



Console Box Application Tool

M017.1.0

Customer Name:			
Contact Name:			
Email:		Phone:	
Application Description / Machine Type:			
Date of Submission:		Revision:	

Thank you for considering Cervis, Inc. 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. Therefore, we recommend you provide as much detail as possible so that the following proposal reflects the total requirements as closely as possible. Should any questions arise during use of this document, please contact the Cervis, Inc. sales department at 724-741-9000. Thank you for considering Cervis, Inc. We look forward to working with you in your application.

Application Description

Describe application including environment of operation:

Radio Frequency Operation Options

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.

Console Box Design

The **SmaRT Wireless** console box (CB) is available in multiple configurations that are derived from two 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

CB Options

- Variable potentiometer option (sacrifices toggle switch positions)

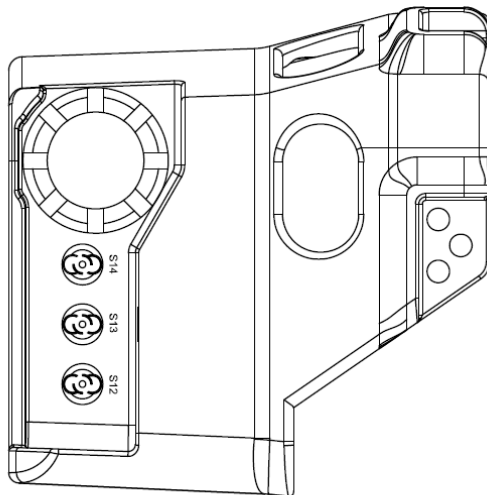
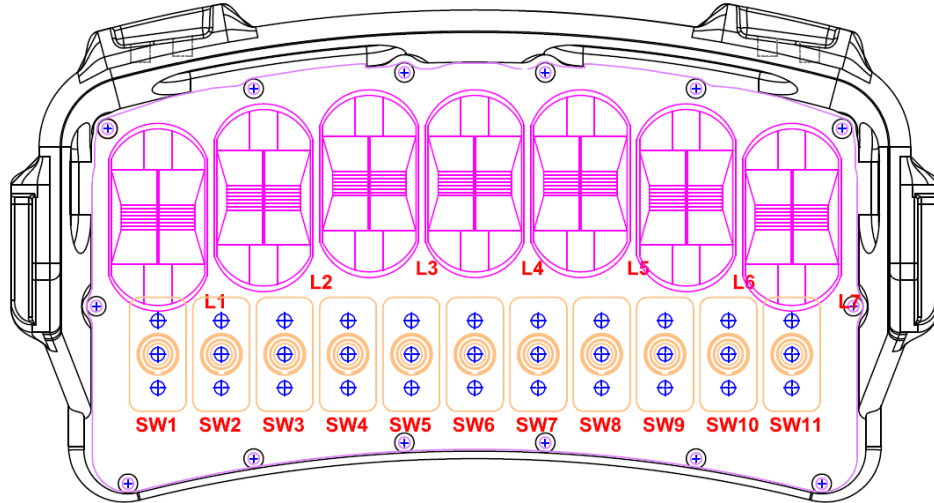
- Tether back-up option
Supports loss of RF communication and loss of battery power

- Display option

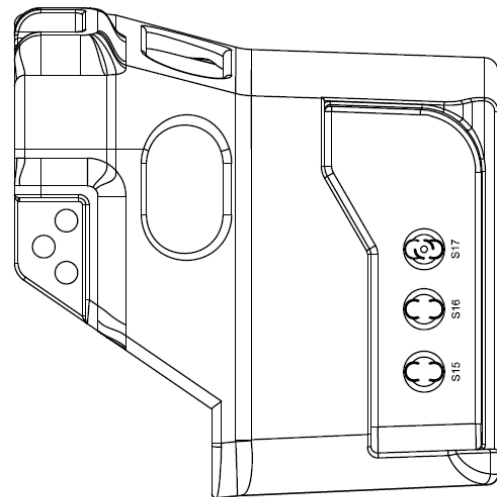
Describe desired display usage:

Console Box Design

CB-X0XLV (Lever Configuration)



LEFT SIDE SWITCH DETAIL



RIGHT SIDE SWITCH DETAIL

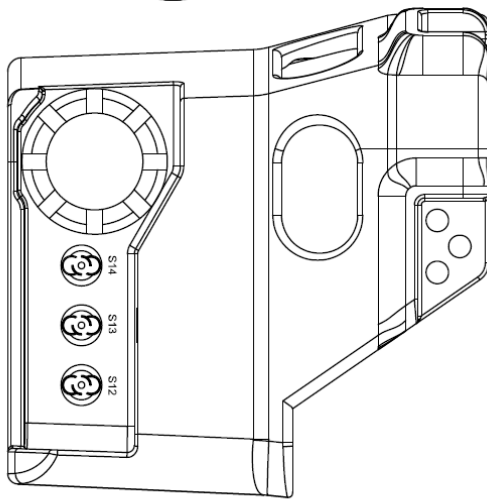
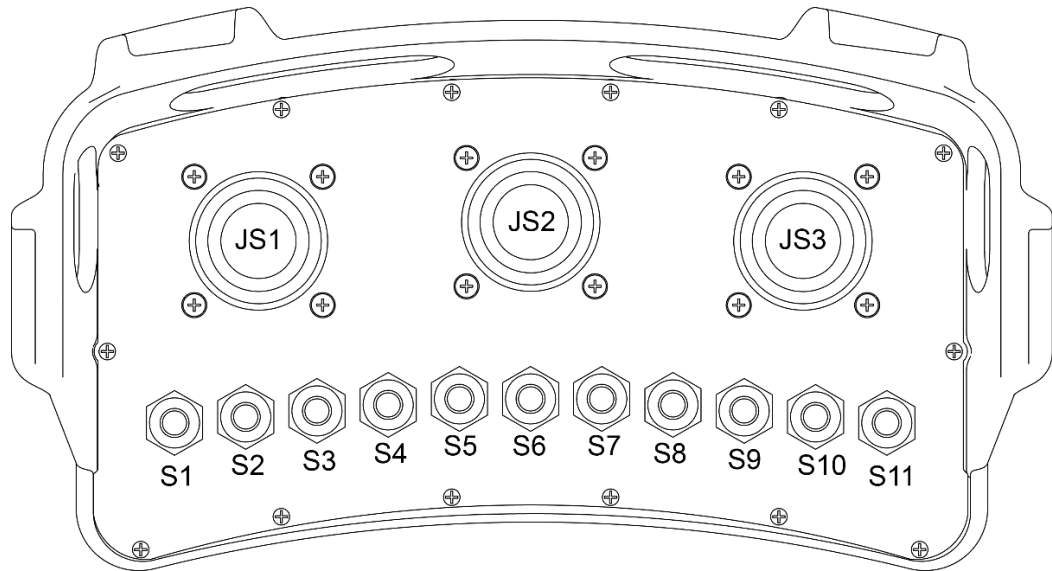
?		FUNCTION	SWITCH TYPE	CUSTOM LOGIC
S1 +				
S1 -				
S2 +				
S2 -				
S3 +				
S3 -				
S4 +				
S4 -				
S5 +				

FUNCTION		SWITCH TYPE	CUSTOM LOGIC
S5 -			
S6 +			
S6 -			
S7 +			
S7 -			
S8 +			
S8 -			
S9 +			
S9 -			
S10 +			
S10 -			
S11 +			
S11 -			
S12 +	CB ON	3PM	
S12 -	CB OFF	3PM	
S13 +	ASSOCIATION	3PM	
S13 -	DISASSOCIATION	3PM	
S14 +			
S14 -			
S15 +			
S15 -			
S16 +			
S16 -			
S17 +			
S17 -			
L1 +			
L1 -			
L2 +			
L2 -			
L3 +			
L3 -			
L4 +			
L4 -			
L5 +			
L5 -			
L6 +			
L6 -			
L7 +			
L7 -			

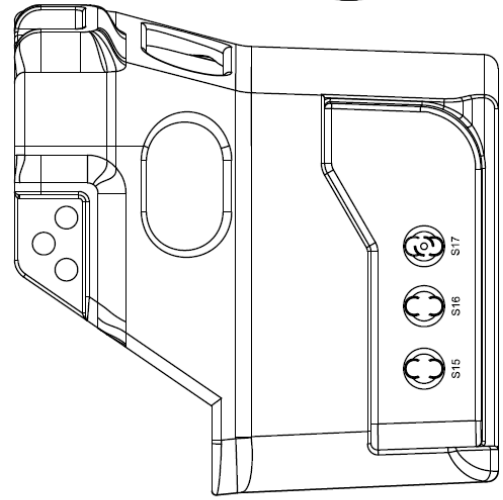
NOTE: STOP Switch and LED bank can be placed in any switch (S) position on the CB. Display can be placed in any lever or switch position.

Describe any special requirements:

CB-X0XJS (Joystick Configuration)



LEFT SIDE SWITCH DETAIL



RIGHT SIDE SWITCH DETAIL

?	<u>FUNCTION</u>	<u>SWITCH TYPE</u>	<u>CUSTOM LOGIC</u>
S1 +			
S1 -			
S2 +			
S2 -			
S3 +			
S3 -			
S4 +			
S4 -			
S5 +			
S5 -			
S6 +			
S6 -			
S7 +			
S7 -			
S8 +			
S8 -			
S9 +			
S9 -			
S10 +			
S10 -			
S11 +			
S11 -			
S12 +	CB ON	3PM	
S12 -	CB OFF	3PM	
S13 +	ASSOCIATION	3PM	
S13 -	DISASSOCIATION	3PM	
S14 +			
S14 -			
S15 +			
S15 -			
S16 +			
S16 -			
S17 +			
S17 -			
JS1 Y+			
JS1 Y-			
JS1 X+			
JS1 X-			
JS2 Y+			
JS2 Y-			
JS2 X+			

?	<u>FUNCTION</u>	<u>SWITCH TYPE</u>	<u>CUSTOM LOGIC</u>
JS2 X-			
JS3 Y+			
JS3 Y-			
JS3 X+			
JS3 X-			

NOTE: STOP Switch and LED bank can be placed in any switch (S) position on the CB. Display can be placed in any joystick or switch position.

Describe any special requirements:

CB Software Feature

Handheld Inactivity Timeout

- 4 Minutes 10 Minutes Other _____ Minutes None

CB Accessories

- Tether cable 50 foot length with machine mount bulkhead connector/dust cap
- Tether cable 24 foot with flying leads for terminal strip mounting

Graphic Label

Company Logo

Label Notes:

Base Unit Antenna Options

- Internal Antenna (Typically used when mounting base unit outside of other enclosures)
- External Antenna



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="radio"/> Relay contacts | <input type="radio"/> Normally open contact | Quantity: _____ |
| | <input type="radio"/> Normally closed contact | Quantity: _____ |
| <input type="radio"/> Solid State | <input type="radio"/> High Side Output | Quantity: <input type="text"/> |
| | <input type="radio"/> Low Side Output | Quantity: <input type="text"/> |

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)

Describe output interface:

- PWM (Pulse Width Modulation) output
 - PWM Frequency: _____ Hz
 - Coil Resistance: _____ Ω
 - Quantity: _____
- Current control
 - Initial Current: _____ mA
 - Final current: _____ mA
 - Quantity: _____
- Analog output
 - Variable voltage: ___ to ___ VDC
 -  Ratiometric Variable Voltage: _____ to _____ VDC
 - Valve Error Detection:
 - 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
 - For Receiver-to-Receiver or Umbilical support.
 - For network connection using standard Cervis messaging.
 - Custom messaging. *Please detail below.*
- CAN Bus CAN Open
- None

Base Unit Output List

	? Junction 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			

Base Unit Input Requirements

- 4–20mA
- Variable voltage: ____ to ____ VDC
- Digital
 - High side voltage: _____
 - Low side (contact to power supply ground)
- None

Base Unit Input List

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

Describe input interface/device:

Base Unit Options

Four-character LED alphanumeric display



Display Example

Eight-character LED alphanumeric display



None

Describe desired display usage:

Base Unit Software Requests

Link Definition

- Safety LINK Enabled** (where all outputs will clear upon loss of link)
- 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:

Standard Base Unit Wiring Offering

Base Unit Mounting

- Outside Environment
- Inside Environment
- Inside other enclosure

Approval
