



SCHWING
AMERICA INC.

VECTOR

Control Systems

Control and 2-way Communication...



Now operators have valuable operational data at their fingertips because Vector is the first system to allow monitoring of the pumping process from the remote control box. When the operator is fully informed he can fine tune the

pumping process resulting in higher productivity with fewer delays. This revolutionary breakthrough in communications offers real world benefits for operators and owners. Vector - relevant technology from Schwing.

Another Schwing First – Two-way Communications

Now operators are fully informed of the pump's status even when they are hundreds of feet from the pump. No need to shutdown and return to the pump when an operator can view the following critical information at the remote box:

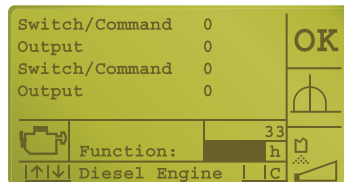
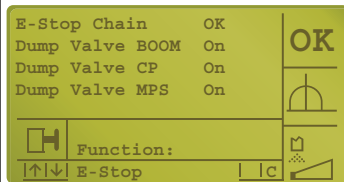
- **Strokes per minute**
- **Hydraulic pressure**
- **PTO rpm**
- **Hydraulic oil temperature**
- **Hopper grate status**
- **Local/remote/ram change modes**
- **Switches out of neutral**
- **Emergency stop activation**
- **Low water tank**



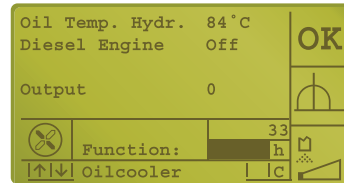
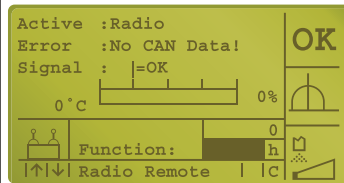
Pump Management

Valuable data that will help you manage your pump is only useful if it is easily accessed. Vector is the user friendly management tool that supplies the following functional elements of the pump on simple graphical displays while allowing real time operational diagnostics.

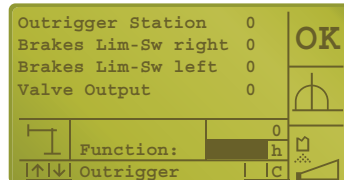
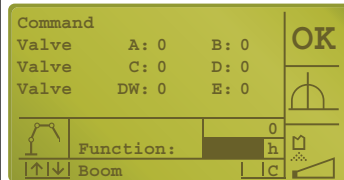
• E-stop chain, dump valve output • Truck engine



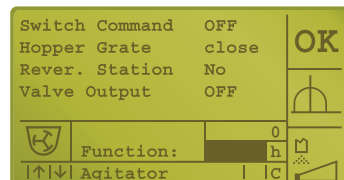
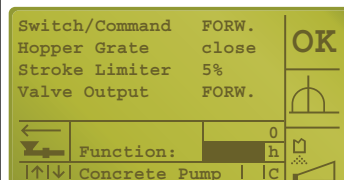
• Remote control • Hydraulic Oil cooler



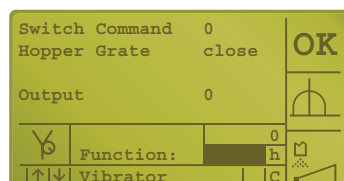
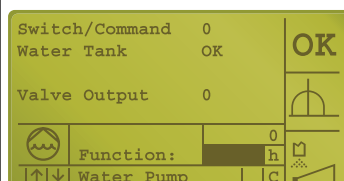
• Boom • Outriggers



• Concrete pump • Agitator



• Water pump • Vibrator



In addition, preventative maintenance can be scheduled accurately with 'hours of operation' constantly recorded for these mechanical systems. Also a resettable counter allows for exact measurement of pumped yards on a project. In the unlikely event of an electrical failure, a manual override key can be used to complete the job.

Protection

Low level alarms are sounded and displayed on the remote box to provide clear and concise data so the operator can make an informed decision. Normally a low level alarm does not prevent the job from being finished, but the situation should be examined.

A High level alarm notifies the operator of situations that may cause damage to the pump. The Vector will activate the Emergency Stop and the operator can evaluate the situation.

In all cases the operator has the display on the remote box and the Vector graphic displays to assist in diagnosis.

Modular Design

Vector is proven durable and reliable, but in the event of physical damage, the modular design allows the entire control box to be unplugged and replaced in the field. All control systems will be fully operational with the replacement controller.



VECTOR Control Systems

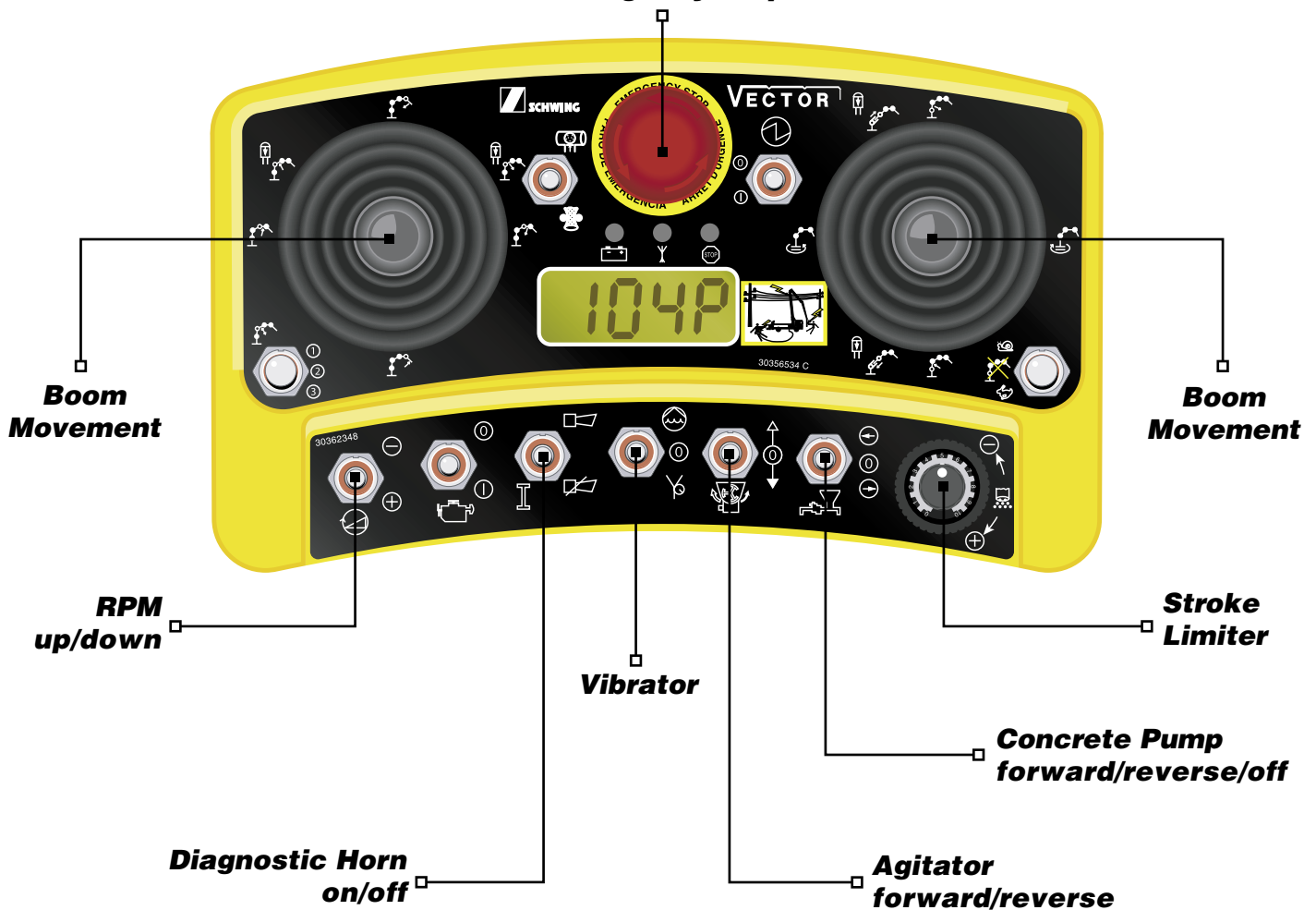
Boom Control

Precise boom control is a Schwing trademark. Ergonomic joysticks allow proportional boom movement calibrated to provide just the right feel for the operator. And because an interference free signal is essential to remote boom operation, Schwing incorporates the Spread Spectrum system in its transmitter. This system hops frequencies 50 times per second to assure a strong signal even when competing transmitters are in use such as; emergency vehicles; other construction equipment and airport support equipment.

Adjustment

A separate security key is required to allow the calibration of boom speed settings. This is a one-person operation that allows operators to adjust both the slow speed boom movements used for placing concrete and the high speed settings used for folding and unfolding. Operators can precisely set the boom speeds that suit their style of operation allowing true personalization for maximum productivity. A reset feature allows the return to factory settings at any time.

Emergency Stop



SCHWING
AMERICA INC.

Printed on Recycled Paper

5900 Centerville Road
St. Paul, MN 55127
1-888-SCHWING
TEL 651-429-0999
FAX 651-429-3464
www.schwing.com

Represented by