ptx MFB

Manual

Dear client

Thank you very much for buying the German engineered digital PTX ignition system. We are very pleased you made the decision to use our products.

Pyrotronix Show Control Systems assures you state of the art equipment with components designed for reliable performance indoor and outdoor. The rugged components of the PTX system offers the firework-designer enormous set up possibilities as well as an easy and simple work flow from the show script till the set up.

Please note that all manual as well as all screen displays, keyboard layouts, hardware descriptions or software are subjects to copyrights and other intellectual property rights of PYROTRONIX Show Control Systems GmbH, Germany.

Contents

1 General Safety Instructions

The correct order of setting up and connecting **ptx system** is mandatory for every user in order to achieve the highest degree of safety. At the beginning of the setting up process please ensure that the control panel key is with the responsible person.

ptx system must only be operated with original equipment and accessories manufactured by Pyrotronix Show Control Systems, Germany. The use of non-original equipment may result in the malfunction of the ptx Ignition System. Misuse of **ptx system** may lead to property damage or personal injury. **ptx system** is designed for professional use only.

Professional fireworks/pyrotechnic operators shall only use the system in a controlled professional environment permitted by the authority having jurisdiction. **ptx system** shall only be used to ignite pyrotechnics and fireworks. Connecting components or effects to the system is only allowed, when no power source is connected to the system whenever you are setting up, connecting or adding components or effects.

This also applies to every kind of work with fireworks/pyrotechnic devices.

Before using **ptx system** and effects in public places, the necessary notifications/ permissions must be obtained from the responsible authorities. When working in close proximity to people, staging, scenery or similar things it is very important that safety standards be closely followed. Familiarity with, staging, scenery, or similar things is necessary to maintain appropriate safety standards.

Smoking and open flames or lights shall be banned in the pyrotechnic/fireworks area. You shall be familiar with the fire alarm, detection and suppression systems.

Observe the safety instructions in this manual. Observe the safety instructions of the fireworks/pyrotechnic effects and respect the recommend safety distances. The operating technician must have an unrestricted view to the firing position as well as to the whole fireworks/pyrotechnic area. Never put your face or other parts of your body over fireworks/pyrotechnic effects with armed ignition boxes. Maintain the appropriate distance of separation for the effect or firework being used **ptx system** gets powered.

The specific procedures pertaining to the use and operation of **ptx system** are outlined in the user manual. Deviation from any of the procedures outlined in this manual are specifically forbidden and not recommended by Pyrotronix GmbH. Any deviations to the procedures as outlined in the user manual may result in property damage or personal injury.

Any deviations to the procedures as outlined in the user manual is considered a misuse of the system and done so at your own risk.

PYROTRONIX Show Control Systems GmbH Germany cannot be held responsible for any harm caused by the misuse, improper electrical connection, failure to properly maintain, improper handling of pyrotechnics and fireworks or deviation from the procedures outlined in **ptx system** user manual.
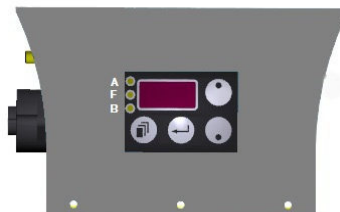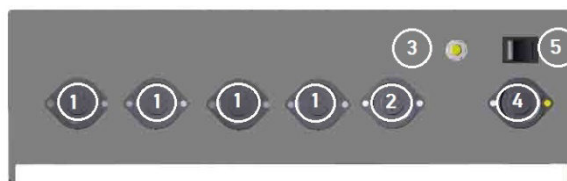
2   Description ptx MFB

ptx MFB (**M**ulti **F**unction **B**ox) is a device with 4 different function.

1. Smart splitter with 1 ptx Data Cable input and 4 ptx Data Cable output.
2. Battery pack for independent power supply
3. Radio receiver
4. DMX output, it is possible to control up to 120 different DMX devices. (DMX control is only possible in combination with ptx C4)

3   Handling

ptx MFB is equipped with a programmable display, address and frequency can be set and battery capacity will be shown.

At the left side there are 4 output for ptx Data Cable ①, 1 input for ptx Data Cable ②, 1 aerial socket ③, 1 connector to charge the battery ④ and 1 main switch ⑤ to switch ON/OFF ptx MFB.

At the right side there is DMX output.

Security advice:

Working with ptx MFB is possible either with data input or radio receiver.

By using data input for data transmission, the radio receiver has no connection to radio transmitter/ ptx controller.

By using radio receiver for data transmission, the data input has no function

4   Menu

If there is no signal, ptx MFB will deactivate all data output after 15sec (Sleep Mode).

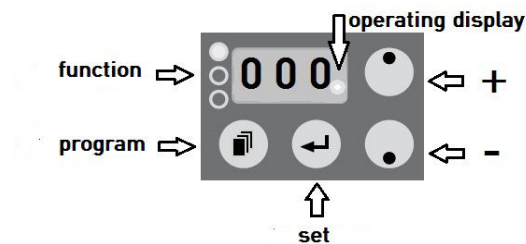Address and frequency can be set by display and battery capacity will be shown.

To activate ptx MFB please switch on main switch. If the right decimal point is lightning, ptx MFB is ready to operate. ptx MFB is controlled by ptx Controller.

If there is no signal from any ptx Controller, ptx MFB is going into sleep mode, all 4 ptx Data Cable output are deactivated – right decimal point is still lightning to show that ptx MFB is ready to operate.

If there is data transmission from ptx Controller – either with data input or radio receiver– all 4 ptx Data Cable output are activated and the display appears.

All functions and settings can be selected by the display

Set the selected function with key button ⬚ for the program .

5   Set address

To set the address of ptx MFB, press the key button ⬚ as long as the upper LED is on, signed with A (address). Confirm with ⏎, upper LED shines red.

By pressing ⏎, + ● and − ● the address of the ptx MFB can be set. If one number is flashing, it is possible to change. Confirm selected number with ⏎.
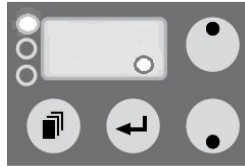

If all numbers are fixed, the address is confirmed. The picture above shows address No. 12. Right decimal point is lightning, ptx Mini is ready to operate. It is also possible to set address No. '000'.

ptx MFB can be tested in the same way like testing ptx IC Boxes by any ptx Controller. Setting two equal addresses, no matter if ptx MFB or ptx IC Boxes, will send an error indication in test mode.

In standby mode, the number of address disappears, right decimal point is still on to show that ptx MFB is ready to operate.
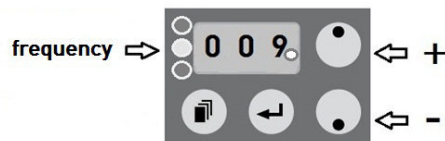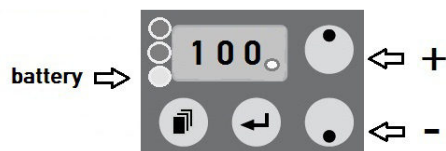
6   Frequency setting

To set the frequency, press the key button as long as the middle LED is on, signed with F (frequency). Confirm with , middle LED shines green.

By pressing , + and − the selected frequency can be set.
16 different frequency channels are available, 0– E (869MHz), F (915MHz).
Transmitter and receiver have to be set at the same frequency.

7   Battery

To show the capacity of internal battery press the key button as long as the lower LED is on, signed with B (battery). Confirm with , lower LED shines yellow (in the picture below 100%).
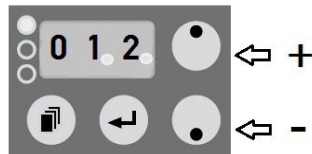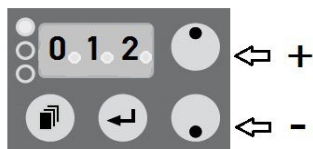
Please notice the advice to charge the battery. As soon as the indicator of battery capacity shows 50%, please charge the battery. Please connect 230V Charge with main power supply. If you don't charge, battery can be damaged.

8   More displays

If both decimal points (right and middle) are on, ptx MFB is in communication with any kind of ptx transmitter/ controller – there is an exchange of data between transmitter and receiver.

If all three decimal points are on, ptx MFB is ready for ignition, the device is set on ARMED.

9 Technical Data

Output power:	66V
Battery:	Lithium Ionic
Range	1000m
Frequency	0 – E = 869MHz, F = 915MHz
Radio channel	16
Stand by time	24h
Full charging time:	4h
Charging power:	110– 230V AC, 50/ 60Hz
Data IN	1
Data OUT	4
Weight:	2,25kg
Dimension L x B x H:	325 x 160 x 100mm

From August 1, 2011 we offer a new frequency for some countries outside of Europe. New frequency is <u>915MHz</u>, setting is with frequency switch, <u>position F</u>.
From this day all ptx radio devices will be delivered with this setting.