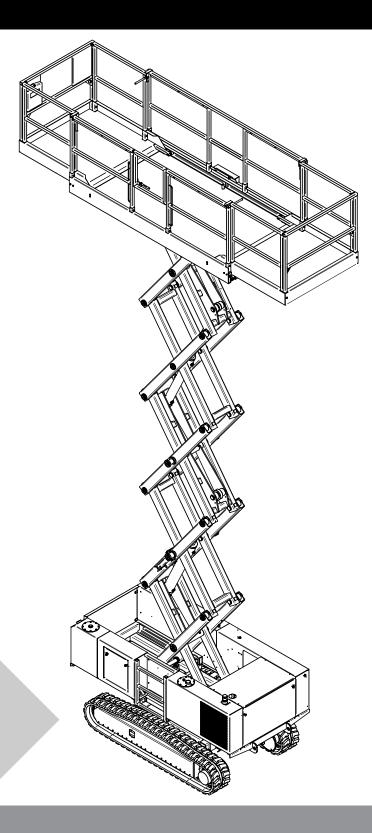




CE / CSA



THIS OPERATOR'S MANUAL AND OTHER MANUALS PROVIDED BY OMEGA ON THE MACHINE MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING YOUR OMEGA AERIAL WORK PLATFORM. THE OPERATOR SHOULD NOT ACCEPT OPERATING RESPONSIBILITY UNTIL HE/SHE HAS READ AND UNDERSTANDS THE OPERATOR'S MANUAL AS WELL AS HAVING OPERATED THE OMEGA AERIAL WORK PLATFORM UNDER SUPERVISION OF AN AUTHORIZED, TRAINED AND QUALIFIED OPERATOR.



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# **II Compliances**

OMEGA declare that the 400TS-series has been assessed, tested and approved in accordance with the requirements of the European Council Directive 2006/42/EC on machinery, and the EN280:2015.

EC Type-Examination number: 110201/500/001/3009 - date submitted 04-July-2017

Overview of harmonized standards, norms and other referenced document, the OMEGA 400TS-series fulfils:

2006/42/EC	European Machine Directive
EN280:2015	Mobile elevating work platforms - Design calculations - Stability criteria - Construction - Safety - Examinations and tests
IEC 60204-1 / EN 60204	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
CAN/CSA B354.6-2017	Mobile elevating work platforms - Design, calculations, safety requirements, and test methods (Adopted ISO 16368:2010, second edition, 2010-05-15, with Canadian deviations)
ISO 13849-1:2015	Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design
ISO 13849-2:2012	Safety of machinery - Safety-related parts of control systems - Part 2: Validation
ANSI_SAIA_A92.20-2018	Design, Calculations, Safety Requirements and Test Methods for Mobile Elevating Work Platforms (MEWPs)
TIER 4	Emission standard Non-Road Diesel Engines
(EU) 2016/1628 - STAGE V	Emission Regulation European Parliament
2011/65/EU	Restriction of Hazardous Substances













# **III Specifications**

	405TS	408TS			
Working height	10,5 m	10,5 m			
Max. platform height	8,50 m	8,50 m			
Max. drive height	5,0 m	4,0 m			
Platform size					
Length - decks retracted	3,00 m	3,00 m			
Length - decks extended	5,23 m	5,23 m			
Width	1,50 m	1,50 m			
Guardrails height	1,1 m	1,1 m			
Toeboard height	150 mm	150 mm			
Lifting capacity	500 kg	800 kg			
Capacity restriction deck extension	250 kg	250 kg			
Max occupants	2	2			
Allowed occupants deck extension	2	2			
Dimensions					
Length	3,0 m	3,0 m			
Width	1,6 m	1,6 m			
Height (guardrails up)	2,90 m	2,90 m			
Height (guardrails removed)	2,00 m	2,00			
Ground clearance	33 cm	33 cm			
Machine weight	4.500 kg	4.500 kg			
Max drive speed	0,55 m/s	0,55 m/s			
Maximum Operating Inclination	3° / 3°	2° / 2°			
Gradeability	35%	35%			
Max allowed wind force	12,5 m/s	12,5 m/s			
Track length	2,65 m	2,65 m			
Track width	30 cm	30 cm			
Total ground contact tracks	1,6 m <sup>2</sup>	1,6 m <sup>2</sup>			
Noise level	< 93 dB	< 93 dB			
Fuel tank capacity	100 L	100 L			
Battery voltage / system voltage	12Vdc	12Vdc			
Battery capacity	120Ah	120Ah			
Diesel Engine					
Engine model	KUBOTA \	/1505-E4B			
Engine Emission classification	TIER 4 FINAL / STAGE V				
Engine power (max)	18,5 kW	/ 24,8 HP			
Fuel type	DIESEL - Ultra low sulfur fuel - Sulfur content <0.0015% (15 ppm)				
Level system	Manual or fu	lly automatic			
Level capability					
Left / right	-5° / 5° (10° total correction)				
Fore / rear	-3° / 3° (6° total correction)				



### Introduction

This Operator's Manual has been designed to provide you with the instructions and operating procedures essential to properly and safely operate your OMEGA Aerial Work Platform for its intended purpose of positioning personnel, along with their necessary tools and materials, to overhead work locations.



THE OPERATOR'S MANUAL MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THIS OMEGA AERIAL WORK PLATFORM.

THE USER/OPERATOR SHOULD NOT ACCEPT OPERATING RESPONSIBILITY UNTIL HE/SHE HAS READ AND UNDERSTANDS THE OPERATOR'S MANUAL AS WELL AS HAVING OPERATED THE OMEGA'S AERIAL WORK PLATFORM UNDER SUPERVISION OF AN AUTHORIZED, TRAINED AND QUALIFIED OPERATOR.

MODIFICATIONS OF THIS MACHINE FROM THE ORIGINAL DESIGN AND SPECIFICATIONS WITHOUT WRITTEN PERMISSION FROM OMEGA SOLUTIONS ARE STRICTLY FORBIDDEN. A MODIFICATION MAY COMPROMISE THE SAFETY OF THE MACHINE, SUBJECTING OPERATOR(S) TO SERIOUS INJURY OR DEATH.

OMEGA SOLUTIONS produce and designed high quality and safe aerial work platforms that meet or exceeds several global essential standards. Only authorized, trained and qualified personnel should be allowed to operate or service the machine.

OMEGA SOLUTIONS, as manufacturer, has no direct control over machine application and operation. Proper safety practices are the responsibility of the user and all operating personnel.

Use only OMEGA-approved replacements parts in the repair and maintenance of this machine. If there is a question on application and/or operation, please contact:

OMEGA Leemidden 21 2678 ME De Lier The Netherlands +31 174 52 59 90 group@omegagroup.eu



# Safety

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

Failure to read, understand and follow all safety rules, warnings, and instructions will unnecessarily expose you and others to dangerous situations. For your safety and the safety of those around you, you must operate your machine as instructed in this manual. OMEGA designs aerial work solutions to be safe and reliable. They are intended to position personnel, along with their necessary tools and materials, to overhead work locations.

The owner/user/operator of the machine should not accept responsibility for the operation of the machine unless properly trained. Never perform work or inspection on the machine with the platform elevated without first supporting the elevating assembly.

### 2.1 Safety Alert Symbols

OMEGA manuals and decals use symbols and colours to help you recognize important safety, operation and maintenance information.



**RED** – Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



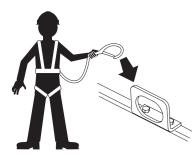
**ORANGE – Indicates a potentially hazardous situation** which, if not avoided, could result in death or serious injury.



YELLOW - Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



#### 2.2 Fall Protection



Operators must comply with employer, job site and governmental rules regarding the use of personal protective equipment. If required by your employer or job site, use personal fall protection equipment (PFPE) when operating this machine.

All PFPE must comply with applicable governmental regulations, and must be inspected and used in accordance with the PFPE manufacturer's instructions.

### 2.3 Electrocution Hazard



ELECTROCUTION HAZARD!!!
THIS MACHINE IS NOT INSULATED!
DEATH OR SERIOUS INJURY will result from contact with or inadequate clearance from any electrically charged conductor.

You must maintain a CLEARANCE OF AT LEAST 10 m between any part of the machine, or its load, and any electrical line or apparatus carrying over 300 Volts up to 50,000 Volts.

1 meter additional clearance is required for every additional 30.000 Volts. Observe Minimum Safe Approach Distance.



DO NOT work in close proximity to, or in contact with, energized power lines and electrical equipment. This machine is not insulated and WILL NOT protect the operator from injury or the machine from damage. Refer to the following diagram and all applicable governmental regulations for the minimum safe distances from energized power lines and electrical equipment. DO NOT touch the machine if it contacts energized power lines.

Personnel in the platform:

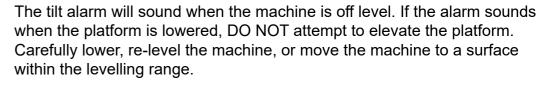
- Move away from the platform rails, DO NOT attempt to operate the machine, and DO NOT touch any part of the machine until energized power lines are shut off.
- Personnel on the ground: DO NOT approach the machine and DO NOT touch or attempt to operate the machine until energized power lines are turned off.
- Do not operate the machine during electrical storms or lightning.
   DO NOT use the machine as a ground for welding unless properly equipped with a weld line to platform option.

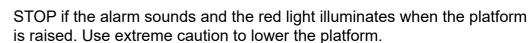
### 2.4 Fall Over Hazard



DO NOT exceed the maximum platform capacity (see Specifications). The weight of options and accessories will reduce the rated platform capacity and must be factored into the total platform load.

DO NOT elevate the platform when the machine is on a surface that is soft, uneven, or exceeds the levelling range of the machine.







#### **Driving:**

DO NOT drive the machine on a slope that exceeds the maximum uphill or downhill slope rating. Use extreme care and reduce speed when driving across uneven terrain, debris, unstable or slippery surfaces, and near holes or drop-offs.



#### **Driving with the platform elevated:**

DO NOT drive on or near uneven terrain, unstable surfaces, curbs, dropoffs or other hazardous conditions.

DO NOT push off or pull toward any object outside the platform.

DO NOT elevate the platform when wind speeds are in excess of 12,5 m/s. If wind speeds exceed 12.5 m/s when the platform is elevated, carefully lower the platform and discontinue operation. DO NOT increase the surface area of the platform (i.e. cover the rails with tarp or plywood). Increased surface area exposed to the wind will decrease machine stability.





### 2.4 Other hazards

DO NOT push off or pull toward any object outside the platform.

DO NOT elevate the platform when wind speeds are in excess of 12,5 m/s. If wind speeds exceed 12.5 m/s when the platform is elevated, carefully lower the platform and discontinue operation.

DO NOT increase the surface area of the platform (i.e. cover the rails with tarp or plywood). Increased surface area exposed to the wind will decrease machine stability.

NEVER alter or disable any machine components.

NEVER replace any part of the machine with items of different weight or specification.

NEVER modify or alter the work platform without written permission from OMEGA.

NEVER place ladders or scaffolds in the platform or against any part of the machine.

NEVER use the machine on a moving or mobile surface or vehicle. Ensure that all tracks are in good condition and lug nuts are properly torqued.

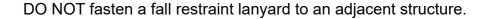
Maximum Allowable Side Force = 400N

#### 2.5 Fall Hazard



DO NOT sit, stand or climb on the platform guard rails. Maintain a firm footing on the platform floor at all times.

DO NOT exit the platform when elevated. Keep the platform floor clear of debris.





Ensure that all gates are properly closed and secured before operating the machine.

### 2.6 Collision Hazards



Check path before moving for equipment, materials or other obstructions.

Check path before moving for overhead obstructions.

Check path before moving for crushing hazards when holding the platform rail.



Reduce travel speed when moving the machine on slopes, when near personnel and obstacles, or when surface conditions are wet, slippery or otherwise limiting.

DO NOT operate in the path of any crane unless the controls of the crane have been locked out and/or precautions have been taken to prevent any possible collision.

Stunt driving and horseplay are PROHIBITED.



Watch for personnel and obstructions below the platform when lowering the platform.

### 2.7 Additional Safety Hazards

#### **Explosion and Fire Hazards**

DO NOT operate the machine in hazardous locations or locations where potentially flammable or explosive gasses or particles may be present.

#### **Damaged Machine Hazards**

Conduct a thorough pre-start inspection of the machine and test all functions before each work shift to check for damage, malfunction and unauthorized modification. Tag and remove a damaged, malfunctioning or modified machine from service. DO NOT use a damaged, malfunctioning or modified machine.

Routine maintenance must be performed by the operator before each work shift. Scheduled maintenance must be performed by a qualified service technician at scheduled intervals. Tag and remove from service any machine that has not had scheduled preventative maintenance performed.

Check that all safety and instructional decals are in place and undamaged. Check that the operator's, safety and responsibilities manuals are present in the storage container located in the platform. All manuals must be complete, undamaged and readable.

#### **Bodily Injury Hazards**

DO NOT operate the machine when there is a hydraulic fluid or air leak. Hydraulic fluid or air under pressure can penetrate and/or burn skin.

All compartments must remain closed and secure during machine operation. Improper contact with components under any cover will cause serious injury. Only trained maintenance personnel should access compartments. The operator should only access a compartment when performing pre-operation inspection.



### **Noise Level**

With a running machine, the noise level can generate up to 93 dB.

# **3 Workplace Inspection**

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

Inspect the workplace and determine whether the workplace is suitable for safe machine operation. Do this before moving the machine to the workplace.

Be sure the lift is the correct machine for the job. Be aware of workplace conditions, and continue to watch for hazards while operating the machine.

### **Workplace Inspection**

Check the workplace for all possible hazards, including but not limited to:

- drop-offs or holes, including those concealed by water, ice, mud, etc.
- · sloped, unstable or slippery surfaces.
- bumps, surface obstructions and debris.
- overhead obstructions and electrical conductors.
- other objects or equipment.
- hazardous locations and atmospheres.
- · wind and weather conditions.
- · the presence of unauthorized personnel.
- other possible unsafe conditions.



# 4 Functions Test

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

The operator must conduct a Functions Test of the machine before each work shift to check that all machine systems are working properly.

Test the machine on a firm level surface with no debris, drop-offs, potholes or overhead obstructions. Perform each test outlined in Operating Instructions before using the machine. DO NOT use a machine that is malfunctioning.

If any function does not perform as described, tag the machine and remove for repair by a qualified service technician. After repairs are completed, a Pre-Start Inspection and Functions Test must be performed before using the machine.

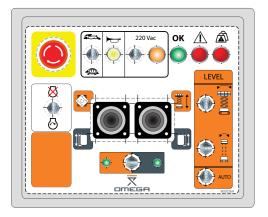


### **CHAPTER REFERENCE:** type controls for operation



The OMEGA 400TS-series offers multiple type upper control systems. Or via a cabled control - 'fixed controls' or via Radiographic Remote control.

Here below all current types of controls. Verify which control system applies and refer to the mentioned chapter for correct Operating Instructions.W



### Chapter 5:

"Operating Instructions - fixed upper control"



### Chapter 6:

"Operating Instructions - radiographic remote control (PJC)"



### **Chapter 7:**

"Operating Instructions - radiographic remote control (DJN)"

# 5 Operating Instructions

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

This section provides instructions for each function of machine operation. Follow all safety rules and instructions. This chapter covers the operations for - by means of cabled upper control box - "fixed upper control box".

This machine may be operated by trained and authorized personnel only. If multiple operators use this machine, all must be qualified and authorized to use it. New operators must perform a Pre-Start Inspection and Functions Test prior to operating the machine.

Operators must comply with employer, job site and governmental rules regarding the use of personal protective equipment.

#### **5.1 Prestart**



Check base control EMERGENCY STOP switch – turn clockwise to reset.



Check platform control EMERGENCY STOP switch – turn clockwise to reset.

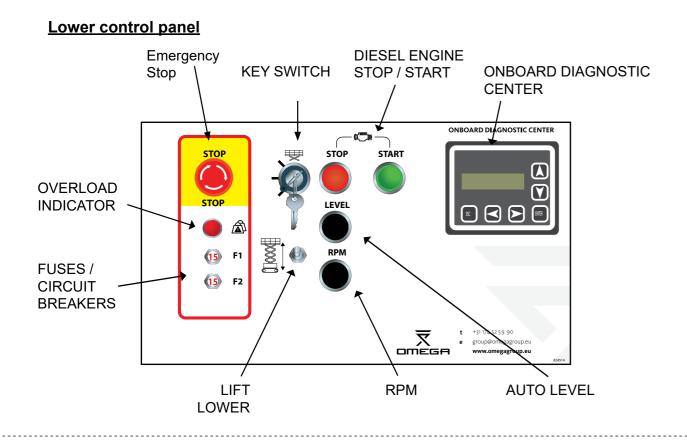


Check power switch near lower control box, must be in ON position

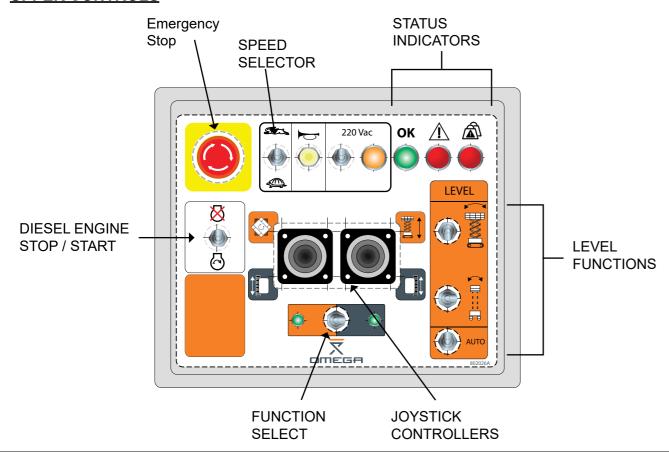


As soon as the system is powered ON, the display will lit up and by default shows the hour reading.

#### **5.2 Control elements**



#### **UPPER CONTROLS**



### 5.3 Lower control panel - operate and test



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



### **Select the LOWER CONTROLS**

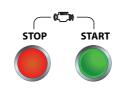
Turn the KEY SWITCH to LOWER CONTROLS



#### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

Twist to reset.



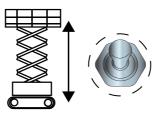
#### Start / stop Engine

Press the green START button momentary (approx 1 sec). A sequence of event will follow, such as glow, fuel inlet control and cranking the diesel engine.

Press the red STOP button momentary to stop the engine.



Do not elevate the platform if the machine is not on a firm level surface.

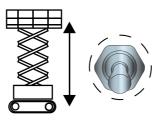


### Elevate platform

Operate and keep the toggle switch upwards to ELEVATE the platform.

#### **Test Operation**

- Elevate to maximum height.
- Releasing the switch will stop elevation.
- Pressing the EMERGENCY STOP switch will stop elevation.



#### Lower platform

Operate and keep the toggle switch downwards to LOWER the platform.

#### Test Operation

- Lower the platform to the stowed position.
- · Releasing the switch will stop descent.
- Pressing the EMERGENCY STOP switch will stop descent.



### **5.4 Platform Controls - Operation and Test**



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



### **Select PLATFORM Operation:**

Lower Control Box: Turn the KEY SWITCH switch to PLATFORM.



### **Start Engine from platform controls:**

Enter the platform and secure the entry.

Operate the Start/stop diesel toggle switch located at the

PLATFORM CONTROLS to start the diesel engine.



#### Horn:

Operate the push button to sound the horn.



### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

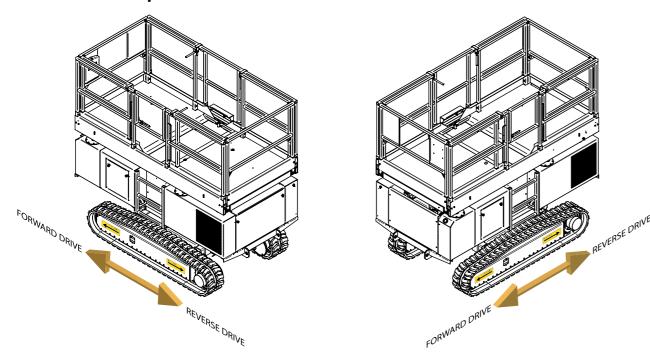
Twist to reset.



### 5.5.1 DRIVE - platform stowed



Activation of the EMERGENCY STOP switch will apply brakes immediately. This may cause unexpected platform movement as the machine comes to a sudden stop. Brace yourself and secure objects on the platform during operation of machine.



Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward or reverse, the faster the drive speed will be.

The joystick returns to the neutral (center) position when released. Each of the joysticks operates an individual track. Left joystick for the left track and vice versa.

Toggle the SELECTION TOGGLE towards the right (grey). This enables the DRIVE functions for about 10 seconds and as long as the selected function is in operation. The right LED will lit. As long as this LED is lit, DRIVE function is enabled.



#### To steer

Steering can be done by using the 2 joysticks, as stated before, each joystick operates one track (left joystick for left track - right joystick for right track).

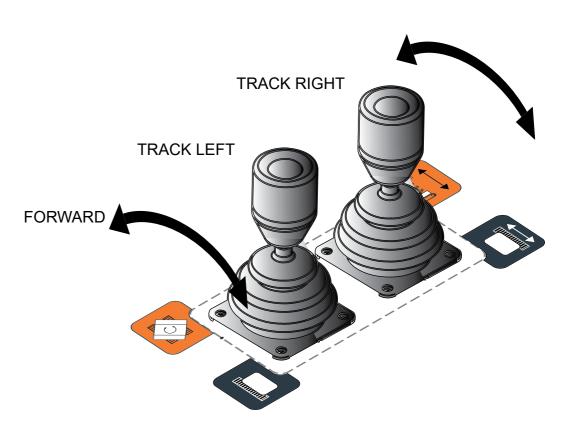
For a right turn, the right track should drive slower (in opposite of the left track) or be in rest. You can achieve this by operating the desired joystick less up or downwards.

### **Driving the Machine - forward**

Enable drive. Operate both joysticks upwards.

### **Test Operation**

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- Pressing the EMERGENCY STOP switch will stop drive.



#### **Driving the Machine - reverse**

Enable drive. Operate both joysticks backwards.

### **Test Operation**

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- Pressing the EMERGENCY STOP switch will stop drive.

### **Brakes**

The brake is automatically released when the drive functions are enabled. The brake is automatically applied when the joystick is positioned in the neutral (center) position.

### 5.5.2 DRIVE - platform elevated



If the platform is not in stowed position (raised), extra attention must be given if drive is operated.

Verify the surrounding area carefully prior to operate driving.

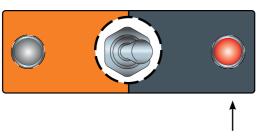
Never operate drive if the surface is uneven.



Drive speed with elevated platform is restricted. The Engine RPM will remain idle.

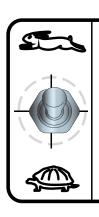
**405TS:** Drive is disabled if the platform height is 5 meter and above. **408TS:** Drive is disabled if the platform height is 4 meter and above.

The right LED will lit up RED at the platform height when drive becomes disabled.



Drive-function disabled.

### 5.5.3 Drive speed selection



Speed for Drive and Lift can be pre-selected.

There are three different drive speeds to select:

- HIGH SPEED : Engine will be at high RPM and max. drive speed is about 2,0 km/h.
- MID SPEED: Engine will be at high RPM and max. drive speed is about 1,5 km/h (for more precise manoeuvring and more torque).
- LOW SPEED: Engine will stay low RPM and max drive speed is about 0,8 km/h (for accurate manoeuvring).

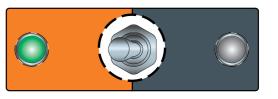
With the platform height being at 3 meters or above, the drive speed is limited to LOW SPEED.

### 5.6 LIFT and LOWER the platform

Prior to able to operate Lift and Lower function, it is mandatory to activate these functions by activating the LIFT / LEVEL / DECK / ROTATION toggle switch once.

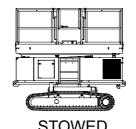
LIFT / LEVEL / DECK / ROTATION functions are enabled for 10 seconds after operating the toggle switch before they need to be enabled again.

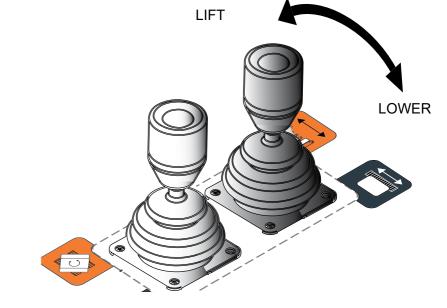
Toggle the SELECTION TOGGLE towards the left (orange). This enables the LIFT / LEVEL / DECK / ROTATION functions for about 10 seconds and as long as the selected function is in operation. The left LED will lit. As long as this LED is lit, LIFT / LEVEL / DECK / ROTATION functions are enabled.

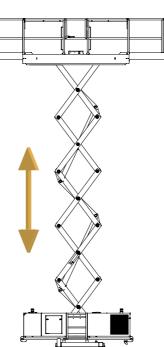




Do not elevate platform unless guardrails are installed and secured. If the platform fails to lower DO NOT attempt to climb down the elevating assembly. Serious injury may result.







**FULLY RAISED** 

Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward, the faster the lift speed will be.

### Raise / lift the platform

Operate the left joystick FORWARD to lift the platform.

### Lowering the platform

Operate the joystick BACKWARDS to lower the platform.

#### 5.7 LEVELLING Procedure

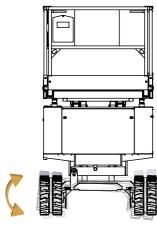
Prior to able to operate LEVEL functions, it is mandatory to activate these functions by activating the LIFT / LEVEL / DECK / ROTATION toggle switch once.

Toggle the SELECTION TOGGLE towards the left (orange). This enables the LIFT / LEVEL / DECK / ROTATION functions for about 10 seconds and as long as the selected function is in operation. The left LED will lit. As long as this LED is lit, LIFT / LEVEL / DECK / ROTATION functions are enabled.

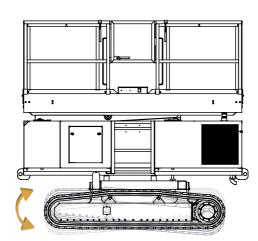


LEVEL function can only be operated with platform at stowed position, or at least below 3 meters platform height. Above 3 meters platform height LEVEL functions are disabled.

If the machine is at a minor slope, the LEVEL-system allows to set the platform to level-position. The Level system can be operated manual, or fully automatic.



SIDE / SIDE LEVEL



FRONT / REAR LEVEL



# If the platform is off-level - the LIFT function will be disabled.



#### Manual Level: Front to Rear

Tilt to Front: Move and hold the toggle switch to UP to tilt the platform to the desired position.

Tilt to Rear: Move and hold the toggle switch to DOWN to tilt the platform to the desired position.

#### Manual Level: Side to Side

Tilt to Left: Move and hold the toggle switch to the LEFT to tilt the platform to the desired position.

Tilt to Right: Move and hold the toggle switch to the RIGHT to tilt the platform to the desired position.

#### Auto Level

Move the toggle switch DOWN to start levelling. Hold the toggle switch DOWN until levelling operation is complete.

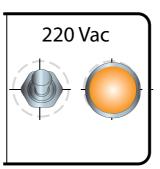
When the platform reaches the level position, auto levelling will automatically stop.

### 5.8 AC power supply



Een AC power supply is an optional feature. Via AC outlet mounted on the platform, AC powered equipment can be used.

The AC-supply is hazardous. Use only approved and in good condition AC equipment.



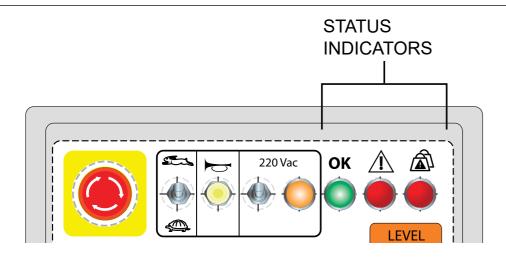
### **Activate AC supply**

- The AC power supply can be powered ON via the AC toggle
- Set the toggle switch to the ON position.
- The orange LED will lit up.



Assure that the AC connected equipment is suitable for the voltage and the power rating of the AC equipment is not above the AC power supply system.

#### 5.9 LED indicators



# OK



Green LED lit up whenever machine is powered up and no errors are detected. Normal operation of the machine is possible.





Red LED lit up if the system measures a hazardous reading. Consult the display at the lower controls for further information. Do not continue to operate the machine. Contact your OMEGA Service point if problems insists.



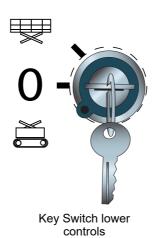


This LED lit up when an overload has been detected. All functions are disabled. The alarm will sound.

- 1. Push in the EMERGENCY STOP
- 2. Remove the load of the platform that caused the overload situation.
- Activate the machine by setting the EMERGENCY STOP to ON

   twist.

### **5.10 Shut-down procedure**



- 1. Park the machine on a level surface.
- 2. Exit the platform and close the entry gate.
- 3. Turn the KEY SWITCH at lower control in middle position and take out the key. Removing the key prevents unauthorized use.
- 4. Turn the MAIN POWER SWITCH to the left to set it to the OFF position.

Note: If the main switch remains in the ON position, the main battery will drain in time.



Main switch



# 6 Operating Instructions - radiographic remote control (PJC)

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

This section provides instructions for each function of machine operation. Follow all safety rules and instructions. This chapter covers the operations by means Radiographic remote control.

This machine may be operated by trained and authorized personnel only. If multiple operators use this machine, all must be qualified and authorized to use it. New operators must perform a Pre-Start Inspection and Functions Test prior to operating the machine.

Operators must comply with employer, job site and governmental rules regarding the use of personal protective equipment.

#### 6.1 Pre-start



Check base control EMERGENCY STOP switch - turn clockwise to reset.



Check radiographic remote control EMERGENCY STOP switch – turn clockwise to reset.



Check power switch near lower control box, must be in ON position

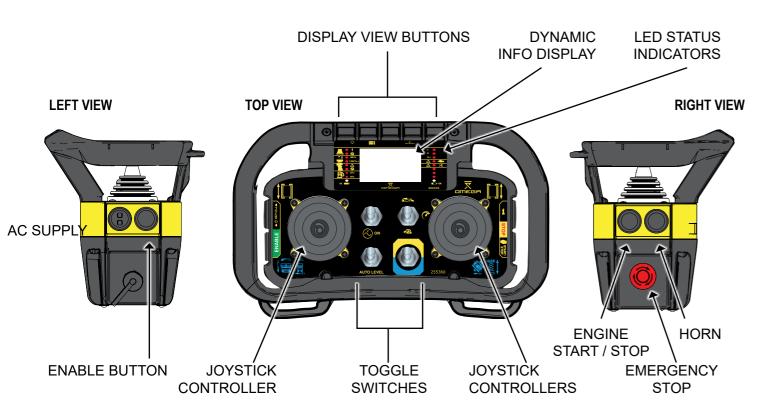


As soon as the system is powered ON, the display will lit up and by default shows the hour reading.

#### **6.2 Control elements**

### **Lower control panel EMERGENCY DIESEL ENGINE KEY SWITCH** ONBOARD DIAGNOSTIC **STOP** STOP / START CENTER ONBOARD DIAGNOSTIC CENTER STOP STOP START **OVERLOAD INDICATOR** FUSES / **CIRCUIT BREAKERS** LIFT **RPM AUTO LEVEL LOWER**

### Radiographic remote control (transmitter)



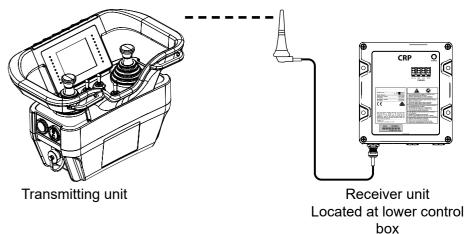
### 6.2.1 Additional information and instruction for use of remote control



Operating the machine via the radiographic remote control is only permissible from the work platform.

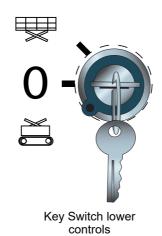
Only for loading and unloading the machine up and from a truck, the radiographic remote control may be used while standing adjacent to the machine.

it is strictly prohibited to operate the machine with people on the working platform while the operator of the radiographic remote control is not on the working platform.





When taking the transmitting unit away from the machine, turn the KEY SWITCH at lower in middle position and take out the key.



Avoid leaving the transmitting unit unattended or in such condition that it may be damaged, tampered with, or operated by people who are not qualified to do so. Avoid doing anything else while using the radiographic remote control, such as, by way of example, operate other machines, eat and/or drink, use communication devices.

Use the transmitting unit with the use of the carrying belt, which is provided with the attributes supplied with this machine.

OMEGA's radio graphic remote control system meets and exceeds the following directives and standards:

RoHS 2011/65/EU	EN61000-6-3	EN60950-1
EMC 2014/30/EU	EN60204-32	EN62479
EN300 220-2 V3.1.1	EN60204-1	EN13557
EN61000-6-2	EN ISO 13849-1	EN60068-2-1
EN301 489-3 V2.1.1		

### 6.3 Lower control panel - operate and test



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



#### Select the LOWER CONTROLS

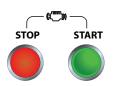
Turn the KEY SWITCH to LOWER CONTROLS



#### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

Twist to reset.



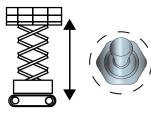
#### Start / stop Engine

Press the green START button momentary (approx 1 sec). A sequence of event will follow, such as glow, fuel inlet control and cranking the diesel engine.

Press the red STOP button momentary to stop the engine.



Do not elevate the platform if the machine is not on a firm level surface.

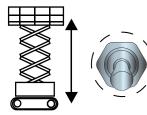


#### Elevate platform

Operate and keep the toggle switch upwards to ELEVATE the platform.

### Test Operation

- Elevate to maximum height.
- Releasing the switch will stop elevation.
- Pressing the EMERGENCY STOP switch will stop elevation.



#### Lower platform

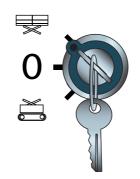
Operate and keep the toggle switch downwards to LOWER the platform. Test Operation

- Lower the platform to the stowed position.
- · Releasing the switch will stop descent.
- Pressing the EMERGENCY STOP switch will stop descent.

### 6.4 Radiographic remote Control - Operation and Test



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



### **Select PLATFORM Operation:**

Lower Control Box: Turn the KEY SWITCH switch to PLATFORM.



#### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

Twist to reset.



#### Connect transmitter with receiver unit

Press the ENABLE BUTTON on the left side of the remote control unit briefly. By pressing the ENABLE BUTTON the connection between transmitter and receiver is initiated. Verify that display at the lower control is lit up, by default shows the hour reading.





### Start / stop Engine from radiographic remote control:

Enter the platform and secure the entry.

Press the START / STOP button briefly to start the engine (right side). With a running engine, pressing the START / STOP button once more, will stop the Engine.



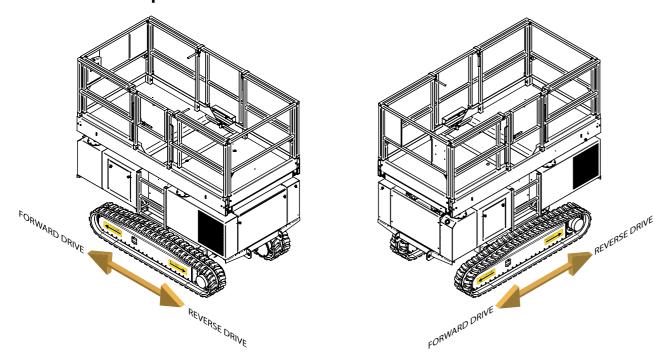
Operator's Manual OMEGA 400TS - series 840910/v4.1



### 6.5.1 DRIVE - platform stowed



Activation of the EMERGENCY STOP switch will apply brakes immediately. This may cause unexpected platform movement as the machine comes to a sudden stop. Brace yourself and secure objects on the platform during operation of machine.



Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward or reverse, the faster the drive speed will be.

The joystick returns to the neutral (center) position when released. Each of the joysticks operates an individual track. Left joystick for the left track and vice versa.



Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

#### To steer

Steering can be done by using the 2 joysticks, as stated before, each joystick operates one track (left joystick for left track - right joystick for right track).

For a right turn, the right track should drive slower (in opposite of the left track) or be in rest. You can achieve this by operating the desired joystick less up or downwards.



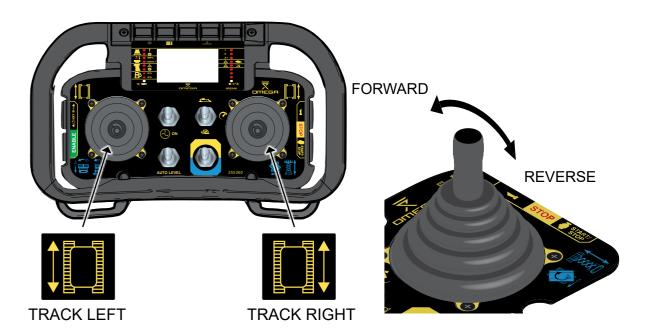
On the radiographic remote controller a FUNCTION SELECTION SWITCH is situated for selecting a function. Select the desired function. Toggle the switch towards the YELLOW section for drive.

### **Driving the Machine - forward**

Enable drive. Operate both joysticks upwards.

### **Test Operation**

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- · Pressing the EMERGENCY STOP switch will stop drive.



#### **Driving the Machine - reverse**

Enable drive. Operate both joysticks backwards.

#### **Test Operation**

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- Pressing the EMERGENCY STOP switch will stop drive.

#### **Brakes**

The brake is automatically released when the drive functions are enabled. The brake is automatically applied when the joystick is positioned in the neutral (center) position.



### 6.5.2 DRIVE with the platform elevated



If the platform is not in stowed position (raised), extra attention must be given if drive is operated.

Verify the surrounding area carefully prior to operate driving.

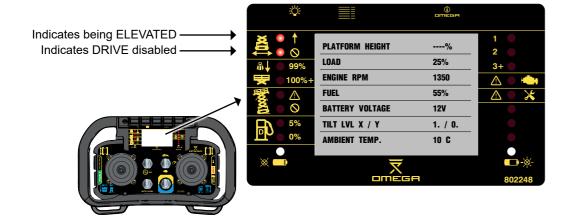
Never operate drive if the surface is uneven.



Drive speed with elevated platform is restricted. The Engine RPM will remain idle. A LED will lit up to indicate when platform is in elevated mode.

**405TS:** Drive is disabled if the platform height is 5 meter and above. **408TS:** Drive is disabled if the platform height is 4 meter and above.

A LED will lit up to indicate the platform height is above the max drive height.



## 6.5.3 Drive speed selection



Speed for Drive and Lift can be preselected.

There are three different drive speeds to select:

- HIGH SPEED: Engine will be at high RPM and max. drive speed is about 2,0 km/h.
- MID SPEED: Engine will be at high RPM and max. drive speed is about 1,5 km/h (for more precise manoeuvring and more torque).
- LOW SPEED: Engine will stay low RPM and max drive speed is about 0,8 km/h (for accurate manoeuvring).

With the platform height being at 3 meters or above, the drive speed is limited to LOW SPEED.

### 6.6 LIFT and LOWER the platform



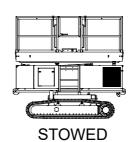
Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

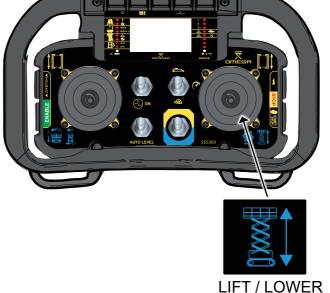


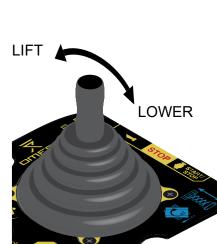
Do not elevate platform unless guardrails are installed and secured. If the platform fails to lower DO NOT attempt to climb down the elevating assembly. Serious injury may result.



On the radiographic remote controller a FUNCTION SELECTION SWITCH is situated for selecting a function. Select the desired function. Toggle the switch towards the BLUE section for lift/lower.







**FULLY RAISED** 

Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward, the faster the lift speed will be.

### Raise / lift the platform

Operate the left joystick FORWARD to lift the platform.

### Lowering the platform

Operate the joystick BACKWARDS to lower the platform.

#### 6.7 LEVELLING Procedure



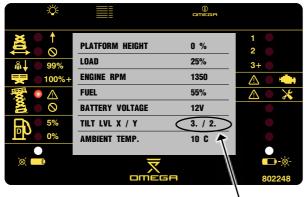
Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

LEVEL function can only be operated with platform at stowed position, or at least below 3 meters platform height. Above 3 meters platform height LEVEL functions are disabled.

If the machine is at a minor slope, the LEVEL-system allows to set the platform to level-position. The Level system can be operated manual, or fully automatic.

By means of the display and via a LED, the Level-position can be verified.





Indicates inclination of chassis. Correct level, for both axis, should be "0".



SIDE / SIDE LEVEL

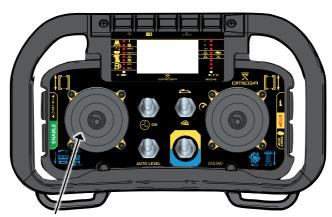
FRONT / REAR LEVEL



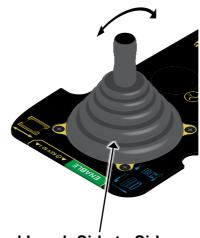
# If the platform is off-level - the LIFT function will be disabled.

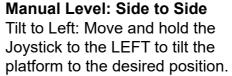


On the radiographic remote controller a FUNCTION SELECTION SWITCH is situated for selecting a function. Select the desired function. Toggle the switch towards the BLUE section for LEVEL.









Tilt to Right: Move and hold the joystick to the RIGHT to tilt the platform to the desired position.



Manual Level: Front to Rear Tilt to Front: Move and hold the Joystick to UP to tilt

the Joystick to UP to tilt the platform to the desired position.

Tilt to Rear: Move and hold the Joystick to DOWN to tilt the platform to the desired position.



**Auto Level** 

Move the toggle switch DOWN to start levelling. Hold the toggle switch DOWN until levelling operation is complete.

When the platform reaches the level position, auto levelling will automatically stop.



### 6.8 AC power supply



Een AC power supply is an optional feature. Via AC outlet mounted on the platform, AC power equipment can be connected and used.

The AC-supply is hazardous. Use only approved and in good condition AC equipment.



### **Activate AC Supply**

- The AC power supply can be powered ON via the AC toggle switch.
- Set the toggle switch to the ON position.



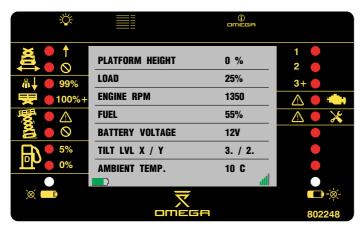
Assure that the AC connected equipment is suitable for the voltage and the power rating of the AC equipment is not above the AC power supply system.



### 6.9 Air-link - Dynamic Display and LED indicators

The radiographic remote control covered in this chapter, is equipped with a dynamic display. Also known as the "Air-link Radiographic remote control".

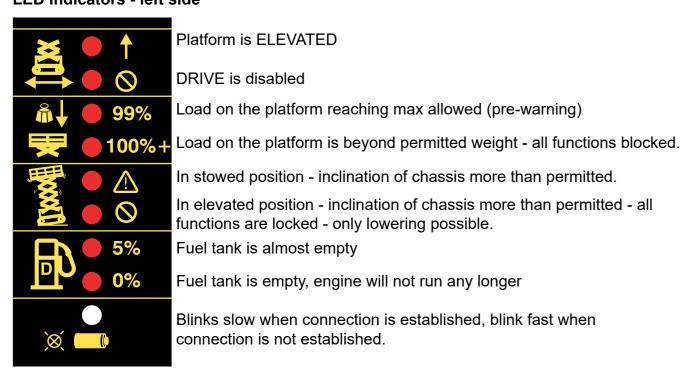
The dynamic display together with the LED indicators provides instant information on various machine statuses and its positions. It gives info on possible hazardous situations, and info on certain maintenance requirements.



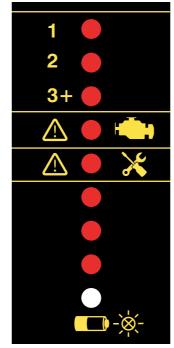
AIR LINK DISPLAY

### **LED Indicators - left side**

Operator's Manual OMEGA 400TS - series



### LED Indicators - right side



LED 1, 2 & 3 are unassigned.

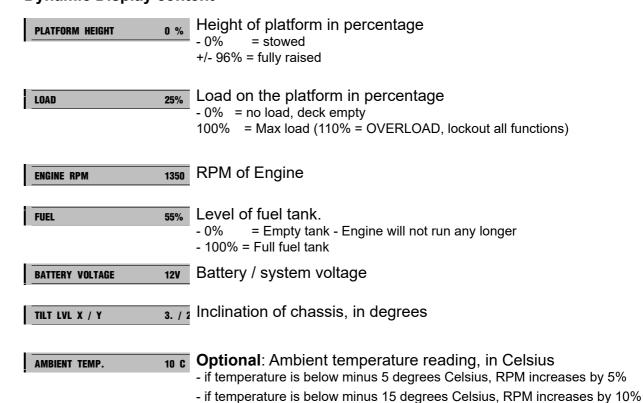
Error detected with Engine system. Check display at lower controls for further diagnostics.

Maintenance interval is triggered, machine needs to undergo periodical maintenance.

Blink fast when battery of remote controller is flat. Replace battery.

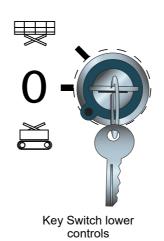
Indication of battery level of remote controller, if RED - replace battery

### **Dynamic Display content**



Indication of strength radiographic signal

### 6.10 Shut-down procedure



- Park the machine on a level surface.
- 2. Exit the platform and close the entry gate.
- Turn the KEY SWITCH at lower control in middle position and take out the key. Removing the key prevents unauthorized use.
- Turn the MAIN POWER SWITCH to the left to set it to the OFF position.

Note: If the main switch remains in the ON position, the main battery will drain in time.



Main switch



# 7 Operating Instructions - radiographic remote control (DJN)

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

This section provides instructions for each function of machine operation. Follow all safety rules and instructions. This chapter covers the operations by means Radiographic remote control.

This machine may be operated by trained and authorized personnel only. If multiple operators use this machine, all must be qualified and authorized to use it. New operators must perform a Pre-Start Inspection and Functions Test prior to operating the machine.

Operators must comply with employer, job site and governmental rules regarding the use of personal protective equipment.

#### 7.1 Pre-start



Check base control EMERGENCY STOP switch – turn clockwise to reset.



Check radiographic remote control EMERGENCY STOP switch – turn clockwise to reset.



Check power switch near lower control box, must be in ON position

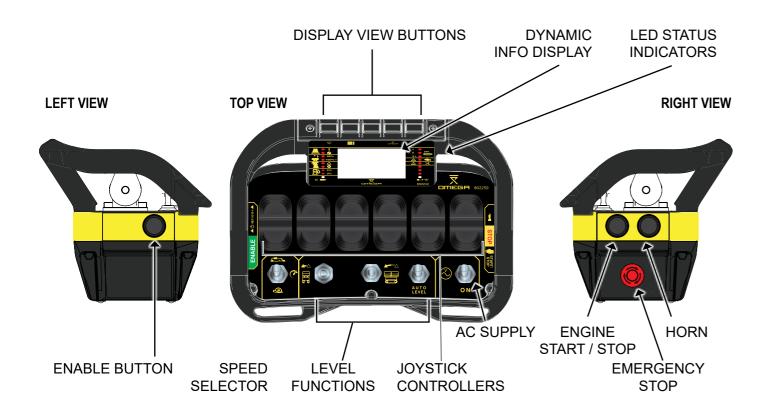


As soon as the system is powered ON, the display will lit up and by default shows the hour reading.

#### 7.2 Control elements

### **Lower control panel EMERGENCY DIESEL ENGINE KEY SWITCH** ONBOARD DIAGNOSTIC **STOP** STOP / START CENTER ONBOARD DIAGNOSTIC CENTER STOP STOP START **OVERLOAD INDICATOR** FUSES / (15) F2 **CIRCUIT BREAKERS** LIFT **RPM AUTO LEVEL LOWER**

### Radiographic remote control (transmitter)



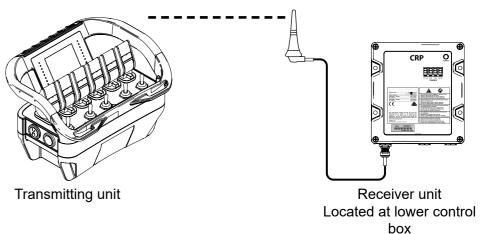
#### 7.2.1 Additional information and instruction for use of remote control



Operating the machine via the radiographic remote control is only permissible from the work platform.

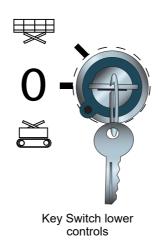
Only for loading and unloading the machine up and from a truck, the radiographic remote control may be used while standing adjacent to the machine.

it is strictly prohibited to operate the machine with people on the working platform while the operator of the radiographic remote control is not on the working platform.





Prior taking the transmitting unit away from the machine, turn the KEY SWITCH at lower in middle position and take out the key.



Avoid leaving the transmitting unit unattended or in such condition that it may be damaged, tampered with, or operated by people who are not qualified to do so. Avoid doing anything else while using the radiographic remote control, such as, by way of example, operate other machines, eat and/or drink, use communication devices.

Use the transmitting unit with the use of the carrying belt, which is provided with the attributes supplied with this machine.

OMEGA's radio graphic remote control system meets and exceeds the following directives and standards:

RoHS 2011/65/EU	EN61000-6-3	EN60950-1
EMC 2014/30/EU	EN60204-32	EN62479
EN300 220-2 V3.1.1	EN60204-1	EN13557
EN61000-6-2	EN ISO 13849-1	EN60068-2-1
EN301 489-3 V2.1.1		

### 7.3 Lower control panel - operate and test



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



#### **Select the LOWER CONTROLS**

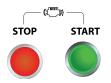
Turn the KEY SWITCH to LOWER CONTROLS



#### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

Twist to reset.



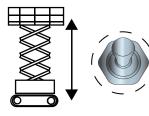
#### Start / stop Engine

Press the green START button momentary (approx 1 sec). A sequence of event will follow, such as glow, fuel inlet control and cranking the diesel engine.

Press the red STOP button momentary to stop the engine.



Do not elevate the platform if the machine is not on a firm level surface.

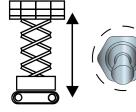


#### Elevate platform

Operate and keep the toggle switch upwards to ELEVATE the platform.

### Test Operation

- Elevate to maximum height.
- Releasing the switch will stop elevation.
- Pressing the EMERGENCY STOP switch will stop elevation.



#### Lower platform

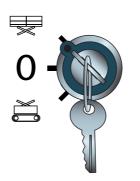
Operate and keep the toggle switch downwards to LOWER the platform. *Test Operation* 

- Lower the platform to the stowed position.
- · Releasing the switch will stop descent.
- Pressing the EMERGENCY STOP switch will stop descent.

### 7.4 Radiographic remote Control - Operation and Test



Check that the route of travel to be taken is clear of persons, obstructions, debris, holes, and drop-offs, and is capable of supporting the machine.



### **Select PLATFORM Operation:**

Lower Control Box: Turn the KEY SWITCH switch to PLATFORM.



### **Emergency Stop**

Press the EMERGENCY STOP switch at any time to stop all machine functions.

Twist to reset.



#### Connect transmitter with receiver unit

Press the ENABLE BUTTON on the left side of the remote control unit briefly. By pressing the ENABLE BUTTON the connection between transmitter and receiver is initiated. Verify that display at the lower control is lit up, by default shows the hour reading.



### **Start / stop Engine from radiographic remote control:**

Enter the platform and secure the entry.

Press the START / STOP button briefly to start the engine (right side). With a running engine, pressing the START / STOP button once more, will stop the Engine.

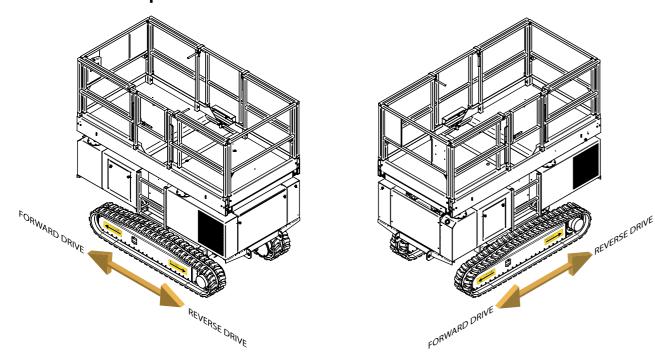




### 7.5.1 DRIVE - platform stowed



Activation of the EMERGENCY STOP switch will apply brakes immediately. This may cause unexpected platform movement as the machine comes to a sudden stop. Brace yourself and secure objects on the platform during operation of machine.



Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward or reverse, the faster the drive speed will be.

The joystick returns to the neutral (center) position when released. Each of the joysticks operates an individual track. Left joystick for the left track and vice versa.



Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

#### To steer

Steering can be done by using the 2 joysticks, as stated before, each joystick operates one track (left joystick for left track - right joystick for right track).

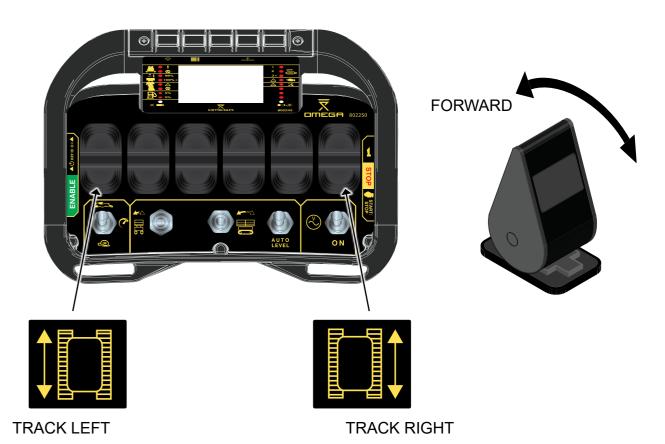
For a right turn, the right track should drive slower (in opposite of the left track) or be in rest. You can achieve this by operating the desired joystick less up or downwards.

#### **Driving the Machine - forward**

Enable drive. Operate both joysticks upwards.

#### **Test Operation**

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- Pressing the EMERGENCY STOP switch will stop drive.



### **Driving the Machine - reverse**

Enable drive. Operate both joysticks backwards.

#### Test Operation

- Drive speed is proportional and is dependent on the movement of the joystick.
- Returning the joysticks to the center position will stop drive.
- Pressing the EMERGENCY STOP switch will stop drive.

#### **Brakes**

The brake is automatically released when the drive functions are enabled. The brake is automatically applied when the joystick is positioned in the neutral (center) position.



### 7.5.2 DRIVE with the platform elevated



If the platform is not in stowed position (raised), extra attention must be given if drive is operated.

Verify the surrounding area carefully prior to operate driving.

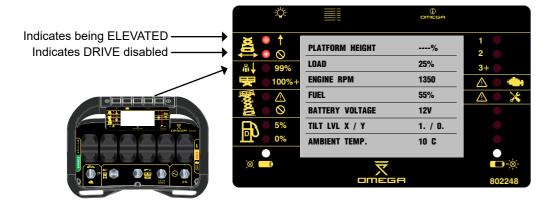
Never operate drive if the surface is uneven.



Drive speed with elevated platform is restricted. The Engine RPM will remain idle. A LED will lit up to indicate when platform is in elevated mode.

**405TS:** Drive is disabled if the platform height is 5 meter and above. **408TS:** Drive is disabled if the platform height is 4 meter and above.

A LED will lit up to indicate the platform height is above the max drive height.



## 7.5.3 Drive speed selection

Speed for Drive and Lift can be preselected.

There are three different drive speeds to select:

- HIGH SPEED : Engine will be at high RPM and max. drive speed is about 2,0 km/h.
- MID SPEED : Engine will be at high RPM and max. drive speed is about 1,5 km/h (for more precise manoeuvring and more torque).
- LOW SPEED : Engine will stay low RPM and max drive speed is about 0,8 km/h (for accurate manoeuvring).

With the platform height being at 3 meters or above, the drive speed is limited to LOW SPEED.

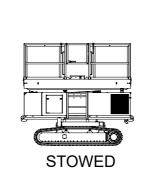
### 7.6 LIFT and LOWER the platform

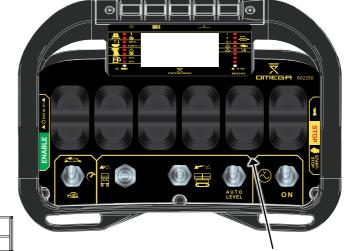


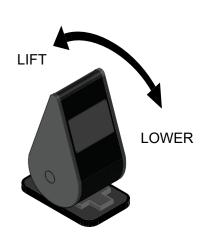
Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

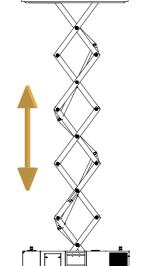


Do not elevate platform unless guardrails are installed and secured. If the platform fails to lower DO NOT attempt to climb down the elevating assembly. Serious injury may result.

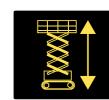








**FULLY RAISED** 



LIFT / LOWER

Function speed is proportional and is controlled by the movement of the joystick. The further it is moved forward, the faster the lift speed will be.

### Raise / lift the platform

Operate the left joystick FORWARD to lift the platform.

### Lowering the platform

Operate the joystick BACKWARDS to lower the platform.

#### 7.7 LEVELLING Procedure

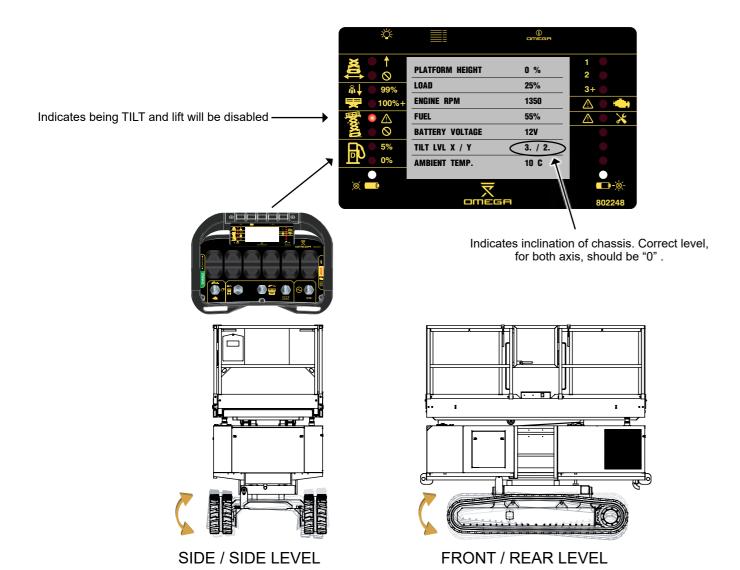


Prior to be able to operate any function, press the ENABLE switch on the left of the remote controller briefly. After the ENABLE switch has been pressed, for a period of about 10 seconds, all functions of the remote controller are standby / active. Within those 10 seconds a function can be selected and operated. After those 10 seconds the ENABLE switch must be pressed again. If any function is used and released again, the 10 seconds will count from the moment the function has been released.

LEVEL function can only be operated with platform at stowed position, or at least below 10 ft platform height. Above 10ft platform height LEVEL functions are disabled.

If the machine is at a minor slope, the LEVEL-system allows to set the platform to level-position. The Level system can be operated manual, or fully automatic.

By means of the display and via a LED, the Level-position can be verified.





If the platform is off-level - the LIFT function will be disabled.



Manual Level: Side to Side Tilt to Left: Move and hold the toggle switch to the LEFT to tilt the platform to the desired position.

Tilt to Right: Move and hold the toggle switch to the RIGHT to tilt the platform to the desired position.

#### Manual Level: Front to Rear

Tilt to Front: Move and hold the toggle switch to UP to tilt the platform to the desired position.

Tilt to Rear: Move and hold the toggle switch to DOWN to tilt the platform to the desired position.

#### **Auto Level**

Move the toggle switch DOWN to start levelling. Hold the toggle switch DOWN until levelling operation is complete.

When the platform reaches the level position, auto levelling will automatically stop.



### 7.8 AC power supply



Een AC power supply is an optional feature. Via AC outlet mounted on the platform, AC powered equipment can be connected and used.

The AC-supply is hazardous. Use only approved and in good condition AC equipment.



### **Activate AC Supply**

- The AC power supply can be powered ON via the AC toggle switch.
- Set the toggle switch to the ON position.



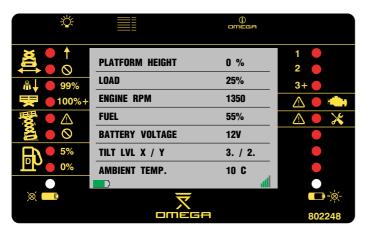
Assure that the AC connected equipment is suitable for the voltage and the power rating of the AC equipment is not above the AC power supply system.



### 7.9 Air-link - Dynamic Display and LED indicators

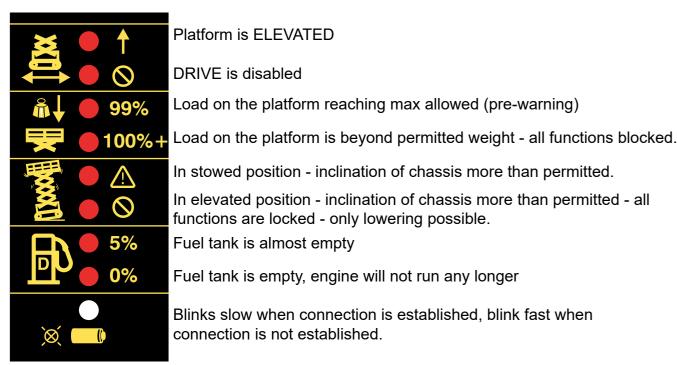
The radiographic remote control covered in this chapter, is equipped with a dynamic display. Also known as the "Air-link Radiographic remote control".

The dynamic display together with the LED indicators provides instant information on various machine statuses and its positions. It gives info on possible hazardous situations, and info on certain maintenance requirements.

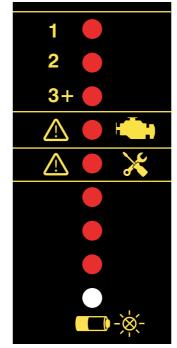


AIR LINK DISPLAY

#### **LED Indicators - left side**



### LED Indicators - right side



LED 1, 2 & 3 are unassigned.

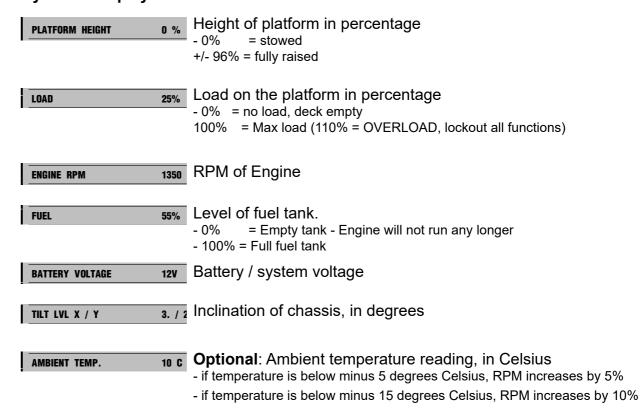
Error detected with Engine system. Check display at lower controls for further diagnostics.

Maintenance interval is triggered, machine needs to undergo periodical maintenance.

Blink fast when battery of remote controller is flat. Replace battery.

Indication of battery level of remote controller, if RED - replace battery

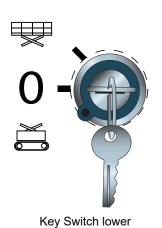
### **Dynamic Display content**



Indication of strength radiographic signal



### 7.10 Shut-down procedure



- 1. Park the machine on a level surface.
- 2. Exit the platform and close the entry gate.
- 3. Turn the KEY SWITCH at lower control in middle position and take out the key. Removing the key prevents unauthorized use.
- 4. Turn the MAIN POWER SWITCH to the left to set it to the OFF position.

Note: If the main switch remains in the ON position, the main battery will drain in time.



controls

Main switch

# **Emergency Systems**



If the control system fails while the platform is elevated, have an experienced operator use the emergency lowering procedure to safely lower the platform.

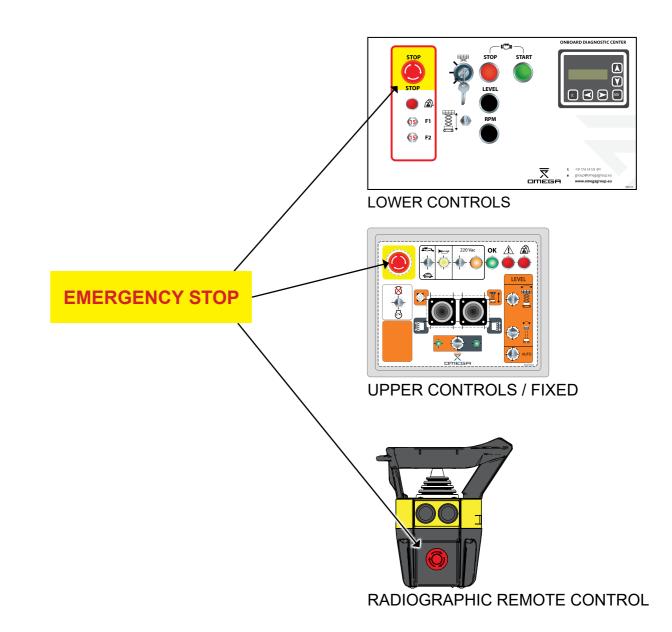
Do not attempt to climb down elevating assembly.

## 8.1 Emergency Stop

### **Emergency Stop**

The machine is equipped with two EMERGENCY STOP switches.

Press the EMERGENCY STOP switch at any time to stop all machine functions. Turn switch clockwise to reset.





### 8.2 Emergency Lowering

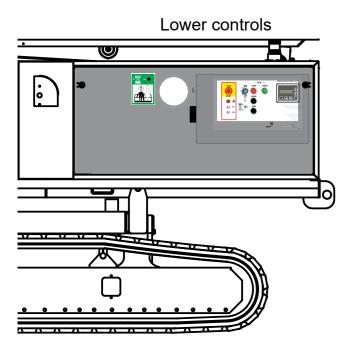
#### **Emergency Lowering**

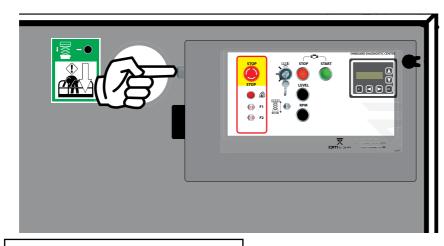
The Emergency Lowering System is to be used to lower the platform in case of system failure.

To lower the platform, perform the following steps:

- Push and hold the toggle switch UP to lower the platform.
- Once the platform is fully lowered, release the toggle switch.

The emergency lowering system is located at the lower control box right side.





Emergency Lowering switch PUSH to lower Platform

### 9 Machine Inspections

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

The operator must conduct a thorough Pre-Start Inspection of the machine and test all functions before each work shift to check for damage, malfunction and unauthorized modification.

Tag and remove a damaged, malfunctioning or modified machine from service. DO NOT use a damaged, malfunctioning or modified machine.

Use the Pre-Start Inspection to determine what Routine Maintenance is required. The operator may perform only the routine maintenance items specified in this manual.

**IMPORTANT** - Scheduled maintenance inspection checklist are included in this manual for use only by qualified service technicians. Only qualified service technicians may perform repairs to the machine. After repairs are completed, the operator must perform a Pre-Start Inspection before proceeding to the Functions Test.



Never perform service on the machine with the platform elevated without first blocking the elevating assembly.

Never leave hydraulic components or hoses open. They must be protected from contamination (including rain) at all times.

Never open a hydraulic system when there are contaminants in the air. Always clean the surrounding area before opening hydraulic systems.

Use only recommended lubricants. Improper lubricants or incompatible lubricants may be as harmful as no lubrication. Watch for makeshift "fixes" which can jeopardize safety as well as lead to more costly repair.



Hydraulic fluid under pressure can penetrate and burn skin, damage eyes, and may cause serious injury, blindness, and even death. Correct leaks immediately.





Failure to perform preventive maintenance at recommended intervals may result in the unit being operated with a defect that could result in injury or death of the operator.

Immediately report to your supervisor any Defect or malfunction. Any defect shall be repaired prior to continued use of the aerial work platform. Inspection and maintenance should be performed by qualified personnel familiar with the equipment. Fluid leaks under pressure may not always be visible. Check for pin hole leaks with a piece of cardboard, not your hand.

### **9.1 Pre-Start Inspection Checklist**

The operator must conduct a thorough Pre-Start Inspection of the machine before each work shift. Photocopy this page for reuse. Wisely to archive each inspections records. Report all discrepancies to your supervisor.

Model _	Serial number	Hour reading				
Date _	Inspected by					
GENERA	L INSPECTION CHECKLIST					
Initial	Description					
	Check that the operator's, safety, and respo container located on the platform.	nsibilities manuals are in the storage				
	Perform a visual inspection of all machine c or loose hoses, hydraulic fluid leaks, torn or					
	Check all structural components of the mac collision damage.	hine for cracked welds, corrosion and				
	Check all hoses and the cables for worn or	chafed areas.				
	Check the platform rails and sliding mid-rail	entry for damage or modification.				
	Check that all warning and instructional labe	els are legible and secure.				
	Check the tracks for damage.					
ELUD LE	All structural components, pins and fastener	rs are present and properly tightened.				
Initial	Description					
	Check for any fluid leaks.					
	Check correct hydraulic fluid level (check wi	ith platform fully lowered).				
0	Check if there is enough fuel for the course	of the working day				
Initial	FOR OPERATION  Description					
	Secure all covers and panels.					
	Perform Routine Maintenance as needed.					
Do a function check of all major functions of machine						



### **9.2 Monthly Inspection Checklist**



This checklist must be used at monthly intervals or every 100 hours of machine use, whichever occurs first.

### Failure to do so could result in death or serious injury.

Scheduled Maintenance Inspections should be conducted by qualified service technicians only. Photocopy this page for reuse. Keep inspections records up to date. Record and report all discrepancies to your supervisor.

Model _	Hour reading	
Date _	Inspected by	
	INSPECTION CHECK	
Initial	Description	
	Perform all checks listed on Pre-start Inspect the condition of hydraulic fluid icolor.	nspection. in the reservoir. Oil should have a clear amber
	Inspect all beams and pivot points for s	signs of wear and/or damage.
	Check the pin joints and retaining rings Inspect the entire machine for signs of or makeshift repairs.	s for security. damage, broken welds, loose bolts, improper
	Check that the platform does not drift of	down with a full load.
	Check that the level frame does not dri	ift
	Check all wire connections.	
	Check oil level of engine	
	Check air filter engine. Replace if need	led / polluted
	Check play on track, tension tracks if n	eeded
	Check that all adjustable flow valves a	re locked

### 9.3 Quarterly Inspection Checklist



This checklist must be used at quarterly intervals or every 250 hours of machine use, whichever occurs first.

### Failure to do so could result in death or serious injury.

Scheduled Maintenance Inspections should be conducted by qualified service technicians only. Photocopy this page for reuse. Keep inspections records up to date. Record and report all discrepancies to your supervisor.

Model	Serial number	Hour reading
Date	Inspected by	
-		
	RLY INSPECTION CHECK	
Initial	Description	
	Perform all checks listed on Pre-start/Mont	thly Inspection.
	Check the operation speeds to ensure the	y are within specified limits
	Check the emergency lowering system.  Clean and lubricate all push button switches switches operate freely in all positions.	es with dry lubricant and ensure that the
	Check the overall platform and guardrail co	omponent stability.
	Check the electrical mounting and hardware	re connections for security.
	Check all pivot pins for excessive play.	
	Carry out maintenance needs on the engir	ne.



### 10 Maintenance

DO NOT operate this machine until you have read and understood this manual, have performed the Pre-Start Inspection, Routine Maintenance, and Functions Test, have inspected the workplace for hazards, and have learned the operating procedures for this machine.

Tag and remove a damaged, malfunctioning or modified machine from service. DO NOT use a damaged, malfunctioning or modified machine.

Use the Pre-Start Inspection to determine what Routine Maintenance is required. The operator may perform only the routine maintenance items specified in this manual.

IMPORTANT - Scheduled maintenance inspection checklists are included in this manual for use only by qualified service technicians. Only qualified service technicians may perform repairs to the machine. After repairs are completed, the operator must perform a Pre-Start Inspection before proceeding to the Functions Test.



Never perform service on the machine with the platform elevated without first blocking the elevating assembly.

Never leave hydraulic components or hoses open. They must be protected from contamination (including rain) at all times. Never open a hydraulic system when there are contaminants in the air. Always clean the surrounding area before opening hydraulic systems.

Use only recommended lubricants. Improper lubricants or incompatible lubricants may be as harmful as no lubrication.

Watch for makeshift "fixes" which can jeopardize safety as well as lead to more costly repair.



Hydraulic fluid under pressure can penetrate and burn skin, damage eyes, and may cause serious injury, blindness, and even death. Correct leaks immediately.





Failure to perform preventive maintenance at recommended intervals may result in the unit being operated with a defect that could result in injury or death of the operator.

Immediately report to your supervisor any Defect or malfunction. Any defect shall be repaired prior to continued use of the aerial work platform. Inspection and maintenance should be performed by

qualified personnel familiar with the equipment. Fluid leaks under pressure may not always be visible. Check for pin hole leaks with a piece of cardboard, not your hand.

#### **10.1 Routine Maintenance**

IMPORTANT - The operator may perform routine maintenance only. Scheduled maintenance must be performed by qualified service technicians.

**Pre-Start Inspection** Perform routine maintenance as identified in the Pre-Start inspection Checklist

#### 10.2 Scheduled Maintenance

Maintenance performed monthly, quarterly, annually and biannually must be performed by a qualified service technician trained and authorized to perform maintenance on this machine. Scheduled maintenance inspection checklist are included in this manual for use by qualified service technicians. Machines that have been out of service for more than three months must receive the quarterly inspection before returning to service.

In the table at paragraph 10.5 - a recommendation for most critical components and the interval for service replacement is listed. This table does not preclude any other components that are not mentioned in this table, that may nevertheless be subjected to wear or tear and are subjected for replacement. Furthermore, the interval could be more intents, whenever the machine is heavily utilised and / or the environmental conditions are more intents.

# 10.3 ONBOARD message - MAINTENANCE REQUIRED



At the ONBOARD DIAGNOSTIC CENTER a message will show up whenever the next maintenance interval us due.

This particular message will only be displayed during the first 60 seconds after the machine has been powered ON. After that period, the ONBOARD DIAGNOSTIC CENTER will go into default mode, or brings up other crucial messages.



Whenever this message shows up, it is expected that maintenance needs will be carried out in the shortest possible time-frame.

Only when all required maintenance is carried out, the MAINTENANCE notification can be reset. An OMEGA service point is authorized to reset MAINTENANCE REQUIRED notification message.

#### 10.4 Scissor stack - maintenance lock



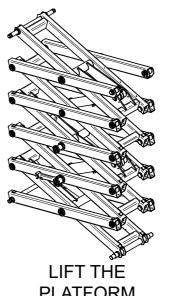
Ensure maintenance locks are in place before doing maintenance on an elevated work platform.

Install maintenance locks only with unloaded platform.

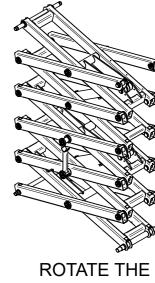
MAINTENANCE LOCKS ARE ON BOTH SIDES OF THE SCISSOR STACK. BOTH MAINTENANCE LOCKS ARE MANDATORY FOR LOCKING THE SCISSOR STACK.

#### To set Maintenance Lock

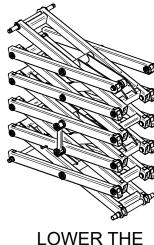
- Remove any load that might be on the platform
- Elevate platform approximately 4 meter and rotate maintenance lock to Blocked position.
- Lower platform until scissor assembly comes to rest on the maintenance lock.
- Scissor assembly is blocked.







LOCK BAR IN **PLACE** 



**PLATFORM** 



# 10.5 Interval for service subjected items

				S	ERVI	CE IN	TERV	AL		
ltem	OMEGA Part #	Daily	50 hrs	Initial 250 hr	250 hr	500 hr	1000 hr	1500 hr	3000 hr / annual	3 - 4 years
ENGINE										
Checking engine oil level - add if low	020006	•								
Checking fuel level		•								
Checking coolant level - add if low	459344	•								
Checking fan belt				•						
Changing engine oil	020006				•					
Replacing oil filter cartridge	200194				•					
Checking fuel hoses and clamp bands					•					
Cleaning of air cleaner element			•							
Replacing air cleaner element	170110				•					
Adjusting fan belt-tension					•					
Checking radiator hose and clamp bands					•					
Checking intake air line					•					
Replacing fuel filter cartridge	200204					•				
Replacing fan belt	542846						•			
Changing radiator coolant (L.L.C.)	459344							•		
Clean interior fuel tank									•	
STRUCTURAL										
Check tension of tracks			•							
Adjusting - tensioning tracks					•					
Checking hoses drive motors (external damage)					•					
Replacing lucubration oil drive gear box	020010				•					
Replacing lower rollers track										•
Lubricate pivot pins level system	130324				•					
Lubricate pivot pins scissor stack	130324				•					

				S	ERVI	CE IN	TERV	AL		
Item	OMEGA Part #	Daily	50 hrs	Initial 250 hr	250 hr	500 hr	1000 hr	1500 hr	3000 hr / annual	3 - 4 years
Hydraulics										
Checking hydraulic oil level (platform stowed) - add if needed	020008		•							
Checking on hydraulic leakage - arrange repair if needed			•							
Replacing hydraulic return filter	200224			•		•				
Replacing hydraulic high pressure filter element	620906			•		•				
Replacing hydraulic oil	020008							•		
ELECTRICAL										
BASE (LOWER CONTROL)										
Replace Emer stop switches - Head + switches	130336 + 130332 + 130338							•		
Replace key switch - Head + switches	130334 + 2x 120224 + 130338							•		
FIXED UPPER CONTROL BOX										
Replace Emer stop switches - Head + switches	130336 + 130332 + 130338							•		
Replace overlay decal	802026							•		
Replace toggle switch - Function select	120050							•		
Replace all boots on toggle switches (9x)	120102					•				
RADIOGRAPHIC REMOTE CONTROL										
Replace Emer stop switch	458474							•		
Replace boot on toggle switches	120454					•				
Replace batteries (2x)	239044							•		
Replace Enable push button	469794							•		

#### 10.6 DIESEL Fuel



#### ONLY USE RECOMMENDED FUEL TYPE

The use of fuels other than recommended may damage the engine or/and the engine fuel-system. This damage could be irrevocable. Damage caused by using fuels other than recommended is not covered by OMEGA's warranty terms.



#### **FUEL TYPE TO BE USED:**

DIESEL FUEL

Ultra low sulfur fuel - Sulfur content <0.0015% (15 ppm)

#### Additional information fuel type use:

The minimum recommended Fuel Cetane Rating is 45.
A cetane rating greater than 50 is preferred, especially for ambient temperatures below -20 °C(-4 °F) or elevations above 1.500 m (4921 ft).

Diesel fuel specification type and sulfur content% (ppm) used, must be compliant with all applicable emission regulations for the area in which the engine is operated.

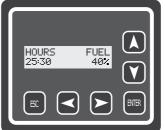
DO NOT USE Fuels that have sulfur content greater than 0.0015% (15 ppm).

Diesel fuels specified to EN590 (0.001% (10 ppm) sulfur maximum) or ASTM D975 (0.0015% (15 ppm) sulfur maximum) are recommended.

No. 2-D is a distillate fuel of lower volatility for engines in industrial and heavy mobile service (SAE J313 JUN87).

These engines utilize Tier 4 standards, the use of ultra low sulfur fuel is mandatory for these engines, when operated in US EPA regulated areas. Therefore, please use No. 2-D S15 diesel fuel as an alternative to No. 2-D, and use No. 1-D S15 diesel fuel as an alternative to No. 1-D for ambient temperature below -10 °C (14 °F).

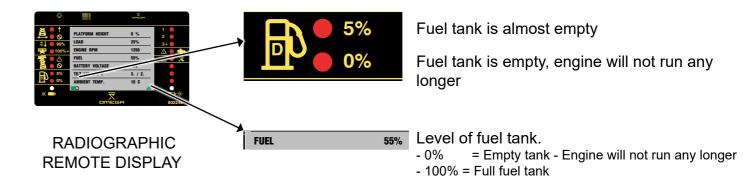
#### 10.6.1 Fuel tank / fuel level



The Fuel tank is integrated into the chassis and can be found at the left - front side of the machine. The filler cap is at the top of the chassis module: front / left side.

Via the ONBOARD DIAGNOSTIC CENTER the level of the fuel tank can be monitored.

If the machine is equipped with an Air Connected Radiographic remote control, the fuel level is shown in the Dynamic display and two LED indicators are dedicated for Fuel level warning.



### 10.6.2 Refuelling fuel tank

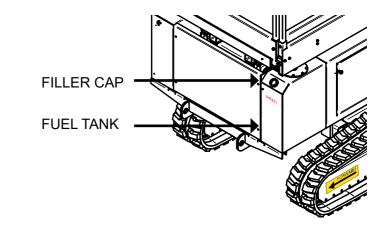


Do not refuel with the engine running.

During refuelling avoid any dirt or sand getting into the tank.

The filler cap can be opened and removed by turning it counter clockwise.

Once the tank is filled reinstall the filler cap to close the tank.





### 10.7 Charging battery - Radiographic transmitter

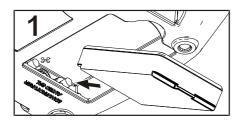
The radiographic control (the transmitter unit) runs on a rechargeable battery. It is recommended to recharge / swap the battery after each shift. Within the attributes with this machine, two batteries are supplied. With the intention - to have one battery in use in the transmitter, while the other is in the battery charger.

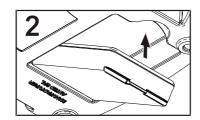


The integrated battery charger for the battery of the transmitter unit, is only active (charging) if the system is powered on.

#### **Battery Insertion**

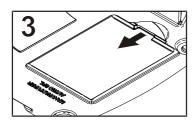
Push the battery towards the contacts on the Transmitting Unit (1) and insert it inside the housing (2).

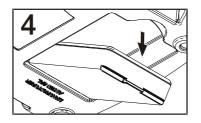




### **Battery removal**

Push the battery towards the contacts on the Transmitting Unit (3) and remove it from the housing (4).







LOCATION
BATTERY CHARGER
FOR BATTERY
TRANSMITTER

### Placing battery into charger

Insert the battery in its designated housing in the Battery Charger. Push the battery towards the contacts on the Battery Charger. Push the battery downwards. Charging of the battery starts up. The LED on the charger will be steady-ON

Once the battery is fully charged, the LED on the charger will blink fast.

### 10.7.1 Rechargeable battery - Radiographic transmitter



Never use damaged batteries (e.g. crushed, punctured, swollen or leaking batteries). Never use batteries if they have been dropped even just once, as their internal components may have been damaged, even though this cannot be seen from the outside. Improper use of batteries may pose the hazard of fire, explosion, overheating or other hazards.

In particular, avoid the following:

- Short-circuiting battery contacts
- Disassembling, cutting, opening, pressing, deforming, drilling, modifying, tampering with batteries or attempting to repair them in any way
- Trying to insert objects in the battery
- Immersing or exposing batteries in/to water or other liquids
- Placing the battery inside or on heating devices (e.g. ovens, heaters, radiators)
- Placing the battery within high pressure containers
- Exposing the battery to impacts and drops
- Do not carry loose batteries in a pocket or purse together with metal objects (like keys, coins, paper clips). This can shortcircuit the battery, leading to high heat and causing burns.



Use only original OMEGA batteries and recharge them only with the suitable Battery Charger, which is provided with the attributes of this machine.



SPECIFICATION BATTERY	
OMEGA PART Number	239044
Туре	Li-ion
Voltage	7,4V
Capacity	1.400mAh
Typical recharge time	3 hr
Protection degree	IP65
Run time transmitter (approx)	9 hr



# 11 Transporting the machine



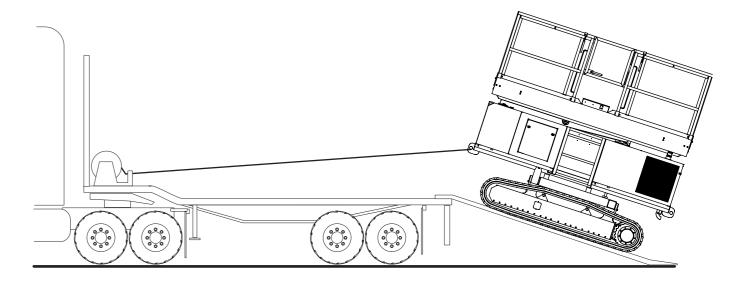
Read and understand the safety markings, operating instructions and user-manual prior to working with the machine.

# 11.1 Driving or winching onto or off of a transport vehicle

### Driving

- Turn the KEY SWITCH at the lower controls to PLATFORM. Check that the EMERGENCY STOP switch is reset by turning it clockwise.
- Enter the platform and reset the Platform EMERGENCY STOP switch.
- Test platform control functions.
- Carefully drive the machine off the transport vehicle with the winch attached.

Note: The brakes are automatically released for driving and will automatically apply when the machine stops.





### 11.2 Lifting and Tie Down Instructions



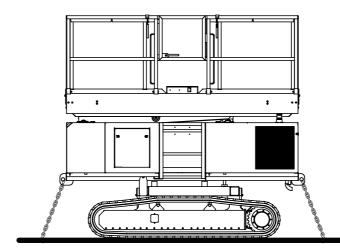
Only qualified riggers should rig and lift the machine. Ensure that the crane capacity, loading surfaces and straps are sufficient to withstand the machine weight. See the serial plate for the machine weight.

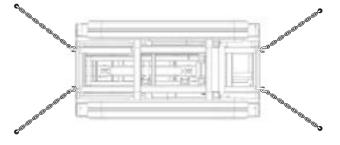
### 11.2.1 Lifting / hosting

- Fully lower the platform. Be sure the deck extension is retracted and the modules are
- closed and secure. Remove all loose items from the machine.
- Determine the center of gravity of the machine.
- Attach rigging to the designated lift points only.
- Adjust the rigging to prevent damage to the machine and to keep the machine level.

### 11.2.2 Securing to Truck or Trailer for Transport

- Securing to Truck or Trailer for Transport
- Lock the deck extension in the retracted position.
- Turn the key Selector Key Switch to OFF and remove the key before transport.
- Turn the Battery Disconnect Switch to OFF before transport.
- Inspect the entire machine for loose or unsecured items.
- · Use chains or straps of ample load capacity.
- Use a minimum of two (2) chains or straps.
- Adjust the rigging to prevent damage to the chains and the machine.







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