

ELV[®]

Electronics Highlights 2006

Technology that inspires

Wireless weather station



Charging center



Facility management



Wireless alarm system



www.elv.com

Open – Close doors at the press of a button

KeyMatic® IQ⁺ wireless door lock drive

The electronic key for your home



Sensational

The latest development from ELV: At last, you can open and close your house door as easily as your car. The press of a button is enough. Sensational technology and sensational price. KeyMatic® IQ⁺ is unique and patented.

Quick, easy installation

Installation is completed in just a few operations: No need to drill any holes, no power cable and no special tools required. KeyMatic® IQ⁺ can be installed on any door equipped with a standard cylinder lock and having the emergency and danger functions. It is only in exceptional cases that the existing cylinder lock needs to be replaced in order to be able to fit the mounting plate. Simply fix the holder on the cylinder lock above it, mount the drive and screw together – finished!

Reduce the risk of burglary

Only locked doors provide sufficient safety against burglary. Main doors of apartments or houses should be locked during the day or night, even if it is only going to be empty for a few minutes. People often forget this because it's a nuisance. A bunch of keys can scratch the door or you often have your hands full and have to put things down to get in.

These are things of the past when you use KeyMatic® IQ⁺ – People don't leave their cars unlocked, do they?

Flexible

Whether using remote control, pressing a button on the unit or manually – a complex, cleverly devised electromechanism provides several options. Unrestricted manual operation requires the use of a cylinder lock with so called emergency and danger function. This version, generally in use today, ensures that the lock can still be operated by a second key even if one key has been left in on the other side.

Emergency function

The door lock remains fully functional and can be used without any restrictions manually (i.e. with the standard key). If there is a fault in the system, you can still get in and out of the house in the "normal way" without having to contact an expensive lock and key service. A nice, secure feeling.

Comfortable

Open, lock or unlock the door by pressing a button – nice and easy via remote control or directly on the unit. Before unloading your shopping from your car, press the "Open door" function on the small remote control on the key ring and then enter the house without having to put the shopping down again. Locking it again is just as simple. Thanks to its powerful drive (25.5 r.p.m.) the door can be opened and locked again quickly.

IQ⁺ = strong quick intelligent

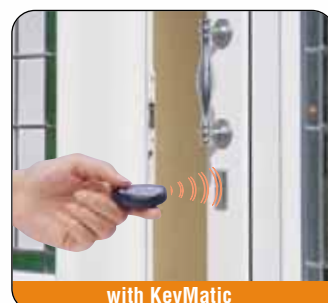
- High torque (2.5 Nm)
- High speed for Locking/Unlocking (25.5 r.p.m.)
- Intelligent: position detection, travel path optimization, extended security functions ...
- Optional: hard-wired power supply and control



Quick, easy installation



without KeyMatic



with KeyMatic



Remote Interface with interface connector for an external emergency power supply and hard-wire operation. Remote Interface incl. rechargeable batteries, power supply, 5 m connecting cable

Order no.: 17-654-68

Universal use

Regardless of whether it is a house door, side door, warehouse or apartment door – as long as a standard cylinder lock is installed, KeyMatic® IQ⁺ can be used.

With a max. torque of 2.5 Nm even heavy locks can be opened. KeyMatic® IQ⁺ works independently of any mains power and is absolutely fail-safe against power failures, requiring no power outlet near the door.

KeyMatic® IQ⁺ can be retrofitted for battery operation easily and no mains power cable is required. The service life of the batteries is approx. 1 year with an average of 8 door closing locking per day. An imminent battery change is indicated in good time (in the display) and also acoustically with each locking procedure when nearing the end of its service life.

If the battery capacity is reduced, there are several audio-visual warnings prompting a change of battery.

Reliable radio connection

The radio connection is protected against misuse by the rolling code function, known from the automobile industry. Each remote control supplied by ELV has an individual serial number (1 of 268,435,456) and operates with a 16 bit synchronization counter (65,536 possibilities). This results in 17 trillion options. To break this code, in this case, would theoretically take 500,000 years! Unlocking as a result of perturbing radiation can also be ruled out. A master remote control helps to make the system even more secure.

Interface connection

If required, the optional interface KM 300 RI can be connected. The interface permits control of the power supply and easy operation of the drive by means of any pushbutton, e.g. ordinary installation control switches (functions: lock, unlock, open). A power supply unit ensures that the accumulator is constantly recharged for yet another increase of operational readiness.

Always under control

The status messages in the display help during operation and acoustic status signals from the transmitter ensure the current operating status can be determined at all times. The acoustic acknowledgement signals can be adjusted and deactivated. If necessary, an optional signal lamp can be installed which visually accompany acoustic status signals.

Radio remote control RM 300 RC



The super-compact radio transmitter in key ring format has been specially conceived for controlling the KeyMatic door lock. It transmits the control commands in coded form using a scrambling procedure, thus providing a high degree of protection against code theft ("tapping" e.g. by a partly authorized persons such as cleaning personnel or a babysitter). When using the remote control, it is not possible for this circle of personnel to make copies of keys.

There is also the advantage that if the transmitter is lost, the cylinder lock need not be replaced or a locking system is necessary – the transmitter can simply be deleted from the reception memory.

When a battery is empty, it is indicated by an integrated signal lamp.

A transmitter is supplied in the scope of delivery with the sets, up to 8 further transmitters can be registered for operation on the radio door lock drive.

Additional remote control, supplied with battery

Order no.: 17-577-78



Adapted to your surroundings

The wireless door lock drive is available in three different colors, available for delivery adapted to the most popular door colors.

Complete set

KeyMatic® IQ+ is supplied as a set: Remote door lock drive system, mounting plate, retaining screws, installation wrench, radio transmitter, set of batteries

White

Order no.: 17-627-19

Silver gray

Order no.: 17-627-31

Brown

Order no.: 17-627-26



KeyMatic signal lamp LED

The signal lamp provides an optical acknowledgement, visible externally, of the commands issued from the remote control. This enables visual feedback from some distance concerning the activities of the door lock drive.

Installation of the lamp is possible using adhesive assembly behind glass or on the door panel. The signal lamp is connected to the door lock drive via a plug connector.

KeyMatic LED 15

Signal lamp, adhesive assembly, feed line 15 cm

Order no.: 17-610-46

KeyMatic LED 30

Signal lamp, adhesive assembly, feed line 30 cm

Order no.: 17-612-24



KeyMatic® IQ+



Radio door latch



Radio switch



Alarm-Dialer

KeyMatic® CAC Code Access Control

KeyMatic deluxe – door station code access control

You've left your radio transmitter in the house? No problem, if KeyMatic CAC has been installed. Simply open the door by entering a code. At the same time, the door station can also be used for controlling the existing door latch and an FS20 receiver (e.g. for outdoor lighting or radio controlled door bell).

An integrated display indicates a freely programmable solution and the system status. It can be used as a name or information label, for example. Both the keypad and the display are provided with back-lighting (either permanently on or timer controlled via key input, depending on the power supply).

The device can be either operated purely with batteries or via an existing doorbell transformer (batteries then serve as a buffer in the event of a power failure, for instance).

KeyMatic deluxe,

white

Order no.: 17-577-80

KeyMatic deluxe,

silver gray

Order no.: 17-616-60



FAZ 3000

radio alarm system

FAZ 3000 SYSTEM - MAIN FEATURES:

- All components can be "connected" to the alarm base station without wiring of any sort.
- Long free field range of 500 m.
- High reliability via bi-directional radio links (acknowledgement of each radio message).
- Up to 100 radio sensors can be connected.
- 868 MHz technology ensures excellent protection against interference from other radio services.
- In addition 4 hard-wired alarm lines and a hard-wired sabotage line are provided.
- Long battery life of approximately 3 years.
- Wide range of components available.



FAZ 3000-TF
Order no.: 17-462-98



Smoke Detector
RM 100-FAZ
Order no.:
17-567-93



FAZ 3000-PIR-2
Order no.: 17-652-48

Up to 100 (!)
radio sensors can
be connected



FAZ 3000-SI-2
Order no.:
17-651-64

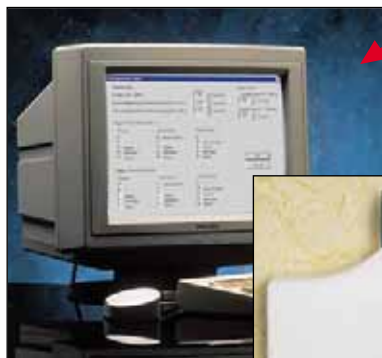


FAZ 3000 Z-4 Order no.: 17-651-86

Bi-directional



FAZ 3000-AW-2
Order no.: 17-562-89



FAZ 3000-PC
Order no.:
17-467-39



FAZ 3000-SE-2
Order no.: 17-652-09



FAZ 3000-FB-2 - Remote Control
Order no.: 17-613-52

868 MHz RADIO TECHNOLOGY - BI-DIRECTIONAL

The FAZ 3000 radio alarm system operates at 868 MHz, a frequency specially reserved for uses that require only very short data transfers, i.e. continuous signal transmitters are not permitted. This indicates a clearly increased transfer reliability, as interference by permanently operating systems such as radio headsets, etc is "postally" excluded. For the FAZ 3000, bi-directional means a signal transfer in both

directions, i.e. not only from the sensor to the alarm base station, but also from the alarm base station to the sensor. This method is especially important for acknowledging signals (and to repeat them if necessary). It is also important for power saving for sensors to receive the command "revert to power saving" when units are inactivated.

The alarm unit that “talks” to its sensors.

After a two-year development programme ELV presents its new radio alarm system designed according to the very latest technology, which leaves nothing to be desired. Special emphasis has been placed on high reliability and freedom from interference, which is the mainstay of a modern alarm system.

The new FAZ 3000 radio alarm unit is designed for burglary and fire protection for flats and houses as well as for accident and emergency alarms. It is based on the very latest microprocessors and radio technology and offers a wide range of functions with easy installation and servicing.

All components are connected by radio so installation is child's play, as there are absolutely no wires to lay between components.

Up to 100 (!) radio sensors, which can be individually provided with user-selectable names (max. 11 characters), can be connected. In the event of an alarm the base station display immediately shows where security has been breached. In addition 4 hard-wired alarm lines and a hard-wired sabotage line are provided. The FAZ 3000 can also replace current wired alarm units and the system can be expanded to almost any size required. All sensors (with the exception of the smoke alarms), the peripheral devices and the alarm base station are equipped with an integrated sabotage contact that immediately triggers an alarm on unauthorised opening of the housing. Operation of the sensors is by battery with a life of approximately 3 years. The alarm base station is fed by a plug power supply and naturally also has its own emergency power supply via batteries. An optional external DCF receiver is available to increase the accuracy of the integrated clock.

The completely new development of the FAZ 3000 radio alarm system provides a multitude of essential features.

High reliability provided by a bi-directional 868 MHz radio path.

Probably the most essential criterion of an alarm unit is the reliability and freedom from interference.

The unit must offer reliability with regard to breakdown security/availability as well as recognise an attempted break in. In this respect all FAZ 3000 system components are distinguished by an extremely mature technical design combined with a long battery life. The battery voltage is automatically checked at regular intervals and the voltage level is reported to the base station and displayed approximately four weeks before the battery expires.

For the FAZ 3000, **freedom from interference** has a greater significance. Every 10 minutes each sensor and each peripheral device reports to the alarm base station in order to indicate it is “live”. This ensures that there are no faulty sensors and the radio link is func-

tioning correctly. If the radio link is interrupted for more than 90 minutes then the alarm base station issues an interference message, which does not necessarily lead to an alarm. In this way the operator can recognize possible radio interference without “arousing the



entire neighbourhood” with an alarm. Bi-directional radio technology also ensures **long battery life** even for heavily used PIR monitors. This is clearly demonstrated by the following example: A “normal” uni-directional operating PIR monitor located in the hallway of a house does not know whether the base station is activated or inactivated. Even for inactivated units (i.e. if people are in the monitored area), the PIR monitor detects the movement and regularly activates its transmitter in order to send the information to the base station. This uses a great deal of valuable battery capacity. Not so with the FAZ 3000 bi-directional monitor! If a unit is activated it is reported to the monitors, which then go into the “standby” state. Even if people are moving around in the monitored area these sensors do not transmit alarms if a unit is in an inactivated state.

If the unit is now activated, there is by definition nobody left in the monitored area, so that the FAZ 3000 sensors that are activated do not transmit any alarms – an operational method that is especially energy conserving.

868 MHz radio technology provides excellent freedom from interference when transmitting alarm and status reports from the sensors and when com-



radio alarm system. This bi-directional system has a second radio path in the opposite direction for each sensor and peripheral device. If the PIR sensor, for example, detects an alarm, it transmits the information via radio to the base station immediately. The base station receives the information and sends an acknowledgement to the PIR sensor, which receives the acknowledgement signal and now knows for certain that the alarm has definitely been received at the base station, which now proceeds ‘as instructed’ (sirens switched on, telephone dialing service activated, etc). If the PIR sensor does not receive an acknowledgement signal from the base station it transmits the “alarm activation message” until the base station sends an acknowledgement back.

Convenient start set:

FAZ 3000-5 START SET

includes:

- FAZ 3000 radio alarm center set,
- FAZ 3000-FB radio remote control,
- FAZ 3000-TF radio door/window detector,
- FAZ 3000-PIR radio movement detector

(all components are excluding batteries)
17-652-19

Optional Components:

FAZ 3000-SI-2 17-651-64

Siren Control to add a siren or flash into wireless alarm system.

**FAZ 3000-TF
17-462-98**
Door/Window Detector for monitoring the entrances in your house.

**FAZ 3000-PC
17-467-39**
Computer Interface for configuration and remote control via PC.

**FAZ 3000-AW-2
17-562-89**
Alarm Dialler to alert programmed members in event of alarm.

**FAZ 3000-SE-2
17-652-09**
Remote Switch to activate the alarm unit via switches and buttons.

municating between the base station and the peripheral devices. This frequency band was chosen deliberately as no continuous signal transmitters are permitted i.e. interference caused by LPDs, radio headsets, radio loudspeakers or amateur radio transmitters are “postally” excluded.

Superhead receivers are built into all components (with the exception of the key ring remote control). Superhead receivers are distinguished by high sensitivity and narrow bandwidth, i. e. the extremely long free field range and the freedom from interference with regard to adjacent radio bands is superbly guaranteed by the use of this high quality reception technology.

Bi-directional radio links between the base station and all sensors and peripheral devices provide a high degree of security for data transfer and high resistance to interference from external influences.

Almost all commercially available uni-directional radio units operate exclusively in one direction as far as the radio path is concerned i.e. in the event of an alarm, the alarm sensors send a signal to the base station, but do not know whether it has actually been received or not. This is not the case with the new ELV FAZ 3000



2/4-channel, surface-mounted wall transmitter, FS20 S4A
Elegant, flat wall transmitter for switching and dimming 2/4 devices, incl. special functions.
Order no.: 17-610-03

FS20 — Radio controlled Home Automation System

The FS20 system brings comfort to the home for little money – it can be expanded practically as necessary, has a modular design and can be implemented everywhere.

Install domestic comfort and security piece by piece, with no need for cable – all the components are radio controlled, operating in the disturbance-free 868-MHz bandwidth with a transmission range up to 100 m.

Begin with an economic installation in the form of a small control application (e.g. a radio controlled dimmer) and expand the system to a complete domestic system according to your own individual needs.

You can control the lighting, ventilators, air-conditioning systems, awnings, blinds – automatically or manually, centrally via the domestic control unit (top hat rail system) or decentrally and flexibly directly at the installation site.

The system has various versions available for the remote control: battery or mains powered transmitter, automatic sensors, control units, programmable timers or remote control via the telephone network.

Both stationary actors are available for fixed cabling and mobile actors can be used as receivers.



2/4-channel mini hand transmitter
Compact key ring hand transmitter for controlling 2/4 functions (switching, dimming, special functions)
2/4-channel hand transmitter, FS20 S4
Order no.: 17-575-64



4/8 and 10/20-channel hand transmitter
Hand transmitter for controlling 4/8 or 10/20 functions (switching, dimming, special functions)
10/20-channel hand transmitter, FS20 S20
Order no.: 17-610-02
4/8-channel hand transmitter, FS20 S8
Order no.: 17-577-92



FS20 PIRI
This programmable, radio controlled motion detector can control two FS20 radio receivers separate from each other. Complete room surveillance by means of corner installation and blind spot protection.
Order no.: 17-612-38



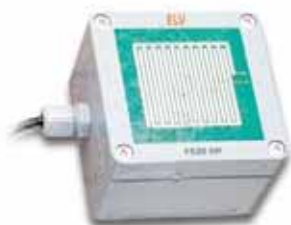
FS20 S4U – 2/4-channel concealed transmitter
A transmitter which can be installed in a concealed socket can be switched by up to 4 external sensors and control FS20 receive devices on 2/4 channels. Operated on 230-V mains power networks.
Order no.: 17-562-10



2/4-channel battery concealed transmitter, FS20 S4UB
Concealed transmitter for location independent connection for up to four installation sensors and control of 2/4 functions. Battery with 10 years service life.
Order no.: 17-566-06



2-channel door/window contact signaling device FS20 TFK
All-purpose contact signaling device, triggered either by two integrated reed contacts (magnetic contacts) or two contacts connected externally. Two channels which can be activated separately. Receiver switching behavior, duty cycle and frequency interval are programmable, as well as the timers of FS20 receivers.
Order no.: 17-652-77



Rainfall sensor FS20 SR with sensor heating
Registers when rain begins and sends switching command on two channels, which can be differently programmed, to the FS20 receiver. Add-on switch output.
Order no.: 17-566-94



Radio controlled dimmer transmitter, FS20 SD
Switches 2 radio receivers independently at programmable ambient light intensity.
Order no.: 17-536-70

Radio controlled thermostat FS20 STR

Programmable room thermostat with integrated temperature sensors for controlling FS20 switching devices. Can be programmed via display and menu, 4 switching times/day, 28 switching times/week, regulation range: 6 °C–30 °C. For cooling and heating operations.
Order no.: 17-613-70



Radio controlled timer, FS20 ZE
Practical radio controlled timer with up to 12 switching times for max. 4 different radio signal receivers.
Order no.: 17-386-62



Radio code lock KeyMatic® CAC

Radio code lock, apart from controlling the door lock actuator „KeyMatic“, it is possible to remote switch up to 2 FS20 devices. Remote switching possible with or without code input.
White
Order no.: 17-577-80
Silver
Order no.: 17-616-60



Radio controlled door bell transmitter, FS20 TK
Compact and all-purpose radio controlled signal transmitter for controlling FS20 receivers. Button cell operated (service life up to 10 years, included in supplies).
Order no.: 17-651-45



Radio switching socket, FS20 ST-2

Compact switching socket, serves as a mobile switching actor for the FS20 systems, operated via radio signal or directly on the device, timer function, switching output 16 A at 230 V AC (3680 VA).

Order no.: 17-577-89



Radio controlled dimmer, FS20 DI-3

Compact FS20 radio controlled dimmer, load up to 200 VA (230 V AC). Operated by radio signal or on the device, timer with slow-on/slow-off function.

Order no.: 17-577-87



Universal signaling device, FS20 SIG

The signaling device can symbolize commands from every FS20 transmitter optically or acoustically. You decide which melody or text message is played back in this case by transferring the corresponding audio file (WAV format) from your PC to the signaling device. Software included in supplies.

Order no.: 17-627-42



Radio controlled surface switch FS20 AS1 and 4-channel radio controlled surface switch FS20 AS4
1/4 consumers with up to max. 3680 VA can be switched independently of one another using these IP-67 radio controlled surface switches.

FS20 AS1

Order no.: 17-623-63

FS20 AS4

Order no.: 17-461-35



Installation radio signal receiver with dimmer, load up to 200 VA (230 V AC). Type DI20-2 for ohm resistive/inductive loads, not suitable for electronic transformers. Type DI22-2 for ohm resistive loads and electronic transformers.

Radio controlled dimmer, FS20 DI20-2

Order no.: 17-527-31

Radio controlled dimmer, FS20 DI22-2

Order no.: 17-527-32



Radio controlled LED lamp, FS20 LED

Lights rooms with five intense LEDs – ideal as energy-saving orientation light. Can be switched by radio signal or on the device. With timer function.

Order no.: 17-573-27



Radio awning controls FS20 AMS and FS20 MS

For automatic or remote control operation of electrically operated awnings and blinds. 2 change-over contacts, switching power max. 2070 VA (230 V AC, 9 A).

FS20 AMS

Order no.: 17-619-29

FS20 MS

Order no.: 17-536-82



Concealed radio controlled switch/dimmer, FS20 SU/DU

For installation in lamps or behind sockets. With timer, dimmer, additionally with slow-on/slow-off

Concealed radio controlled dimmer, FS20 DU, 150 VA

Order no.: 17-562-04

Concealed radio controlled switch, FS20 SU, 3680 VA

Order no.: 17-562-07



Radio controlled blind control FS20 RST

This plug-in radio signal receiver enables remote control of the ECO Roll blind drive unit via the FS20 system transmitter and the FHZ 1000/PC radio controlled domestic control center.

Order no.: 17-498-17

Receiver, FS20 EAM

The FS20 receiver FS20 EAM receives the control signals from the FS20 transmitter and sends them to the FS20 ESH power supply from which it is supplied with power.



Order no.: 17-567-26

FS20 top hat rail system power supply, FS20 ESH

Amplifies the data coming from the FS20 EAM and, as a result, can trigger up to 36 actors via a 2-wire bus. At the same time, the FS20 ESH supplies power to the FS20 EAM.



Order no.: 17-568-28

FS20 top hat rail system switch, FS20 SH

Switches loads up to 16 A (230 V, 3680 VA). With integrated timer function, programmable switching ratio and emergency operation function via button.



Order no.: 17-570-22

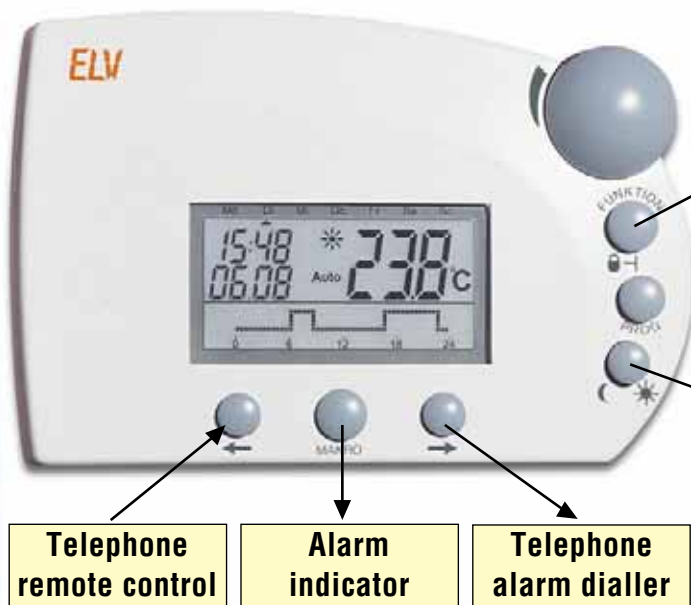
FS20 top hat rail system dimmer, FS20 DH20

Phase-controllable dimmer for connection power up to 200 VA (230 V). For ohm resistive and inductive loads (standard halogen transformer), not suitable for electronic halogen transformer. 3 timers (1 s to 4.5 h, short-term, slow-on/slow-off timer)



Order no.: 17-570-14

Domestic radio control unit FHZ 1000



Controls the whole heating, lighting and equipment system in your house!

The central control unit can control up to 15 FHT 80b room controllers and up to 15 components of the FS20 system, e.g. the FS 20 ST radio switch.

With 4 macro control programmes, complete control scenarios can be programmed over the whole system, e.g. simultaneous starting of the heating, switching on of the outside lights and coffee machine and lowering the venetian blinds.

The control program can be configured individually for each device and a name

can be assigned in plain text (10 characters) for each device and each macro - an easy overview for each!

If required, the central control unit can be controlled remotely by means of the telephone radio remote control.

Faults and alarm conditions, e.g. a failure of the heating, can be forwarded to any telephone using the telephone dialling unit.

Power is supplied by a mains power supply and a 9V block battery. For mains operation, the power is supplied via the wall holder; the central control unit can be removed for easy programming.

FHZ 1000

Programmed data are permanently stored even in the case of power and battery failure.

In conjunction with the radio actuator, the central control unit directly controls the temperature in the room in which it is situated (up to 8 actuators can be controlled).

For controlling the temperature in the other rooms, the central control unit communicates bidirectionally with the FHT 80b room controllers.

Particularly easy to use thanks to the jog dial and illuminated display.

Order no.: 17-478-51



Set FHT 80b room control

The FHT 80b represents the communication module between the radiator actuator and the central control (FHZ 1000/PC, bidirectional data exchange). It enables the connection of up to 15 further rooms in the system. Can be operated without a central control as an autarkic, single room regulator.

Economy set:

1 FHT 80b, 1 radio controlled actuator
Order no.: 17-576-97



Radio controlled switching socket FS20 ST-2

Compact switching socket serves as a mobile switch actuator of the FS20 system, operated by radio signal or on the device, timer function, switch output 16 A at 230 V AC (3680 VA).

Order no.: 17-577-89

Domestic technology control via PC interface – FHZ 1000 PC



The PC as caretaker – security – ease – climate via drag & drop

Build up your own easy-to-use, comfortable domestic technology system – the FHZ-1000 PC system offers all the options normally reserved for modern household equipment control.

Controlled from a graphic and intuitive programmable Facility software, the radio interface issues switching commands to all components within the FS20, domestic hazard warning system HMS 100 or ELV-FHT FHT 80b radio controlled heating control systems, receives signals from the system sensors and links these with the respective tasks, such as alarm signals, etc.

Once programmed, you no longer need to bother about numerous technical

processes about the house, e.g. weather and time related control of awnings, electrically operated ventilation apertures and windows, blinds, lighting, door/gate control, daylight-dependent lighting, precision signals and simulation, room air conditioning and heating control etc. – the PC regulates all the processes independently from now on.

Advantages of the system:

- Modular and economically expandable overall system – no need to make unnecessary purchases
- Programming the system without programming knowledge – using drag & drop
- Complex procedures can be programmed as macros – a click of the mouse, a press on the button of

the FS20 remote control or a switch command triggered by a sensor is sufficient to set complete procedures into motion.

- A constant overview of the entire system through graphical, self-designed user interface
- Controls all the receivers in the FS 20, HMS 100 and FHT 80b system – each device can be integrated as an individually programmable module in a macro, modules can be linked as required, e.g. signal and alarm components
- Remote control or alarm signaling possible in the event of critical states via E-mail or telephone
- For PC systems implementing Microsoft Windows® from 98SE and USB port

Set A:
FHZ 1000 PC interface + software for controlling the FS20 system
Order no.: 17-388-78

Set B:
FHZ 1000 PC interface + software for controlling the FS20 system, the HMS 100 system and the FHT 80b
Order no.: 17-613-03



RM 100 system

The next generation of radio controlled smoke alarms, particularly reliable functioning (application for VdS approval). It operates in conjunction with ELV's HMS 100 domestic control system or ELV's FHZ 1000/PC domestic radio controlled unit. As a result, the alarm can be transferred via telephone when connected to the alarm monitor. Equipped with an additional two-wire interface for connection to cabled smoke alarms.

Order no.: 17-567-94



HMS 100 WD water alarm

Water alarm for diverse use, combines moisture sensor and evaluation/transmission unit in one housing. It is simply placed on the surface to be monitored, the sensor probes touch the surface directly.

Order no.: 17-521-13



Radio controlled signaling device FS 20 SIG All-rounder: LCD, speech or sound clip signals

The power of music: Stores up to 8 different melodies, spoken texts or sound clips (WAV format). These can be assigned to different events reported via the ELV domestic control system transmitters.

- three different signaling modes (optical, acoustic as well as acoustic and optical), ideally suited for signaling in a noisy environment.
- Sound recorder with USB connection
- Flash memory for max. 24.5 seconds recording time
- Reception of up to 16 FS20 transmitters
- Stores received signal calls
- Diverse control options
- Easy installation thanks to Plug'n'Play
- Incl. configuration software, USB cable and 6 preconfigured ring tones
- Can be fully integrated into the ELV domestic control system

FS20 SIG incl. software on CD-Rom and USB cable
(USB-A-on USB Mini connector 5-Pin)
Order no.: 17-627-42



Rain sensor



Magnetic contacts



Doorbell

FHT 80 b single room controller – no mains power or cables needed System-capable and with additional radio door/window alarms

Pleasantly warm + energy-saving

This new type of radio controlled heating radiator thermostat system offers several advantages as compared to conventional thermostats. An individually adaptable weekly program enables heating radiators to be regulated in every room in a house according to personal requirements and needs.

Features

- Max. heating comfort – min. energy consumption
- Thermostat separate from actuating drive, therefore, no measured value falsification (measures in room, not on heater!)
- No mains power or cables -> simple installation
- Controls up to 8 wireless heater thermostats

- Individually programmable day/week programs with clear menu structures
- Simple operation, pre-programmed
- Thermostat can be removed from wall holder via snap-in lock
- Modern design with large display, easy input/query functions using the central scrolling wheel
- High level of efficiency through automatic reduction of the heating temperature in rooms when opening a window or door (e.g. patio doors)
- Up to 4 radio controlled door/window alarms per room, additional or existing contacts can be connected
- **Selection for single room regulation or integration in the FHZ 1000 and FHZ 1000 PC bidirectional, central radio control system**

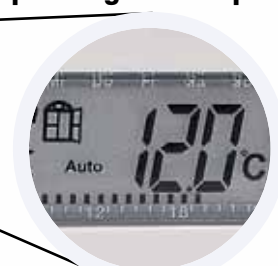


Radio controlled door/window detectors FHT 8 TF

The magnetic contact can be mounted to the right or left of the alarm. It is also possible to connect an external switch (e.g. additional magnetic contact) and to use its contact instead of an additional one. Each change of status is signaled to the room controller.



Status indication per digital display



Automatic temperature reduction
on opening a window



Electronic, radio controlled actuating drive

The system operated by battery power and radio controlled transmission. Therefore, there is absolutely no cable or power connection necessary. Replacing the old valve head with a new actuating drive is incredibly easy and can be completed by people without any specific technical training in just a few operations (no need to drain the water from the radiators). The adapter supplied ensures it is suitable for all common radiator valves.

Please note:

The system cannot be operated with floor heating.

Further features:

- Individually programmable day and night programs – separately for each weekday
- Holiday/Party function for temporary temperature changes
- Weekly limescale protection function prevents the valve blocking
- Frost protection function
- Key input lock to prevent inadvertent adjustment
- Automatic summer/winter time adjustment

Set A:

1 FHT 80b, 1 actuating drive, batteries
Order no.: 17-576-97

Set B:

1 FHT 80b, 1 actuating drive, 1 FHT8 TF, batteries
Order no.: 17-576-98

Additional door/window alarms

FHT 80 TF incl. batteries
Order no.: 17-562-19

WS 200 RADIO WEATHER STATION

The weather at a glance – Willy knows how it'll be!

What do you want from a weather station?

If you need to know how the weather is going to develop at a glance, the new WS 200 from ELV is just the thing!

All the aspects of the weather are shown at a glance - weather symbols provide information on the coming weather, a windsock shows the current wind strength, an analog thermometer the current outside temperature. The current phase of the moon is also displayed. One of the most important aspects for weather forecasting is also provided – a bar graph indicating the air pressure over the past 24 hours. Beside it is a diagram indicating the weather tendency.

But, the weather forecast at a glance is even easier: Weather Willy is in the middle and his cloths reflect the current outside temperature range, his waving (and scarf if applicable to the temperature) indicates the current force of the wind and his umbrella shows a probability of rain. So, just a quick look at Weather Willy and you what the weather is like and how it will be. Dress accordingly, you'll always have the right clothes on.

The outdoor data can sent to the weather station by radio signals over a distance of up to 100 m (free field) from the new profi-combi sensor KS 200, meaning it can be set up practically anywhere outside. It can be assembled as required on various masts or an existing mast, a balcony railing or something similar. Up to 8 radio-controlled temperature/relative humidity sensors ASH 2200-1 (see right of page) can be installed within the weather station reception range.



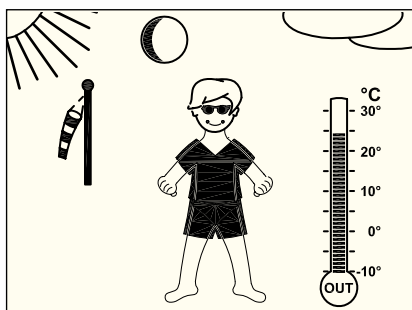
KS 200 with 25 cm stainless steel bar including clamps for fixation on other masts or balcony railing

WS 200

Order no.: 17-575-33

incl. radio sensor KS 200,
clamps, stainless steel bar
(25 cm) and batteries

Weather Willy



Weather forecast

The weather forecast is indicated by the "clothing status" of Weather Willy and by the weather icons (sun, clouds, rain) at the top of the display.

KS 200 combi-sensor with Q3-1 technology

It contains the sensors for outside temperature/relative humidity, the cup anemometer for measuring the force of the wind and the transmitter and batteries. The sensors can be installed or mounted anywhere, even exposed to direct sunlight or precipitation.

Optional accessories:

Sensor mast, for inserting

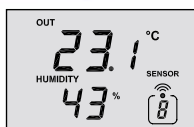
Metal mast (total length 162 cm), made up of three mast parts and connecting pieces. With pointed tip for ground.
Order no.: 17-577-96

Mast clamps for sensor mast

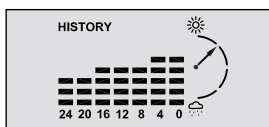
For universal use, to secure the sensor mast on balcony railings, beams (19-30 mm) etc. Material: steel, chrome-plated.
Order no.: 17-588-21



indoor temperature and indoor humidity



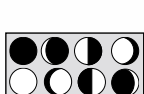
Outdoor temperature and outdoor humidity



Air pressure history, air pressure trend



Wind speed



Moon phase display



Sunrise, sunset, time & date

FEATURES OF THE WS 200 AT A GLANCE

Radio transmission:

868-MHz radio transmission with a range of 100 m (free field)

Temperature:

Up to 9 sensors can be connected, two temperature values are shown simultaneously: 1 x indoor and 1 x optional outdoor temperature, resolution 0.1 °C, accuracy ±0.8 °C, display unit: °C/°F, dew point (indoor) or dew point/windchill display (outdoor), comfort zone indicator for indoor display, temperature range: Indoors: 0 °C to 59.9 °C, Outdoors: -29.9 °C to 79.9 °C, additional outside temperature display via analog thermometer graphic

Relative humidity:

Up to 9 sensors can be connected, two humidity values are shown concurrently, range 1-99 %, resolution 1 %, accuracy ±5 %

Air pressure trend: Display using five arrows (rising, rising steeply, dropping, steeply dropping, no change)

Air pressure history:

Display using bar graph, up to 24-hour tracking

Wind speed:

Optional display in kph, m/s, mph, resolution 0.1 km/h, windsock symbol for light, average and strong winds

Sunrise and sunset:

Adjustable to individual locations

Moon phase:

Moon phase display in eight phases

Time & date:

Quartz clock

Weather forecast:

Weather symbols for: sunny, fair, cloudy, rainy, and Willy's choice of clothing

Memory options:

Min./max. values with time & date

Independent of mains power supply:

Base station 4 x LR6/round cell, sensor 3 x LR3/round cell, battery life up to 3 years (station and sensor)

Housing dimensions (W x H x D):

136 x 198 x 35 mm (without stand)

WS 300 RADIO WEATHER STATION

Willy presents you with the weather

The weather forecast was made yesterday – now here comes Willy. Elegant design, innovative sensor technology, and the weather forecast presented by Willy the weatherman - these are just a few of the features of the new radio weather station from ELV.

It displays not only the weather data but also calculates the weather forecast for your immediate area and registers wind speeds as well as rainfall. It also provides you with other interesting information, such as the current phase of the moon, sunrise and sunset times, weather trends, room climate and more.

To find out quickly what the weather is going to be like, all you have to do is take a look at what clothes Willy is wearing. Whether swimsuit or scarf and umbrella, Willy has over 40 variations for dressing appropriately for the weather just outside your door. As soon as it begins to rain and the sensor detects it, Willy informs you by appearing with an opened umbrella – you don't even have to look outside to know.

The new combi-sensor with mounting mast can be set up anywhere up to a distance of 100 m from the base station without having to lay any cables or drill holes. The ASH 2200-1 sensors for measuring the temperature and relative humidity can be installed in up to 8 additional locations and transmit data via radio to the weather station using low disturbance 868 MHz technology, no cables being necessary.

UNIQUE CONCEPT – FANTASTIC PRICE

WS 300

Order no.: 17-571-95

including KS 300 radio sensor
and batteries

WEATHER WILLY



KS 300 Combi-sensor with Q4-1-technology

Profi-sensor implementing protected temperature-relative humidity sensor, ball bearing cup anemometer and rainfall measuring system with immediate signal of first raindrops. Installation on 2 m mast with pointed end for putting in the ground. Battery change without tools.

ASH 2200-1

Outdoor temperature/
humidity sensor
868 MHz

Order no.: 17-563-20

Weather forecast

The weather forecast is indicated by the "clothing status" of Weather Willy and by the weather icons (sun, clouds, rain) at the top of the display.



FEATURES OF THE WS 300 AT A GLANCE

Radio transmission:

868 MHz radio transmission linking all sensors

Temperature:

Up to 9 sensors can be connected, two temperature values are shown simultaneously: 1 x indoor and 1 x optional outdoor temperature, resolution 0.1 °C, accuracy ±0.8 °C, display unit: C/°F, dew point (indoor/outdoor) or dew point/windchill display (outside), comfort zone indicator for indoor display, temperature range: 0 °C to 59.9 °C, outdoor temperature range (KS 300): -29.9 °C to +79.9 °C

Relative humidity:

Up to 9 sensors can be connected, two humidity values are displayed simultaneously, resolution 1 %, accuracy ±5 %, re. humidity measuring range (indoor/outdoor): 0 % to 99 %

Air pressure trend:

Display using five arrows (rising, rising steeply, dropping, steeply dropping, no change)

Air pressure history:

Display using bar graph, up to 24-hour tracking

Rainfall:

Range 0 to 999 mm, display total since last reset, last 24 hrs. or 1 hr., display in mm, l/m², resolution <0.3 mm

Wind speed:

Optional display in kph, m/s, mph, resolution 0.1 km/h, windsock symbol for light, average and strong winds, wind speed: 0 to 200 km/h

Sunrise and sunset:

Selectable display of individual locations

Moon phase:

Display of the current moon phase in six stages

Time & date:

Quartz clock

Weather forecast:

With weather icons: sunny, fair, cloudy, rainy, and Willy's choice of clothing

Extensive memory options:

Min./max. values with time and date

Independent of mains power supply: Base station 4 round cells, sensor 3 round cells, battery life >3 years (station and sensors)

Housing dimensions (W x H x D):

160 x 220 x 35 mm (stand excluded)



Indoor temperature and indoor humidity



Outdoor temperature and outdoor humidity



Air pressure history, air pressure trend



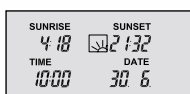
Moon phase display



Wind speed



Rainfall, immediate display on starting to rain



Sunrise, Sunset, Time & date

WS 300 PC PC RADIO WEATHER STATION

This small weather station is packed with weather measuring technology - it stores the received weather data in an internal memory module and displays selectable measured values, the weather forecast as well as the status of the integrated memory module.

The integrated memory allows storage of up to 3400 data records. If memory levels reach a critical stage, the device puts out a warning. The storage interval can be set from 5 min. to 60 min. with a resolution of 1 min.

The corresponding software "WeatherProfessional" assists you in the process of preparing collected weather data for graphic representation. Read-out of data and configuration of the WS 300 PC can be done via the integrated USB interface, configuration using the three buttons on the device is also possible however. The device collects data independently, only for reading out the data (and if display of current weather data is required) is it necessary for the device to be connected to the PC.

The WS 300 PC is equipped with internal sensors for temperature, relative humidity and air pressure, so this weather station does not require an additional indoor sensor. It receives the weather data from the combination sensor KS 200/300 (KS 200: without rainfall display) and up to 8 temperature/humidity sensors ASH 2200/S300 IA.

WS 300 PC

Order no.: 17-627-93
Incl. software
"WeatherProfessional"
and USB cable



S300 IA –
radio sensor
with separate
temperature
sensor.
Order no.:
17-629-36

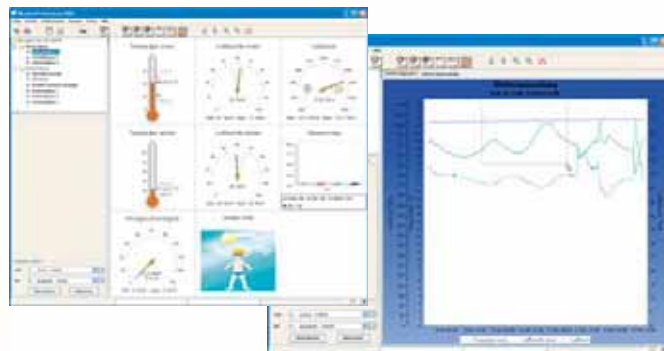


KS 300-2 – the combination sensor
for professional measurement of wind
speed, rainfall, onset of rain, tempera-
ture and humidity.
Order no.: 17-576-15



Weather analysis and visualization software "WeatherProfessional"

High-performance Windows software, using a professional database, reads out the collected and current weather data of the stations WS 300 PC and WS 500 via USB to analyze and visualize this data by means of extensive options for configuration, storage and analysis – including Weather-Willi in color and automatic day/night display.



The most important features of the software:

- Display of current weather data in one of three individually configurable weather displays. Moving the pointer over the display will display additional information as a fly-by text.
- The weather history permits display of weather data as a line chart. It is possible to zoom in on displayed data. As soon as the mouse pointer touches the curve, the data recorded at that particular moment is displayed as numerical values next to the pointer.
- It is possible to save the weather history and the different weather displays as an image (*.png, *.jpg), the weather history may also be printed.
- Weather history data can be displayed as a table, edited and exported (MS Excel). The database allows easy access to data using other programs.
- Comfortable WS 300/WS 500 firmware update via software.

For MS Windows 2000/XP. Supplied on CD-ROM for WS 300 PC/WS 500.

WS 300 features at a glance

* Display only at PC

Radio transmission: 868-MHz radio transmission for connecting up all sensors within 100 m transmission range (free field).

Temperature: a total of 8 further sensors (ASH 2200/S300 IA) can be connected, additionally to the KS 300, resolution 0.1 °C, accuracy ±0.8 °C, display unit: °C, °F*

Temperature range: indoor: 0 °C to 59.9 °C, outdoor: -29.9 °C to 79.9 °C, display of dew point, windchill temperature and comfort climate index at PC
Internal sensor: measures temperature, air pressure, humidity

Relative humidity: a total of 8 additional sensors (ASH 2200) can be connected Range 1–99 %, resolution 1 %, accuracy ±5 %

Phases of the moon: Display at PC
Sunrise/Sunset: Display adjustable according to particular location*

Air pressure: high-precision air pressure display in mbar, measuring range 300 to 1100 hPa, resolution 1 hPa, accuracy ±1 hPa, min./max. memory, air pressure tendency and development*

Rainfall: Measuring range from 0 to 999 mm, display total since period ad-

justable, display in mm, l/m²*, resolution <0.3 mm

Wind speed: Display optionally in km/h, m/s*, 0.0 to 200 km/h, resolution 0.1 km/h

Weather forecast: by weather symbols: Sun, bright, cloudy, rain
Indication by Weather-Willi*

Display:

- two selectable values: Temperature, humidity, air pressure, total rainfall, wind speed
- weather forecast with symbols
- data logger status indication (storage use)

Wide range of storage options:

Min./Max. values with time and date*
PC interface: collected weather data is transferred to the PC via USB, analysis is possible by means of Weather-Professional

Data storage: Storage of up to 3400 data records possible, storage interval 5 to 60 min., resolution 1 min.

Power supply: Via power supply unit, alternatively battery operation possible (4 x LR6/AA round cell), sensor 3 x LR6/AA round cell

Dimensions (W x H x D):

82 x 155 x 66 mm (with antenna)

WS 500 TOUCHSCREEN RADIO WEATHER STATION

The flagship of the new ELV radio weather station series. Sets standards with respect to design, quality and functionality. At an unbelievable attractive price.

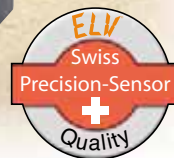
Housing surface with silver metallic finish, base made of noble, hand-polished granite. Also suitable for wallmounting. Swiss precision sensor for measuring air temperature, humidity and air pressure. Weather- and UV-resistant special plastic, stand made of V2A stainless steel.

Because of its internal memory this weather station is also suitable for long-term weather observation, it is possible to store a total of 3000 complete data records in the internal memory. The received data is transferred to the PC via the USB port where it can be prepared for clear visual display and analysis by the evaluation software "Weather Professional" (included in supplies).



WS 500

Order no.: 17-626-40



KS 500 – the professional combination sensor for expert data acquisition of wind speed, wind direction, rainfall, onset of rain, sunshine duration, temperature and humidity.

Radio temperature sensor S500 IA

Radio sensor with separate, water-tight temperature sensor, 868 MHz
Order no.: 17-648-66



Radio temperature/humidity sensor ASH 500

Outdoor temperature/humidity sensor, 868 MHz
Order no.: 17-648-65



WS 500 features at a glance

Radio transmission:

868-MHz radio transmission for connecting up all sensors with 100 m transmission range (free field), periodic sensor search and synchronization

Temperature:

- further 8 external sensors (ASH 500/ S500 IA) can be connected, in addition to the KS 500
- two temperature values are displayed concurrently: 1 x indoor temp. and 1 x selectable outdoor temp.
- Resolution 0.1 °C, accuracy ± 0.8 °C, Display unit: °C, °F
- Dew point indication (indoor/outdoor) or windchill indication (outdoor),
- Temperature range: indoor: 0 °C to 59.9 °C, outdoor: -29.9 °C to 79.9 °C
- Comfort zone indicator, min./max. memory

Internal sensor:

Measurement of temperature, air pressure, humidity

Relative humidity:

A total of 8 additional sensors (ASH 500) can be connected, two humidity values are displayed concurrently: Range 1–99%, resolution 1%, accuracy $\pm 5\%$, min./max. memory

Time/Date:

Quartz clock

Phases of the moon:

Display of current moon phase in six stages

Sunrise/Sunset:

Display adjustable according to particular location

Air pressure tendency:

Display by five arrows: rising, rising quickly, falling, falling quickly, unchanged

Air pressure development:

Display by bar chart, retraceable for up to 24 hours

Air pressure:

Absolute or relative display, measuring range 300 to 1100 hPa, resolution 1 hPa, accuracy ± 1 hPa, min./max. memory

Rainfall:

Measuring range 0 to 999 mm, display total since last reset, current d/h, display in mm, l/m², resolution <0.3 mm, immediate indication at onset of rain

Wind speed:

Display optionally km/h, m/s, 0.0 to 200 km/h, resolution 0.1 km/h Wind cone symbol for different wind speeds

Wind direction:

graphic display by wind rose, resolution 22.5 degrees with indication of fluctuations regarding wind direction or numerical display (resolution 5°)

Weather forecast:

Weather symbols and "Weather-Willi"

Sunshine duration:

Sun symbol during sunshine, display sunshine duration total, current day

Wide range of storage options:

Min./max. values with time and date

PC interface:

collected weather data are transferred to a PC via USB, analysis possible by means of "Weather Professional" software

Data storage:

Storage of 3000 data records possible

Power supply:

Base station via power supply unit, alternatively battery operation also possible (4 x LR6/AA round cell), sensor 3 x LR6/AA round cell, battery service life >3 years (station and sensor)

Dimensions (W x H x D):

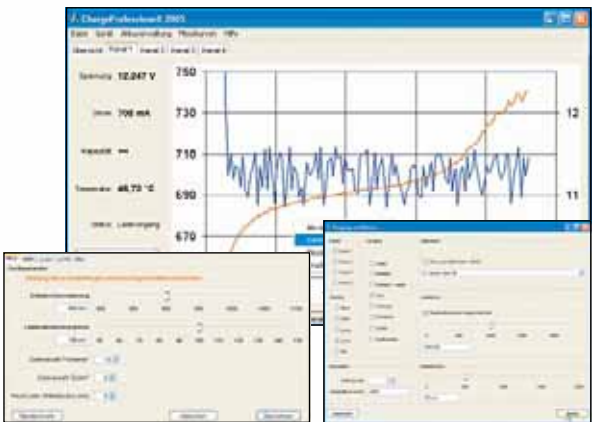
270 x 225 x 29 mm (without stand)

For all modern battery technologies:
NiCd, NiMH, lead acid, lead gel,
Lithium ion, lithium ion polymere



ALC 8500 Expert – Simply the Best

- A total of 4 independent charging channels can be operated simultaneously: 2 channels each with 5 A max. charge current and 5 A max. discharge current 2 channels with 1 A charge current and 1 A discharge current (total, can be distributed as required)
- Max. charge current 30 V (20 cells NiCd/NiMH or 12 cells Pb) at the channels 1 and 2 or 15 V (10 cells NiCd/NiMH or 6 cells Pb) at channels 3 and 4
- 8 charge and service programs incl. battery forming and lead battery activator function
- future-safe for new battery parameters through Flash memory technology
- battery Ri measurement (optional four-wire measuring cable optional)
- battery temperature monitoring (optional measuring cable)
- lead battery activator function



One for all – the new power charger cannot only charge all commercially available battery systems simultaneously, including LiPo batteries, it does very fast on four independent charging channels and operates in a way which protects the batteries.

A newly developed microprocessor-controlled battery management saves battery data individually, compiles it in a database and transfers to a PC via a USB port. The data can be evaluated in detail with the optional "Charge Professional" PC software. You always know the state of all your batteries.

If something new comes onto the battery market – no problem! Thanks to the Flash memory technology, the charging device can fulfill future needs!

ALC 8500 Expert Complete Unit incl. PC software

"Charge Professional"

Order no.: 17-618-23

Four-wire Ri measuring cable

Order no.: 17-577-72

PROPERTIES AND FEATURES:

- 4/3 charging channels to connect 4*/3 batteries/battery sets, simultaneous processing on all 4*/3 channels even for different functions
- Accurate determining of battery capacity, e.g. to select battery packs
- Different charge programs for best possible battery care: charging, discharging, discharging and charging, refreshing, cycles, test/capacity measurement, forming, retention charging after loading
- Support for different battery technologies: NiCd, NiMH, lead acid, lead gel, lithium ion, lithium ion polymer
- Lead battery activator function to prevent sulphate precipitation*
- Integrated battery Ri measuring device (optional four-wire measuring line)*
- Integrated datalogger for recording and storing complete charge/discharge trend characteristics*
- Data retention in the case of a power failure, automatic program start - USB-PC interface for controlling the ALC 8500 Expert and to read out the datalogger (electrically isolated)*
- Display of cell voltage, charge current, discharge current, charged capacity, discharged capacity
- Integrated, temperature controlled fan; temperature protection circuit for transformer and end stage
- Futuristic Flash memory technology – possibility of firmware updates and firmware upgrades
- Easy use through rotary pulse encoder and menu control

* ALC 8500 Expert only

Temperature sensor
Order no.: 17-221-91

Little brother – ALC 8000

The ALC 8000 is equipped with 3 charge/discharge channels and is based on technology used in the ALC 8500 Expert.



Charge channel 1 is designed for up to 20 cells connected in series. Depending on the number of cells, up to 5 A charge/discharge currents are available. The total charge power of channel 1 is max. 40 VA. Channels 2 and 3 are designed for rated battery voltages up to 12 V, the total charge current is 1 A, it can be distributed to the two channels as required. Apart from that, the ALC 8000 is equipped

with the same features as the ALC 8500 Expert but, since it is a cheaper alternative, it is not equipped with the datalogger, lead battery activator and Ri measuring functions and USB-PC interface.

ALC 8000
Order no.: 17-568-46

Technical data: ALC 8500 Expert

No. of charging channels: 4 (2 x 0–30 V max. 5 A, 2 x 0–15 V max. 1 A total)
Rated battery voltage: Channels 1 + 2 max. 24 V, Channels 3 + 4 max. 12 V
Charging current: . Channels 1 + 2 max. 5 A (total charging power max. 40 VA),
Channels 3 + 4 max. 1 A total charge power
Discharge current: Channels 1 + 2 max. 5 A, Channels 3 + 4 max. 1 A
Supports battery technologies: NiCd, NiMH, Pb, Li-ion, LiPo
End of charge detection: Negative voltage difference with NiCd and NiMH,
Current/Voltage curve with lead, lead gel, Li-ion and LiPo
Displays: Graphic display
Operating elements: Buttons, rotary pulse encoder
Special functions: Ri measuring battery, lead battery activator (Channel 2),
Connection for external temperature sensor, integrated datalogger
Interface: USB
Software: Update and upgrade capable via Flash memory using USB
Supply voltage: 230 V/50 Hz
Dimensions (W x H x D): 315 x 204 x 109 mm

PB 500 - Lead battery monitor with activator



Essential equipment for owners of cars, motorcycles, lawn tractors ...

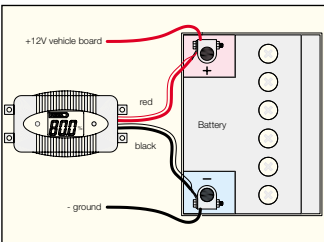
Keeps you informed on the output capacity of your battery so that you can guard against unexpected failure. The integrated activator increases performance and extends service life demonstrably. Easy installation directly to the terminals or the 12-V car or motorcycle battery.



Status display:

- Operating voltage [V]
- Pulse load voltage [V]
- Pulse discharge current [A],
- Battery quality [%]
- Processor controlled automatic temperature compensation
- High discharge current impulse against harmful residues of sulfate for longer battery service life
- Very low closed circuit current consumption (< 1 mA), therefore suitable for "hibernation"
- Discharge protection via battery voltage monitoring
- Suitable for lead accumulators with capacity 4–100 Ah, operating voltage 11 V to 18 V

Order no.: 17-627-91



Technical data: PB 500

Discharge impulse: up to 100 A
Discharge imp. time period: 20 sec.
Discharge imp. duration: ... 100 µs
Closed-circuit current consumption: <1.5/0.5 mA
Operating voltage: 11–18 V
Current monitoring: Cut-off at <10.5 V
Housing IP 65 (W x H x D): 91 x 39.5 x 47 mm



LS 50 - The programmable enhanced-feature soldering station



Simple, fast temperature setting

3 temperatures using up/down switch, or 2 temperatures plus standby temperature, can be preset and retrieved at the touch of a button.

High quality 48W soldering iron



Standby / Auto power-off function

After the programmed period of time has elapsed, the LS 50 automatically switches to the preset standby temperature or switches off completely.

Multifunction display

provides a clear overview of all major parameters on the high-contrast LC display

Offers numerous useful features and excellent user convenience at an affordable price

Order no.: 17-346-20

- Design
- Development
- Production

A call in the case of fire – Radio smoke detector alarm system AW 50

- Smoke detector in slimline design (height only 4 cm/1,6 inch!)
- System extension: up to 16 radio smoke detectors possible

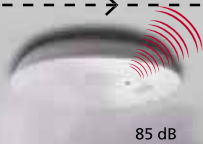


Set: 2 smoke detectors,
1 alarm dialer
Order no.: 17-626-10

• Quick and easy assembly

- Calls up to 3 different telephone numbers
- Transmits individual text messages
- Plain text voice output for smoke alarm and battery warning
- Internal speaker for checking recorded voice messages
- Test operation without dialing alarm possible

Smoke detectors with alarm dialer



telephone
extension



For more information please contact:

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