

**MANUAL ENGLISH**

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**PRODUCT DESCRIPTION****IMPORTANT!**

In order to get the best out of your system it is important you take the time to read through the manual before you start to install/program your equipment.






The system (**EF-7700**) consists out of two parts: the transmitter (**EF-7602**) and the receiver including wiring (**EF-7701**).

The transmitter and receiver are preset and factory coded. This means that the system is ready for use. Every transmitter has a fixed, unique serial coding which has been programmed into the receiver, so that another transmitter cannot control the receiver.

**APPLICATIONS**

The receivers and transmitters of the System EF-7700 are pre-programmed. They are meant to control fixed or mobile equipment with a limited amount of functions.

** SAFETY****Ensure that:**

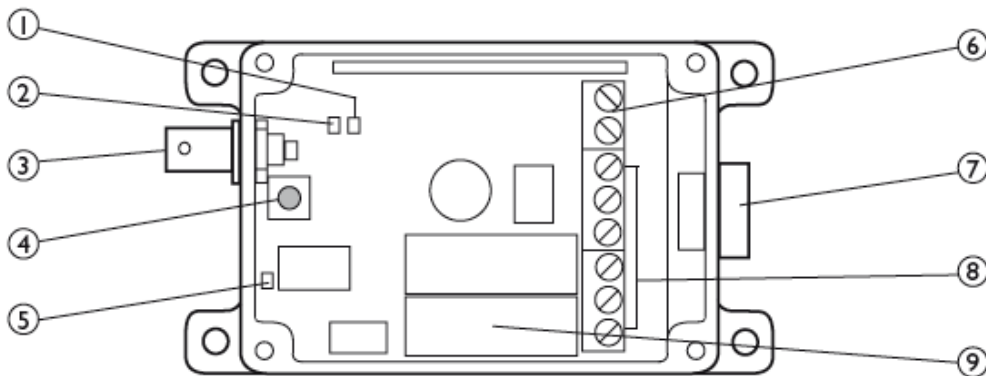
-  Appropriate personnel receive a review of the systems' functions before it is used.**
-  Only appropriate personnel have access to the transmitter.**
-  The transmitter is not left unsupervised.**
-  The operator always has a complete view of the equipment when it is radio controlled.**
-  Be sure that your hydraulic lift application is shut off during transit.**

**CAUTION:** tampering with the product, changing the settings or using the product in a fashion other than as set forth herein can lead to product malfunctions which in turn can lead to serious injuries or death. Any tampering, unauthorized change in the product, misuse or abuse will invalidate SPX's warranty on the product.

**MANUAL ENGLISH**

**RECEIVER EF-7701**

Operating voltage: 12-30 V AC/DC  
 Power consumption: 30-80 mA  
 Dimensions: 54 x 96 x 37 mm  
 Protection: IP 65  
 Climatic conditions: -30°C to +70°C  
 Humidity: 10%-90%  
 Compatible transmitter: EF-7702



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|------------------------|--|
| 1. Yellow LED          | Lights up when the receiver has the correct operating voltage.       |
| 2. Green LED           | Lights up when the receiver receives a radio signal.                 |
| 3. BNC                 | BNC-connector for the antenna.                                       |
| 4. Pushbutton          | Program receiver / erase receiver.                                   |
| 5. Red LED             | Lights up during programming.  |
| 6. Connection terminal | Connection terminal for voltage.                                     |
| 7. Cable with plug     | Cable connection to motor relays.                                    |
| 8. Connection terminal | Connection terminal for relays.                                      |
| 9. Relays              | Two separate relays. Max. Over load relay is 8 A for resistive load. |

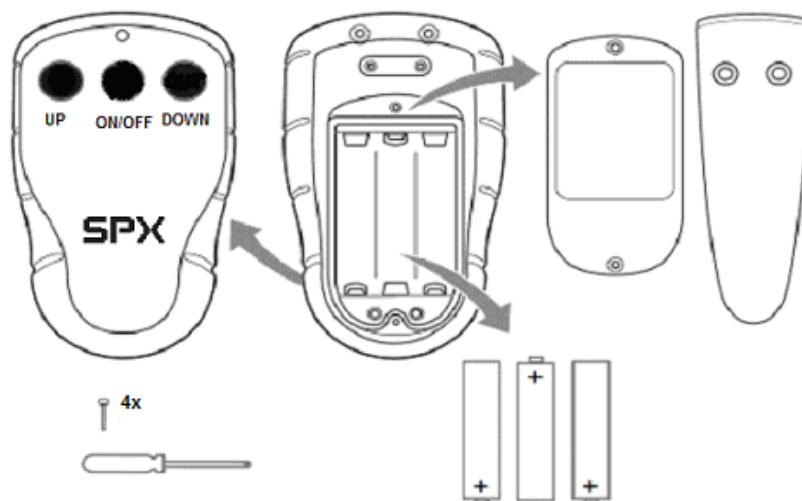
**MANUAL ENGLISH****TRANSMITTER EF-7702****FUNCTION**

The transmitter must be activated by pushing the ON/OFF button for 3 seconds. After that the UP or DOWN button can be used for operating the system.

The transmitter is active when the LED glows steadily.

Note: if the transmitter is not used within 60 seconds, it turns off automatically. Pushing the ON/OFF button for 3 seconds activates the transmitter again.

Battery replacement  
3 batteries, AAA 1,5 V.

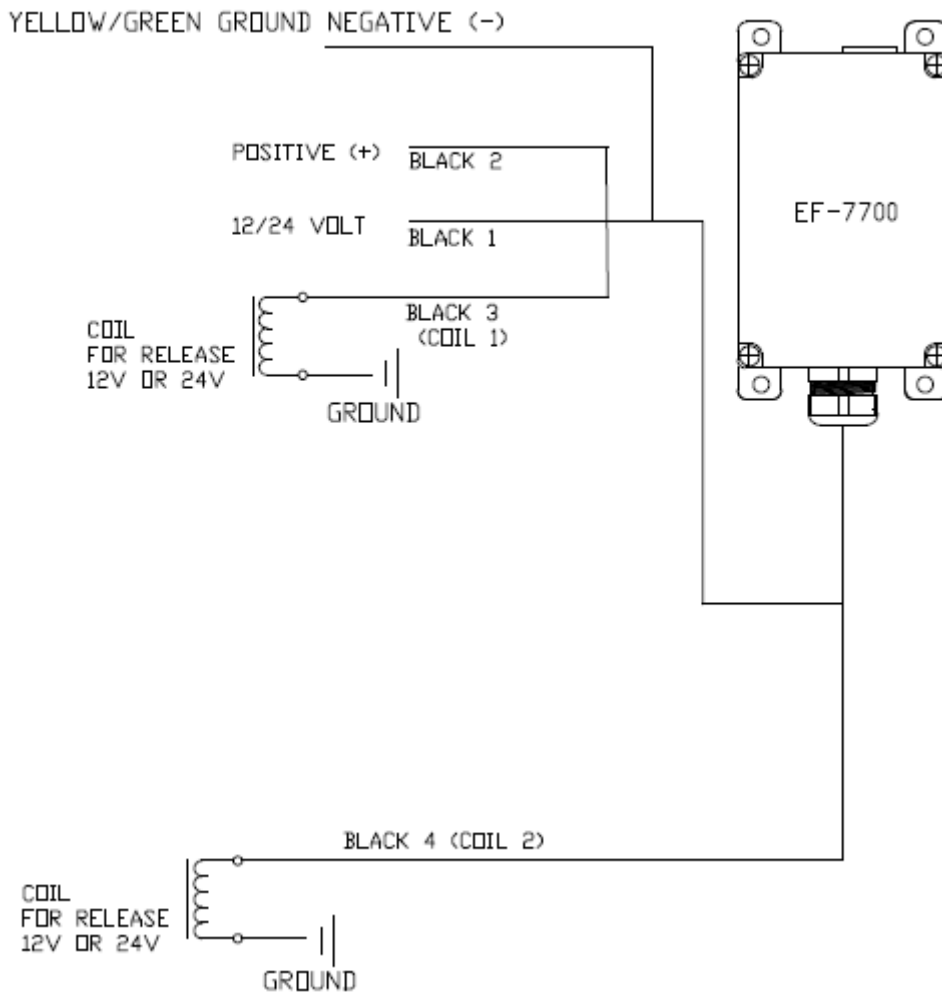


**MANUAL ENGLISH**

**PREPARATIONS**

**ASSEMBLY AND INSTALLATION**

1. Select a suitable location for assembly of the receiver.
2. Connect the Positive (+). (BLACK 2)
3. Connect the ground cable of the receiver (YELL/GR)
4. Connect the first coil (BLACK 3)
4. The black cable (4) is to connect a second coil when using a 3P/4W valve. If not used please protect or cut off.
5. Place a fuse between the receiver and the battery to prevent damage from short circuits to the receiver.



**MANUAL ENGLISH**

**PLACEMENT OF THE RECEIVER**

- Select a location, if possible, that is protected from the wind and weather. Place it with cable-glands facing downward.
- ☞ Avoid locations where the receiver may be exposed to abnormal moisture conditions, e.g. during high pressure washing.
- ☞ Avoid locations close to metal objects, electrical cables and antennas. Provide the receiver with a separate power supply.

**NOTE! Upon delivery the receiver will be pre-wired.  
! The following instructions should only be used in case of reconnecting the wiring.**

RELAY 1			RELAY 2			12-24	
COM	NC	NO	COM	NC	NO	+	GND
1	2	3	4	5	6	7	8
BL2	BL4		BL2	BL3		BL2	Y/GR

**Rewiring the receiver:**

Connect the right wiring to the terminals

- Black 2 (+) and the yellow/green cable according to the above drawing.

Connect the signal cabling to the terminals for the relays:

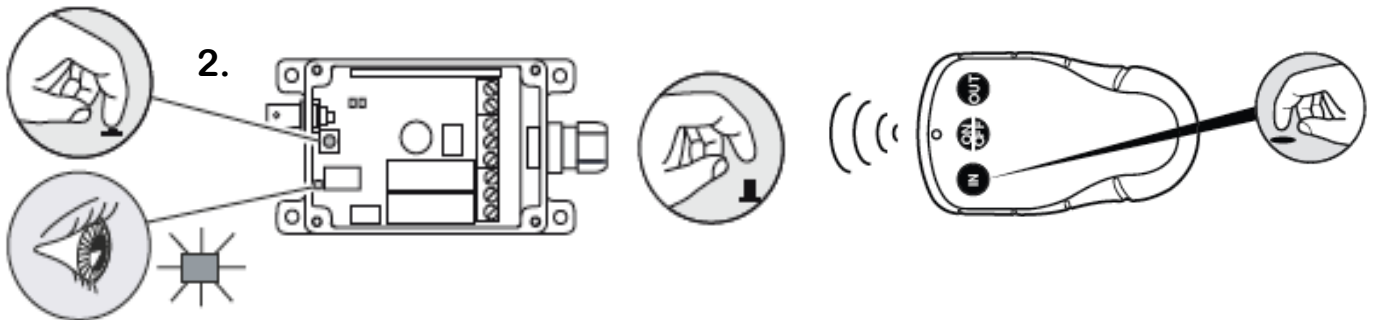
- Black 3 and 4 cables according to the above drawing
- Black 2 on the relays is pre-wired on the circuit boards.

**STORING THE TRANSMITTER CODE:**

**How to program the id-code of the transmitter?**

1. Unscrew the 4 screws to open the receiver.

## MANUAL ENGLISH



2. Push the teach-in button on the receiver until the red LED lights up.
3. Release the button when the red LED light up.
4. Turn transmitter ON.
5. Push on any button of the transmitter that is to be used with the receiver. The ID-code will be programmed into the receiver, and the red LED will blink three times.
6. Check if the functions are correctly working by pushing the buttons of the transmitter and checking if the relays are being activated. The green LED will light up if the receiver receives the signal from the transmitter. When the transmitter is programmed into the receiver, the red LED in the receiver will blink continuously two times.

### STOP INSTRUCTION

The teaching-in procedure can be stopped by pushing the button in the receiver for 6 seconds.

### ERASING THE PROGRAMMED TRANSMITTER

You can erase the programmed ID-code of the transmitter by pushing the button on the receiver for more than 8 seconds.

### TROUBLE SHOOTING:

If the equipment does not work like it should, please check the points here under.

**MANUAL ENGLISH**

PROBLEM	POSSIBLE CAUSE	SOLUTION
The YELLOW LED of the receiver does not light up.	The receiver is not well connected to the power supply.	Check the connection of the power supply.
	Incorrect power voltage supply.	Check the power voltage supply.
The GREEN LED on the receiver lights up, but the relays do not react.	The transmitter code has not been stored in the receiver.	Program/teach-in the transmitter code in the receiver.
The GREEN LED in the receiver does not light up, while the transmitter is transmitting.	The battery in the transmitter is empty.	Replace the battery.
	The transmitter is broken.	Contact your supplier.
The GREEN LED in the receiver lights up, although the transmitter is not transmitting.	In the surrounding of the receiver, another transmitter is being used on the same frequency.	Contact your supplier.
The LED of the transmitter does not light up when you transmit.	The battery of the transmitter is empty.	Replace the battery.
	The transmitter is broken.	Contact your supplier.
The range of the system is too small.	The battery in the transmitter is almost empty.	Replace the battery.

Please contact your supplier if you have tried out all solutions, but your system still does not work properly.

**MANUAL ENGLISH**

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**RECYCLING, SCRAPPING**

EF-7700-systems and any accessories and spare parts no longer in use should be scrapped and recycled according to local environmental regulations.

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