

# ptx Radio IC 4

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## 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.**

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## 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 the **ptx system** may lead to property damage or personal injury. The ptx Ignition 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.

## ptx Radio IC 4

### 2 Description ptx Radio IC 4

ptx Radio IC 4 is an ignition box with 4 outputs. Radio transmitter (869 MHz + 915MHz) is integrated, range is up to 1000m.



### 3 Handling

ptx Radio IC 4 is equipped with an antenna socket, a key switch and a red LED – all on top.



At the bottom there are 4 outgoing channel to connect the effects and a connector for the battery charger



## ptx Radio IC 4

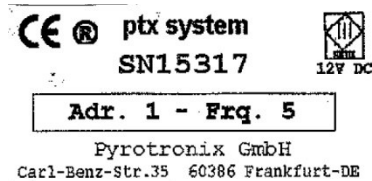
To connect the effects press the connector, the contact will open and effect can be connected.

To switch on ptx IC 4 turn key switch, red LED is lightning.

**ptx Radio IC 4 is now ready to ignite**



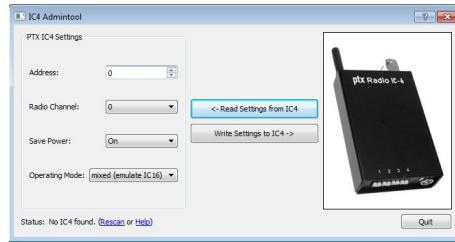
The unit will be delivered with a fixed frequency and address. Beside the serial No. programmed frequency and address are listed.



With a configuration tool Radio IC 4 can be programmed

## 4 IC 4 Configuration Tool

The tool can be downloaded from [www.pyrotronix.de](http://www.pyrotronix.de).



## 5 IC4 Configuration Options

Before starting the configuration process please make sure all other ptx radio devices (controllers, MFB, RM, etc.) are switched off.

Connect your ptx IC4 to your computer using the original ptx programming adapter.

Switch on the IC4 and make sure the red LED next to the SMA connector lights up.

Click the "Read Settings" button. The software will now establish a connection to the IC4 and read the current settings.

Change the parameters to your needs:

### 5.1 Address

You may choose an address between 1 and 200. In case you want multiple ICs to listen to the same address, you will not be able to query the status in test mode unless you test them one by one and switch off all other ICs sharing that address. In show mode however, all ICs would fire at the exact same moment.

### 5.2 Radio Frequency

The ptx system offers 16 different radio channels allowing you to work around radio interference or collisions on a specific frequency.

Choose the frequency you get the best results with. Note that not all frequencies may be legal in your country.

## 5.3 Operating Mode

The IC4 has two different operating modes.

### 5.3.1 Standard IC 16 Mode

- "Standard IC16" is the default mode and makes the IC4 emulate an IC16 and thus to be 100% compatible with other ptx modules. If the box address is set to "1", the IC4 would listen to ignition numbers 1 to 16, except the outputs 5 to 16 are only virtual and would not fire anything. Select this operating mode if you are using your IC4 in combination with IC16 or IC48 boxes.

### 5.3.2 IC 4 - only Mode

- "IC4-only" is a special operation mode. **Please use this mode only if you are using IC4s exclusively in combination with ptx Mini as controller/ transmitter.** Different to the IC 16 mode there is no emulation of a 16 channel receiver . If the box address is set to "1", the ptx IC4 would listen to ignition numbers 1 to 4 while ignition number 5 to 8 would be recognized by the ptx IC4 with address "2".

**CAUTION: Unconsidered action of IC 4-only mode can lead to malfunctions and unintended ignitions**

## 5.4 Energy

To save battery power, the IC4 features a "Smart-Sleep" mode that puts most of its electronic components into standby. As soon as the IC recognizes incoming data, the IC would wake up and deactivate its sleep mode itself. Note that it may take a few seconds for the IC to wake up after entering test mode or show mode on your controller.

You can switch off any battery saving by selecting the "Always on" setting.

## 5.5 Confirm settings

Once you have changed all parameters to your needs, press the "Write Settings" button to save all settings back the device.

If you have any questions please do not hesitate to contact us. Check [our website](#) for contact details.



## 6 Technical Data

Outputs/ Outgoing channel	4
Ignition power	12V
Ignition capacity	3 igniters per output
Stand by time	11h with activated Sleep Mode (Auto sleep)
Stand by time	5h with deactivate Sleep Mode (Always on)
Radio channel	16
Frequency	0 – E 869MHz, F 915MHz
Range	1000m
Dimensions	110 x 70 x 25mm
Weight	0,24kg

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.