Instructions for Use

For

FMA02

FMA11

FMA02 / FMA11

Instructions for use

1   Introduction

The FMA02/FMA11 is a complete fencing system, which combines in one apparatus a three weapon signalling unit, a scoring indicator and spectator lights. All functions can be operated directly by the referee by means of a remote control. Whereas the model FMA02 has a LED-Display, the model FMA11 is equipped with a fluorescent electromagnetic Display. The operation and productive capacity of the two is idendical.

2   Features Of Performance

The FMA02/FMA11 combines all necessary fencing and scoring functions in one compact device. In detail the FMA02/FMA11 has the following modules:

2.1   *Signalling Unit*

The FMA02/FMA11 is based on the microprocessor controlled signalling unit for all three weapons from allstar. Changes of the F.I.E regulations can be implemented easily by replacing the program chip.

2.2   *Fencing-Chronometer*

The Count-Down-Chronometer of the FMA02/FMA11, which can be programmed to the minute, has a well readable LED display(FMA02)/ electromagnetic Display(FMA11). At option the fencing chronometer can also be programmed in the way that a hit stops the chronometer automatically. After the programmed time the chronometer blocks the signalling unit so that no other hits can be shown. To release this blockage the RESET -key <23> on the remote control has to be pressed down.

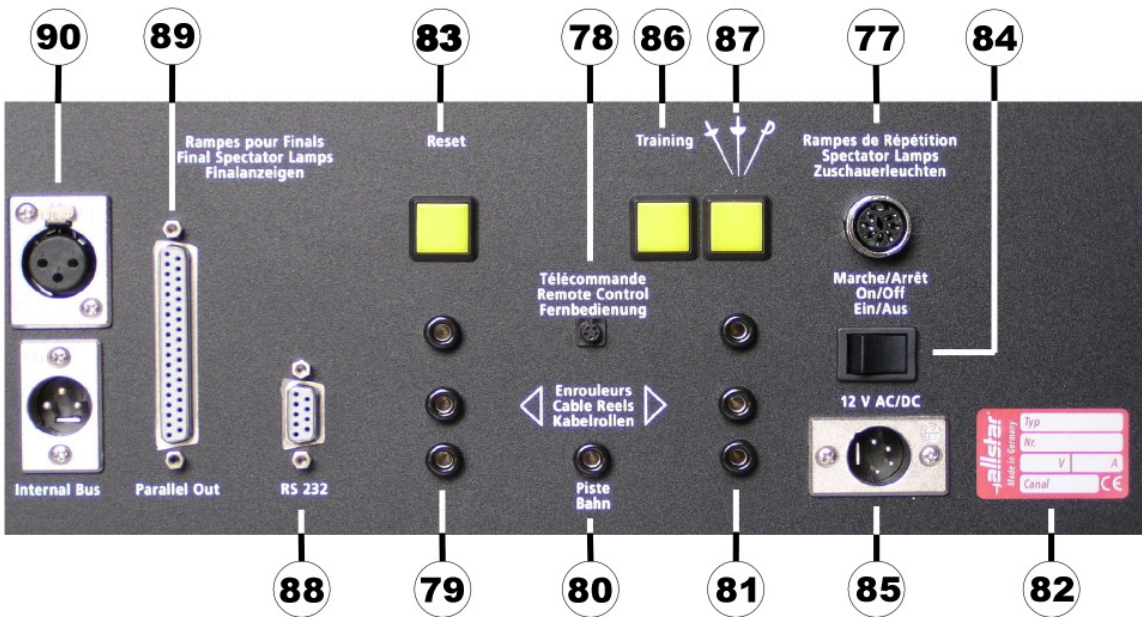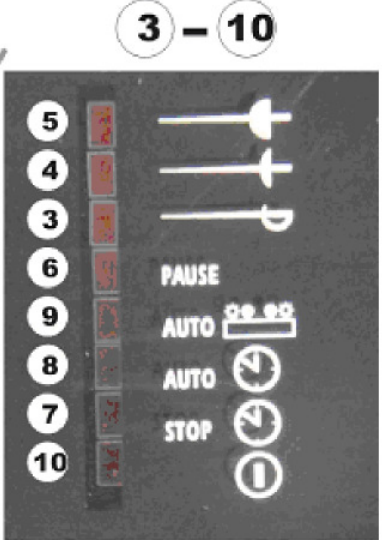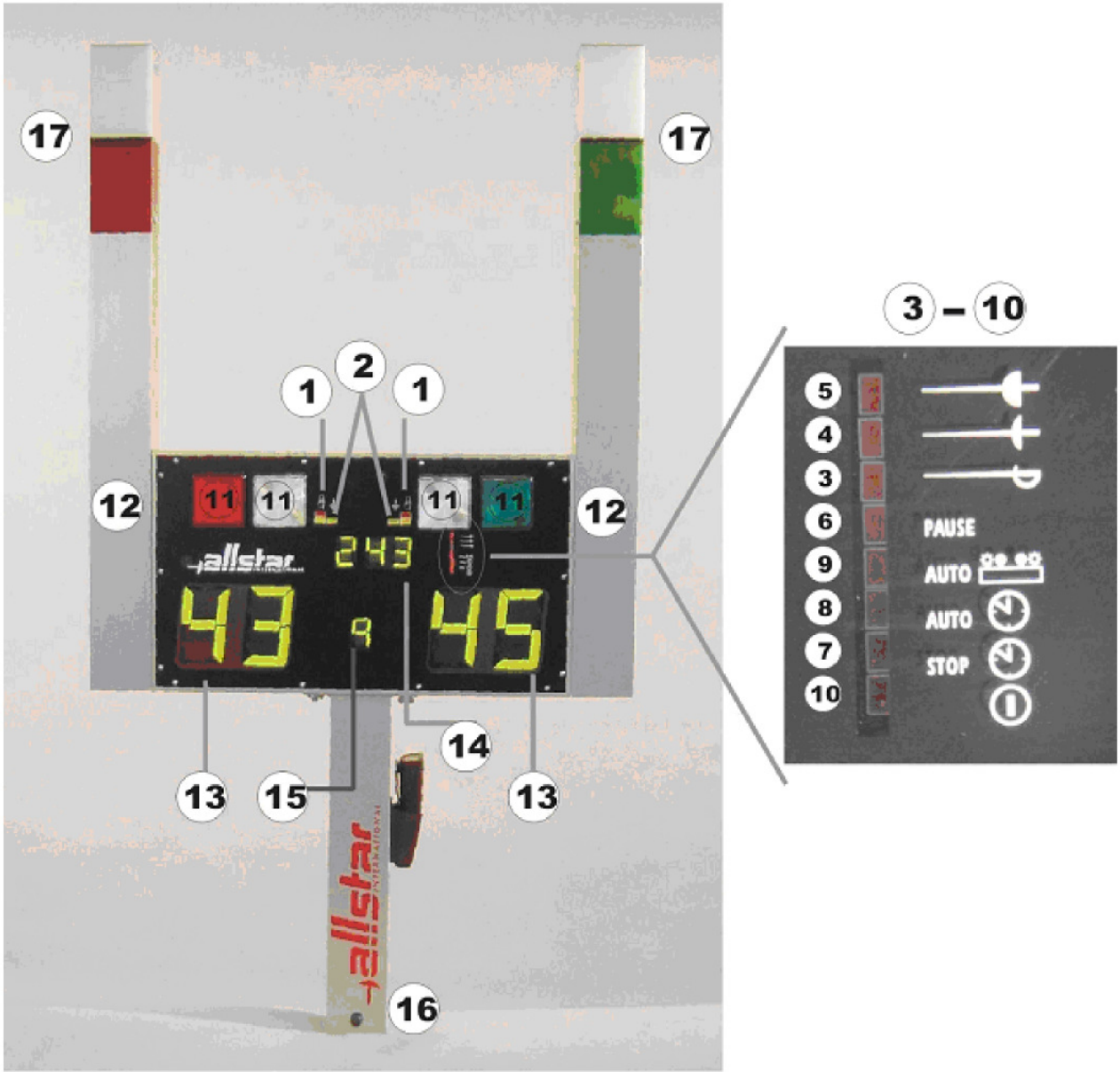### 2.3   *Indication Of Match Number And Score*

The score indication can show 45:45 hits by means of a LED(FMA02)/ electromagnetic Display(FMA11). It is completed by a display that shows the number of the match during a team event and therefore is informing the spectators in the best possible way. Especially the 'change button' <58> on the remote control is very practical. It allows to change the score easily when teams change sides.

2.4   *Remote Control*

The FMA02/FMA11 has a remote control for all functions. You may choose the standard infrared remote control and a radio remote control (surcharge). In case of interfering influences or attempts of manipulation the remote control can easily be connected to the FMA02/FMA11 directly by means of a cable.

2.5   *Plug-On Spectator Lights (Option)*

The FMA02/FMA11 is prepared for use with an integrated set of spectator lamps. Just plug them to the appropriate socket, ready! No further cabling is required.

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2.6 Further Extensions And Options

the standard version includes:
- Connectors for additional external spectator lamps,
- a serial interface (RS232) to send information (timing, score, lamps) to any Computer or any other external display (for example to KABCOM indicator panel)

options (surcharge:
- Connections for additional spectator lights for finals, chronometers for finals as well as for final score panels are available.
- Master/Slave <90> Operation from type index B through internal bus

3 The indicating and operational elements
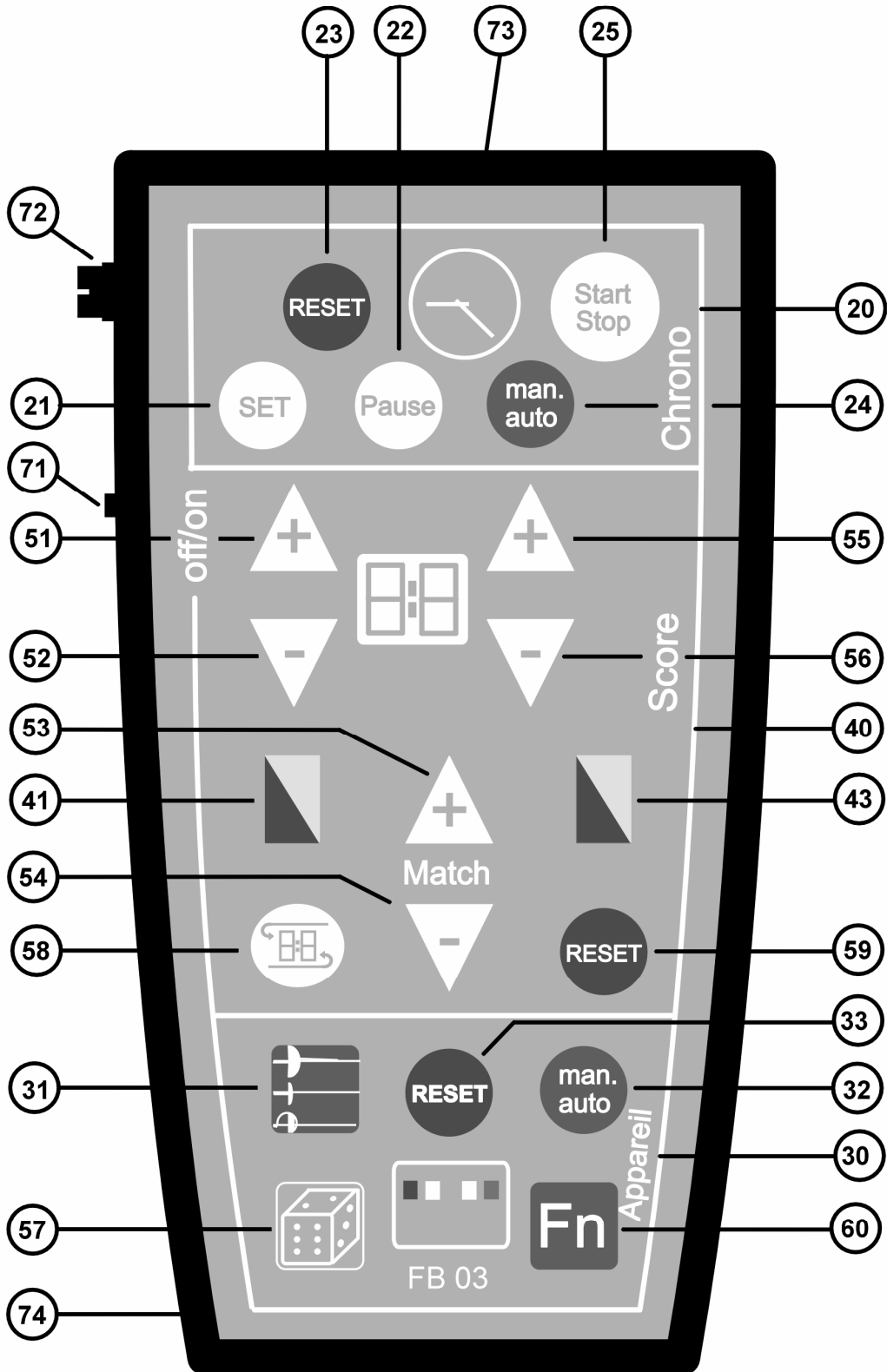
3.1 The front panel of the FMA02FMA11

All indication elements are located in the front part of the device

No.	Functional description
<1>	Warning: yellow card / red card
<2>	epee: grounding lamp foil and sabre: yellow lamp (anti-block system)
<3>	Mode of operation: sabre LED ON: Old Version. LED blinking : New Version T2005.
<4>	Mode of operation: foil LED ON: Old Version. LED blinking : New Version T2005.
<5>	Mode of operation: epee
<6>	Pause / Break (active during 1 min break between matches).
<7>	Chronometer: start / stop Lamp on = chrono off Lamp off = chrono is working
<8>	automatic stoppage of chronometer in case of a hit: lamp on = automatic mode (active after switching on) lamp off = manual mode
<9>	automatic Reset of the signalling unit. lamp on: automatic mode (active after switching on) lamp off: manual mode
<10>	service lamp
<11>	signalling lamps
<12>	connecting sockets for plug-on spectator lights (FMA02-HL / option)
<13>	Score indicator
<14>	Chronometer
<15>	Indicator of the number of matches Individual match: indication of the time segment (1...3) Team event: indication of the match (1...9)
<16>	Table Tripod (FMA-ST / option)
<17>	Plug-on spectator lights (FMA-HL / option)

3.2 The back panel of the FMA02/FMA11

No.	Functional description
<77>	connection for additional external signalling lights
<78>	connection for cable connected remote control
<79>	connection for the fencer on the left side
<80>	connection for the fencing piste
<81>	connection for the fencer on the right side
<82>	Label showing infrared channel
<83>	SYSTEM-RESET: Resets all functions.
<84>	mains switch
<86>	Training mode selector (keep pressed while switching on the FMA02)
<87>	Mode (weapon) selector (see <31> on remote control)
<88>	serial interface RS232
<89>	connections for final displays (option)
<90>	Internal-Bus for Master / Slave operation from type index B

FB 03

RESET

Start
Stop

Chrono

SET   Pause   man.
                auto

off/on

＋   ＋

－   －

Score

＋

Match

－

RESET

RESET   man.
         auto

Appareil

Fn

FB 03

3.3   Remote control

No.	Functional description
<20>	**Keyboard for chronometer**
<21>	SET: (key is only working if chrono is stopped) Preset time. By pressing SET the duration of the match can be chosen (preset). After turning the chronometer on, 3 minutes are preset.
<22>	PAUSE: 1 min break (key is only working if chrono is stopped). Sets chrono to 1 minute and starts it. Can be interrupted with <25> and set to preset time <23> at any time.
<23>	RESET: (key is only working if chrono is stopped) After the match the chronometer is reset to the preset time.
<F>+<24>	MAN / AUTO: *This key will only work, if the <F>-key <60> is pressed at the same time* Change-over between automatic and manual stoppage. The chosen mode is indicated on display <8> of the main device.
<25>	START / STOP By pressing once, the chronometer starts (display <7> off) By pressing once again the chronometer stops (display <7> on)
<30>	**Keyboard for the functions of the signalling unit**
<F>+<31>	Mode (weapon) select*: This key will only work, if the <F>-key <60> is pressed at the same time*. By pressing the mode select key together with <F> the device changes between epee, foil and sabre. The chosen mode is indicated in display <3>, <4> or <5> of the main device.
<F>+<32>	MAN / AUTO: *This key will only work, if the <F>-key <60> is pressed at the same time* Change-over from the automatic to the manual stoppage of the signalling lights. The chosen mode is indicated in display <9> of the main device. The automatic mode is active after switching on.
<57>	Dice: random generator to draw lots for priority.
<60>	F-KEY: The keys <24>, <31> and <32> will only work, if the F-Key is being pressed at the same time.
<33>	RESET: manually resets the signalling lamps.
<40>	**Keyboard for warnings and indication of score**
<41>	red y ellow card - fencer on the left side
<43>	red / yellow card - fencer on the right side
<51>	Score left side + 1 hit
<52>	Score left side - 1 hit
<53>	Number of match + 1
<54>	Number of match - 1
<55>	Score right side + 1 hit
<56>	Score right side - 1 hit
<58>	CHANGE: Change of sides of the score (team event)
<59>	RESET: Zeroizing of indication of score <13> and number of match <15> as well as the warning lights <1>
	Other functional elements
<71>	ON - OFF battery switch
<72>	plug to connect remote control by means of a cable. Plug other end to <78> on the back of the main device.
<73>	Infrared Transmitter: For perfect transmission of infrared signals, make sure that there are no objects between the transmitter and the receiver(s) in the main device.
<74>	Battery: (back side of the remote control)

- Attention: Some 'dangerous' keys will only work, if the <F> key is pressed at the same time. In these cases the keys on the remote control are identified with an additional <F>. The green button marked "FN" is used for this purpose, the control buttons are green as well.
- Please switch off the remote control with <71> in order to avoid further consuption of the battery.

4 Operating instructions:

4.1 *How to connect the FMA02/FMA11:*

The FMA02/FMA11 can be line powered by means of the transformer or can additionally be combined with a battery (car battery 12V, 60AH). When using the combined version it is guaranteed that in case of a power failure all signalling and chronometer functions are still operative - according to the FIE regulations.

4.1.1 line powered operation:
- check if the supply voltage corresponds to voltage of the transformer. (see plate on transformer)
- plug transformer cable in back of FMA02/FMA11 <85>
- connect transformer to power outlet.
- turn on mains switch <84> on back of FMA027FMA11
- by pressing the 'training' key <86> when switching on the FMA02/FMA11, the training mode (displays not working) is active.

4.1.2 Combined mains and battery operation:
- check if the supply voltage corresponds to voltage of the transformer. (see plate on transformer)
- plug combi cable (optional) in back of FMA02/FMA11 <85>
- connect transformer with power outlet
- connect clamps of battery cable with battery (observe polarity)
- turn on mains switch <84> on back of FMA02/FMA11
- by pressing the 'training' key <83> when switching on the FMA02/FMA11, the training mode (displays not working) is active.

4.1.3 Activating the remote control channel:
- All signalling units FMA02 and FMA11 with the appendix A.C.R. (Auto-Remote-Control) are equipped with the new remote control administration ARC. This means that those devices can be programmed to any allstar-remote control.
- Procedure: Switch on both devices
- Hold key "86" on the back of the signalling unit
- Now press any key of the remote except one of the green keys. Hold the remote control torwards the signalling unit.
- The signalling unit confirms the receipt of the remote address with a short signal and is now operational with the new remote control.

The remote control programmed last remains saved when switching off the device. Also the operational mode (foil / eppe / sabre) as well as the competition time remains saved.

4.1.4 Master /Slave operation:
- Devices with the bushing internal bus on the back can be connected with a 3 pole bus cable. One signalling unit is the master devivce with all signalling functions. The connected signalling units are only used for additional display of hits and scores.
- The devices are all connected with a bus cable. An end plug has to be plugged into the empty bush of the first and last device of the loop.
- Once all devices are connected the device switched on first is registered as the master. The following devices are used as additional display without the signalling function.
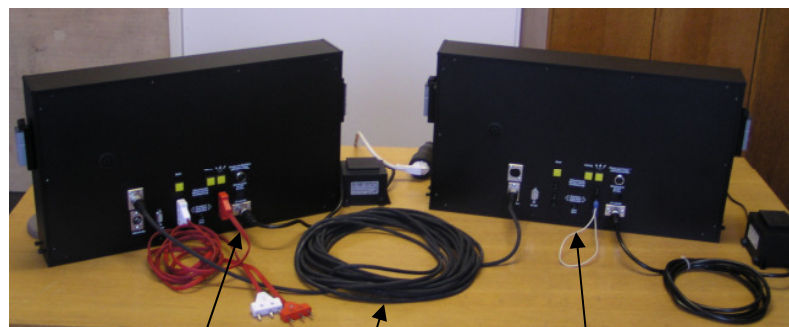- The end plug set (FMA-MS AS) and the bus wire (FMA-MS VK10) can be ordered at allstar.

4.1.4.1 Wiring of Signalling Units FMA 02 und FMA 11 for Master/Slave function with reversed display of slave unit

Only possible with software MLFS 2.5.0 resp. MKFS 2.5.0
(see label on E-Prom or processing unit)

Slave-unit front view
reversed signal

Master-unit front view
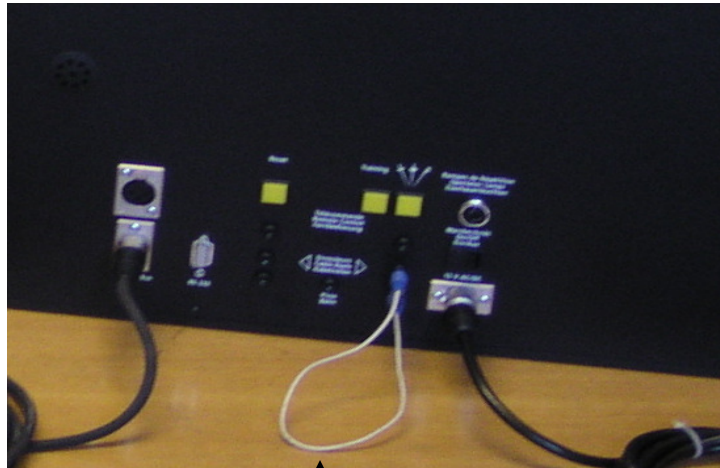original signal

Master-unit from the back

Slave unit from the back

Cable 3 poles with XLR connectors
Order number FMA MS 15

Master Unit back side with cables for fencer

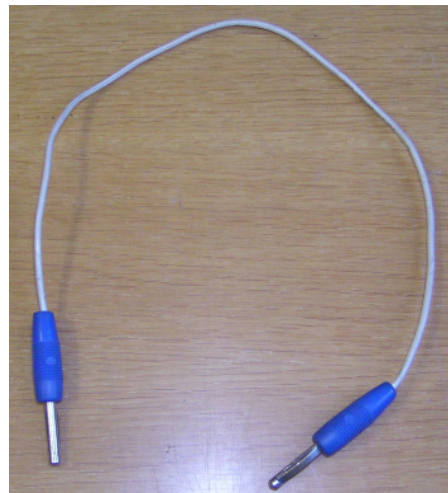Slave-unit back side with short-circuit cable for reversed display

short-circuit cable with 2 plugs

Cable with 3 pole XLR connectors
Order number FMA MS 15

Short-circuit cable

4.2 How to use the remote control

The FMA02/FMA11 is provided with an infrared remote control and is matched for the according FMA02/FMA11. For this reason please check for the correspondance of the remotecode of the FMA02/FMA11 <82> and the remote control itself. (see back of case). There is no channel number on the ARC devices.

For using the remote control you need a battery (9V block). Every signal of the remote control is confirmed by a 'beep' of the signalling unit. In case the FMA02/FMA11 does not react on these signals you must change the battery.

Please note, that the remote control will only work properly, if there are no obstacles between the transmitter <73> and the receivers in the signalling unit.
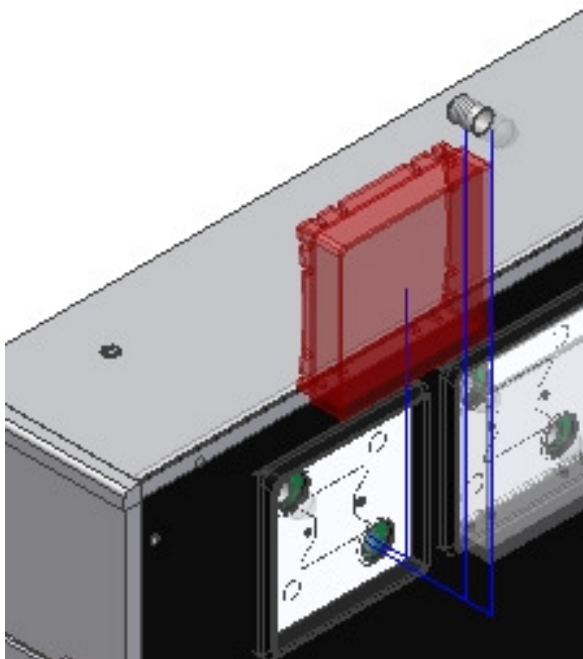
Alternatively the remote control can directly be connected with the enclosed cable at the input <78> of the central FMA02/FMA11 which is marked with „Remote control". The reception of remote signals is herewith interrupted. Through this method a disturbance of the FMA02/FMA11 by any infrared signals can be avoided.

Important note:
Before you connect the remote control directly to the FMA02/FMA11 by means of the cable, always turn off the FMA02/FMA11. Otherwise a system crash may occur.
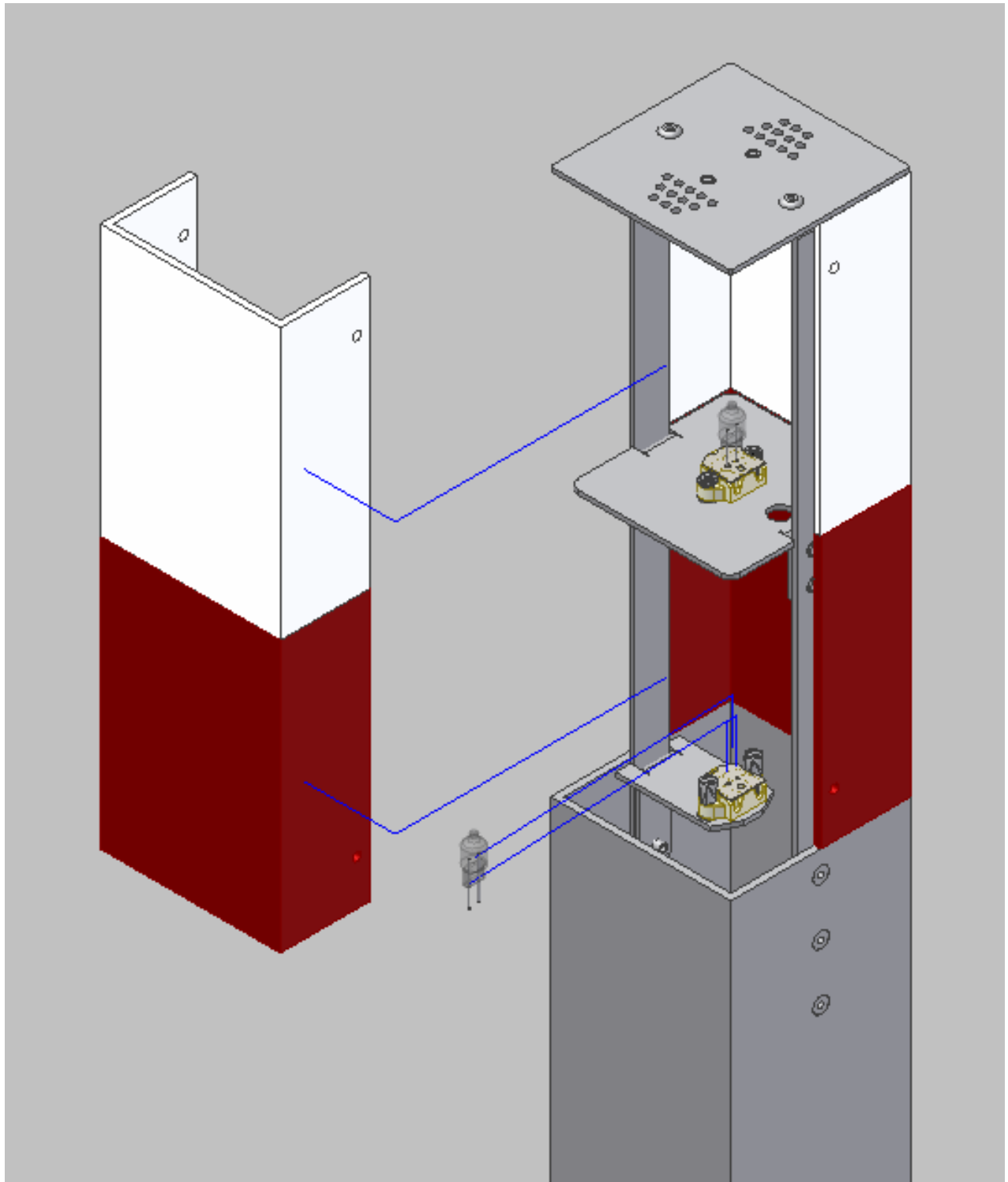
4.3 How to exchange the bulbs <11>

- pull out mains plug, pinch off battery.
- remove lamp covering carefully.
- exchange bulbs

4.4   How to exchange the bulbs of the Spectator Lights <17>

- unsrew plexiglaas cover (4 recessed screws)
- exchange lamp max. 12V 5W

4.5 How to exchange the battery at the remote control

in case the power of the battery abates, first of all the working distance of the remote control sinks and finally there will be no function. As soon as a remarkable detrating of the working distance can be recognized the battery of the remote control has to be exchanged.

- Unlock and lift battery Compartment on the reverse.
- exchange old battery by a new 9V-block-battery.
- the use of recharged accumulators cannot be recommended.

4.6 Using the FMA02/FMA11 with different supply voltages

- The FMA02/FMA11 can work with any supply voltage by means of the appropriate transformer. Please only use original transformers of the manufacturers
- never connect the FMA02/FMA11 directly (without transformer) to the power outlet.

5 Service Information

In case you need more information or help, we are always at your disposal. Generally the FMA02/FMA11 should only be opened for repair by a specialist. Before sending in the FMA02/FMA11 for repair, please contact one of the below mentioned companies . The problem might be solveable this way.
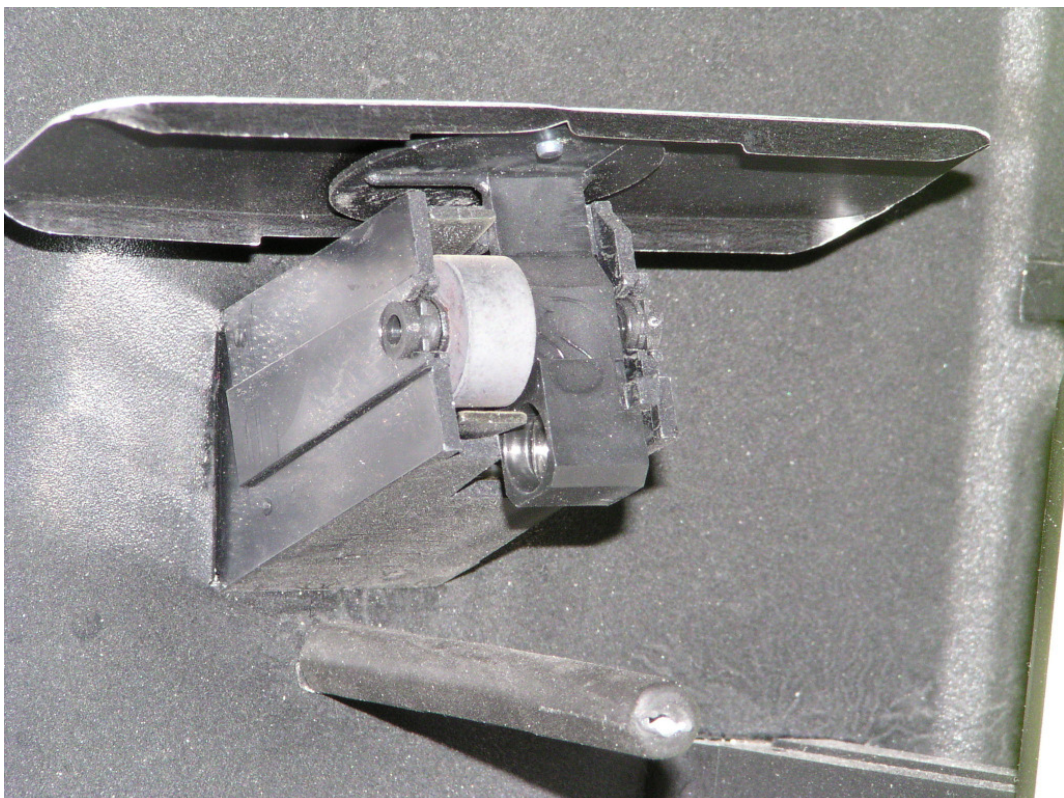
Important specification for diagnosing errors:

For further inquiries please mention typ of device and it's serial number (e.g. FMA11 and 2001xxx) which is stamped on the identification plate .
Behind the red indication light you can find the Software Version and the board type.

Attention

In case of failures at the hinged segments never apply lubricants.

6   Guarantee:

We grant one year guarantee from the invoice date on components and work. Transport costs are at the expense of the customer. The following items are excluded from the guarantee:

- commodity goods (lamps, batteries ...)
- inexpert repairs
- inexpert operation
- rupture of FMA02/FMA11
- connection of supplementary apparatus which are not authorized by the producer

7   Service Information

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allstar Fecht-Center GmbH & Co KG
Carl-Zeiss-Str. 61
D-72770 Reutlingen
Tel 07121 / 9500-0
Fax 07121 / 9500-99
info@allstar.de
http://www.allstar.de

Attention New function for signalling units FMA 02 and FMA 11

New adjustment for foil/epee/sabre

Starting from software version MFLS 2.5.0 and MKFS 2.5.0 (18.07.2007) the signalling units are set for >epee<, >foil T2005< (LED blinking) and >sabre T2005< (LED blinking).

1. To set the system to the old version for foil and sabre before 01.10.2004 (before T2005) please press the training button on the back of the signalling unit when 2005 is indicated on the scoring display until you hear a tone and the LED stops blinking. The unit is now set to foil and sabre function before 01.10.2004 (before T2005).

2. After turning off the unit or pressing the reset button <83> the basic setting is reset again to T2005. To return to the before T2005 settings please repeat step 1.

New remote control system A. R. C. – Auto-Remote-Control

FMA 02 and FMA 11 have a new remote control system A. R. C. – Auto-Remote-Control. This allows adjustment of the unit to each allstar - remote control. Please go on as follows:

1. Keep pressed "training"-key on the back side of FMA
2. Keep pressed any key of the remote control (it should be oriented towards FMA)
3. FMA confirms receipt of the new remote control address

The FMA unit can be used with this remote control until a new one has been programmed. The FMA can even been turned off.

Master-Slave Function - Laterally reversed slave units

When installing slave units in front and behind the fencing piste the slave can be used laterally reversed. Then the fencer-bushings 79 and 81 of the slave should be short cut. The two blinds 11 of the valid hits have to be changed.