ptx Mini

Manual

Dear client

Thank you very much for buying the German engineered **ptx 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.

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 system**. Misuse of the **ptx system** may lead to property damage or personal injury. The **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 when ptx Ignition System gets powered.
The specific procedures pertaining to the use and operation of the ptx Ignition 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 Mini

ptx Mini is one part of **ptx system** with double function.
ptx Mini can be used as receiver/ ignition box and also as transmitter/ controller
Function will be selected by the display.

2.1 Receiver/ Ignition box

Working as a receiver, ptx Mini is equipped with 8 outgoing channel.
To connect the effects, press the clamps.
Range of integrated receiver (869MHz + 915MHz) is up to 1000m.

2.2 Transmitter/ Controller

It is possible to shoot 100 different ignitions. Inside there is a fixed program, all 99 ignitions will be shoot one after another, beginning with ignition No. 1.
Ignition No. 1 fires ignition box No.1, channel 1.
It isn't possible to program this unit. All 99 different ignition will be ignite in ascending order or can be selected.
The communication between controller and boxes is bidirectional, all connected boxes and outgoing channel can be tested by ptx Mini.
The range of integrated transmitter (869MHZ + 915MHZ) is up to 1000m.

4 Handling

ptx Mini is equipped with an aerial socket ① and a connector for the battery charger ② , both at the top of the tool.

With key switch ③ ptx Mini will be powered on.

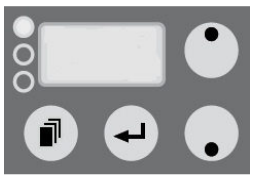
All function will be set with the display ④.

FIRE button ⑤ for ignition.

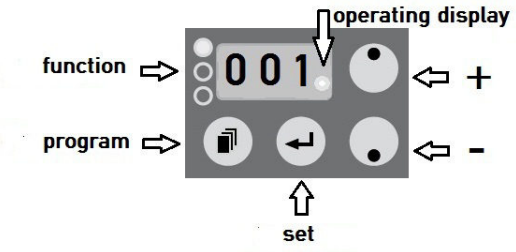
At the bottom there are 8 outgoing channel ⑥. To connect the effects press the connector, effect connection will open.

6 Menu

All functions can be selected by the display



To switch on, please turn the key switch. If the right decimal point is lightning, ptx Mini is ready to operate.

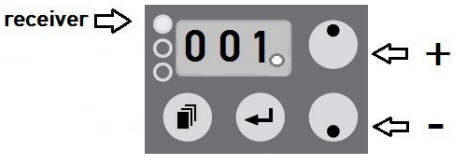


Set the selected function with key button for the program

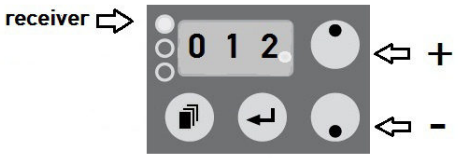
7 ptx Mini in function as receiver/ ignition box

Setting address

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

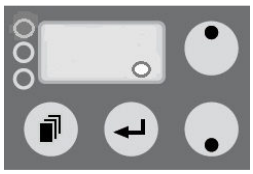


By pressing , + and - the address of the receiver can be set. If one number is flashing, it is possible to change. Confirm selected number with .



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.

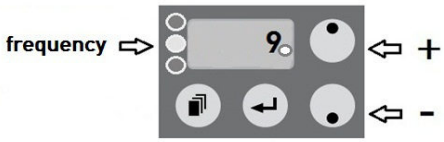
In standby mode, the number of address disappears, right decimal point is still on to show that ptx Mini is ready to operate.



8 Frequency setting

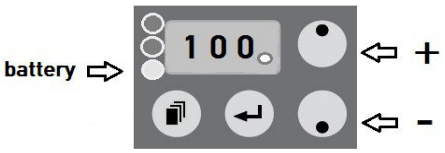
To set the frequency, press the key button as long as the middle LED is on, signed with F (frequency). Confirm with , middle LED shines green.

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



9 Battery

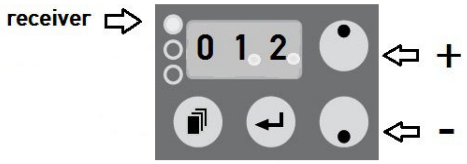
To show the capacity of internal battery press the key button as long as the lower LED is on, signed with B (battery). Confirm with , lower LED shines yellow (in the picture below 100%).



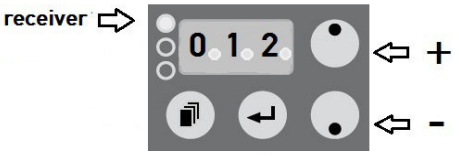
Please notice the advice for charging the battery. As soon as battery capacity shows 50%, battery has to be charged. If not, battery can be damaged.

10 More displays

If both decimal points (right and middle) are on, ptx Mini 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 Mini is ready for ignition, the device is set on ARMED.

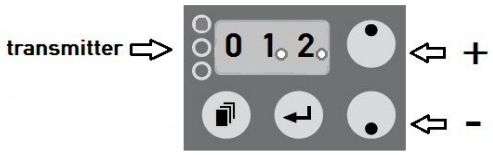


11 ptx Mini in function as transmitter/ controller

The communication between controller and boxes is bidirectional, all connected boxes and outgoing channel can be tested by ptx Mini.

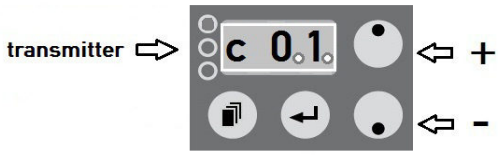
11.1 Test

To activate the test mode press  as long as all three LED's are off. Now ptx Mini is working in test mode, two decimal points show the status.

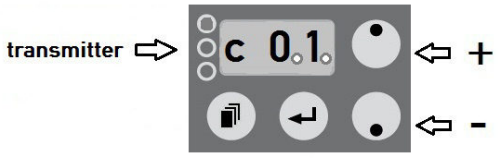


By pressing  , +  and -  the address of the box, which should be tested, can be set. If one number is flashing, it is possible to change. Confirm selected number with  . In the upper picture box No. 12 will be tested.

Now it is possible to proof every single outgoing channel of the selected IC Box. Press push button +  , on the left side of the display appears , ‚C' and 1 for channel 1.
By pressing +  the display jumps to 1. Now the first channel of the selected IC Box will be tested. If the channel is flashing, the reception is not o.k.

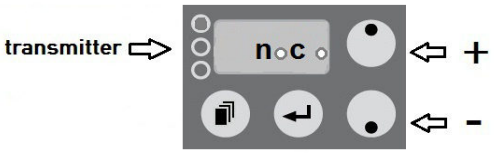


If the channel is lightning constantly, the reception is o.k



By further pressing + und - all 4, 8 or 16 outgoing channel of the selected box can be tested. 16 outgoing channel are assigned to the IC Boxes. If there are boxes with less channel, the not existed channel will be jumped over by further pressing+ und -.

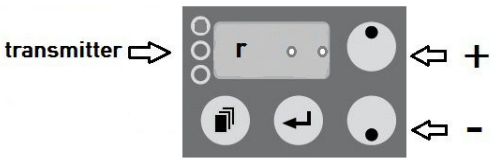
If during testing following advice appears (nc = no contact), the box can't be tested, there is no connection between ptx Mini and the ignition box.



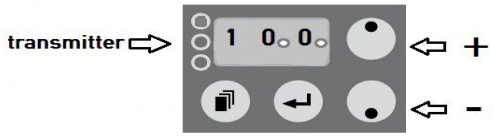
11.2 Range Test

After testing the single channel, it is possible to test the range.

Press push button + again, on the left side of the display appears alternating, „F' for frequency



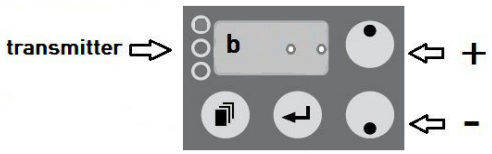
and the value of the range in %, in the picture below 100%.



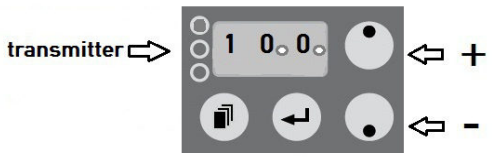
11.3 Battery Test

After testing the range, it is possible to test the battery capacity.

Press push button + again, on the left side of the display appears alternating, „b" for battery.



and the value of the battery capacity in %, in the picture below 100%.



All different test can be selected by + and - stepping forwards as well as backwards.

11.4 Show

There is a fixed program, all 100 ignitions are decicated to outgoing channel of ignition boxes. Ignition No. 1 activates ignition box No. 1 , channel No. 1 (see below).

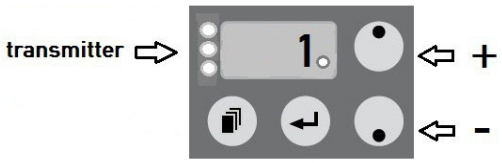
Ignition No.1 = shooting of ptx IC Box, address 1, channel 1
Ignition No.2 = shooting of ptx IC Box, address 1, channel 2
……
Ignition No.16 = shooting of ptx IC Box, address 1, channel 16
……
Ignition No.17 = shooting of ptx IC Box, address 2, channel 1
Ignition No.18 = shooting of ptx IC Box, address 2, channel 2
……..
Ignition No.32 = shooting of ptx IC Box, address 2, channel 16
……
Ignition No.33 = shooting of ptx IC Box, address 3, channel 1

If there are ignition boxes with less than 16 outgoing channel it is possible to jump over with + und - .

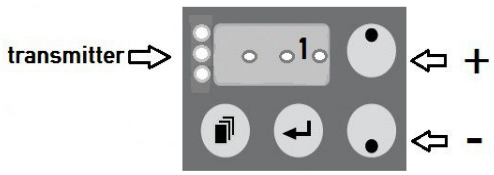
Programmed sequence of ignition No. is from 1 to 99. Selecting ignition No. out of the sequence is possible with + und -, selected ignition No. will be shown at the display.

11.5 Ignition

To activate the show mode press as long as all three LED are on (red, gren and yellow). Ignition No. 1 appears at the display. Right decimal point is lightning, ptx Mini is ready to operate.



Confirm show mode with . .ptx mini is ARMED, ready for ignition. - three decimal points show the status.



By activating press button **FIRE** ignition No. 1 is starting. By activating again press button FIRE next ignition, ignition No. 2 is starting.

Selecting an ignition No. out of the sequence is possible with + und -, selected ignition No. will be shown at the display,

By activating press button **FIRE** selected ignition No. will be ignited.

After finishing the show, please set **Key switch** on position **OFF** to switch off ptx Mini.

12 Technical Data

12.1 Transmitter

Ignition	100 different
Min. shot sequence	0,06s
Range	1000m
Frequency	0- E 869MHz, F 915MHz
Radio channel	16
Stand by time	24h

12.2 Receiver

Outputs/Outgoing channel	8
Ignition power	12V
Ignition capacity	5U igniter per output
Range	1000m
Frequency	0- E 869MHz, F 915MHz
Radio channel	16
Stand by time	10h

12.3 Transmitter/ Receiver

Range	1000m
Frequency	869MHz, 915MHz
Dimension (L x H x B cm)	8 x 18 x 3
Weight	0,78kg

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