# E2 Scissor Platform Control Measures

October, 2012



#### **Extracts from ASNZS 1418-10 2011**

#### 2.6.4 Work platform controls: Location, accessibility, protection

Control devices shall be situated on the work platform and shall be readily accessible to the operator. Platform control boxes not permanently attached shall have their normal location and orientation clearly marked on the platform and the control box.

When released, all control devices shall automatically return to the 'off' or 'neutral' position, if used to control any movement of the MEWP. All control devices shall be protected against activation other than that initiated by the operator.

NOTE: A separate control, which has to be continuously activated by the operator in order for any motion to take place, meets this requirement.

Where a separate control is integral with a motion control, the control shall be mechanically protected against inadvertent actuation.

A guard shall be provided and located at least 50 mm above the highest point of the controls.

## 2.6.5 Duplicate controls: Location, accessibility, protection and selection

Duplicate controls for all powered functions that are necessary to retrieve the platform in an emergency shall be provided at the base or ground level, and shall override control devices situated on the work platform.

### 2.6.10 Overriding emergency system

Overriding of the platform emergency stop control and load-sensing system is allowed for rescuing a trapped or incapacitated operator on the platform. Overriding is permitted only by the use of a safety device that is independent from the selection control device. The safety device shall be operated by hold to run controls.

The overriding of the load-sensing system shall allow motion of the platform sufficient to rescue the operator. Features shall be provided to protect against misuse of the overriding system.

Refer to the JLG operating manual for the Scissorlift . Download operators manuals from:

www.jlg.com.au >Product Manuals>JLG > JLG Scissorlifts>



Control measure	1932E3	2032E2	2632E2	2646E2	3246E2 2 speed	3246E2 Proportional
Platform Emergency Stop switch, RED	Yes	Yes	Yes	Yes	Yes	Yes
Mechanical guarding at controls	Yes	Yes	Yes	Yes	Yes	Yes
Controls >50mm below the guard rails	Yes	Yes	Yes	Yes	Yes	Yes
Trigger switch as Drive enable switch	Yes	Yes	Yes	Yes	Yes	Yes
Inactivity Timer on trigger switch	No	No	No	No	No	Yes, 3 seconds
Interlock to prevent operation of lift if	Yes, prevents	Yes				
joystick trigger switch or drive activated	Lift	Lift	Lift	Lift	Lift	
Interlock to prevent operation of Drive if	Yes, prevents	Yes				
Lift enable switch activated	drive	drive	drive	drive	drive	
Proportional lift	No	No	No	No	No	Yes
Proportional drive	No 2 speed	Yes				
Start-up system test'.	No	No	No	No	No	Yes
Lift Function enable switch, momentary	Momentary	Momentary	Momentary	Momentary	Momentary	Joystick
or maintained.						Momentary
						3 sec timeout
Outdoor use Permitted	Yes, 1 person	Yes 1 person	Indoor only	Yes, 2 person	Yes, 1 person	Yes, 1person
Level sensor	Yes, 1.5 x 1.5	Yes, 1.5 x 1.5	Yes, 1.5 x 1.5	Yes, 2 x 2	Yes, 2 x 2	Yes, 2 x 2
	stowed	stowed	stowed	stowed	stowed	stowed
Out of Level Sensor cutout	Lift and	Lift and				
	elevated drive	elevated drive				
Side slope level sensor setting at full elevation	1.5 degree	1.5 degree	1.5 degree	2 degree	2 degree	2 degree
Pothole protection system	Prevents	Prevents	Prevents	Prevents	Prevents	Prevents
	elevated drive	elevated drive				
	only	only	only	only	only	only
Ground controls override the platform	Yes.	Yes	Yes	Yes	Yes	Yes
controls in emergency						
Manual bleed down valve at base	Yes, handle	Yes, handle	Yes, handle	Yes, lever	Yes, lever	Yes, lever
Motion Alarm	Yes	Yes	Yes	Yes	Yes	Yes
Strobe light at base	Yes	Yes	Yes	Yes	Yes	Yes

reaching out

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## JLG E2 Series Scissor Lift 1932E2, 2032E2, 2632E2, 2646E2 with 2 speed drive.

## **Mechanical protection:**

Joystick controller protected by external metal guard over the control box.

Platform control Box mounted on front rail.

## **Control System:**

Red Emergency switch shuts down all platform functions.

Lift momentary enable Push Button switch on left hand side of box and lift/lower select toggle switch. Operator to select.

Drive Joystick activation <u>without</u> the trigger switch will prevent movement.

Joystick 2 speed function requires trigger switch to be activated before moving joystick.

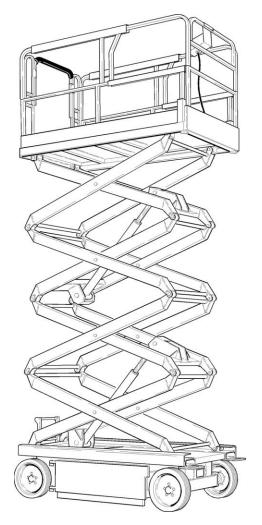
**Joystick Trigger switch activation prevents lift.** 

Lift enable switch activation prevents drive.





# JLG E2 Series Scissor Lift 1932E2, 2032E2, 2632E2, 2646E2 with 2 speed drive.



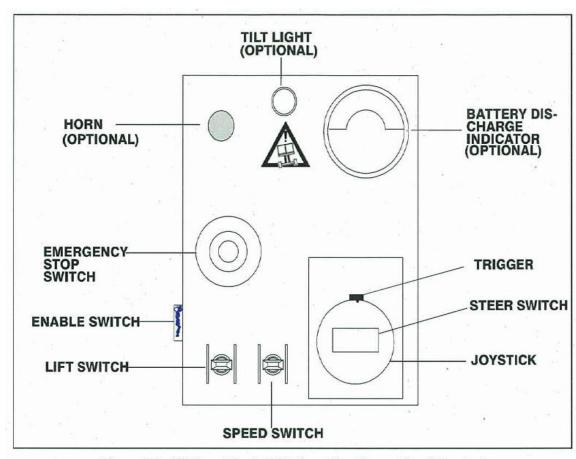


Figure 3-2. Platform Control Station - Non Proportional Control



## JLG E2 Series Scissor Lift 1932E2, 2032E2, 2632E2, 2646E2, 3246E2 with 2 speed drive.

#### **Emergency Stop Switch**

A two-position, red, mushroom-shaped emergency stop switch functions to provide power to the platform control station and also to turn off power to the platform function controls in the event of an emergency. With the power selector switch positioned to platform, power is turned on by pulling the switch out (on), and is turned off by pushing the switch in (off).

#### **Enable Switch**

The enable switch is located on the left side of the platform control box. This switch must be depressed and held before and during actuation of the lift function and for the duration of lift. The enable switch works in conjunction with the lift switch.

#### Lift

The lift switch, when used in conjunction with the enable switch, will raise or lower the machine. Lift is activated by pressing and holding the enable and moving the lift switch forward (lift up) or backward (lift down). **NOTE: The lift switch will not operate if the red trigger switch** on the joystick is depressed.

#### **Drive**

The joystick is used to drive the machine forward and reverse. To drive, the red trigger on the front of the joystick must be depressed and held. Then the joystick must be pushed forward for forward travel or pulled backward for reverse travel. The adjustment between low and high speed is determined by the joystick travel. When motor is first activated you are in low speed, high speed is achieved by moving the joystick to the complete forward position.

**NOTE:** High drive is cut out when the platform is raised above the preset heights.

NOTE: The drive joystick will not operate if the lift enable switch is activated.



## JLG E2 Series Scissor Lift 3246E2 with Proportional SMART System Multiplex Control

## **Mechanical protection:**

Joystick controller protected by external metal guard over the control box.

Platform control Box mounted on front rail.

## **Control System:**

**Red** Emergency switch shuts down all platform functions.

Drive and lift momentary selector switch allows either drive or lift. Operator to select. Times out after 3 seconds.

Joystick activation <u>without</u> the trigger switch will prevent movement.

Trigger switch times out after 3 second inactivity to prevent misuse.

Joystick proportional function requires trigger switch to be activated before moving joystick.





# JLG SMART System Multiplex Control Unit on 3246E2 Scissor.

- E3 Scissor all sizes scissors function, and 3246E2 with Proportional motor control
- The JLG designed **SMART System™** is a 24 Volt **multiplex motor control unit** installed on the electric scissor lift models 1532E3, 1932E3, 2033E3, 2046E3, 2646E3 and 2658E3.
- Emergency Stop Switch A two-position, red, mushroom-shaped emergency stop switch functions to provide power to the platform control station and also to turn off power to the platform function controls in the event of an emergency. With the power selector switch positioned to platform, power is turned on by pulling the switch out (on), and is turned off by pushing the switch in (off). Turning the emergency stop switch off and then on again will reset the smart system if a system fault has occurred and the machine has shut down.
- Lift Switch The lift switch, when used in conjunction with the joystick, provides for raising and lowering the platform. Lift is activated by pressing the lift switch and moving the joystick forward (lift up) or backward (lift down). Lift up speed is determined by the distance the joystick is moved forward. Lift down speed is non-adjustable, and lift down is attained by moving the joystick fully backward. The lift switch is part of the enable circuit, which provides power to the joystick and the lift function for 3 seconds when the lift switch is pressed. If the joystick is not activated within 3 seconds, the lift switch must be pressed again before activating the joystick. When the joystick is returned to the center off position, the operator has 3 seconds to re-activate the joystick or select another function before power is removed by the enable circuit. Do not try to operate the drive, lift, and powered deck extension functions are selected simultaneously, no function will operate. If this occurs, pause, then press only one of the function switches to activate the function.
- Drive Switch The drive switch, when used in conjunction with the joystick, provides for driving the machine in forward or reverse. Drive is activated by pressing the drive switch, in conjunction with the trigger switch, and moving the joystick forward (forward) or backward (reverse). Drive speed is determined by the distance the joystick is moved forward or backward. Increased drive speed is possible when the high drive speed switch is pressed either simultaneously with the drive switch or while operating the drive function. The drive switch is part of the enable circuit, which provides power to the joystick and the drive function for 3 seconds when the drive switch is pressed. If the joystick is not activated within 3 seconds, the drive switch must be pressed again before activating the joystick. When the joystick is returned to the center off position, the operator has 3 seconds to re-activate the joystick or select another function before power is removed by the enable circuit. In addition, the posi-trac switch can be engaged while operating the drive function to give a more evenly distributed oil flow to each drive motor.

