

FMA21

Signalling Unit with Touch Screen and Remote Control (FIE approved)



Description

The FMA21 is a fully FIE approved signalling unit for all 3 weapons incorporating all the latest FIE requirements. It is equipped with an integrated embedded industry PC and an easy to operate touch screen. The advanced design ensures a clear easy to read display of all relevant information. The unit also incorporates connections to peripheral units such as displays, result management, video refereeing system etc.

The FMA21 is operated by touch screen or remote control. The new RC system has much better range than previous models. Software up-dates for required FIE rule changes or the addition of new functions etc., are all done via the integrated USB-interface eliminating the need for chip changes.

Together with our range of accessories, such as stand and repetition lights, both of which can be easily attached to the main unit, makes the FMA 21 the most capable and sophisticated signalling unit available.

The FMA21 has among many other competitions successfully been used in the World Championships in Paris and Catania as well as the Junior World Championships in Jordan and Moscow.

Touch-screen display

All relevant information is shown on the 22" (55,8cm) TFT-Touch screen, which can also be operated with gloves. The functions on the screen can be adapted to suit your particular requirements.

The following information is displayed on the screen:

- Valid and non-valid hits.
- Name, photo and national flag of the fencer (in connection with result management system e.g., Ophardt).
- Score.
- Time.
- Match number.
- Piste number for use with results management system e.g., Ophardt.
- Yellow, up to 15 red cards and black card.
- Number of remaining video-proofs for use with video refereeing system e.g., Swiss Timing.
- Yellow blocker lamp for foil as well as red earth lamp for epee.
- Multi-lingual menu.

Connections

FMA21 has a wide range of communication interfaces which allow a smooth connection to peripheral units:

- **1 x RS485** by XLR 3pol. male and female
for the communication with allstar peripheral units like repetition lights, external chronometer, slave unit, podium lights etc.
- **1 x RS232** by Sub-D 9pol male
- **1 x RS422** by Sub-D 9pol female
Transmittance protocols as well as transmittance standards can be selected on one of these 3 interfaces, e. g. for the data exchange with screens (Kabcom, SwissTiming), Video-refereeing system and others
- **1 x Ethernet (LAN)** by RJ45
Connection to result management, remote set-up and –control of FMA21, network based up-date of firmware and possible connection to remote signalling units.
- **1 x USB**
for firmware up-dates without exchanging the chip (FIE up-dates, new functions etc)
- **1 x VGA**
to connect an external monitor/screen

Performance characteristics

FMA21 possesses some innovative performance characteristics. Most of them are available in no other signalling unit:

- Intuitively, multi-lingual user guidance and help functions via touch screen.
- Profile management with free adjustment for many parameters and design options. Design features can be defined by the profile management as well as certain communication protocols be put on serial connections.
- Name, photo and nation flag are shown on the display (in combination with result-management-network)
- Number of remaining video proofs
- Display of up to 15 red cards and the black card
- Re-set of the remaining time on the second (e. g. after operating error)
- Save of the last four scores with time and the possibility, to recall them on the touch screen (required after operating error or false reset)
- Medical and technical assistance can be requested from TD via the touch screen (with LAN-connection in combination with result-management-network)
- Remote configuration and –control of all units in one fencing hall by TD (with LAN-connection in combination with result-management-network)
- Three special modi to connect wireless fencing system “Wireless 2000”
- Up-dates and up-grates by software without changing the chip (by USB-connector)
- Intelligent repetition lights: When fencing on one piste and with one signalling unit the repetition lights show the signals of the unit on the front and the back side. When fencing on two pistes with 2 units the repetition lights show the signals of one unit on the front side and the signals of the second unit on the back side.
- Wear-free lights (no bulbs) therefore no bulb change required
- Right-to-left reverse is possible without changing the lamps (this is required when using a second slave-unit on the back side)
- Power supply with 12 V. External medical power supply for 110 – 240V.
- Up to 3 power sources (battery, UPS, ...) can be used at the same time.
- Connection of UPS by RS232 and RS422 is possible to show power failure.

Included in delivery

- Signalling unit with integrated embedded industrial PC and 22“ touch screen-Display
- Infra-red remote control
- Power supply 110-240 V input voltage (according to medicine standard)
- Instruction manual

Additional accessories

Peripherals for FMA21 (also suitable for FMA03:

FMA21-STS / FMA21-STS2

System table stand (single or double-sided)

to put the FMA21 on a table and to attach the repetition lights.

On one stand there can be fixed one or two FMA21, when fencing on one or two pistes. The repetition lights are clipped on the stand. No further cables are required. There is only one repetition light required for one stand.



FMA21-SBS / FMA21-SBS2

System-Floor stand (single or double-sided)

as table version, but to be put on the floor. All further details as FMA21-STS.



FMA21-HL

Repetition lights

The repetition lights are clipped on the table stand or the floor stand, no cable is required. Only one set of repetition lights is required even when fencing on 2 pistes and using 2 FMA21. The intelligent repetition lights control recognizes whether there is one or two FMA21 attached. In case of just one FMA21 the hits are shown on the front and back side of the repetition lights. In case two FMA 21 are attached the hits of one FMA21 are shown on the front side and the hits of the second FMA21 on the back side.



FMA21-TK

Transport Case

flight-case for transport and storage of 1 x FMA21, 1 x FMA21-HL, 1 x FMA21-STC, power supply, remote control and piste cable.



FMA21-TK2

Transport Case

flight-case for transport and storage of a complete set for double piste with floor stand: 2 x FMA03, 1 x FMA21-HL, 1 x FMA21-SBS, power supply, remote control, piste cables, floor cables, cable reels and UPSs.



FMA21-KF

Folding Stand

simple stand to hold the FMA03 or FMA21 when Spectator lamps are not needed (for example when used as slave machine)



FMA21-AMW3

Trolley

The trolleys are of lightweight construction with 4 swivel rollers, two of which can be fixed for easy steering and positioning. Each trolley can be fitted with either one or two signalling units. When fitted with 2 signalling units they allow one trolley to be positioned between two adjacent pistes taking up the minimum of space. All wiring from the signalling units and cable reels is contained within the trolley. The side panels of the trolley are removable for access to store other items of equipment. Additionally half the bottom panel can fold to allow easy and tidy connection of the floor/spool cables, the other half acting as a built in shelf to store cable reels etc. Repetition lights for the FMA21 type signalling unit can also be stored inside the trolley in a special compartment, which is ideal for storage and transportation.



General peripherals (also suitable for FMA02, FMA03 and FMA11):

FMA-USV
Unbreakable Power Supply (UPS)



FB03a
Remote Control for FMA02/03/11/21



FB-VK5
FB-VK30
Cable for remote control (5m / 30m)



FMA-MS2,5
FMA-MS20
Master / slave cables (2,5m / 20m)
to connect a Master signalling unit
(FMA02//03/11/21 with one or more Slave
signalling units (FMA02/03/11/21) via the allstar
serial bus.



FMA-KK
Battery Combination Cable
For parallel use of battery and other power
sources



Network peripherals

The FMA21 can show its full performance characteristics when used in a network environment together with a Cyrano-compatible Result-Management-System (such as Ophardt-Team Result Management)

FMA-PK1 (1 m)

FMA-PK2 (2 m)

FMA-PK15 (15 m)

Patch Cable (1 m / 2 m / 15 m)

Ethernet cable (Cat 6 or higher) to connect the FMA21 to a switch or other LAN devices.



FMA-LK50

LAN (Ethernet) Cable 50m on spool

Professional very solid LAN Cable with Neutrik EtherCON connectors. Delivered on a "Schill" spool.



FMA-LKV

LAN EtherCON extension adapter (Neutrik)

Allows you to plug together LAN cables with or without EtherCON connectors.



FMA-SW16

Switch (16-port)

Professional 16-port switch in a very solid flight case.



Subject to technical changes for product improvement. Some of above mentioned performance characteristics might be available only by software changes (free of charge) later on.



„Team“ screen



Front view
2x FMA21 + FMA-HL +
FMA21-SBS2



Lateral view
2x FMA21 + FMA-HL +
FMA21-SBS2



„Individual“ screen
FMA21 + FMA-HL + FMA-STS1

Price List FMA21 and accessories

Art.-Nr. /Ref.	Bezeichnung / Description	€ net	€ incl. 19% V.A.T.
FMA21	Signalling unit with touch screen, remote control and power supply	2.932,77	3.490,00
<u>Accessories for FMA21 (also suitable for FMA03)</u>			
FMA21-HL	Repetition lights for FMA21/FMA03	579,83	690,00
FMA21-KF	Folding Stand für FMA21/FMA03	44,54	53,00
FMA21-ST5	System-Table stand for FMA21/FMA03 – one-sided	294,12	350,00
FMA21-ST52	System-Table stand for FMA21/FMA03 – double-sided	378,15	450,00
FMA21-SBS	System-Floor stand for FMA21/FMA03 – one-sided	546,22	650,00
FMA21-SBS2	System-Floor stand for FMA21/FMA03 – double-sided	630,25	750,00
FMA21-TK	Transport case for one FMA03 and complete accessories for a single piste with table stand	579,83	690,00
FMA21-TK2	Transport case for 2 FMA03 and compl. accessories for a double piste with floor stand.	1.420,17	1.690,00
FMA21-AMW3	Trolley for FMA21	1.197,48	1.425,00
<u>General accessories (also suitable for FMA02/03/11)</u>			
FMA-USV	Unbreakable Power Supply (UPS)	117,23	139,50
FB03a	Remote Control	205,89	245,00
FB-VK5	Cable for remote control 5m	37,40	44,50
FB-VK30	Cable for remote control 30m	57,99	69,00
FMA-MS2,5	Master-/Slave Cable 2.5m	32,78	39,00
FMA-MS20	Master-/Slave Cable 20m	57,99	69,00
FMA-KK	Battery Combination Cable	49,58	59,00
<u>Network (Ethernet) accessories</u>			
FMA-PK1	Ethernet patch cable RJ45, CAT6, 1m	3,28	3,90
FMA-PK2	Ethernet patch cable RJ45, CAT6, 2m	4,63	5,50
FMA-PK15	Ethernet patch cable RJ45, CAT6, 15m	26,90	32,00
FMA-LK50	CAT6 cable with EtherCON connector on spool 50m	394,12	469,00
FMA-LKV	LAN EtherCON Neutrik extension adapter	24,12	28,70
FMA-SW16	Professional 16-port Switch in flight case	629,84	749,50



Offizieller Ausrüster
Official supplier
Fournisseur officiel



... und viele weitere.
... and many more.
... et beaucoup plus.