



**System Specification**

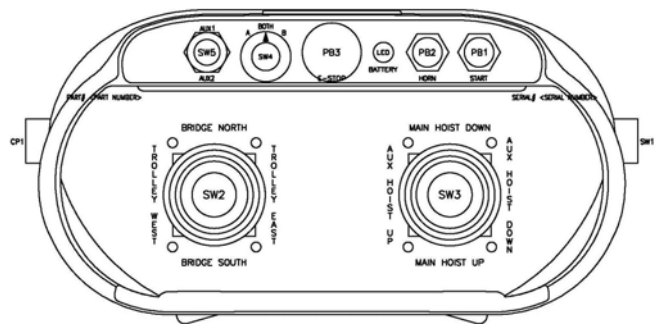
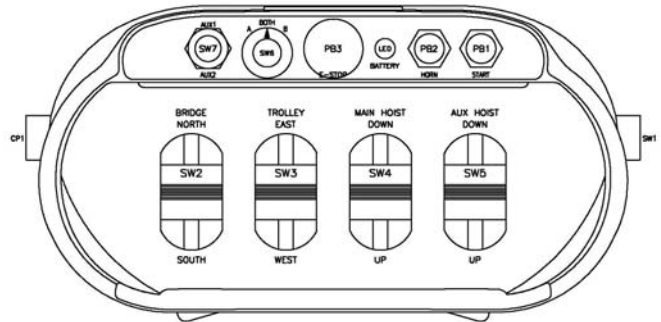
<b>Temperature Range:</b>	-22 F to 158 F (-30°C to 70°C)
<b>Operation Range:</b>	
Non-Licensed Part 15	up to 300 feet (91.44 M)
Licensed Part 90	up to 500 feet (213.36 M)
<b>Humidity Range:</b>	95% Non-condensing
<b>Environmental Protection:</b>	IP66 and NEMA 4 Transmitter NEMA 4 Receiver Engineered versions may vary with design requirements
<b>Frequency Range:</b>	
Non-Licensed Part 15	430 to 439.8 MHz
Licensed Part 90	72 to 76 MHz 450 o 470 MHz
<b>Modulation:</b>	FSK
<b>Peak Frequency Deviation:</b>	40 kHz (Part 15) 3 kHz (Part 90)
<b>Frequency Generation</b>	Microprocessor controlled
<b>Response Time:</b>	Approximately 40 ms
Baud Rate	6900 bps (Part 15) 4800 bps (Part 90 – TMS and TMDA)
<b>Humming Distance Security:</b>	16 bit access code
<b>Certifications:</b>	FCC Approved
<b>Optional Certifications:</b>	Class 1 and Class 2 Division 2 Group A, B, C, D, E, F, and G
<b>Diagnostics:</b>	On-board diagnostic system with LED indicator, transmitter, and receiver power status

**Transmitter Component Specifications**

<b>Levers:</b>	
Rated	in excess of 5 million cycles
# per transmitter	up to 7
Boot	Available as an option
<b>Joysticks:</b>	
Rated	in excess of 5 million cycles
# per transmitter	up to 2
<b>Toggles:</b>	
Type	2 position single pole, 2 position double pole, 3 position double pole maintained, 3 position double pole momentary
Rated	MIL-S-83731
# per transmitter	dependent on levers and Signaling
<b>Push Button:</b>	
Type	Single Pole or Double Pole
Rated	250,000 Operations at 1 AMP at 28 VDC (we use the product at a lower rating)
# per transmitter	dependent on levers and Signaling
<b>Magnet Toggles:</b>	
Type	Lift to operate, 1 position maintain, 2 position maintain, 1 side momentary, and 1 side maintain
Rated	MIL-S-8834
# per transmitter	dependent on levers and Signaling
<b>E STOP:</b>	
Type	Push/Pull
Rated	10,000 cycles
# per transmitter	1
<b>Code-Plug:</b>	
Type	Twist to lock down
Rated	N/A
# per transmitter	Up to 4, depending on other components
<b>LED:</b>	
Type	Red
Rated	N/A
# per transmitter	1 (standard); up to 2 are possible
<b>Rotary Switch:</b>	
Type	2 positions and 3 positions
Rated	25,000 cycles minimum
# per transmitter	dependent on levers and Signaling
<b>Key Switch:</b>	
Type	Turn to operate removable in one position (two types available)
Rated	N/A
Seal	IP60
# per transmitter	1

### Transmitter Specification

<b>Type:</b>	Belly Box with levers or joysticks
<b>Weight:</b>	Dependent on configuration. Approximately 3 lbs.
<b>Dimensions:</b>	Approximately 10" x 5.75" x 7.25"
<b>Antenna:</b>	Built-in
<b>Functions:</b>	Up to a maximum of 7 motions, with 6 auxiliary switches
<b>Power Out:</b>	Unlicensed – Part 15 Compliant
	Licensed – 100mW
<b>Passed the following mechanical tests:</b>	IEC 68-2-34 Random Vibration IEC 68-2-27 Shock Testing IEC 68-2-31 Drop & Topple SAE 1211 Dust Testing IP 66 NEMA 4



### Battery and Charger

<b>Battery Type</b>	
Rechargeable:	7.2 V NiMH, 12 V NiMH
Battery Capacity:	1900 mAh
<b>Service Life</b>	
Rechargeable:	500 cycles
<b>Battery Contacts:</b>	Gold Plated
<b>Battery Chargers:</b>	Maximum 3 chargers per power supply
<b>Charger Power:</b>	120 VAC 60 Hz
<b>Battery Charge Time:</b>	Fast Charge: approx. 1 hour