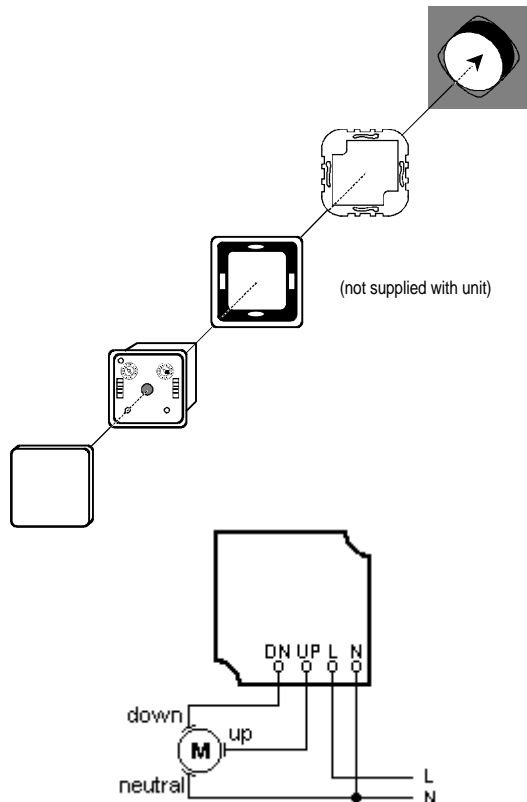
Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Power consumption:	< 1 W
Making capacity:	6 A - 250 VAC (motors)
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	50 mVpp min. at 120 kHz
Input impedance:	$\geq 180\,\Omega$ (L - N) at 120 kHz
Connections:	screw type terminals for phase, neutral, motor forward and motor reverse
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)

typical applications

Make your house look "lived-in" when you are away with presence simulation of your shutters or curtains.
When going out, one button control of all shutters.

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INSTALLATION

Switch off appropriate mains fuse !

(not supplied with unit)

- Take off switch cover, remove both screws and take off the mounting plate.

- Mount the mounting plate onto the flush mounting box with four countersunk screws. Position the plastic decor frame ; supplied by others.

- Connect cables: phase to L, neutral to N, motor up to up, motor down to DN and motor neutral to N.

- When connected, position shutter switch on the mounting plate and reinsert both screws.

Now the control electronics has to be calibrated in order to adjust to the time the shutter motors needs from « fully closed » to « fully open » :
  - Switch on mains fuse.
  - With the aid of a screwdriver, adjust both rotary switches to Y(calibration).
  - Put the switch cover back on and use the switch to drive the shutter all the way up..
  - Now press the push-button ↓ until the shutter is completely closed.
  - Release the button as soon as the shutter is closed. The electronics measure the elapsed time and stores it internally so that the switch always knows the position of the shutter.
  - Now the same procedure for the opposite direction : press and hold push-button ↑ until the shutter is fully open, then release the button.
  - Take the switch cover off again.
  - Set the rotary code switches on the front side to the desired device address (e.g. E13) with a screwdriver, and note this address down in a list.
  - Put the switch cover back on

The calibration is now completed. The internal electronics have measured and stored the time for raising and lowering the shutter. These values will not be lost even in case of mains failure.

When the unit receives a message, it will operate as follows with Marmitek X-10:
* "OFF" message :   - shutter fully closed.
* "ON" message :   - shutter fully open.
* DIM or BRIGHT message :   - adjust shutter to preferred position

Important notice:
As with the other receiver modules, the device address can be changed easily at any time without disconnecting any cables. After the installation of the Marmitek X-10 controllers, all receiver modules have first to be checked for correct function and address !

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Transceiver module (TM12)

230 VAC - 50 Hz

Key Features

- Controls up to sixteen different Marmitek X-10 modules.

- Built in appliance switched outlet.

- Compatible with all Marmitek X-10 wireless remotes.

- Available in a wide range of plug style (British, German, French, Italian, Euro-style, Swiss, Australian/Newzealand, Danish, etc.).

Benefits

The TM12 responds to wireless Radio Frequency (RF) signals from any Marmitek X-10 wireless remote controls or wireless wall switches. It retransmits, over the house wiring, any signals it receives from these wireless remote controls or wall switches.

A built in appliance switched outlet responses to Marmitek X-10 signals received on the power line or to RF signals received from any Marmitek X-10 wireless remote controls.

The TM12 responds to serial control message in "standard" X-10 format that is: "All units off" from any Marmitek X-10 controler set to its house code regardless of unit code or alternatively individual unit control by "On" and "Off".

The TM12 can be polled for its status by the CM11 (two way universal computer interface) or by any controler using the "professional" Marmitek X-10 format.

When used with the CM11interface, the TM12 acts as the "RF gateway" to get signals from any Marmitek X-10 wireless transmitter onto the AC wiring to be received by the CM11 interface to initiate Macros.

As the transceiver is simply inserted into wall outlets like an ordinary plug, there is no installation to be carried out. Just set the wheel on the front side to the desired house code (the unit code of the built-in appliance switched outlet is 1).

Technical data

Supply voltage:	230 V ±10% 50 Hz
Supply current :	≤ 20 mA capacitive
Making capacity:	500 W (incandescent lamps only)
	1 A (motors)
	10 A (resistive loads)
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
RF receiver frequency:	433,92 MHz or 418 MHz
X-10 powerline:	120 kHz ± 2 kHz / 5 Vpk-pk
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	≥ 180 Ω (L - N) at 120 kHz
Approvals:	CE Mark
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	65 x 160 x 33 mm
	(width x height x depth without plug)

Typical applications

This is the general purpose unit for the smallest to largest applications. It can be a starter kit with an Marmitek X-10 RF transmiiter for remotly turning ON and OFF any appliance. Equally it can be the interface for multi function macros.

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Two way PLC interface (TW7223)

230 VAC - 50 Hz

Key Features

* Designed for OEM applications where the controller manufacturer implements their applications using Marmitek X-10 PLC control.

Benefits

The Two-way PLC Interface (TW7223) has been designed for controller manufacturers to implement X-10 PLC control.

The functionality of the PLC control is decided by the controller manufacturer and implemented in the controller panel.

The document " X-10 protocol for OEM controller" defines the interface protocol that a manufacturer will need for implementing X-10 control.

With a control panel wich has been designed to interface with X-10 PLC, the installation is simple. Just connect the flying lead to the 230V power supply, connect the telephone cable to both the RJ11 socket on the XM10 and the control panel with the cable provided.

There is a red LED lamp on the TW7223 wich is ON to indicate power. It will flash when X-10 signals are being received or transmitted.

Technical data

Supply voltage:	230 V +10% -15% 50 Hz
Ambient temperature:	- 10° C to + 40° C (operation)
	- 20° C to + 70° C (storage)

DC Characteristics:
Serial data input:

Min. logic "1":	4 V input will sink approx 2,5 mA
Max. logic "1":	20 V input will sink approx 18 mA
Max. logic "0":	0.8 V will sink approx 0,1 mA

(Voltages and currents with respect to terminal 2)

Note: this output is an open collector transistor. Therefore, the logic "1" voltage is quoted as a reference for defining the output leakage current. An output pullup resistor is required to generate a logic level. The pullup can be returned to any voltage up to 20 V with respect to terminal 2.
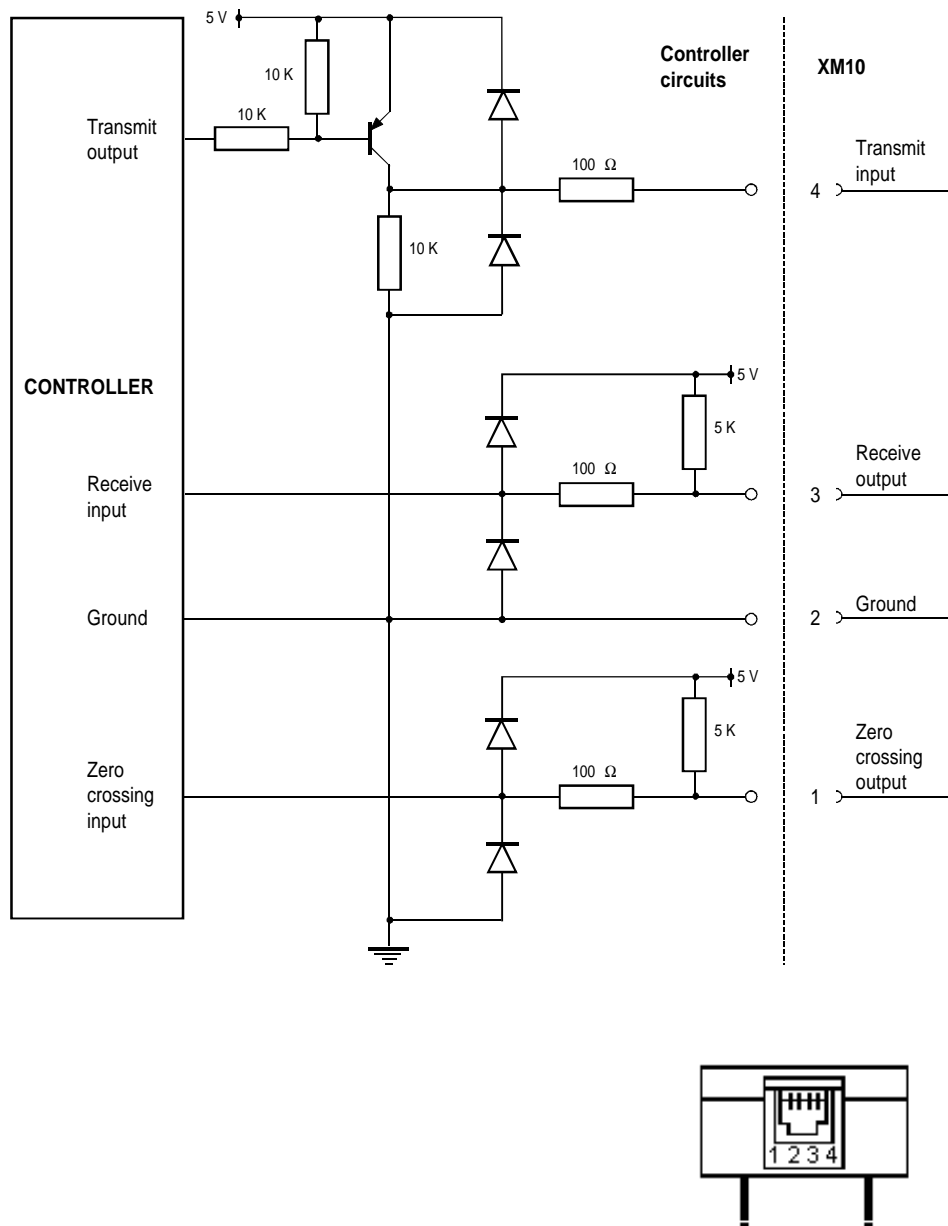
AC characteristics:

HF output to AC power line:	60 mW average into 5 Ω
Conforms to Class 116 of EN50065-1	load (5 V pk-pk instant.)
Carrier frequency:	120 kHz ± 2 kHz
Max. phase delay betwen 0 crossing point of AC power line and 0 crossing detect output (either transition):	100 µsec
Max; allowable delay betwen transitions on 0 crossing detect output and serial data input "0" - "1" transition:	50 µsec
Max. delay betwen serial input envelope "0" - "1" transition and carrier burst reaching 90 %:	50 µsec
Width of X-10 enveloppe	1 ms +100 µsec -50 µsec
Isolation voltage	4 kV rms 50Hz for 1 min.
Approvals:	CE Mark

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Typical Controller Connection Diagram

Connection between the controller is via a standard modular phone jack, the connections for which are as follows:

1. B   Zero crossing detect output (with respect to 2).
2. R   Common.
3. G   X-10 received envelope output (with respect to 2).
4. Y   X-10 transmit envelope input (with respect to 2).

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Universal module (UM506)

230 VAC - 50 Hz - 5 A at 24 VDC LOAD RATING

Key Features

- On/Off control of isolated contacts to switch any kind of low voltage load.

- Can be set for momentary or sustained contact closure.

- Has a beeper to use as an annunciator.

Benefits

The UM506 contains an isolated contact relay and a piezo sounder (beeper). It can be set to operate as a beeper only, as an isolated contact relay only or both.
It can be set for momentary or continous operation for the sounder and/or isolated contact relay.
The isolated contact relay are rated for 5 A at 24 VDC.

When set to continous operation the relay contacts and/or the module beeps continously when an ON command is received. When an OFF command is received the relay contacts open and/or the beeper stop.
When set for momentary operationthe relay contacts close and/or the beeper gives three or four beeps when an ON command is received. The relay contacts then open automaticallyafter about 0,5 second and/or the beeper stops automatically after three or four beeps. In this mode, OFF commands are ignored.

The module has a test (ON) button and a unit OFF button.

Technical data

Supply voltage:	230 V ±10% 50 Hz
Supply current :	≤ 20 mA capacitive
Making capacity:	5 A at 24 VDC
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Signal sensitivity:	15 mVpp min 50 mVpp max at 120 kHz
Input impedance:	≥ 55 Ω (L - N) at 120 kHz
Ambient temperature:	- 10° C to + 50° C (operation)
	- 20° C to + 70° C (storage)
Dimensions:	55 x 90 x 38 mm
	(width x height x depth)

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