

Uni-Grip™ Series

Proportional plow control systems

Certified Power
SOLUTIONS®

Adaptable functionality for intelligent plow control

Effective plow controls require performance, power and precision. Available with fully proportional capabilities and multi-function control in three different configurations, the Uni-Grip™ series of single joysticks from Certified Power Solutions offer precision operations for superior winter maintenance. The Uni-Grip series utilizes our sophisticated Mako™ software, which allows operators to individually program the speed of each direction of motion without changing wiring or making hydraulic modifications.

Uni-Grip Series

- Uni-Grip 412, 620 and 820 models
- Fully proportional single joystick
- 2-or 3-axis options
- Multi-function control
- Standard safety grip trigger
- Controls up to 7 hydraulic devices
- Control up to 20 proportional channels on one stick
- Configurable for patrol, garbage and leaf collection vehicles
- Easy capability upgrade options with Mako electronics platform



Uni-Grip 620 joystick shown mounted on an Armadillo Arm Unit with SpreadSmart Rx™ color display



Uni-Grip 412



Uni-Grip 620



Uni-Grip 820



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Uni-Grip™ Series

Proportional plow control systems

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Product Summary

- Single joystick for proportional control of hydraulic devices (e.g., hoist, plow, wing, blade)
- Utilizes Mako Trim™, a Windows® compatible program to set the speed of each direction of motion individually without wiring or hydraulic modifications

Product Application

- Multiple vehicle types (patrol trucks for snow/ice, sanitation, leaf collection, etc.)
- Control of each hydraulic function independently

Device and Signal Capacity

- UG 412 - up to 3 devices; 12 independent PWM channels
- UG 620 - up to 5 devices; 20 independent PWM channels
- UG 820 - up to 7 devices; 20 independent PWM channels
- Frequency range from 40 – 450 Hz

Joystick Buttons

- UG 412 - 2 programmable buttons
- UG 620 - 4 programmable buttons
- UG 820 - 6 programmable buttons

Axis and Range of Joystick Motion

- UG 412 - 2 axes of joystick motion: X and Y
- UG 620 - 3 axes of joystick motion: X, Y and Z
- UG 820 - 3 axes of joystick motion: X, Y and Z
- 27 degrees of motion available in each axis

Joystick Signal

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

Joystick Self Test Diagnostics with CAN Bus

- Mako uses CAN bus for a self test of the joystick during each power cycle
- SafeStik™ automatically disables the axis if an axis fails during use
- Joystick diagnostics visible on LED, LCD or at valve body

- Channel Safe™ detects and protects against open or short circuits in hydraulic drive channels

Combo Up (Panic) Function

- Momentary button trigger for parking of up to 6 devices

Float Functions

- User settable float controls for plow, wing toe, wing heel and blade

Plow Control Interlocked Features

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

Electronic Backpack

- Mako multiplexed on CAN bus and Certified Power Solutions bus

System Controller

- Mako Trim works on any Windows® 2000 (or newer) computer
- Field configurable buttons and function names

Display Type

- UG 412 - LED indication mounted in joystick head
- UG 620 - graphic LCD (white/blue) or optional color TFT
- UG 820 - graphic LCD (white/blue) or optional color TFT

System Mounting

- Seat mounted or pedestal mounted

Warning Indicators

- Up to 8 labeled and colored indicators integrated into the joystick housing

Optional Equipment

- Uni-Grip control of plow float and Moray™ system

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

FleetPilot™
BY CERTIFIED POWER



YOUR FLEET, YOUR WAY. FleetPilot by Certified Power combines equipment controls, hydraulics, and telematics in one adaptable platform. Built for precision and growth, it easily scales from one vehicle to a full fleet and supports everything from routine work to critical operations.

Explore your options at fleetpilot.com.

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