



2, 4, & 6 Button Application Tool

M009.0.0-246_But_App

Customer Name: _____

Contact Name: _____

Email: _____ Phone: _____

Application Description / Machine Type: _____

Date of Submission: ____/____/____ Revision: _____

Thank you for considering Cervis, we look forward to working with you in your application.

This tool is designed as a pre-sale document to aid in the communication and documentation of the application. The information presented in this document will be used for quoting purposes and therefore it is recommended to provide as much detail as possible such that the following proposal reflects the total requirements as closely as possible.

Should any questions arise during use of this document please contact Cervis' sales department at 724-741-9000. Thank you for considering Cervis, we look forward to working with you in your application.

Application Description

Describe application including environment of operation:

Radio Frequency Operation Options

- 900MHz* 10mW Output Power (Typical Range ≈300m)
- 2.4GHz** 2mW Output Power (Typical Range ≈100m)
- 100mW Output Power* (Typical Range ≈300m)

*900MHz systems come with FCC and IC certification(s)

**2.4GHz systems come with FCC, IC and CE certification(s)

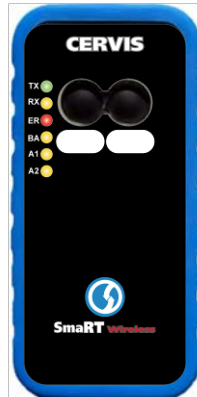
✓ **Note:** Range estimations above are not guarantees and are dependent on device to device relationship and obstructions that will reduce the quality of the RF link. Operating distances mentioned above are results based upon good “conditions” and “line of sight” between devices.

2, 4, & 6 Button Design

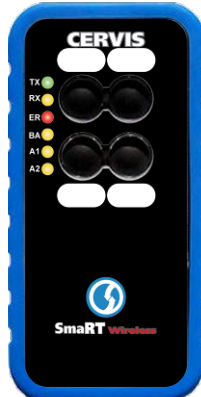
The SmaRT Wireless 2, 4, & 6 button remote is available in multiple configurations that are derived from three standard physical layouts. Minor adjustments to the layouts can be accommodated. Major layout requests will be quoted based upon the supporting business case.

Standard Layout Choices

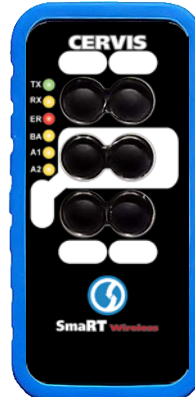
2 Button



4 Button



6 Button



2, 4, & 6 Button Type of Operation

PTO – Push to Operate

[unit activates upon button press and deactivates shortly after button is released]

DO – One Button, ON/OFF

[one button is designated to activate the unit and deactivate the unit]

OO – Two Buttons, On and OFF

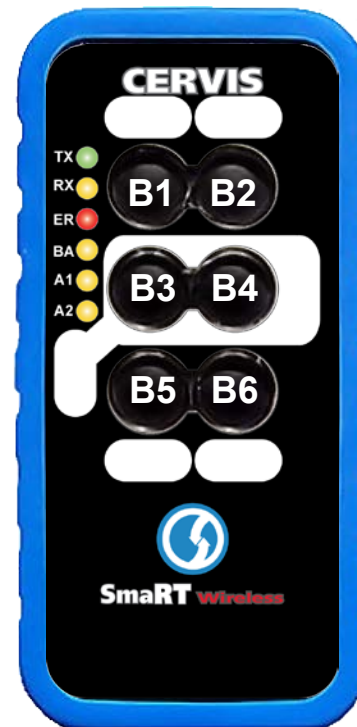
[one button is designated to activate the unit and a different button to deactivate the unit]

If DO/OO Handheld button inactivity Time-Out: _____minutes.

2, 4, & 6 Button Labeling

Standard labeling option is to provide the SmaRT brand label as pictured above with button function indications in the white text field area. Two standard options for text size are offered, please see chart below for details: also, custom graphic labeling/branding is offered – please contact factory to discuss. Please fill out the desired button labeling below in the chart. If filling form out for two or four buttons handhelds leave unused buttons blank.

BUTTON	TEXT				
1					
2					
3					
4					
5					
6					



<input type="checkbox"/> LABELING OPTION 1 SINGLE LINE TEXT: 7 PT FONT (MIN) 11 PT FONT (MAX)
<input type="checkbox"/> LABELING OPTION 2 TWO LINE TEXT: 7 PT FONT (MIN) 8 PT FONT (MAX)
<input type="checkbox"/> LABELING OPTION 3 CUSTOM GRAPHIC LABEL

2, 4, & 6 Button Output Logic

Fill out the output logic table by placing one of the letter designations that reflects the desired functionality for each button. For example, if you want button 1 (B1) to control outputs 1 in a momentary fashion and B1 to control output 5 in a latching fashion you would put an “M” in the block for output 1 and “B1” and an “L” in the block for output 5 and “B1”. An unlatch designation may have to be made to provide for unlatching of output 5, in this case a “U” would be placed in the proper block to reflect the button that will unlatch output 5.

OUTPUT LOGIC
BASE UNIT CHANNEL

		1	2	3	4	5	6
HANDHELD BUTTON	B1						
	B2						
	B3						
	B4						
	B5						
	B6						

M = Momentary Output
L = Latching Output
U = Unlatch Output
LK = RF Link Output

OUTPUT LOGIC
BASE UNIT CHANNEL

		1	2	3	4	5	6	7	8
HANDHELD BUTTON	B1								
	B2								
	B3								
	B4								
	B5								
	B6								

M = Momentary Output
L = Latching Output
U = Unlatch Output
LK = RF Link Output

OUTPUT LOGIC
BASE UNIT CHANNEL

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HANDHELD BUTTON	B1																
	B2																
	B3																
	B4																
	B5																
	B6																

M = Momentary Output
L = Latching Output
U = Unlatch Output
LK = RF Link Output

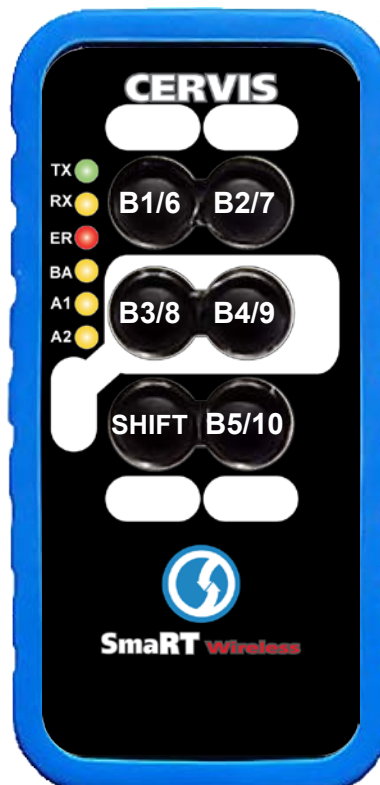
If output interlocking is required please describe. Interlocking is a condition where it is not desired to have two outputs able to be on at the same time (such as opposing functions):

2, 4, & 6 Button Accessories

- Belt Clip option: belt clip mounted on backside of handheld (standard option is with lanyard)



- Shift function: Only available in 6 button models to provide the ability to have a total 10-independent function commands: typically this is provided by using One button designated as shift and with that button and another Button held a secondary function(s) will be accessed. Example below.



Base Unit Antenna Options

- Internal Antenna (Typically used when mounting base unit outside of other enclosures)
- External antenna
 - Mounted to Base Unit
 - With 3 foot extension cable (straight connector to panel mount bulkhead)
 - With 10 foot extension cable (straight connector to panel mount bulkhead)
 - With 10 foot extension cable (right angle connector to panel mount bulkhead)
 - With 20 foot extension cable (right angle connector to panel mount bulkhead)



Panel Mount Bulkhead



Straight Connector



Right Angle Connector



900Mz Antenna
7 inch length
Right Angle/Straight



2.4GHz Antenna
6 inch length
Right Angle/Straight

Base Unit Power Supply

- 7-28 VDC*
- 110-220 VAC 47-440Hz
- 110-340 VDC**
- 12-24 VAC**

*Some models have split low voltage DC specifications 9-12VDC or 18-36VDC

**Not available on all base unit models

Describe power supply type: _____

Base Unit Output Requirements

- | | | |
|---|--|-----------------|
| <input type="checkbox"/> Relay contacts | <input type="checkbox"/> Normally open contact | Quantity: _____ |
| | <input type="checkbox"/> Normally closed contact | Quantity: _____ |

Contact Rating

- Resistive: 5A at 250 VAC or 30 VDC
- Resistive: 10A at 250 VAC or 30 VDC
- Inductive: 2A at 250 VAC or 30 VDC (proposal will include snubber circuits on contacts)

Resistive load example: indicator light
 Inductive load example: valve or relay coil

Describe output interface: _____

- PWM (Pulse Width Modulated) output

PWM Frequency: _____ Hz
Coil Resistance: _____ Ω
Quantity: _____

- Current control

Initial Current: _____ mA
Final current: _____ mA
Quantity: _____

- Analog output

Variable voltage: ___ to ___ VDC
<input type="checkbox"/> 4-20mA

Describe output interface/valve type: _____

Base Unit Output Requirements (Continued)

- Motor Reversing H-Bridge 25A Max Load @ 55°C 12 VDC

Base Unit Data Communication Requirements

- CAN Bus J1939
- CAN Bus CAN Open

Base Unit Output List

	Function Name	Output Type	Logic: Special Requirements
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

Function Name Example
Output Type:
Logic/Special Requirements:

Drive Forward, Drive Reverse, Rotate CCW, Rotate CW, etc.
 Latching, Momentary, PWM, Current, Analog, H-Bridge, CAN Bus, etc.
 Describe special conditions for output, i.e., if the output is conditioned on an Input or other function

Base Unit Input Requirements

- 4-20mA
- Variable voltage: ___ to ___ VDC
- Digital
- High side voltage: _____
- Low side (contact to power supply ground)

Base Unit Input List

	Function Name	Input Type	Logic: Special Requirements
1			
2			
3			
4			
5			
6			

Function Name Example Boom Pressure, Extend Limit
Input Type: Variable voltage, 4-20mA, Dry contact, etc.
Logic/Special Requirements: Describe if input interacts with other functions

Describe input interface/device: _____

Base Unit Options

Four character LED alphanumeric display



Display Example

Eight character LED alphanumeric display



Describe desired display usage: _____

Base Unit Software Requests

Link Definition

- Safety LINK Enabled** (where all outputs will clear upon loss of link)
(Feature not available with PTO version handhelds)
- Safety LINK Disabled** (where latched commands will remain latched upon loss of link, but all momentary commands that are active deactivate)

Component Architecture

- One to One** (where one handheld and one base unit have an exclusive pairing)
- Many to One** (where more than one handheld can be paired to a base unit)
- One to Many** (where one handheld is paired to several base units)
- Many to Many** (open architecture where many handhelds and base units are paired)

Describe any special requirements including quantities if many to One, One to Many or Many to Many configurations:

Standard Base Unit Wiring Offering

- 36" – 1m(multi-conductor cable)

- 96" – 2.5m (multi-conductor cable)

Base Unit Mounting

Base Unit Mounting:

- Outside Environment
- Inside Environment
- Inside other enclosure Metallic enclosure Polymer Enclosure

