

**CURTISS -  
WRIGHT**

PG Drives Technology  
**Aerial Work Platform Control System**  
Access



## Access System

- Dual 120 A per channel traction motor drive
- Platform control Interface Panel
- Proportional control of traction and steering
- 150 A pump motor output
- Proportional control of lift and lower
- Large, easy-to-read backlit LCD screen
- Internal tilt sensor
- Alarm, beacon and horn outputs
- On-board programming

Access is an integrated system to control the entire functionality of aerial work platforms including variable lift, lower and traction. The three modules of the system are connected simply and easily to enhance machine capability and reduce installation errors. A dedicated, environmentally-sealed Interface Module allows connection to external switches and joystick e.g. JC4000, for seamless platform control.

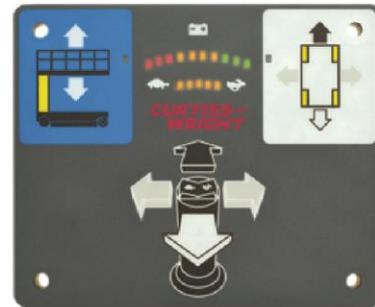
The Ground Module forms the hub of the connection system, to allow all wiring to be centralized. This module connects directly to the system batteries and provides the high current, variable speed output for the hydraulic pump motor, along with the lower current outputs such as a variable down valve, alarm, horn and beacon. All input switch wiring for pothole switches, elevation switches or auxiliary inputs is also connected here, to ease servicing of external parts.

A 3-position keyswitch powers the system at the Ground Module and determines whether platform or ground control is selected. When switched to platform control, the operator can use the joystick to effect smooth and precise control of traction and steering, or lift and lower. In ground control, two pushbuttons can be used to raise or lower the platform, using built-in soft start and stop to minimise wear on vital system components.

Unique to the system is a large LCD screen in the Ground Module that shows system status and diagnostics, such as a battery discharge indicator, hours run or whether, for example, an interlock is active and inhibiting certain functions on the machine. This display also provides an ideal user-interface for the on-board programming functions to be easily accessed and interpreted by OEM manufacturing and service personnel. A built-in tilt sensor can report live data directly to the screen. This sensor can be zeroed effortlessly, at the touch of a button, on the production line prior to the shipment of a machine.

## SYSTEM MODULES

### INTERFACE MODULE



The Interface Module provides convenient connection points for all of the platform control user switches and joystick.

The electronics are 'potted' for maximum environmental protection and the integrated gasket ensures the panel into which the module is fitted remains fully water-proofed.

### TRACTION MODULE

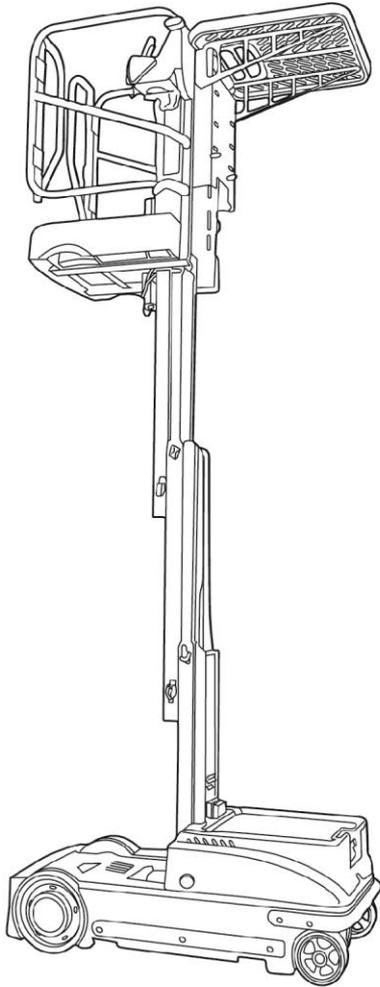


Two 120A variable speed outputs for permanent magnet motors and electromagnetic brakes. Serial connection to Ground Module for simple, hassle-free wiring.

### GROUND MODULE



Provides input/output connection hub for the entire machine ensuring easy installation and maintenance. Intelligent lift / lower controls allow soft-start and stop of hydraulic pump motor, limiting wear on expensive components.



The platform control Interface Module is fitted with super-bright LEDs that provide clear indication of battery state-of-charge, mode of operation and diagnostic information. Also included is an integrated sounder for audible feedback or warnings.

The Traction Module connects directly to the Ground Module via a serial communications link accepting commands from the joystick to determine speed and direction by driving two permanent magnet traction motors. Proven technology is used to power the motors via sophisticated yet dependable microprocessor-controlled, power semiconductors and digital electronics - eliminating the need for expensive and unreliable contactors and relays.

Safety, however is not compromised. It is assured by dual-path hardware circuitry from the joystick and self-checking software to prohibit unexpected lift, lower or traction drive of the machine unless valid signals are present. Internal logic circuits can be programmed to inhibit individual functions depending on the state of inputs, such as pothole switches. The ability to lower the platform in almost all cases is allowed, even when the system detects malfunctions in other parts of the machine. This unique and comprehensive functionality makes Access the ideal choice of fully integrated control system for aerial work platforms.

## Language Support

The large, backlit LCD provides comprehensive diagnostic reporting, and can be configured via the OBP to display this information in any of the following languages:

English	-	German
French	-	Dutch
Spanish	-	Portuguese
Swedish	-	Finnish
Chinese	-	Japanese

### LARGE BACKLIT LCD SCREEN

Under normal operation the LCD screen shows battery gauge and total hours run.



Since all systems are connected directly to the Ground Module, text and diagnostic icons clearly indicate if any of the machine's components have malfunctioned.



On-board programming screen provides a simple, intuitive user interface for OEMs and Service Engineers to adjust machine-specific, programmable parameters.



## DIMENSIONS

### INTERFACE MODULE

LENGTH	128mm	5.1"
WIDTH	108mm	4.3"
HEIGHT	25mm	1.0"

### GROUND MODULE

LENGTH	260mm	10.2"
WIDTH	94mm	6.5"
HEIGHT	152mm	3.7"

### TRACTION MODULE

LENGTH	180mm	7.1"
WIDTH	95mm	3.7"
HEIGHT	46mm	1.8"



## SPECIFICATIONS

### ELECTRICAL

OPERATING VOLTAGE	16-32 Vdc
PUMP MOTOR DRIVE CURRENT	150 A (1 min)
TRACTION MODULE DRIVE CURRENT	120 A per channel (15 secs) 80 A per channel (1 min)
PWM FREQUENCY	20 kHz ± 1%
AUXILIARY OUTPUTS	5 A continuous, short circuit protected

### ENVIRONMENTAL

MOISTURE RESISTANCE	Electronics to IPx5
OPERATING TEMPERATURE	-25°C to 50°C
STORAGE TEMPERATURE	-40°C to 65°C
SAFETY	Multiple Hardware and Software Strategy to assist conformance with Machinery Directive 89/392/EEC
EMC SUSCEPTIBILITY	IEC 1000-4-3, Tested at 30 V/m
EMISSIONS	EN55022 1998 Class B
ESD	IEC 801-2, severity level 3

### PRODUCT CODES

ACCESS JSM	Generic Joystick Module
ACCESS JIM	Generic Joystick Interface Module
ACCESS GM European	150 A Hydraulic Drive Ground Module with European Language set
ACCESS GM Oriental	150 A Hydraulic Drive Ground Module with Oriental Language set
ACCESS PM100	100 A Traction Drive
ACCESS PM120	120 A Traction Drive