



## LIBERTY Miniature Handheld RF Remote Control Transmitters

The **LIBERTY** series handheld remote controls are available in 2 models, **LIBERTY** and **LIBERTY-2X**.

The **LIBERTY-2X** includes an additional 'function' slide switch to enable controlling two independent receivers with a single transmitter. The function switch set to the left, will control receiver A without affecting receiver B and set to the right will control receiver B without affecting receiver A.

**LIBERTY-2X** may be described as a 'two-in-one' transmitter

The **LIBERTY** and **LIBERTY-2X** are otherwise identical, with each model available in a 2, 4, 6 or 8 button version.

The **LIBERTY-2** (**LIBERTY-2X-2**) has two control pushbuttons (plus slide switch) whilst the **LIBERTY-8** (**LIBERTY2X-8**) has eight control pushbuttons (plus slide switch).

The transmitters are powered by an internal high capacity lithium coin battery type CR2450.



### Features

- 2, 4, and 8 button versions
- 2x Function (LIBERTY-2x version) switch doubles the functional control to effectively 16 buttons
- 433.92MHz, FM operation
- Crystal controlled frequency stability
- 256 user configurable address codes
- Robust, secure protocol ensures high data integrity
- Small size: 3.14" x 1.47" x 0.8"
- Tactile feedback pushbuttons
- Splash proof and dust proof (for LIBERTY model only. Not applicable to LIBERTY-2x)
- LED transmit indication
- Powered by CR2450 lithium battery for extended duty
- Compatible with all ABACOM's FM remote control receivers
- Internal antenna
- Typical range up to 300ft
- Custom graphic overlay options available

## Operation

**LIBERTY** and **LIBERTY-2X** are compatible with ABACOM Technologies remote control receivers, such as the –SRX series relay receivers, the 16CHRX receiver, the 18CHRX receiver and the 10R8D 10 relay plus 8 digital output receiver.

## Configuring the Communication Address

### LIBERTY model

The default pre-configured address is DIP switch 2 and 4 set to ON position, and the remaining switches set to OFF position. This address setting must match that of the receiver it is controlling and may be changed by the user at any time. This may only be necessary if multiple systems are to be operated within radio range of one another. In this situation each transmitter should have a different address to prevent communicating with the wrong receiver. With the 8 DIP switches it is possible to configure up to 256 unique address. However it is not recommended to use an address with **all** switches set to the OFF position or **all** set to the ON position.

### LIBERTY-2X model

The address configuration of **LIBERTY** models as described above also applies to **LIBERTY-2X** models with the exception of DIP switch 1. DIP switch 1 has a special function on **LIBERTY-2X** and must always be in the **OFF** position. The function (Fn) slide switch functions as an external control of address DIP switch 1 allowing on-the-fly address changes to facilitate controlling two independent receiver systems using a single transmitter. With the Fn slide switch to the right effectively keeps address DIP switch 1 in the OFF position. With the Fn slide switch to the left switch sets address DIP switch 1 ON thereby changing the transmitter address to control second independent receiver.

With the above considered, the **LIBERTY-2X** with the slide switch to the **right** will control a receiver whose address **DIP switch 1** is set to **OFF** whereas with the slide switch to the **left**, **LIBERTY-2X** will control a receiver whose **DIP switch 1** is set to **ON**. The remaining receiver DIP switch address settings (switches 2-8) must have the same settings as the **LIBERTY-2X** in order for successful communication to occur.

Some receivers such as the 10R8D feature an automatic transmitter address learn function. Details on address learning with these receivers will be found in the receiver's documentation.

### LIBERTY operating the –SRX series receivers

Each pushbutton of the **LIBERTY** and **LIBERTY-2X** transmitters transmit a unique code to operate a particular channel of the companion receiver. For the –SRX receivers corresponding channel is set via the four position DIP switch as shown in the table below.

A typical setup may be to have each **LIBERTY** or **LIBERTY-2X** switch control a corresponding output of on the –SRX series relay receiver. For example **LIBERTY-4** may be used with the 4CH-SRX receiver. In this case each of the four transmitter buttons can independently control each of the four relay outputs of the 4CH-SRX receiver. For this to function it is necessary to have the **four position DIP** switches on the **4CH-SRX** receiver to be configured according to the settings shown in the table on the following page.

## -SRX receiver Channel Setting

The table below shows the 4 position DIP switch settings required on the –SRX series receivers for channels activation of the correspond the LIBERTY pushbutton switches.

LIBERTY switch #	- SRX Receiver DIP switch 1	- SRX Receiver DIP switch 2	- SRX Receiver DIP switch 3	- SRX Receiver DIP switch 4
1	OFF	OFF	OFF	ON
2	OFF	OFF	ON	OFF
3	OFF	ON	OFF	ON
4	OFF	ON	ON	OFF
5	ON	ON	ON	OFF
6	ON	OFF	ON	OFF
6**	ON	OFF	OFF	ON
7	ON	ON	OFF	ON
8	ON	OFF	OFF	ON
8**	ON	OFF	ON	OFF

**\*\* NOTE: These setting apply to current LIBERTY Rev. 4.**

### Disclaimer:

Technical specifications are subject to change without notice. Whilst every effort has been made to ensure the accuracy of the information contained in this document, ABACOM Technologies Inc. does not assume responsibility for any errors or omissions that may exist. ABACOM Technologies Inc. does not assume responsibility for any damage caused through use or misuse of their products and the onus lies entirely with the end user in determining the suitability of and use of the product for any particular application. ABACOM Technologies Inc. products are not recommended for applications where human life may be at risk.