TX2-20K Configurator

General description

The TX2-20K configurator can be used to program the function of the TX2-20K ignition buttons. This allows you to assign a function to the four group buttons on the left side of the TX2-20K (armed buttons) (ignition, safety/ignition group activation/deactivation). The five signal buttons on the right side of the TX2-20K (ignition buttons) can be assigned the values to be sent based on the function of the group buttons. The box number can also be set for ignition signals.

Furthermore, this software allows you to change the frequency and security key for radio transmission. Please note that the receivers must be changed separately!

It is also possible to configure whether the TX2-20K sends an ARMED signal to the system upon startup. This can turn the TX2-20K from a primary transmitter into a backup transmitter that can send its signals, but the system must be ARMED via another transmitter.

Figure 1: TX2 20K
1 Control buttons left (Armed/Group buttons)
2 Control buttons right (Ignition/Signal buttons)

Overview TX2-20K Configurator

The software consists of 4 windows, each fulfilling different functions.

Main window

The main window opens automatically when the program starts. Here, the settings for the functions of the TX2-20K are programmed.

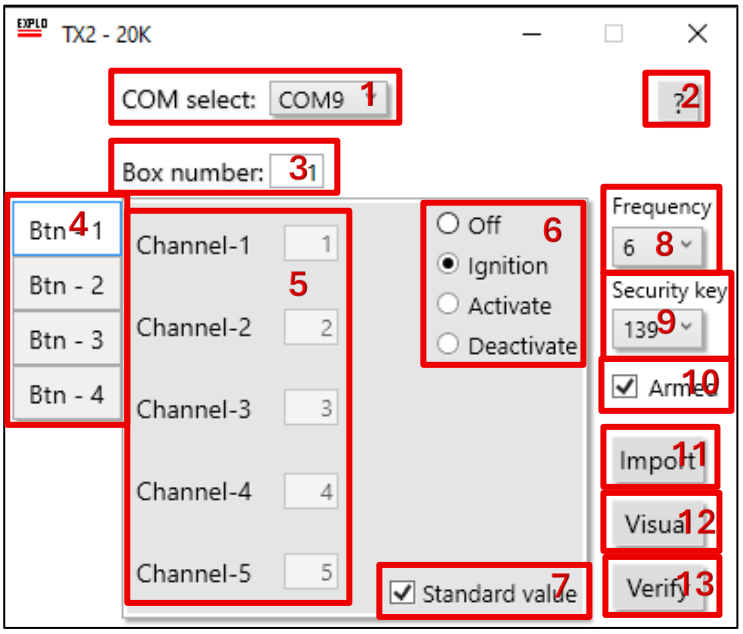

Figure 2:Main window

1. Com-Port selection

Select the COM port for programming the TX2-20K.

2. Help

Opens a Help screen with basic explanations.

3. Box number setting

Here you can set the box number which is used for ignition commands.

4. Group buttons setting

The register selection is used to group the signal buttons and determines which information is displayed in the main area.

5. Signal buttons

The signal buttons correspond to the channels of the TX2-20K and can always be assigned in groups of 5 channels.

The allowed values for the channels depend on the function of the group. For example, the values 1-70 may be assigned for ignitions and the corresponding letters with "A" - "Z" and "ALL" for activation and deactivation. As well as for the safety groups "a" - "z" and "all" for the ignition groups.

Regardless of the function of the group, the value "-" can be used to remove the function of the signal button.

If the entire group, or a signal button in a group, does not have a function, no signal will be sent by the button combination on the TX2-20K.

6. Function selection

The function is always assigned to an entire group and specifies which values are allowed for the signal buttons and which default values are used.

Off: Removes the function of a group. This ensures that no radio signal is transmitted, no matter which signal button is pressed to that group button.

Ignition: The signal button sends a manual ignition signal to the receivers. The set box number and the value of the signal button are relevant for this.

Activate: Sends out the activation signal for the set group. This allows deactivated devices to ignite again.

Deactivate: Sends out the deactivation signal for the set group. This blocks ignitions for all devices in the set safety group or Autoshow ignitions assigned to the set ignition group. Important: Effects units only react to the safety group, as the ignition group controls the opening times.

7. Default values

Here you can activate the value setting for the signal buttons. If the check mark is set, the default values for the selected function are automatically inserted and editing them is prevented.

8. Radio Frequency

Here you can select the radio frequency that the TX2-20K should use. The standard frequency in Explo systems is number 6, which falls to a frequency of 433 650 Hz.

Radio signals on other radio frequencies are not received by the radio modules.

9. Security key

The security key is used to differentiate between different radio groups within the same radio frequency.

Only if the receivers use the same system address and the same security key is set, the receivers evaluate the radio signals!

10. Device arming

This setting enables/disables the Armed signal that is sent by default from the TX2-20K when it is turned on.

If the TX2-20K is used as a spare button extension for a TX2-70K or TX2 stage, this function should not be active to avoid unintentional arming!

11. Settings import

Here, already saved program setups can be loaded in order to quickly program predefined settings on the TX2-20K.

12. Visualization

The visualization window can be opened here. This is used to facilitate the selection of ignition channels for X2 Wave Flame, GX2-1K receiver or a master module.

13. Programming Window

Here you can save the setup of the TX2-20K or program it directly to a connected TX2-20K.

Help window

The Help window provides a quick way to get basic information about the program.

Effects Devices Visualization

The visualization helps to set the ignition channels for X2 Wave Flame and GX2-1K gas receiver or the master module for GX2.

1. Effect simulation

Here the effect devices and the selected channel are simulated.

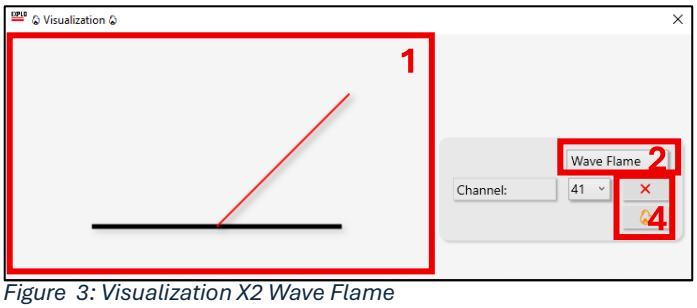

Figure 3: Visualization X2 Wave Flame

2. Device selection

Here you can set the simulation type.

3. Ignition channel selection

This is where the channel to be simulated is set.

4. Simulation control

Here a simulation can be started or stopped.

With the help of the red X button, a running simulation can be ended.

The button with the flame starts the simulation with the selected device type and the selected channel.

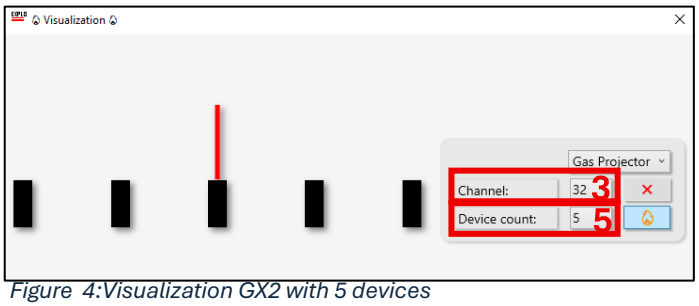

Figure 4:Visualization GX2 with 5 devices

5. GX2 Device count

Here you can set the number of GX2s if the simulation type "Gas Projector" is selected.

Programming Window

The programming window is considered the last overview to control which settings are programmed on the TX2-20K. Here, the settings can also be saved as a file in order to reprogram them at a later time if necessary.

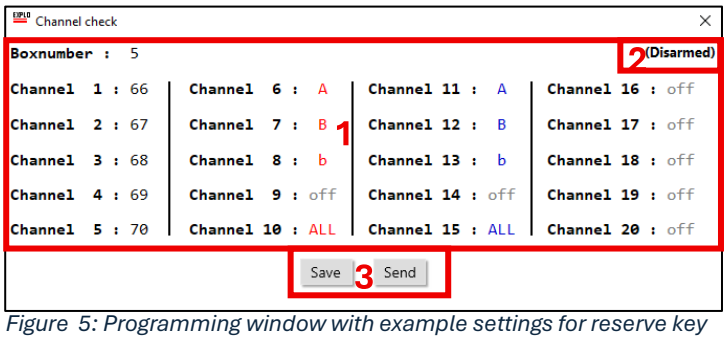

Figure 5: Programming window with example settings for reserve key usage

1. Used settings

Here it is shown which box number is used for ignition signals and which signals are sent.

Ignition commands are output as numbers.
Activation commands are issued as letters or "ALL" in red letters
Deactivation commands are issued as letters or "ALL" in blue font
Channels without function are output in gray font and with "off".

2. Status

This shows whether the TX2-20K sends the ARMED signal when starting or not.

Armed -> device switches all reachable devices to ARMED status
Disarmed -> device starts, does not change the status of the receivers/effect devices.

3. Save & Send

Here you can save the currently output settings with the help of the "Save" button.
With the help of the "Send" button, the programming routine is started.

1. For successful programming of the TX2-20K, the device must be connected to the PC using the programming/data cable when it is switched off.
2. The correct ComPort must be selected in the main view before the programming window opens.
3. After making sure that the settings have been made correctly, the programming routine is started using the "Send" button.
4. As soon as the progress bar appears, the TX2-20K can be switched on.
5. If the TX2-20K successfully responds to the programming routine, the settings are sent to the device and acknowledged with a status message.