

## Your solution to costly lighting control station problems!

Our 2900 Series of analog controls offer "simple value" for new or retrofit applications. These tough and proven controls will directly replace most of the Strand Microcontrol® line of analog controls.

Available from single to 12 channel with master, preset and take control functions. These universal stations are most commonly supplied for 0 to 10VDC applications but can be used in applications up to 28VDC.

Standard finish is black powdercoat with gold silk-screening. Custom colors and engraving available, please contact the factory.

- Universal analog control stations for new or retrofit applications.
- Direct replacements for most Strand and Electro Controls MicroControl® stations.
- Ruggedly built for reliability and longevity.
- Available in single slider up to 12 slider and pushbutton only versions.
- Tough durable powder coat paint on aluminum faceplate for a scratch resistant non-glare finish.
- Color matched and sized for use with Johnson Systems adapter plates where necessary to adapt to existing (larger) electrical back boxes.
- Metal shaft sliders and color matched retention screws help prevent broken or missing parts.
- Heavy-duty "high tactile" pushbutton switched are rated for 5 million operations.
- Electronic "take control" for multiple room/ station applications.



1923 Highfield Crescent S.E. Calgary, Alberta, Canada T2G 5M1

tel: 403.287.8003 fax: 403.287.9003

e-mail: info@johnsonsystems.com website: www.johnsonsystems.com



## **CS-2900 Series SPECIFICATIONS**

## 1.0 CS-2900 - GENERAL

- 1.0 Control stations shall require flush mounted masonry type back boxes. Such boxes should have a minimum depth of 2.00" and must be grounded (earthed) in accordance with local wiring practice to facilitate a direct discharge path to ground for static electricity. MBD 3" depth back boxes are preferable where possible.
- 1.1 Station faceplates shall be fabricated from 0.80" aluminum and shall be supplied in black or white powder coat finish. Other custom finishes shall be available on request.
- 1.2 Stations shall be available in single, three, six, nine or twelve channel configurations.
- 1.3 A series of color matched adapter plates shall permit the adaptation of any CS-2900 Series control station into any larger standard multi-gang back box up to 6 gangs.
- 1.4 The control station shall be fastened by means of color matched/ balanced, flush mounting installation screws. The use of adhesives, magnets, setscrews or tension shall not be considered acceptable for long-term faceplate retention.
- 1.5 Control stations shall employ heavy-duty pushbutton switches, rated at five (5) million operations minimum.
- 1.6 Control station pushbutton caps shall be available in either black or white with integral LED indicators. These caps shall be clearly identified for pushbutton function.
- 1.7 Control stations shall employ metal shaft sliders with a total travel of 45mm (1.75") and black slider knobs. The use of plastic shaft sliders shall not be considered acceptable for resistance to breakage and station longevity.
- 1.8 All control wire terminations shall be via a premium quality "break-away" style screw terminal plug and socket to facilitate ease of station removal while maintaining continuity of power and "take control" to other room stations. A #2 Philips screwdriver shall be the only tool necessary for complete station replacement.

- 1.9 All control station channels shall have an output diode to protect against feedback voltage.
- 1.10 All control stations shall employ "self healing" fuse protection on their DC power inputs for protection against voltage spikes.
- 1.11 All control stations shall employ multiple layers of power filtering to protect against AC ripple and/or building noise.
- 1.12 All integrated circuits shall be mounted in high retention sockets to permit easy replacement.
- 1.13 Individual station printed circuit boards (PCBs) shall inter-connect by means of gold plated connectors. For ease of serviceability, it shall be possible to remove any station PCB individually without the need to disconnect any terminated wiring.
- 1.14 Circuit board copper plating shall be 1.5 oz. minimum. Circuit board material shall be glass-epoxy with a flame retardant rating of FR-4, 0.062" thickness. All circuit boards shall be solder masked and silk screened with component legends.
- 1.15 The maximum output control voltage shall be adjustable to within approximately 0.7V DC of the supplied regulated voltage (rail voltage) at full scale. The output control voltage shall be less than 10mV with the control slider at minimum.
- 1.16 Each control station shall employ a high current output driver capable of driving up to 100 dimmers with input impedance of 47K ohms minimum each.
- 1.17 Each control station shall incorporate a self-resetting fuse to protect the control electronics from reverse power termination during installation.

Specifications subject to change without notice.

Model	Description	Wires	Back Box	Minimum PCB Clearance	
CS-2901-ND	1 gang, 2 button (on/off) entrance station with adjustable "on" voltage for direct dimmer control	5	1 gang	1.80" W x 2.75" H x 2.00" D 4.6 cm x 7.0 cm x 5.1 cm	
CS-2901-E	3 button entrance station w/on, preset, and off	5	1 gang	1.80" W x 2.75" H x 2.00" D 4.6 cm x 7.0 cm x 5.1 cm	
CS-2901-1	Single channel manual control w/on, present, and off	4	1 gang	1.80" W x 2.75" H x 2.00" D 4.6 cm x 7.0 cm x 5.1 cm	
CS-2902-3	3 channel manual control w/master slider, on, preset, and off	6	2 gang	3.60" W x 2.75" H x 2.00" D 9.1 cm x 7.0 cm x 5.1 cm	
CS-2903-6	6 channel manual control w/master slider, on, preset, and off	9	3 gang	5.50" W x 2.75" H x 2.00" D 14.0 cm x 7.0 cm x 5.1 cm	
CS-2904-9	9 channel manual control w/master slider, on, preset, and off	12	4 gang	7.30" W x 2.75" H x 2.00" D 18.5 cm x 7.0 cm x 5.1 cm	
CS-2905-12	12 channel manual control w/master slider, on, preset, and off	15	5 gang	9.10" W x 2.75" H x 2.00" D 23.1 cm x 7.0 cm x 5.1 cm	
MP FO CTL RS V+ CM	Wiring Termination Master Pot Output Full "On" Take Control For Remote "On" Dim Take Control For Remote "Dim" Reset Take Control For Remote "Off" 10.6 - 18 Volt DC Supply Input DC Low Voltage Common	require one (1) wire per function between separate control For Remote "On" Take Control For Remote "Dim" Take Control For Remote "Off" Take Control For Remote "On" Take Control For Remote "On Take Control For R			
Please contact the factory for custom station, lock out and portable application.					





1923 Highfield Crescent S.E. Calgary, Alberta, Canada T2G 5M1

tel: 403.287.8003 fax: 403.287.9003

e-mail: info@johnsonsystems.com website: www.johnsonsystems.com

