



Dependable controls for proportional multi-function plow trucks

The Black Tip™ series from Certified Power Solutions offers fully proportional capabilities and multi-function control. Delivering effective operations with multiple joystick options, the Black Tip series comes in 1 or 2 joystick configurations that provide powerful performance and dependable accuracy for up to 4 devices. Using Certified Power Solutions Mako™ software, the Black Tip series additionally allows for programming the speed of each direction of motion individually without changing wiring or implementing hydraulic modifications.



Black Tip 108 in jump seat mount



Black Tip 108 in jump seat mount with EZ Spread™



Black Tip 210 pedestal mount



Black Tip 108 console mount





Black Tip™ Series

Proportional plow control systems

DEVICE CAPACITY

- BT 108 - up to 2 independent devices
- BT 210 - up to 4 independent devices
- Programmable safety features for interlock operation

PROPORTIONAL SIGNAL CAPACITY

- BT 108 - 8 independent PWM channels
- BT 210 - 10 independent PWM channels
- Frequency range from 40-450 Hz

AXIS AND RANGE OF JOYSTICK MOTION

- 1 or 2 axes of joystick motion: X and Y
- 27 degrees of motion available in each axis

JOYSTICK SIGNAL

- True Hall effect (magnetic) joystick with no mechanical contacts



Black Tip 108 in jump seat mount with EZ Spread (in cab)

JOYSTICK SELF TEST

- SafeStik™ automatically disables the axis if an axis fails during use
- Joystick diagnostics for each axis of motion is visible on LED
- Channel Safe™ detects and protects against open or short circuits in hydraulic drive channels

PLOW CONTROL INTERLOCKED FEATURES

- Hoist lock, hoist limit, plow, wing and blade lock (requires external sensor, key or switch)

MODE DISPLAY TYPE

- LED for hoist and plow diagnostics

SPREADER COMBINATION OPTIONS

- Compatible with all Certified Power Solutions spreaders (EZ Spread, Dual Spread™, SpreadSmart Rx™)

ACCESSORY SWITCHES

- Up to 5 Sprague® switches for accessory control (on/off or momentary function)

WARNING INDICATORS

- Up to 2 labeled and colored indicators integrated

OPERATING TEMPERATURE RANGE

- Minimum: -20 degrees Celsius; maximum: 70 degrees Celsius

POWER REQUIREMENTS

- Minimum: 11 Volts DC
- Maximum: 15 Volts DC
- Maximum: 10 Amps
- Internal fuse rated at 10 Amps



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