

# ETC® Setup Guide

## Radio Remote Focus Unit (RRFU)



### Overview

The Radio Remote Focus Unit (RRFU) provides a simple, wireless solution for remote control. Compatible with the ETC Express™, Expression™ and Insight™ consoles, this small hand-held transmitter unit provides access to frequently used commands for dimmer and channel checks as well as macro and record functions. The small receiver unit plugs directly into and is powered by the RFU port on the console.



**Note:** If multiple units are to be used separately within range of each other's receiver units, please refer to [page 3](#) for modification of the communication encoding.

### Installation Instructions

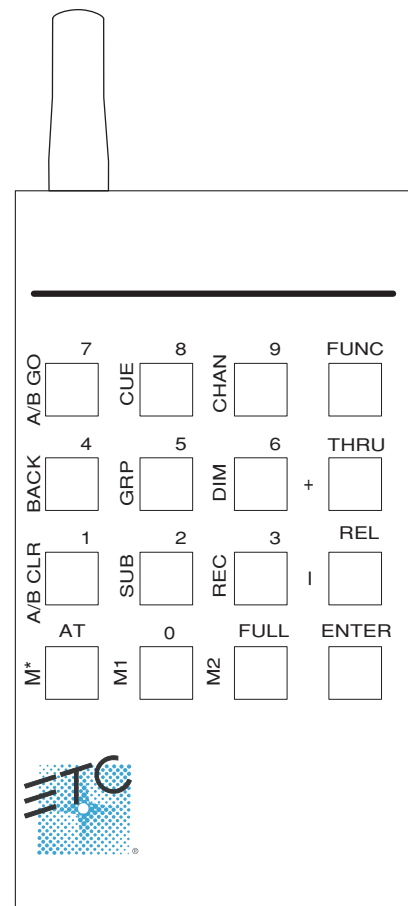
The receiver unit is provided with an integral 2m (6.6') 6-pin XLR cable which may be extended using a standard RFU cable. For best performance, the receiver should be located in a central area at about ceiling height. Connect the receiver unit to the RFU port on your console. The receiver may also be plugged into an available RFU port elsewhere in your system, however the maximum distance (cable length including cable inside the wall) from the power source is 100m (330').

The transmitter unit requires a single 9V alkaline battery (provided) for power. This battery should provide approximately one year of normal usage before requiring replacement. To replace the battery, remove the two M3x4mm screws at the bottom of the unit to access the battery compartment and replace with a 9V alkaline battery. Replace the lid and secure it with the same two screws. Dispose of the old battery as is appropriate in your local area.

### Transmitter Setup

The transmitter unit has a slide switch (on/off) and 16 keys for console commands. The unit has a "sleep" feature that helps to conserve battery life when the switch is left in the "on" position. Set the switch to the "off" position to guard against accidental key presses.

The keys of the transmitter unit are illuminated. The keys are brightly lit while keys are pressed and the unit is transmitting. After the key is released, the keys remain dimly lit for a period of time before the unit sleeps. The sleep delay can be programmed at the transmitter unit as described below.



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# Setup Guide:

## Radio Remote Focus Unit (RRFU)

### Set the transmitter unit sleep delay:

- Turn the power switch to “off.”
- Hold down the key for the timeout that you require.

Desired Timeout	Expression/Express RRFU key	Congo RRFU key
5 seconds	FUNC	FUNC
12 seconds	THRU	THRU
25 seconds	REL	CH
Never turn off	ENTER	@LEVEL

- While pressing the appropriate key, slide the power switch to the “on” position.
- Wait about 5 seconds.
- All keys will flash and then come on solid. This indicates that programming is complete.

## Operation Instructions

The transmitter has two available commands for each key on the unit. Direct commands are displayed above each key. To access the commands that are displayed vertically to the left of each key, press the **[FUNC]** key first (do not press and hold **[FUNC]**). An example of mixing direct and **[FUNC]** commands to record channels 1-5 at full in group 5 follows:

[1] [THRU] [5] [FULL] **[FUNC]** [REC] **[FUNC]** [GRP] [5] [ENTER]

## Specifications

Transmitter Unit	Receiver Unit
<ul style="list-style-type: none"><li>• Output: US: UHF 914.5MHz, 1mW maximum</li><li>• Antenna: Helical, fixed</li><li>• Working range: 75m indoor, 200m in free field</li><li>• Power: 9 Volt 6F22 battery</li><li>• Size/Weight: 115mm (4.5") x 65mm (2.6") x 20mm (.8") (excl. antenna) 280g (10oz) (incl. antenna)</li></ul>	<ul style="list-style-type: none"><li>• Output: RS485 serial communications</li><li>• Connections: Integral 2m 6-pin XLR cable to RFU port</li><li>• Max. Cable Length: 100m (330') Max from power source</li><li>• Power: 7-12Vdc, 25-30mA</li><li>• Size/Weight: 112mm (4.4") x 71mm (2.8") x 45mm (.7") (excl. antenna) 465g (1lb) (incl. cable and antenna)</li></ul>

### FCC Notes (914.5MHz US version):

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

In order to maintain compliance with FCC regulation shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and television reception.

# Setup Guide:

## Radio Remote Focus Unit (RRFU)

### ETC RRFU Transmitter settings

The RRFU has three possible encoding settings to allow multiple units to be used in the same area. Changing the setting is done via a hardware jumper on the receiver and a special key sequence on the transmitter.

- The encodings are designated '+', '0' and '-'.
- Express/ion RRFUs ship from ETC set to '+'.
- Congo RRFUs ship from ETC set to '-'.

#### To change the transmitter encoding

- Turn the power switch to 'Off.'
- Hold down the key for the frequency that you require based on the type of console you are using the RRFU to control.

Desired Encoding	Expression/Express RRFU Transmitter	Congo RRFU Transmitter
0	AT	0
+	0	C
-	FULL	. (period)

- Power up the transmitter while holding down the key.
- Keep pressing key for about 10 seconds.
- All keys will flash and then come on solid. This indicates that programming is complete.

#### To change the receiver encoding

- Unplug the receiver from the console.
- Open the cover.
- Identify the jumper block and the +, 0, - symbols that correspond to each jumper.
- Move jumper to selected encoding.
- Close cover.
- Reconnect receiver to the console.

