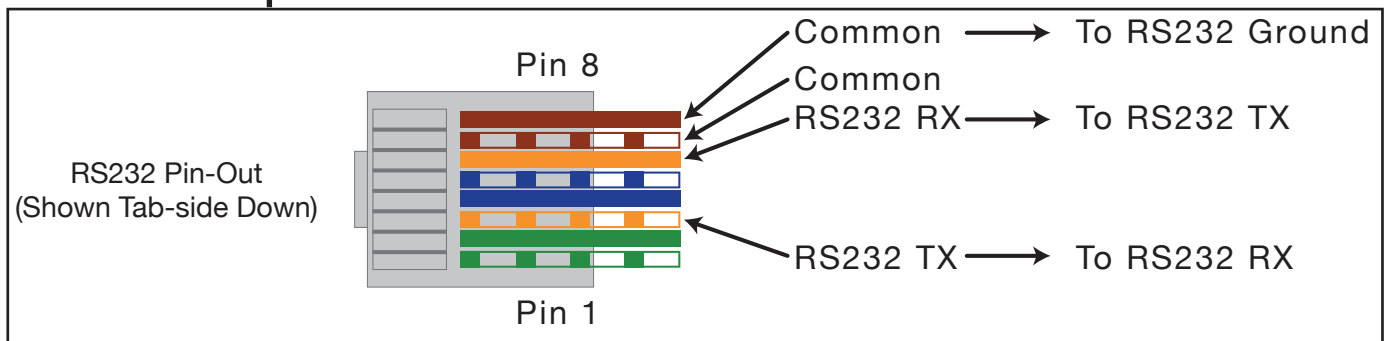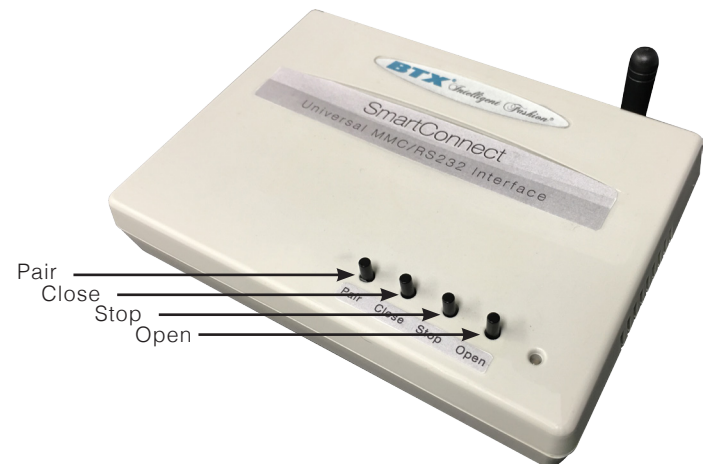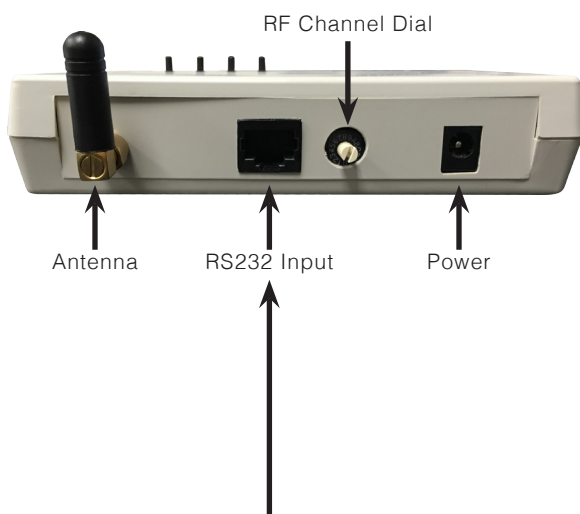# BTX SmartConnect

Universal MMC/RS232 Interface

The BTX SmartConnect can be used to communicate between third-party automation systems and BTX's MMC RF motors and controls. The SmartConnect can control units individually or as groups, and is operated via RS232 input. Once the input is executed, a wireless MMC RF radio command is sent to the automated BTX window coverings system.

Layout & Connections

RF Channel Dial

Antenna | RS232 Input | Power

Pair
Close
Stop
Open

Pin 8

RS232 Pin-Out
(Shown Tab-side Down)

Common ⟶ To RS232 Ground
Common
RS232 RX ⟶ To RS232 TX

RS232 TX ⟶ To RS232 RX

Pin 1

Operation

A. Initial Setup

1. Connect a 12V DC transformer (included) to the receptable on the back of the control box. The LED will light up green to indicate power.
2. Be careful not to mount or enclose SmartConnect on or in metal, as this may effect radio reception
3. Set the MMC RF receiver or motor in its Pairing Mode. Refer to the installation and programming instructions for the relevant product for this procedure.
4. Using the RF Channel Dial, select the channel to be paired. Letters A through E stand for channels 10 through 14, and channels 0 and F represent all channels. Briefly press the Pair button (5 sec max), the window treatment will jog to indicate the channel has been learned. **Please note that current protocol only supports up to 14 channels.**
5. Repeat the steps above for each channel or product to be memorized, up to 14.
6. To test the control operation, simply press the UP, STOP, or DOWN buttons on the front of the SmartConnect. The window treatment should move appropriately. The LED will flash red to indicate the radio signal has been transmitted.

B. RS232 Operation

1. The BTX SmartConnect interface uses the following communications settings: **9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity**
2. Set the RF Channel Dial to position 1
3. The basic format for communication is as follows:
   [SmartConnect Address] [Motor Channel] [Command] [Transmission Time]
   The SmartConnect Address is 01.
   The Motor Channel is always a two-digit number; 01 through 14.
   Transmission Time is not a required entry.
   See the following chart for command detail.

#	Commands (low/HIGH case)	Command Description	Button Description
1	c/C	Travel to **CENTER** Favorite Position	Center
2	d/D	Travel **DOWN** or **CLOSE**	DOWN or Close
3	s/S	**STOP** System	Stop
4	u/U	Travel **Up** or **OPEN**	UP or Open
5	a/A	Travel to **A** Favorite Position	A
6	b/B	Travel to **B** Favorite Position	B
7	e/E	**Erase All** (Set motor to Factory Default)*	Close+Stop (3-5ceconds)
8	f/F	Unlearn (**ERASE**) Selected Channel*	Open+Stop (3-5ceconds)
9	t/T	**CHANGE DIRECTION** (mech limit motor) or **ENTER PROGRAMMING MODE** (electronic limit motor)	A+B (3-5ceconds)
10	p/P	**PAIR** Motor** or **CHANGE DIRECTION** (electronic limit motor)*	Open+Close (3-5ceconds)
11	n/N	Set **UPPER LIMIT*** Touch Control **ON*****	A+Center (3-5ceconds)
12	m/M	Set **LOWER LIMIT*** Touch Control **OFF*****	B+Center (3-5ceconds)
13	x/X	Enter to **PAIRING MODE**	Stop (3-5ceconds)

*Motor must be in Programming Mode
**Motor must be in Pairing Mode
***Only applies to Tumo Drapery motors. Motor must be in Programming Mode.

Operation - Continued

Command Entry Formatting

[SmartConnect Address] [Motor Channel] [Command] [Transmission Time]

Example: 0105U;
01 = SmartConnect Address
05 = Motor Channel
U = Execute "UP" command
; = Semicolon marks the end of a comman
Note: Transmission Time is not used in this example, and is not required be default.

Several additional examples are below:

All motors UP (Channel 01 through 14):	0100U;
Motor at Channel 1 UP:	0101U;
Motor at Channel 5 DOWN:	0105D;
Motors at Channel 10 and 14 STOP:	0110S;0114S;
Motors at Channel 8 Travel to Position A &	0108A;0109B;
Channel 9 Travel to Position B	

Additional Notes:
- Uppercase and Lowercase letters can be used interchangeably
- If using the Transmission Time feature, any two digits in the command string after the command code represents length of transmission. For example, if you use 0107U22;, this means that the UP command for Channel 7 will be transmitted for 22 seconds
- Up to 7 successive commands can be entered in a single line of the control terminal at a time
- Channel 00 means all 14 channels should run

Electrical Specifications

Power

9 - 15V DC, 200mA
20mA draw for each SmartConnect

Frequency

433.92 MHz

*Motor must be in Programming Mode
**Motor must be in Pairing Mode
***Only applies to Tumo Drapery motors. Motor must be in Programming Mode.