



GENUINE MEGA

SPECIALTY HAULAGE SOLUTIONS FOR CONSTRUCTION & MINING

DiSCS® MEGA DIGITAL SPRAY CONTROL SYSTEM

Promotes water conservation and safety by providing adjustable, automated spray applications



THERE'S WORK TO BE DONE ➤

DiSCS®
DIGITAL SPRAY CONTROL SYSTEM

- GPS-BASED AUTO SPRAY APPLICATION TO REDUCE OVER-WATERING OF HAUL ROADS
- DECREASES WATER CONSUMPTION FOR DUST CONTROL
- ABILITY TO ACCOMMODATE ALL OPTIONAL AND SPECIAL MEGA FEATURES
- APPLICABLE TO A WIDE VARIETY OF OFF-HIGHWAY WATER DISTRIBUTION EQUIPMENT
- EASY-TO-USE, COMPACT, ERGONOMIC OPERATOR INTERFACE
- EASY TO MAINTAIN AND TROUBLESHOOT CONTROL SYSTEMS
- MANUAL OR AUTOMATIC SPRAY CONTROL



EQUIPMENT ➤ PARTS ➤ SUPPORT ➤



MEGA DIGITAL SPRAY CONTROL SYSTEM

There is a growing demand for precise application of water spray for dust suppression in surface mining, and construction applications to promote water conservation and operator safety. To address these issues Mega has designed the DiSCS® - Digital Spray Control System.

DiSCS® utilizes CAN Bus* technology to operate the spray control system controlling the water pump, water spray, and water actuation. When combined with our GPS, DiSCS® provides a method to automatically regulate the amount of water spray applied relative to vehicle ground speed or distance traveled.



THE DiSCS® SYSTEM- FLEXIBLE, SMART, RUGGED

The DiSCS® compact switchpad is based on CAN Bus protocol and is water and dust resistant. The LED switchpad lights up with the many different watering patterns and controls.

- ✓ Simple and rugged construction for heavy-duty operation
- ✓ Adjustable switchpad brightness
- ✓ RAM® mount (where applicable) is fully adjustable to any operator
- ✓ In-cab water level indicating system
- ✓ Total system pause function
- ✓ Work light and auxiliary controls
- ✓ Durable switchpad legend inserts

DiSCS® SPRAY SYSTEM FEATURES AND BENEFITS



DISTANCE-BASED SPRAYING (CHECKERBOARD)

Alternating intermittent watering patterns reduces water consumption and ensures one steering tire and one drive tire remain on a dry surface.



GPS

Distance and speed-based operation modes utilize a GPS-based speed signal to automatically stop/start water flow when the vehicle stops/starts moving, while in GPS mode.



SPEED-BASED SPRAYING (CONTINUOUS COVERAGE)

Sequence-based intermittent spray system operation uses Pulse Width Modulation (PWM) to vary the amount of water flow while maintaining a continuous rate of water application, independent of speed.



TIME BASED SPRAYING (BANDING)

Operator adjustable, full width, intermittent wet/dry pattern.



MANUAL SPRAYING

The system can be operated manually independent of GPS signal.

*CAN Bus-Controller area network based on standard ISO 11898/SAE J1939.



RELIABILITY

DiSCS® utilizes Mega water pump, hydraulic motor, Mega spray heads, and electro-hydraulic controls. There are no complex modifications to the vehicle's hydraulic systems or powertrain.



VERSATILITY

DiSCS® is adaptable to most, if not all, pieces of water equipment found worldwide. DiSCS® can be easily installed in the field on machines originally equipped with a Mega spray system, or can be retrofit to many older models equipped with a competitor's spray systems.



DiSCS® RETRO-FIT KITS

Mega DiSCS® spray control can be applied to virtually any older Mega or competitor's water distribution equipment offering these advantages:

- ✓ Standardized operator and maintenance training.
- ✓ Genuine Mega Product Support and parts (also available on-line, and documentation).
- ✓ Readily available repair and maintenance components, common to most Mega water distribution products.

STANDARD DiSCS® SUPERBOX FEATURES

The DiSCS® Superbox is a water-tight, sealed compartment with weather-proof rating built for rugged use in the harshest environments for mining and construction.



Photo includes optional equipment, sold separately.

- ✓ The Superbox consolidates the hydraulic system solenoid logic controls in a weather-proof, easy-to-access enclosure that securely protects critical components.
- ✓ Externally-mounted system filter assembly to protect hydraulic control valves.
- ✓ Logic control modules include individual fusing and self-diagnostics to assist in troubleshooting.
- ✓ Durable wiring harness with Deutsch® connections throughout. Harness includes additional pre-wired functions for easy plug-and-play of additional functions.

WATER PUMP PROTECTION FEATURES



SOFT START/STOP

System controlled soft starts/stops to protect against operator induced sudden starts and stops that can decrease drive motor and water pump service life.



LOW WATER

Automatic soft-stop when low water level is detected which prevents the dry running of the water pump.



OVERHEATING

Automatic soft-stop after extended water pump operation with spray heads and water cannon valves closed (no water flowing from the pump).

► GPS SYSTEM FOR DiSCS®

The DiSCS® Global Positioning System (GPS) works with existing DiSCS® 2.0 Mega spray system hardware which includes water pump, hydraulic motor, spray heads, and DiSCS® 2.0 electro-hydraulic controls. A self-contained GPS unit is used to determine ground speed.



GPS-Based Sensing

DiSCS® uses GPS data to determine ground speed, the GPS system is universal, there is no special application-specific engineering required and the system is not vulnerable to interference like radar-based systems.



Self-Contained

DiSCS® does not require connections to other vehicle systems to determine speed. Easily adaptable to a wide variety of machine applications.



Automatic Water Consumption Reduction

The DiSCS® system utilizes a pulsing strategy, to automatically limit the amount of water consumed, based on vehicle speed while maintaining road dust control coverage. Utilizing the pulsing strategy avoids the addition of complex and costly variable flow hydraulic systems and the resulting impact on machine reliability. Multiple application choices are available-continuous water layer, checker boarding and operator selectable.



Automatic Shut-off

In GPS mode the system automatically shuts off the flow of water as the vehicle comes to a stop to prevent puddling. Spraying automatically resumes as the machine begins to move again.



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