



RX2-1K Gas

Manual 2.2

as of March 2020



PREAMBLE

Dear Explo Customer,

Please read through these sets of instructions carefully, before using your devices. It contains many Information which are to help you getting to know your system.

We ask you to follow the safety and usage notes carefully.

Should you have any questions, or any confusions arise during the usage of the devices, which cannot be answered by this manual, please do not hesitate to contact us either by phone or mail.

A lot of fun with your new ignition system wishes you,

Your Explo Team



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1 ABOUT THE RX2-1K GAS

1.1 FUNCTION OF THE RX2-1K GAS

The RX2-1K Gas is a receiver module, used to control the gasprojectors GX2 12V and GX2 DMX via radio. The RX2-1K Gas is mounted to the Gasprojector and allows the activation of single ignitions and predefined sequences with the help of any Explo transmitter.

The RX2-1K Gas allows you to add your gasprojectors to an automated show. You can then adjust the opening times of the ignitions.

The RX2-1K Gas is supplied with power via the internal battery of the GX2 and features no own power supply.

1.2 CONTROL OF THE RX2-1K GAS

The RX2-1K Gas is controlled solely via radio. As with other Explo receivers, Box and channel numbers are used for this purpose. Generally, 3 values must be set to use the receiver.

1.2.1 BOX NUMBER

The box number is a general addressing of the receiver. It can be freely set from 0-99. To use all predefined sequences of the RX2-1K Gas to their fullest, it is recommended to set all used receivers to the same box number.

The box number can be changed either via the stepper software, or the transmitter menu.

1.2.2 CHANNEL NUMBER

The channel number shows the actual ignition. With it, a single ignition or predefined sequence can be ignited. The channel numbers of the sequences are predefined and are shown in the corresponding chapter of this manual.

The single ignitions however can be set from channels 1-16. It not only defines at which channel the device will ignite, but also which position within a sequence it has.

The channel number can be either changed via the stepper software, or the transmitter menu.

1.2.3 MAXIMUM NUMBER OF GASPROJECTORS

Should multiple gasprojectors be controlled on the same box number with predefined sequences, it is necessary to define the correct maximum number of gasprojectors. Should it be entered incorrectly, some sequences won't be made correctly.

The maximum number of gasprojectors can be changed either via the stepper software, or the transmitter menu.



2 DESCRIPTION OF RECEIVER RX2-1K GAS

2.1 COMPONENTS OF THE RECEIVER RX2-1K GAS



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Components of the RX2-1K Gas	
1	Connector for antenna (BNC-socket)
2	Status-LEDs
3	Data- and Powercable
4	Holder
5	Programming socket



2.1.1 DESCRIPTION OF COMPONENTS

2.1.1.1 CONNECTOR FOR ANTENNA (BNC-SOCKET)

This BNC-socket allows you to connect the antenna delivered with the RX2-1K Gas.

2.1.1.2 STATUS-LEDS

Here you can find a red and a green status LED, which give you feedback about the battery status, connectivity at the output, and radio connectivity. The green LED has no function when the receiver is used with a gasprojector. However, the receiver could theoretically be used to ignite pyrotechnical effects. In this case, the green LED would be lit in Test-mode, if a connection has been made at the output of the receiver.

The red test LED shows if the receiver has received a signal from the transmitter. During Test-mode, the LED will flash once. In Armed-mode, the LED will flash three times for test signals, and once when an ignition is made.

2.1.1.3 DATA- AND POWERCABLE

This cable is connected to the corresponding socket on the gasprojector. It is used to supply the RX2-1K Gas, and send ignition signals to the gasprojector.

2.1.1.4 HOLDER

With this holder, and the screw included with the device, the RX2-1K Gas is mounted to the gasprojector.

2.1.1.5 PROGRAMMING SOCKET

The 7-pole socket is used as a programming socket for the RX2-1K Gas. It allows you to upload software updates, and settings via the stepper software.



Pins of the RX2-1K Gas	
Pin 1	GND
Pin 2	TX
Pin 3	RX
Pin 4	Not connected
Pin 5	Externe Batterie
Pin 6	Not connected
Pin 7	Not connected

3 USAGE OF THE RX2-1K GAS

3.1 SETUP OF THE RX2-1K GAS

Should the RX2-1K Gas be bought separately as an accessory for the gasprojector, it must be mounted to the device, prior to use. The following components will be needed:

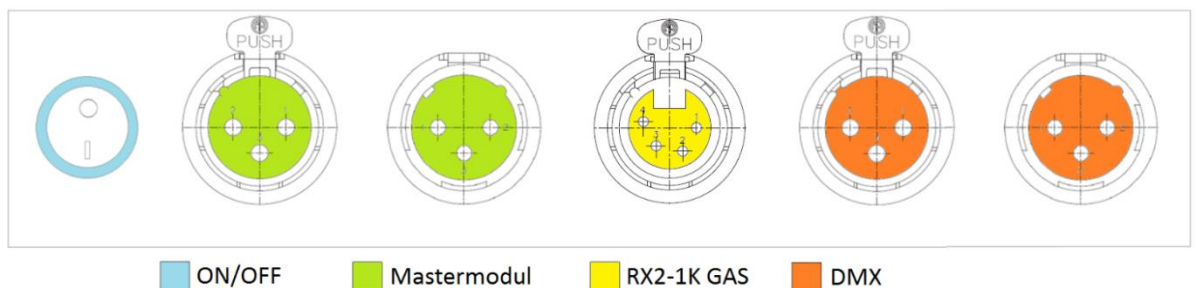
- 1.) RX2-1K Gas with holder
- 2.) Screw for the holder (3,9x9,5 TX15)
- 3.) Connector socket for the RX2-1K Gas
- 4.) Screws for the connector socket of the RX2-1K Gas (M3x8)

The following steps must be taken to mount the RX2-1K Gas to the gasprojector:

3.1.1 INSTALLING THE CONNECTOR SOCKET

Important note: Of the main circuit board of the GX2 exist various versions. The connecting of the socket varies with each. In this manual we will describe the setup of the cable to the newest version of the circuit board.

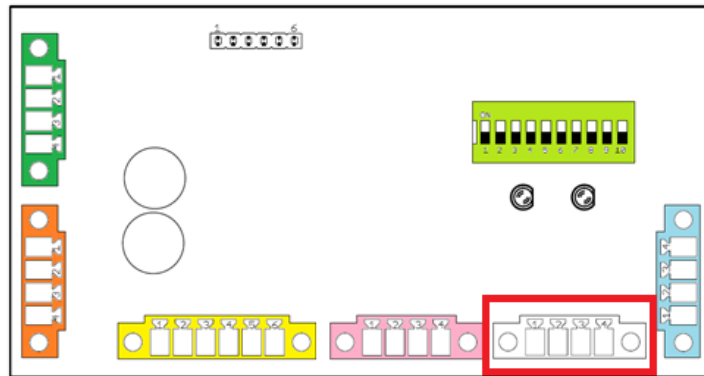
- 1.) The connector socket is fixed to the front of the gasprojector with the two screws (M3x8). The below graphic shows where it is usually installed (in yellow). We normally use sink head screws, which is why you should ideally countersink the holes beforehand.



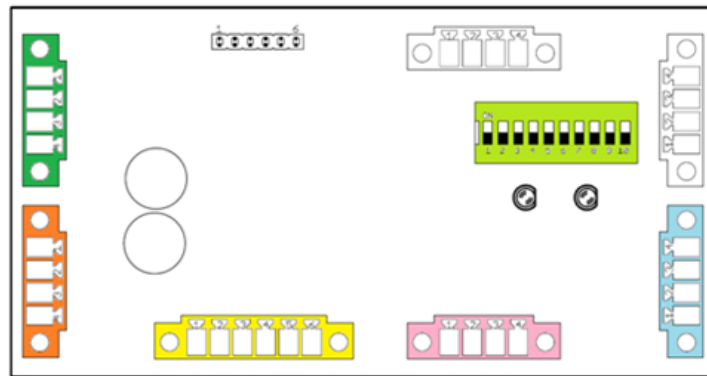
- 2.) In the next step, the connecting cables will be fit to the main circuit board.



The newest version features a separate socket for the RX2-1K Gas. Here you can connect the cable directly with the supplied plug (marked in red below).

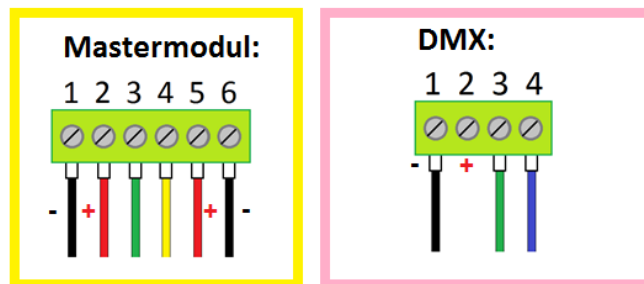


Older circuit boards do not feature this socket. In this case the cables must be fixed to another socket.

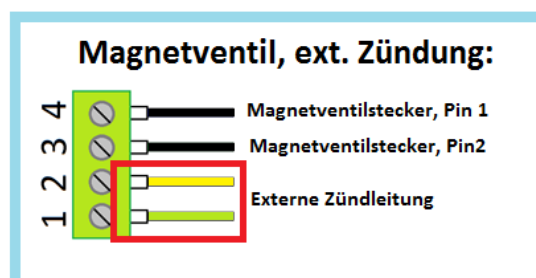


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The connection of the red plus cable, and the black minus cable can be done either at the mastermodule or DMX socket. Both options can be seen below. Under no circumstances should these cables be mixed up.



The two ignition cables (green and yellow) should be installed as shown below, instead of the external ignition cables to the plug. Do not worry about the polarity of the ignition cables.



3.1.2 MOUNTING THE RX2-1K GAS TO THE GASPROJECTOR

After installing the connector socket, the receiver can be fixed to the gasprojector. Simply mount the holder with the receiver and the supplied screw (3,9x9,5 TX15) as shown below to the projector housing and connect the cable to the previously installed socket.



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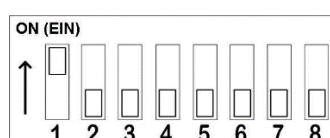
3.2 SETTINGS AT THE GASPROJECTOR

Newer versions of the main circuit board of the GX2 feature Dipswitches, that allow you to change the opening times for external ignitions (see GX2 manual).

When using the RX2-1K Gas this also plays a role. Should a specific value be entered, then the gasprojector will ignite for this time, even if the ignition impulse of the receiver should be shorter.

Example: At the gasprojector, an opening time of 2 seconds has been set. The gasprojector then receives an ignition impulse of 500ms from the RX2-1K Gas. Even though the ignition impulse is shorter, the gasprojector will still ignite for 2 seconds.

For this reason, we recommend setting the projector to the shortest opening time, especially for automated shows. Simply set Dipswitch 1 to ON, and all others to OFF (see below graphic). With these settings, the opening time will always be determined by the RX2-1K Gas.



3.3 SETTINGS VIA THE TRANSMITTER MENU

Before each show, you should check whether the correct settings (Box number, channel number and maximum number of gasprojectors) have been made on the receiver.

All settings can be changed directly via the transmitter if needed. However, the receiver must be added to the device list of the transmitter. In the manual of the X2 series you can see how to add a receiver manually or automatically to the transmitter.

Should the RX2-1K Gas be added to the transmitter, you can now change the settings the following way.

3.3.1 SETTING THE BOX NUMBER

To change the box number of the RX2-1K Gas via a X2-transmitter, you must switch on the RX2-1K Gas, enter the product page at the menu item "Receivers" on the transmitter, and do the following:

Step	Transmitter	Receiver (RX2-70K, RX2-30K,...)
1		Open product page and press Mode / OK.
2		Navigate to the Box number with Plus / Minus and select with Mode / OK.
3		Change the Box number with Plus / Minus and confirm with Mode / OK.
4	The receiver should now have accepted the Box number. the correct setting should be controlled with a large test signal (pressing and holding the Test button in test mode for 3 seconds).	

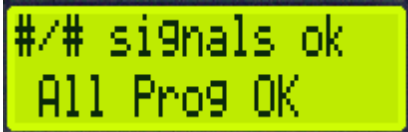





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3.3.2 SETTING THE CHANNEL NUMBER AND MAXIMUM NUMBER OF GASPROJECTORS

To set the channel number of a RX2-1K Gas, or the number of used gasprojectors, the RX2-1K Gas must be switched on, and a large test signal be sent from the transmitter. This is done by pressing and holding the test button for about 3 seconds in test mode. Afterwards, the following steps need to be taken:

Step	Transmitter	Receiver (RX2-70K, RX2-30K,...)
1		Press Test / ESC .



2		Press Plus to open the details of the first receiver.
3		The details of the RX2-1K Gas also show you its box number. With Plus you can enter the second detail window.
4		The second detail window shows the channel number of the device and the number of projectors. To change one of these values, press Test / ESC for about 3 seconds.
5		First you can edit the channel number with Plus and Minus. Once correct, confirm with Test / ESC. The RX2-1K Gas will take over the new value immediately.
6		Now you can edit the maximum number of projectors used with Plus and Minus. Again confirm your selection with Test / ESC.
7		The settings will be taken over by the receiver immediately.



3.4 SETTINGS VIA THE STEPPER SOFTWARE

All settings of the RX2-1K Gas can be changed with the stepper software in combination with the Bootloader cable. Additionally to the Box- and channel number and number of projectors used, you can also edit the opening times, and step times of the predefined sequences. This is mainly used for manual ignitions, since the opening times are automatically set via the software during show creation.

To edit the settings, open a new, empty RX-70K template in the stepper software.

The following settings can be changed.

The screenshot shows the Stepper v4.0.1 software interface. At the top, there are four callout boxes: 'Box number' (yellow), 'Opening times Sequences' (blue), 'Steptime Sequences' (red), and 'Number Projectors' (green). Below these is the software window. The window has a menu bar with 'Auswahl' and 'RX1K Gas'. Below the menu bar is a 'Box.Nr' dropdown menu set to '1'. The main area is a grid of 70 numbered fields (1-70) arranged in 7 rows and 10 columns. The fields are color-coded: 1-10 are light blue, 11-20 are light green, 21-30 are light purple, 31-40 are light red, 41-50 are light orange, 51-60 are light yellow, 61-70 are light blue. Below the grid is a 'Klemme 69' label. At the bottom, there are three callout boxes: 'Proejector number' (light blue), 'Opening time single ignition' (light purple), and 'Opening time group ignition' (light green). Arrows point from these callouts to the corresponding fields in the grid.

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3.4.1 BOX NUMBER

Here you can set the Box number from 1-99.

3.4.2 OPENING TIMES SEQUENCES

Here you can edit the opening times (=ignition duration) of the predefined sequences. The following opening time boxes can be used:

Opening times Sequences	
Field 61	Changes opening time of sequence 31, 36, 41, 46 and 51
Field 62	Changes opening time of sequence 32, 37, 42, 47 und 52
Field 63	Changes opening time of sequence 33, 38, 43, 48 und 53
Field 64	Changes opening time of sequence 34, 39, 44, 49 und 54
Field 65	Changes opening time of sequence 35, 40, 45, 50 und 55



EXAMPLE:

To edit the opening time of sequence 41 the preferred new time must be entered into the time field of channel 61. In the graphic below, the opening time has been set to 2 seconds.

61	2,00
----	------

3.4.3 STEPP TIME SEQUENCES

Here you can edit the stepp time of the predefined sequences (time between two ignitions during a sequence). The channel number of the time field corresponds to the sequence number, whose stepp time is changed.

EXAMPLE:

To edit the stepp time of sequence 33, the preferred stepp time must be entered into the time field of channel 33. Below, the stepp time has been set to 0,5 seconds.

33	0,50
----	------

3.4.4 NUMBER PROJECTORS

Here you can enter the number of gasprojectors used.

3.4.5 PROJECTOR NUMBER

Instead of the channel number 1, the preferred channel number (1-16) for the RX2-1K Gas can be entered here. Should it be changed to any other number than 1, then the normal position of this number must be changed to one.

EXAMPLE:

Below, the channel number of the RX2-1K Gas has been changed to 3. To ensure number 3 is not assigned two times, the previous channel 3 has been changed to number 1.

3		2		1	
1				3	

3.4.6 OPENING TIMES SINGLE IGNITION

To edit the opening time of a single ignition, the preferred time can be entered into the time field of the first channel.

EXAMPLE:

Below, the opening time of the single ignition has been set to 0,5 seconds.

1	0,50	2		
---	------	---	--	--

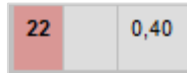


3.4.7 OPENING TIMES GROUP IGNITION

Here you can edit the opening times of group ignitions. The channel number of the time field corresponds to the group ignition, whose opening time is being changed.

EXAMPLE:

To edit the opening time of group ignition 22, the preferred opening time must be entered into the time field of channel 22. Below, the opening time has been set to 0,4 seconds.



3.4.8 UPLOADING THE STEPPER PROGRAMM

To upload the settings of the stepper software onto your RX2-1K Gas, the Bootloader cable is needed (see below). The drivers for it can be downloaded from our homepage.



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The following steps must be taken:

Uploading the stepper programm	
1	Edit the settings in the stepper software. With empty opening time, or step time fields, the standard values will be applied. A list of standard values can be found in the attachments.
2	Connect the receiver by use of the bootloader cable to your PC. The receiver must be switched off.
3	Now select "Transmit" from the template.
4	Should the software be used for the first time, you must select the correct COM-port number, to which the cable is connected. Should you be unsure which one is the correct one, you can open the device manager (Windows) and check at the menu item "Connections (COM & LPT)".
5	Now switch on the RX2-1K Gas / Gasprojector. Should the right port be selected, the red LED will now flash. If this is the case, you can now start the upload by clicking "OK".
6	Afterwards you can check the correct programming on the receiver.



3.5 USAGE OF THE DEVICE IN A SHOW

3.5.1 MANUALLY IGNITED SHOWS

Gasprojectors fitted with a RX2-1K Gas can be activated by manual ignition signals (Box- and channel number). The following steps should be noted to control the receiver correctly:

Preparing the RX2-1K Gas for manual ignitions	
1	Programming all RX2-1K Gas with the correct Box- and channel number, as well as the number of devices used. Further, all preferred opening times of the single ignitions and sequences should be set.
2	Testing the previously programmed settings. (Test ignitions without gas.)
3	Assign spare buttons (TX2-70K) if needed.
4	Turn receivers armed before the show starts.
5	Ignite your show manually.
6	Switch off the gasprojectors after the show.

Additional hints: For the correct set up and dismantling of the gasprojector, you should read through the GX2 manual carefully.

The spare buttons of the TX2-70K can be a very helpful support for shows, especially if certain sequences need to be ignited spontaneous and fast. By use of the preprogramed spare buttons, you don't need to switch channels.

3.5.2 AUTOMATICALLY IGNITED SHOWS (AUTOSHOW)

With the X2-series and the new software updates for the ShowCreator and AutoShow software, gasprojectors with a RX2-1K Gas can be entered very easily into an automated show.

These softwares feature a variety of new conveniences, allowing you to create a flame show very easily.

The following steps should be adhered to, when creating an automated show with RX2-1K Gas':

3.5.2.1 SHOWCONCEPT AND PROGRAMMING THE RECEIVERS

First, you should have a basic show concept. Especially the following points should be taken into consideration:

- 1.) How many gasprojectors with radio control are used?
- 2.) How many ignitions are made? The RX2-1K Gas can save up to 400 single ignitions during an automated show. Every RX2-1K Gas saves its own single ignitions, and ALL group ignitions and sequences used in the show.
- 3.) Are all gasprojectors controlled separately, or are some always ignited parallel to each other?
- 4.) Which Box number do I assign to the gasprojectors? Gasprojectors should always use their own box number, and not use the same as other receivers (eg.: RX2-70K).



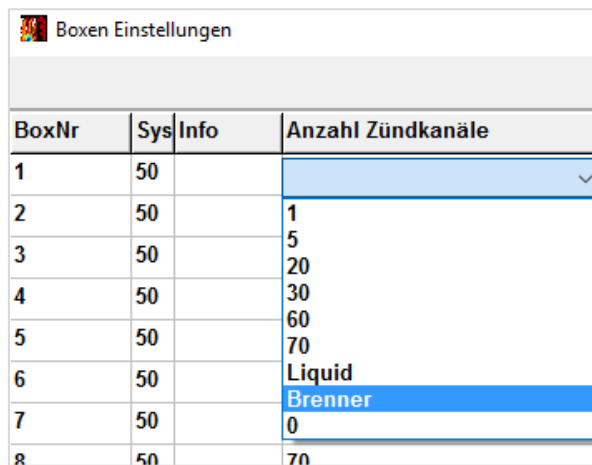
3.5.2.2 PREPARATION / FUNCTIONS IN THE SHOWCREATOR

PREPARED SETTINGS

To use the full features of the ShowCreator, you must add the box number used for the gasprojectors. Under box settings select the type "Brenner", as seen below. Should it be selected correctly, the number below the ignition channels should read "72".

The setting "Brenner" allows the display of the flame projectors in the new simulation window of the Showcreator.

NOTE: The option "Liquid" is used for the device type "X2 Wave Flamer". Should you use liquid fueled gasprojectors you still need to select "Brenner".

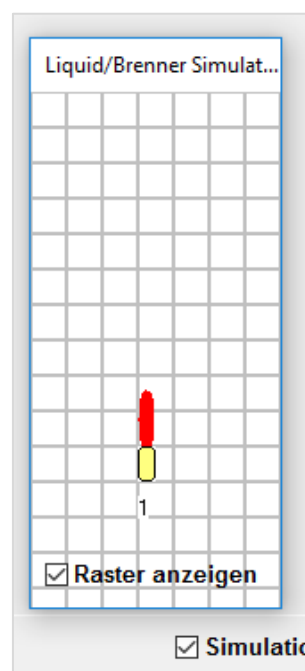


BoxNr	Sys	Info	Anzahl Zündkanäle
1	50		▼
2	50		1
3	50		5
4	50		20
5	50		30
6	50		60
7	50		70
8	50		Liquid
			Brenner
			0
			70

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SIMULATION OF EFFECTS

Should the option "Brenner" be selected, you can open a simulation window in the lower right corner of the Showcreator software, in which effect devices show a simulated effect during a test run of the show.



ADDING EFFECTS

The single ignitions and predefined sequences can be added to the show via Box- and channel number. The channel numbers 1-16 are the single ignitions, channel 20 and up are the group ignitions and sequences. A list of all predefined channel numbers can be found in the attachments.

CHANGING THE OPENING TIME

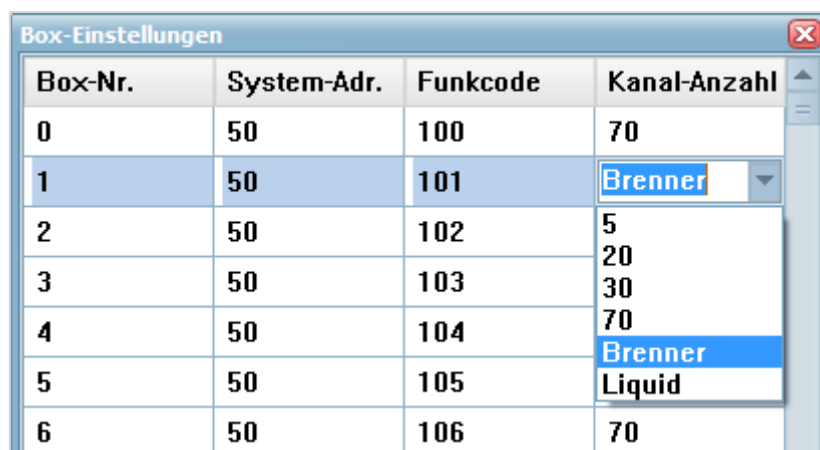
In the effect time column, you can enter the preferred opening time of the gasprojector effect, directly in seconds. Not all opening times are possible. After importing the show into the AutoShow software, check and correct if needed, all opening times.

3.5.2.3 PREPARATION / FUNCTIONS IN THE AUTOSHOW X2

PREPARATIONAL SETTINGS

To use all features of the AutoShow, you must add the box number used for the gasprojectors. Under box settings select the type "Brenner", as seen below. Should it be selected correctly, the number below the ignition channels should read "Brenner".

NOTE: The option "Liquid" is used for the device type "X2 Wave Flamer". Should you use liquid fuelled gasprojectors you still need to select "Brenner".



Box-Nr.	System-Adr.	Funkcode	Kanal-Anzahl
0	50	100	70
1	50	101	Brenner
2	50	102	5
3	50	103	20
4	50	104	30
5	50	105	70
6	50	106	Brenner
			Liquid

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ADDING EFFECTS

The single ignitions and predefined sequences can be added to the show via Box- and channel number. The channel numbers 1-16 are the single ignitions, channel 20 and up are the group ignitions and sequences. A list of all predefined channel numbers can be found in the attachments.

CHANGING THE OPENING TIMES

In the effect time column, you can enter the preferred opening time for the gasprojector. The software will automatically use the next highest Opening time. To the single opening times, small letters are assigned in the group-field. You can also edit the opening times with these letters (higher letter = higher opening time).



AutoshowCreator X2 v1.2.0.36				
Datei Einstellungen Hilfe Autoshow übertragen...				
Lfd.Nr.	Box/Kanal	Option	Gruppe	Effektzeit
1	1/1	Brenner	s	1,00

LOADING THE SHOW ONTO THE RECEIVERS

To load the show onto your receivers, you should read through the X2-series manual.

4 OTHER

4.1 SAFETY NOTES

The RX2-1K Gas may only be used to ignite pyrotechnical effects or activate the gasprojectors GX2 12V and GX2 DMX, and only be used by trained pyrotechnicians. The general safety guidelines for the usage of pyrotechnical items are to be adhered.

After switching the device on (even in Testmode), no persons may linger in the dangerous vicinity of the system. Works on the devices may only be done while they are switched off. During the show, the safety distances to pyrotechnical items and gasprojectors must be maintained. Works on the system during use are strictly prohibited.

Under no circumstances may a transmitter be left unsupervised, unless it has been proofed against unauthorized use.

4.2 HINTS & TRICKS

4.2.1 RADIO CONNECTIVITY:

A good radio connectivity is an essential part of a trouble-free usage of a radio-controlled system. Taking note of these few hints can improve the connection between transmitter and receiver drastically.

4.2.2 POSITIONING YOUR DEVICES:

Ideally, you should place the transmitter and receiver in a way that no objects are placed between them, and you have free line of sight. You should especially take heed not to have any metallic objects, as well as mountains between them.

Theoretically it is possible to receive signals even behind these objects, since radio waves can reach their destination indirectly by breaking or reflecting off of objects. The maximum range can however only be achieved by a free line of sight.

Transmitter and receiver must not be covered by metals, since these can shield against radio waves. Ideally, the devices should be placed in an elevated position, like a table. Should the devices be



placed on water, with a raft for example, we recommend using magnetic antennas, and placing these about a meter above the water level.

4.2.2.1 DIRECTIONAL ANTENNAS

Thanks to their emission, the antennas (should the devices be placed at the same height) should be upright, since they emit signals from their sides the strongest. If the transmitter and receivers are placed at a different height, the antennas should be placed in a way that they are parallel to each other.

If possible, the usage of a Groundplane-Antenna (transmitter) and Magnetic antennas (receiver) is recommended, since they can drastically improve the radio range. The magnetic antennas of the receivers should be placed on top of a 15x 15cm metallic plate. During rain or thaw, especially with wet or salty sea air, it is best to connect the antenna before placing the receiver in the field, since otherwise there is a possibility of water entering the BNC socket. After usage in wet conditions, we recommend allowing your devices to dry, especially the antenna and BNC socket. Ideally using compressed air.

The antennas can be damaged by physical means, like bending or pulling on them too strongly. Should this happen, a short circuit within the antenna can occur. In this case, the antenna needs to be replaced immediately, since it won't function properly anymore. You can check for such an error, by measuring for a connection between the inner pin of the antenna, and the outer rim.

4.3 TECHNICAL DATA

Here you can find the technical data of the receiver:

Receiver RX2-1K Gas	
Measurements	150 x 50 x 70 mm
Weight	300g
Casing	Plastic
Radio range	500 m

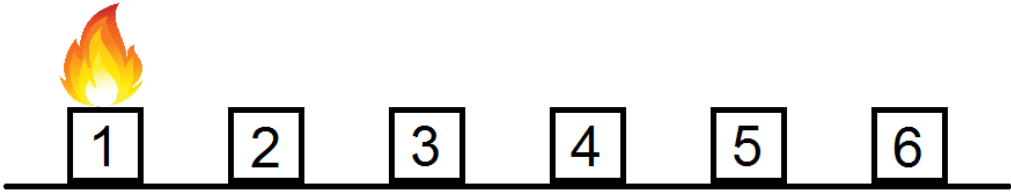


ATTACHMENT 1 – SCHEMATIC VIEW AND SETTINGS

The following attachment gives a graphic example of multiple gasprojectors during a show, and gives you information about the correct settings of the single projectors.

EXAMPLE FOR THE CORRECT PROGRAMMING:

A flameshow with 6 GX2 with RX2-1K Gas. The gasprojectors have the same box number (Box 10). Predefined sequences should be used, which is why you need to take note of the maximum number of devices used. the following settings must be made on the gasprojectors.



	1	2	3	4	5	6
Channel number	1	2	3	4	5	6
Box number	10	10	10	10	10	10
Number of projectors	6	6	6	6	6	6

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EXAMPLE FOR A WRONG PROGRAMMING:

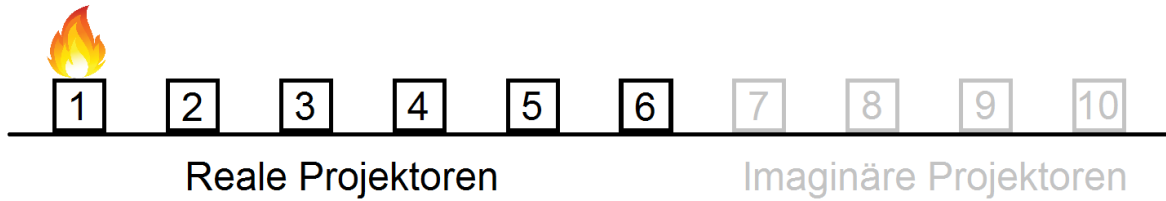
One of the most frequent errors when using the RX2-1K Gas is setting a wrong number of devices used overall. Should this number be entered incorrectly, a lot of the predefined sequences won't work properly.

In the graphic below only 6 gasprojectors are used, while 10 have been entered.

	1	2	3	4	5	6
Channel number	1	2	3	4	5	6
Box number	10	10	10	10	10	10
Number of projectors	10	10	10	10	10	10

Would you start a sequence now, for example from right to left, the gasprojectors would act as though 10 devices are used. Gasprojector 6, which should be the first one to ignite, would now only ignite in fifth place. These "Phantom projectors" (see below), would make for an ugly picture, and make an unwanted effect.





ATTACHMENT 2 – STANDARDSEQUENCES OF THE RX2-1K GAS

The following table shows the standard programmed sequences of the RX2-1K Gas.

Important: The following table is only true for usage with 5 gasprojectors. The overall time of the sequences is higher or lower, depending on the number of devices used.

Time = (Number of gasprojectors – 1) x (Stepp time) + 300ms + Opening time

Channel	Effect	Opening time	Stepp time	Duration
*** Single ignitions ***				
1	Gasprojector 1 - Single ignition	0,50s		0,80s
2	Gasprojector 2 - Single ignition	0,50s		0,80s
3	Gasprojector 3 - Single ignition	0,50s		0,80s
4	Gasprojector 4 - Single ignition	0,50s		0,80s
5	Gasprojector 5 - Single ignition	0,50s		0,80s
6	Gasprojector 6 - Single ignition	0,50s		0,80s
7	Gasprojector 7 - Single ignition	0,50s		0,80s
8	Gasprojector 8 - Single ignition	0,50s		0,80s
9	Gasprojector 9 - Single ignition	0,50s		0,80s
10	Gasprojector 10 - Single ignition	0,50s		0,80s
*** Group ignitions ***				
21	All gasprojectors igniten	0,06s		0,36s
24	All gasprojectors igniten	0,10s		0,40s
27	All gasprojectors igniten	1,00s		1,30s
22	All odd numbered devices ignite	0,06s		0,36s
25	All odd numbered devices ignite	0,10s		0,40s
28	All odd numbered devices ignite	1,00s		1,30s
23	All even numbered devices ignite	0,06s		0,36s
26	All even numbered devices ignite	0,10s		0,40s
29	All even numbered devices ignite	1,00s		1,30s
*** Sequences ***				
31	From left to right	0,06s	0,10s	0,76s
32	From left to right	0,10s	0,20s	1,20s
33	From left to right	0,10s	0,30s	1,60s
34	From left to right	0,30s	0,30s	1,80s
35	From left to right	0,50s	0,20s	1,60s
36	From right to left	0,06s	0,10s	0,76s
37	From right to left	0,10s	0,20s	1,20s
38	From right to left	0,10s	0,30s	1,60s
39	From right to left	0,30s	0,30s	1,80s
40	From right to left	0,50s	0,20s	1,60s
41	From outside to the inside	0,06s	0,10s	0,56s
42	From outside to the inside	0,10s	0,20s	0,80s
43	From outside to the inside	0,10s	0,30s	1,00s



44	From outside to the inside	0,30s	0,30s	1,20s
45	From outside to the inside	0,50s	0,20s	1,20s
46	From inside to the outside	0,06s	0,10s	0,56s
47	From inside to the outside	0,10s	0,20s	0,80s
48	From inside to the outside	0,10s	0,30s	1,00s
49	From inside to the outside	0,30s	0,30s	1,20s
50	From inside to the outside	0,50s	0,20s	1,20s
51	From both ends to the other	0,06s	0,10s	0,76s
52	From both ends to the other	0,10s	0,20s	1,20s
53	From both ends to the other	0,10s	0,30s	1,60s
54	From both ends to the other	0,30s	0,30s	1,80s
55	From both ends to the other	0,50s	0,20s	1,60s



Konformitätserklärung gemäß der Richtlinie 2014/53/EU (RED)

Declaration of Conformity appropriate to the Directive 2014/53/EU (RED)

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.

Hersteller / Verantwortliche Person: explo GmbH, Völkermarkterstraße 240, 9020 Klagenfurt am
Manufacturer / responsible person: Wörthersee, Österreich (AUT)

Erklärt, dass das Produkt: Funkzündanlage
Declares that the product: Radio controlled ignition system

Type: RX2-1K Gas
Type:

Verwendungszweck: Sender und Empfänger unseres Zündsystems
Intended purpose: Receiver (RX) of our ignition system

Verwendete Antennen: Passive Antennen 50Ohm, ¼ Lambda (433MHz)
Used antennas: Passive antennas 50Ohm, ¼ Lambda (433MHz)

Seriennummer: 20-xxxxx / 20xxxxx
Serial number:

bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen der Richtlinie 2014/53/EU entspricht.

are complying with the essential requirements of the Directive 2014/53/EU, when used for its intended purpose.

Einhaltung der grundlegenden Anforderungen durch (verwendete Standards/Spezifikationen):

Means of proving conformity with the essential requirements (standards/specifications used):

Gesundheit und Sicherheit

Health and safety requirements

Angewandte Normen: 2014/35/EU (Low Voltage Directive)
Standards applied: EN 60950-1:2006 / A1:2010+A2:2013+A11:2009+A12:2011
EN 62479:2010

Schutzanforderungen in Bezug auf elektromagnetische Verträglichkeit

Protection requirements concerning electromagnetic compatibility

Angewandte Normen: EN 301489-1 v2.1.1 (2017-02)
Standards applied: EN 301489-3 v2.1.1 (2017-03)

Maßnahmen zur effizienten Nutzung des Funkfrequenzspektrums

Measures for the efficient use of the radio frequency spectrum

Angewandte Normen: EN 300220-2 v3.1.1 (2016-11)
Standards applied:

explo GmbH
IGNsystems
Völkermarkterstraße 240
9020 Klagenfurt a. W. / AUSTRIA
Tel.: +43 (0)463 / 32 245

Klagenfurt a.W., am 21.02.2020

Harald Kulterer, Geschäftsführer explo GmbH

Ort, Datum
Place, date

Name und Unterschrift
Name and signature

