



# Hydra-Switch Yard Switch Machine

## Hydra-Switch 3000LP

The Hydra-Switch 3000LP is a low-profile, hydraulically actuated trailable switch machine engineered for dependable performance in diverse operating environments. Flexible control options include local pushbutton operation, DTMF/UHF/VHF radio interfaces, and integration with central office networks via radio, LAN, and other communications platforms – delivering reliable switching performance with seamless operational control.



**KB SIGNALING™**

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## Key Benefits

### Yard Application

- AC/DC or Solar
- Remote Control
- Trailable
- Diagnostics
- LED Indications

## Customer Benefits

### Diagnostics

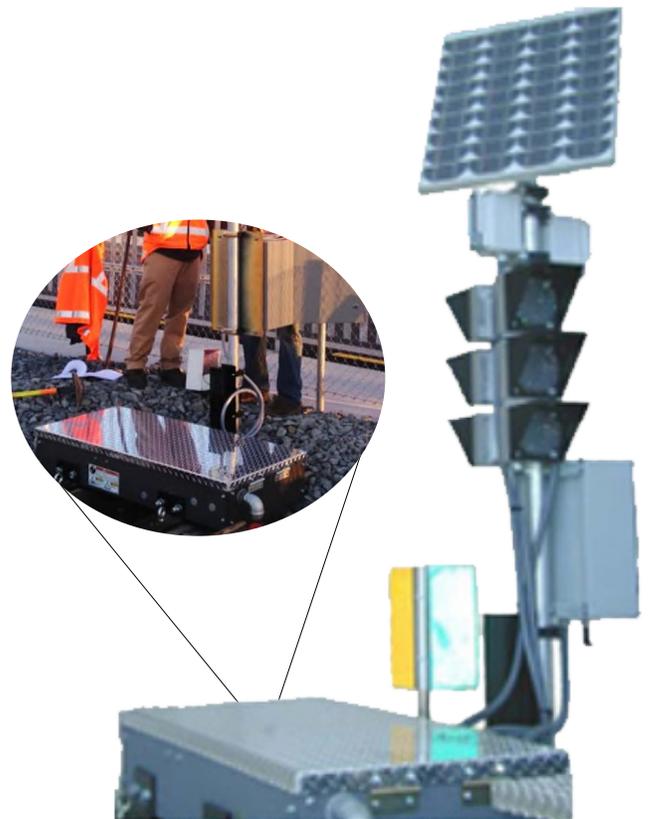
Each Hydra-Switch includes built-in diagnostics and an event recorder, which effectively reduces troubleshooting time, increase yard operations safety and overall machine reliability. Diagnostic information can be accessed through 30 diagnostic LED indicators on the processor card or through a serial data port. The machine can also be configured to indicate machine faults by alternately illuminating normal and reverse signals, energize a directly connected strobe, or both if so equipped.

### Control & Routing

The most basic remote control is through UHF or VHF voice radios. DTMF recognition hardware is also available. For larger or growing yards, a DTMF-to-Data Radio Translator is available, enabling DTMF control in the presence of additional stations. The translator continuously monitors all Hydra-Switch machines in the yard network and executes commands only when they do not conflict with other commands or states. The addition of a data radio, Ethernet or fiber-optic communication allows seamless and low cost integration into a host of control panel or Personal Computer (PC) or Remote Control Locomotive (RCL) based control systems. This remote access allows increased capacity through more efficient operation and utilization of manpower. By providing a scalable/mature technology, KB Signaling can improve safety and establish the cornerstone for future growth, capacity and automation.

## General Description

In addition to being hydraulically actuated, this trailable switch machine is controlled by Local Pushbutton, DTMF/UHF/VHF Radios or Central Office Networks (Radio, LAN, etc.). Should manual operation be necessary, a built in hand pump allows personnel to operate the machine. It can be equipped with presence detection & crossover route locking options to prevent unwanted movement of the machine while the track is occupied. Additionally, LED indications or a simple mechanical target are offered for position indication. With no requirement for signal cabling or interlocking equipment, a machine can be installed and operational by a minimal crew in less than four hours.



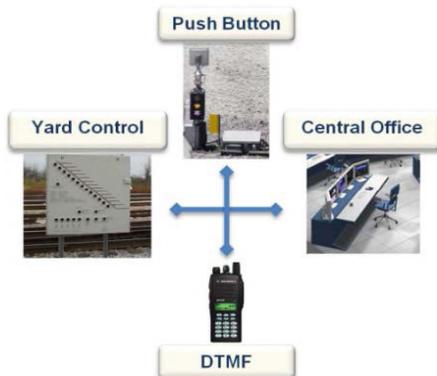
### Flexible Power Sources

The Hydra-Switch operates on an internal 12-volt DC battery which allows the machine to throw up to 300 times per charge, and can operate even in the event of a power disruption. The battery is charged either through local utility power or through an available solar panel option.

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## Specifications

Battery Power (internal)	12 VDC, (100 amp hour, absorbed gel cell Battery)
Charging Options	120-VAC or Solar power source
Operating Temperature	-40°C to 70°C
Trailing Force	2,000 pounds (spring holding force once point is closed)
Driving Force	4,500 pounds (hydraulic force applied when moving points)
Throw Length (self-adjusting)	4.75" to 6.5" (120 to 165 mm)
Throw Time	3 seconds average
Height	9.5" (241 mm)
Length	50" (1270 mm)
Width	22" (559 mm)
Weight	820 pounds (372 kg)
Voice radio Options	8-channel, (VHF UHF)
Data radio Options	Frequency hopping, spread spectrum 900 MHz, 2.4 GHz



## Order Information

<b>3000LP Point Machine, Complete Kit</b>	
Complete kits (point machine & options) available in various configurations	1008700-xxx
<b>Basic Machines</b>	
110V AC, EVENT RECORDING CONTROLLER, INTERNAL ELECTRONICS	1008600-901
110V AC, EVENT RECORDING CONTROLLER, POLE MOUNTED ELECTRONICS	1008600-902
220V AC, EVENT RECORDING CONTROLLER, INTERNAL ELECTRONICS	1008600-908
SOLAR Ready, EVENT RECORDING CONTROLLER, INTERNAL ELECTRONICS	1008600-801
SOLAR Ready, EVENT RECORDING CONTROLLER, POLE MOUNTED ELECTRONICS	1008600-802
<b>Solar Power Options</b>	
SINGLE PANEL SOLAR KIT, 140W	1008894-901
TANDEM PANEL SOLAR KIT, 280W	1008894-902
<b>Track Connecting Rods</b>	
CONNECTING ROD, SAE, 1" PIN	1008615-901
CONNECTING ROD, SAE, 1-1/8" PIN	1008615-903
<b>Visual Indication Options</b>	
MECHANICAL TARGET OPTION, GREEN/YELLOW	1008601-901
LED POSITION INDICATION (4" ASPECTS), DOUBLE SIDED, GREEN/AMBER	1009063-901
LED POSITION INDICATION (4" ASPECTS), DOUBLE SIDED, GREEN/RED/AMBER	1009063-911
BLUE FLAG KIT	1009280-901
BLUE STROBE OPTION	1009282-901
<b>Machine Command Accessories</b>	
DTMF RADIO KIT, VHF	1006807-901
DTMF RADIO KIT, UHF	1006807-902
<b>Occupancy Detection / Crossover Options</b>	
RTI WHEEL DETECTION SYSTEM, 4-ZONE, 4-COUNTER	1009623-901
RTI WHEEL DETECTION SYSTEM, 4-ZONE, 3-COUNTER	1009623-902
WIRED CROSSOVER KIT W/ 500' CABLE (ONE PER CROSSOVER PAIR)	1006789-901
WIRELESS CROSSOVER KIT (ONE PER CROSSOVER PAIR)	1007044-901
<b>Installation Supplies</b>	
2" RIGID CONDUIT x 5' AC MAST	1009056-001
2" RIGID CONDUIT X 10' SOLAR MAST	1008895-001
MACHINE GROUNDING KIT	1007134-901
SWITCH PROGRAMMING KIT (INCLUDES CABLE AND SOFTWARE)	1007729-901
<b>Spare Components</b>	
SWITCH CONTROLLER BOARD & BASEPLATE KIT	1006371-901
SWITCH CONTROLLER BOARD & BASEPLATE KIT W/ DTMF OPTION BOARD	1006371-902
DTMF OPTION BOARD	1006451-902
AC SWITCH BATTERY CHARGER, 110/120V AC	1006975-002
AC SWITCH BATTERY CHARGER, 220/240V AC	1006975-001
SOLAR SWITCH BATTERY CHARGER, 12V DC	1008725-001
BATTERY, 100AH (GNB INDUSTRIAL POWER)	12-5000X
HAND PUMP PUSH HANDLE, CARTRIDGE-STYLE	1009368-001

Contact your KB Signaling Business Development Manager

Call 1-800-825-7090, or Email us at [aso.techsupport-kb@alstomgroup.com](mailto:aso.techsupport-kb@alstomgroup.com) for more information today

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