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# ATLET Instruction Manual

ATLET Instruction Manual contains information which You as the truck user must be aware of in order to avoid/minimize the risk of injury to yourself and the truck. You also have responsibility to the company management, other people and objects in your environment. Read through this manual before starting the truck for the first time. The Instruction manual describes a truck with standard equipment, customer modification may occur.

Our products are constantly being developed and renewed. We therefore reserve the right to make alterations without prior notice. In the event of contradictory information in the Swedish and translated versions, the Swedish edition takes precedence.

Thank you for choosing **ATLET AB** as your truck supplier.

## **ATLET AB**

ATLET AB have manufactured trucks since 1959. Quality, operational safety and innovation have given us a leading role as a truck supplier throughout the world.

## **ATLET Service**

As an owner of an ATLET truck, we also welcome you to our service organisation. We offer support and advice for any problems which may arise and assistance with servicing and the ordering of replacement parts. Refer to the nearest authorised sales agent or service workshop for assistance.

## **ATLET Truck driving courses**

The importance of goods handling for the company and the environment increases each year. At the same time ever more technical solutions are developed and introduced on the trucks. It is therefore important that the driver, who has a key role in goods handling, is given the correct conditions to operate as safely and efficiently as possible. Statistics show that the number of dangerous situations decreases significantly when the truck driver has been trained. Please contact us for information about the training package.

## **Assurance of conformity**

We, Atlet AB, S-435 82, Mölnlycke, Sweden, declare under sole responsibility that the product is in conformity with the standards EN 1726, according to the provisions of Directive 98/37/EC and EMC-directive 89/336/EEC.

## **EC Type-Examination**

Verification of high lift picker trucks, OPM, OPH, OPC, OPS, has been carried out by Det Norske Veritas, Notified Body no. 0409.

See EC Type-Examination Certificate No. 01-SKM-CM-0523.

ATLET AB

# Environmental Considerations

## Atlet AB takes care of the environment

The majority of our products consist of steel, and can be completely recycled.

### Environmental impact

All products have an impact on the environment throughout their entire life cycle. The consumption of energy during their use is one of the most important factors that influences the environment.

Through correct care, maintenance and use the consumption of energy can be reduced, thereby reducing the environmental impact.

### Waste

Waste material in conjunction with repairs, maintenance, cleaning, or scrapping, must be collected and disposed of in an environment-friendly way and in accordance with the directives of respective countries. Such work must only be carried out in areas intended for this purpose.

Recyclable material should be taken care of by specialised authorities.

Environmentally hazardous waste, such as oil filters, batteries and electronics, can have a negative effect on the environment, or health, if handled incorrectly.

# Supervisor's Responsibility

1. It is the supervisor's responsibility on behalf of the company management to ensure that the truck is driven and used correctly.
2. It is the duty of the supervisor to instruct and to check that the driver instructions are followed.
3. The supervisor must supply, and the driver of the truck must sign for, the following:
  - Driver instructions for Atlet electric trucks.
  - Other necessary driver instructions.

The supervisor must read and be familiar with the driver instructions.

Ensure that the truck is insured with at least third party insurance if this is required by national authority regulations.

## **Maintenance personnel**

The daily maintenance and certain service is to be carried out by the driver, after he/she has received sufficient training in the construction and maintenance of the truck. Quarterly and six monthly services must be carried out by Atlet Service, or by an authorised Atlet Service Centre. To ensure efficient service and thereby the full functionality of the trucks, please contact the Service department at Atlet. Atlet offers service agreements for continuous maintenance.

Fully in accordance with the EU's Machine Directive, the EUROPEAN STANDARD EN 1726, and the International Standard ISO 3691.

# Truck Driver

## Authorisation to drive a truck

The Working Environment Code 3 chapter §3 (only Sweden) states, amongst other things that the employer must ensure that the employee has the required training and that the employee is aware of what must be observed in order to avoid risks during the course of work. The employer must take into consideration an employee's suitability for the work in question. It is therefore necessary that a person engaged as a driver completes the appropriate truck driver training, both theoretical and practical, that corresponds to the work assignments the driver is expected to undertake after training. Further training may be required in the event of major changes in work assignments. The employer must give the employee written authorisation to drive the truck - as well as a written outline of the extent of his/her duties.

## Driver requirements

The truck driver must have the mental and physical capacity required for the job. The driver must also be aware of everything that is relevant to the handling and manoeuvring of the truck, traffic regulations and any other relevant instructions. The driver must have the permission of the supervisor to drive the type of truck in question and be specially trained for the work and the traffic conditions involved.

## Maintenance of the truck

1. The driver of the truck is responsible to the supervisor, for ensuring that the truck is kept in good working order.
2. Daily maintenance must be carried out carefully before the start of each shift. See section: Service instructions.
3. Any faults must be reported to the supervisor immediately.

4. In order to remain in good working order, the truck must be kept clean and properly maintained. It must be checked regularly in accordance with the service instructions.
5. Check that no safety equipment has been modified or put out of service.

For optimal performance and in order not to invalidate the guarantee, use only **ATLET** genuine replacement parts.



# Machine Plate

<b>CE</b>		
MODELL MODEL MODELE	<b>X160STJN420</b>	
SERIE NR. SERIAL NO. SERIEN NR.	<b>X23513/01</b>	
NOMERO DE SERIE		
TILL. ÅR YEAR OF MANUF. BAUJAHR AN DE FABR.	<b>2003-12-03</b>	
TILLÅTEN LAST ACTUAL CAPACITY WIRKELICHE TRAGFÄHIGKEIT CAPACITE EFFECTIVE		
TYNGPUNKTSAVSTÅND LOAD CENTRE DISTANCE LASTSCHWERPUNKT DISTANCE DE CENTRE		
LYFTHÖJD LIFT HEIGHT HÖUBÖHDE HAUTEUR DE LEVEE		
<b>H</b> mm	<b>D</b> mm	<b>Q</b> kg
<b>8000</b>	<b>600</b>	<b>1600</b>
<b>3600</b>	<b>500</b>	<b>1000</b>
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]
BATTERISPÄNNING BATTERY VOLTAGE BATTERIESPANNUNG TENSION DE LA BATTERIE		
		<b>24</b> VOLT-DC
VIKT UTAN BATTERI WEIGHT WITHOUT BATTERY GEWICHT OHNE BATTERIE MASSE SANS BATTERIE		
		<b>1100</b> KG
MINSTA BATTERIVIKT MINIMUM BATTERY WEIGHT MINDESTGEWICHT DER BATTERIE MASSE MINIMAL DE LA BATTERIE		
		<b>270</b> KG
MAXIMAL BATTERIVIKT MAXIMUM BATTERY WEIGHT HOCHSTGEWICHT DER BATTERIE MASSE MAXIMAL DE LA BATTERIE		
		<b>400</b> KG
<b>ATLET AB MÖLNLYCKE SWEDEN</b>		

<b>CE</b>		
1. Modell Model Modèle	[Redacted]	
2. Serie nr. Serial no. Sérien nr.	[Redacted]	Vikt utan batteri Weight without battery Gewicht ohne Batterie Poids propre sans batterie
3. Tyngdepunkt Point of construction Bauort Année de construction	[Redacted]	Batteri utan max. Battery weight max. Batteriegewicht max. Poids de batterie max.
4. Tillåten last Load capacity Tragfähigkeit Charge limite	[Redacted]	Batteri vikt max. Battery weight max. Batteriegewicht max. Poids de batterie max.
5. Tyngdpunktavstånd Distance of load centre Lastschwerpunkt Distance del centre	[Redacted]	Batterispänning Battery voltage Batteriespannung Tension de la batterie
Tillverkare Manufacturer Hersteller Fabricant	<b>Atlet AB Mölnlycke Sweden</b>	

- ← 1.
- ← 2.
- ← 3.
- ← 4.
- ← 5.
- ← 6.
- ← 7.
- ← 8.
- ← 9.
- ← 10.

1000

The Machine plate has important information. Read it carefully! The permitted load must not be exceeded.

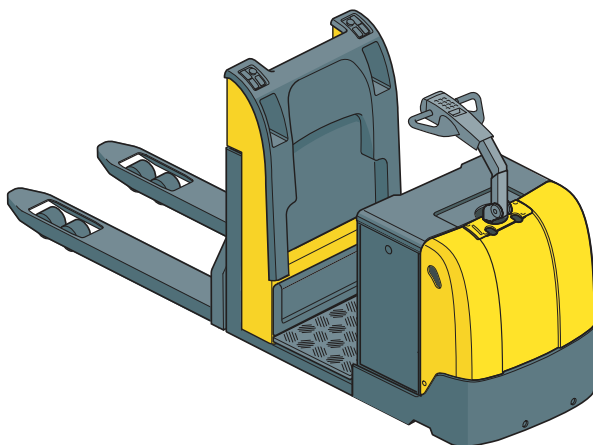
1. Model
2. Type Serial No./Version (S=Special ed.)
3. Year of manufacture, week and guarantee limit in months
4. Actual capacity, Q
5. Load centre distance, D
6. Lift height, H
7. Battery voltage
8. Weight without battery
9. Minimum battery weight
10. Maximal battery weight

Total truck weight = Weight without battery + Battery weight + Load + Driver

# Driving Instructions

## Atlet Low Picker trucks (PP-TEMPO)

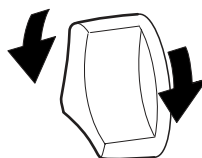
### PP-TEMPO with tiller arm, Mk2



1062

1. Connect the battery plug and start the truck according to the description of the truck computer. See section "Atlet truck computer ATC<sub>t4</sub>".  
Release the parking brake by moving the control lever backwards - downwards (but not to the bottom position).

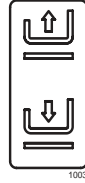
2. The truck begins to move when the lever on the operating handle is pushed forwards/backwards. The further the speed controller is moved the faster the truck will move.





1057

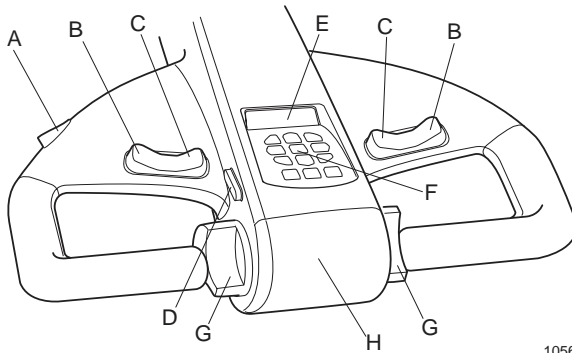
3. There are two ways of braking the truck:
  - Brake the truck by reversing, i.e. changing the direction of travel.  
**NOTE!** *The further the speed controller is moved the greater the braking capacity.*
  - Brake by moving the lever back to neutral position and moving the operating handle up or down to the limit position.  
**NOTE!** *The brakes function whether the lever is released or not.*

4. If the main power needs to be cut in an emergency, pull out the battery plug or push the emergency stop button if the truck has been fitted with one. The emergency stop buttons are on the left and right hand sides of the driver cab facing the forks.



5. For trucks with lifting driver platforms: when the platform is in the raised position > 500mm, the truck cannot be driven. Raise/lower the platform using the marked buttons: arrow up/arrow down.

6. It is possible to manually activate crawl speed when operating. Select crawl speed using button . (Button  to go directly to normal speed.)



1056

A. Not in use

B. Lower

C. Lift

D. Signal button

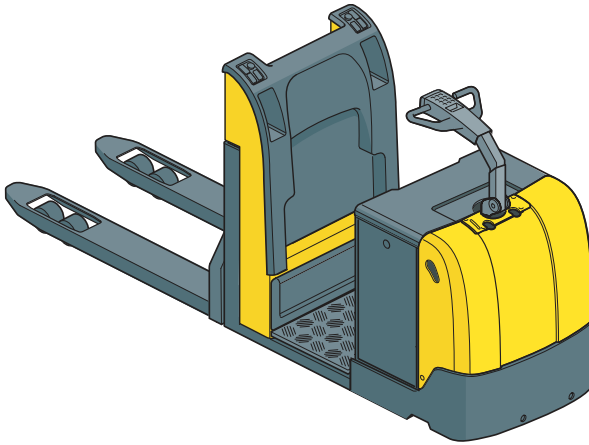
E. Display

F. Keyboard

G. Speed controller

H. Pressure plate

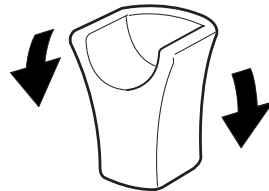
## PP-TEMPO with tiller arm, ATC<sub>t4</sub>



1001

1. Connect the battery plug and start the truck according to the description of the truck computer. See section "Atlet truck computer ATC<sub>t4</sub>".  
Release the parking brake by moving the control lever backwards - downwards (but not to the bottom position).

2. The truck begins to move when the lever on the operating handle is pushed forwards/backwards. The further the speed controller is moved the faster the truck will move.



1002

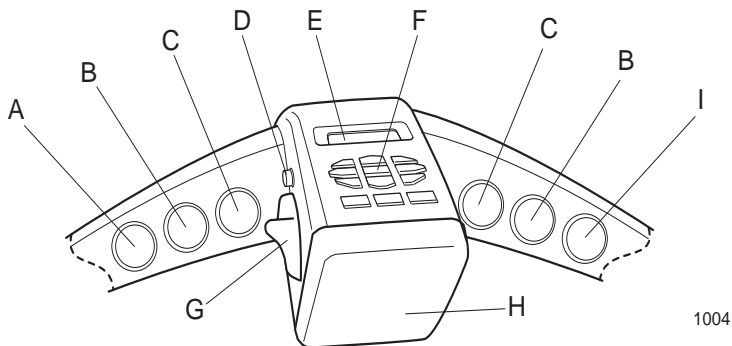
3. There are two ways of braking the truck:
  - Brake the truck by reversing, i.e. changing the direction of travel.  
**NOTE!** *The further the speed controller is moved the greater the braking capacity.*
  - Brake by moving the lever back to neutral position and moving the operating handle up or down to the limit position.  
**NOTE!** *The brakes function whether the lever is released or not.*

4. If the main power needs to be cut in an emergency, pull out the battery plug or push the emergency stop button if the truck has been fitted with one. The emergency stop buttons are on the left and right hand sides of the driver cab facing the forks.



1003

5. For trucks with lifting driver platforms: when the platform is in the raised position > 500mm, the truck cannot be driven. Raise/lower the platform using the marked buttons: arrow up/arrow down.



A. Not in use

B. Lower

C. Lift

D. Signal button

E. Display

F. Keyboard

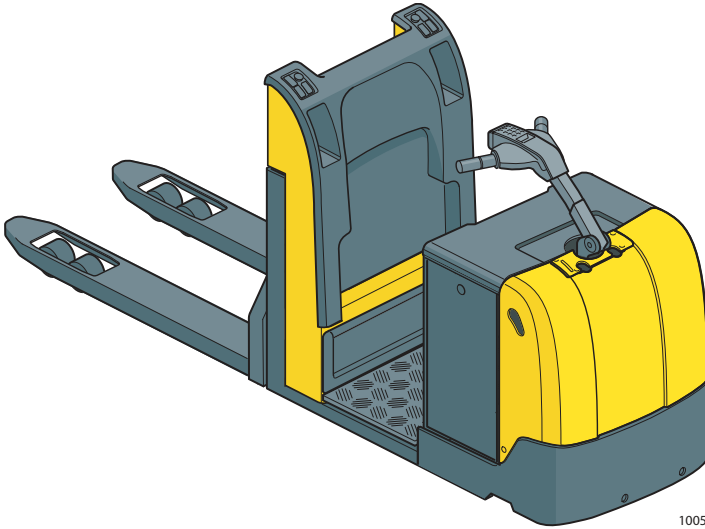
G. Speed controller

H. Pressure plate

I. Not in use

1004

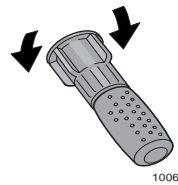
# PP-TEMPO with servo steering



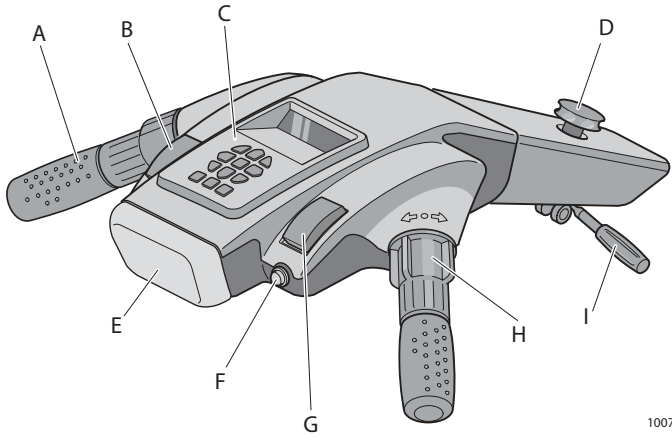
1. Connect the battery plug and start the truck according to the description of the truck computer. See section "Atlet truck computer ATC<sub>t4</sub>".
2. The truck begins to move when the speed controller is turned forwards/backwards. The further the speed controller is moved the faster the truck will move.
3. There are three ways of braking the truck:
  - Brake by reversing, i.e. changing direction.

**NOTE!** *The further the speed controller is moved the greater the braking capacity.*

  - Brake by releasing the speed controller to neutral.
  - Brake by pushing the brake button **E**.
4. If the main power needs to be cut in an emergency: pull out the battery plug, or press the emergency stop button. The emergency stop buttons are on the left and right hand sides of the driver cab facing the forks.



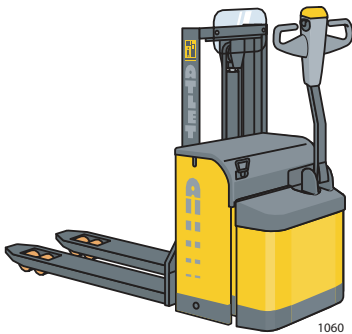
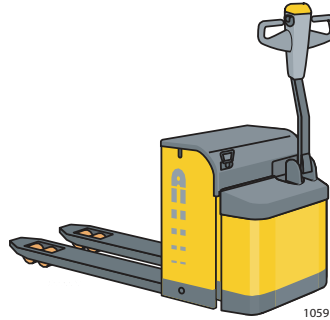
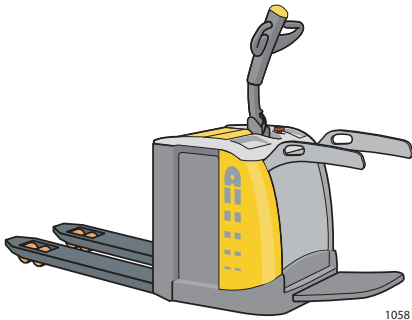
5. For trucks with lifting driver platforms: when the platform is in the raised position > 500mm, the truck cannot be driven if it has not been fitted with the attendant controls (accessories). Raise/lower the platform using the marked buttons: arrow up/arrow down.



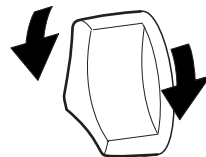
- |                                  |   |
|----------------------------------|---|
| A. Control handle                | F. Signal button  |
| B. Fork lift/lower               | G. Fork lift/lower, or platform up/<br>down (accessory) |
| C. Keyboard/display              | H. Speed controller                                     |
| D. Adjustment knob, longitudinal | I. Adjustment lever, vertical                           |
| E. Brake button                  |   |

# Atlet Powered trucks (PLP, TS, PLL, PS, PSD, PSL)



## Tiller arm, Mk2 (not TS)

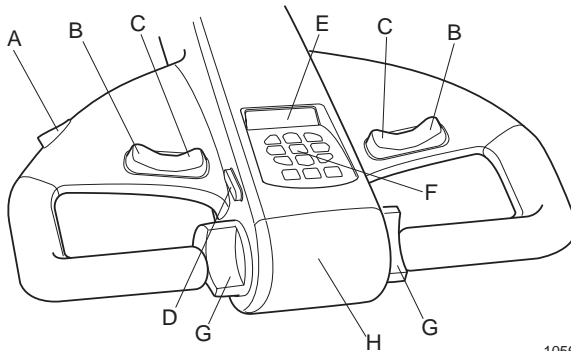


1. Insert the battery plug and start the truck according to the description of truck computers, see section "Atlet truck computer ATC<sub>t4</sub>" or if the truck is equipped with power lock: turn the power lock to "ON". Release the parking brake by moving the control lever backwards - downwards (but not to the bottom position).
2. The truck begins to move when the lever on the operating handle is pushed forwards/backwards. The further the speed control is moved the faster the truck will move.





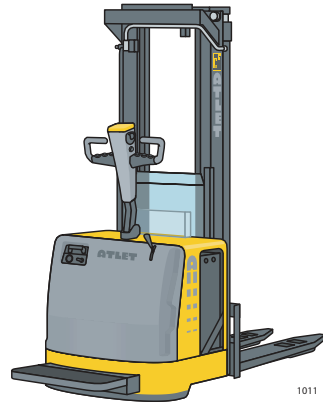
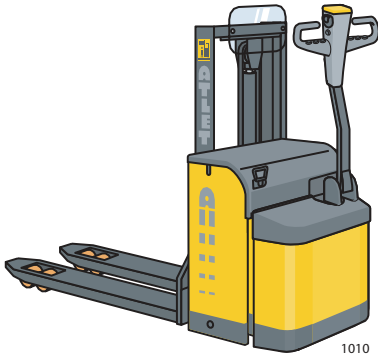
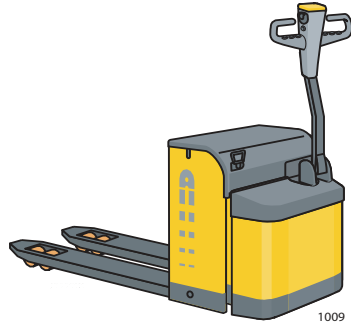
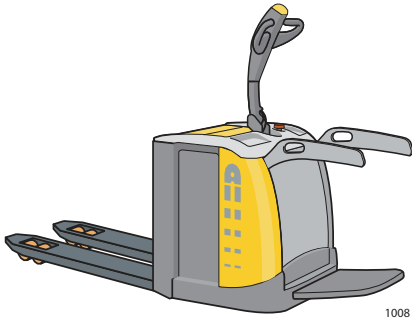
3. There are two ways to brake the truck:
  - brake the truck by reversing (changing the direction of travel).  
**NOTE!** *The further the speed control is moved the greater the braking capacity.*
  - brake by moving the lever back to the neutral position and moving the operating handle up or down to the limit position. (Note that the brakes function whether the lever is released or not.)
4. If the power needs to be cut quickly, pull out the battery plug or push the emergency stop button if the truck is fitted with one.
5. In order to avoid crushing injuries, there is a pressure plate at the end of the operating handle. When the pressure plate is pressed in, the truck will move in the direction the forks are pointing.
6. It is possible to manually activate crawl speed when operating. Select crawl speed using button . (Button  to go directly to normal speed.)



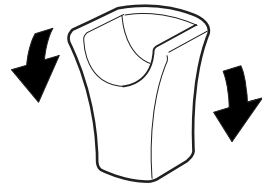
1056

- |   |   |
|---|---|
| <p>A. "Tiller up drive" Driving in slow speed with the lever in end position (option).</p> <p>B. Lower.</p> <p>C. Lift.</p> | <p>D. Signal button.</p> <p>E. Display.</p> <p>F. Keyboard.</p> <p>G. Speed controller.</p> <p>H. Pressure plate.</p> |
|---|---|

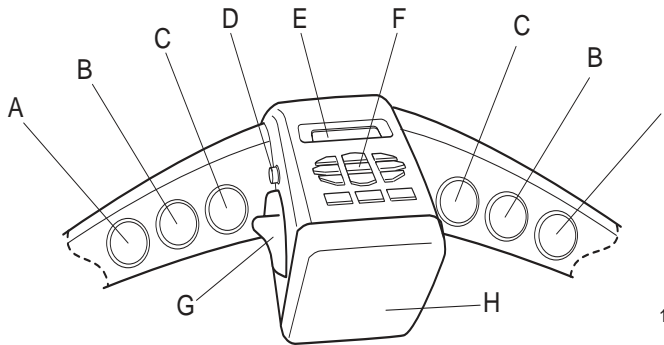
# Tiller arm, ATC<sub>t4</sub>



1. Insert the battery plug and start the truck according to the description of truck computers, see section "Atlet truck computer ATC<sub>t4</sub>" or if the truck is equipped with power lock: turn the power lock to "ON". Release the parking brake by moving the control lever backwards - downwards (but not to the bottom position).
2. The truck begins to move when the lever on the operating handle is pushed forwards/backwards. The further the speed control is moved the faster the truck will move.



3. There are two ways to brake the truck:
  - brake the truck by reversing (changing the direction of travel).  
**NOTE!** *The further the speed control is moved the greater the braking capacity.*
  - brake by moving the lever back to the neutral position and moving the operating handle up or down to the limit position. (Note that the brakes function whether the lever is released or not.)
4. If the power needs to be cut quickly, pull out the battery plug or push the emergency stop button if the truck is fitted with one.
5. In order to avoid crushing injuries, there is a pressure plate at the end of the operating handle. When the pressure plate is pressed in, the truck will move in the direction the forks are pointing.



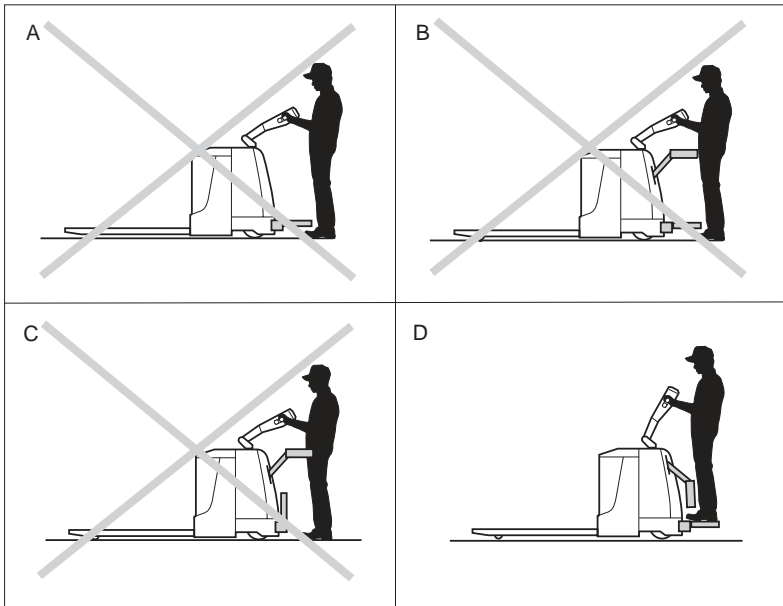
1004

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>A. Not in use.</li> <li>B. Lower.</li> <li>C. Lift.</li> <li>D. Signal button.</li> <li>E. Display (not on TS-NOVA).</li> </ul> | <ul style="list-style-type: none"> <li>F. Keyboard (not on TS-NOVA).</li> <li>G. Speed controller.</li> <li>H. Pressure plate.</li> <li>I. "Tiller up drive" Driving in slow speed with the lever in end position (PLL, PS, PSD, PSL).</li> </ul> |
|--|---|

## Powered trucks equipped with folding platform

The platform is designed so that the driver does not have to fold it down every time he has got off it. If the machine is to be used as a pedestrian-truck the platform must be folded up manually.

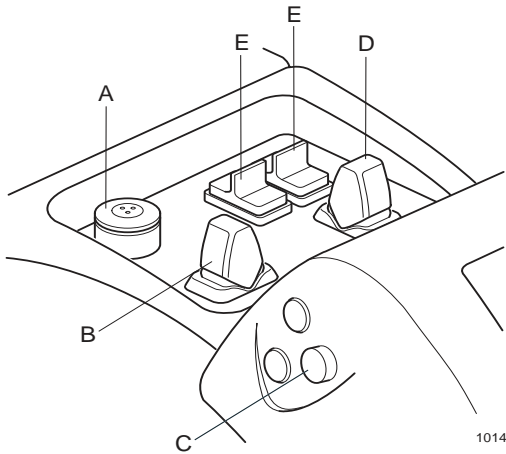
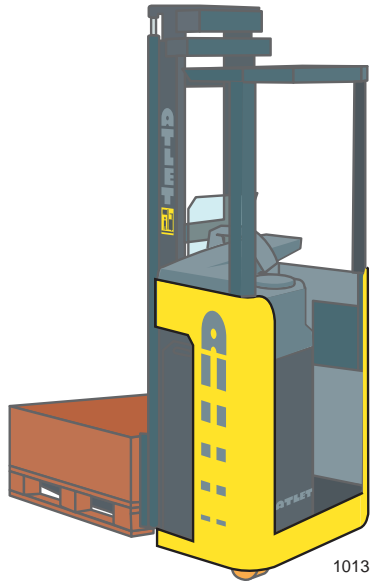
A number of safety functions have been built into the truck to avoid accidents:



1012

- A. Platform folded down without driver standing on it: It is not possible to drive the truck.
- B. Platform folded down and gates up, without driver standing on the platform: It is not possible to drive the truck.
- C. Platform folded up and gates up: It is not possible to drive the truck.
- D. Platform folded down with driver on it and gates down: The truck can be driven at reduced speed.

# Atlet Ride-on stacker (A-Ergo)

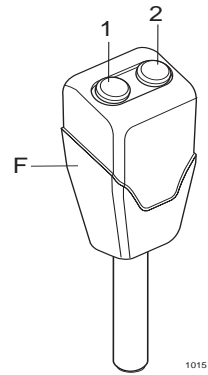


- A. Emergency stop.
- B. Speed controller.
- C. Signal button.

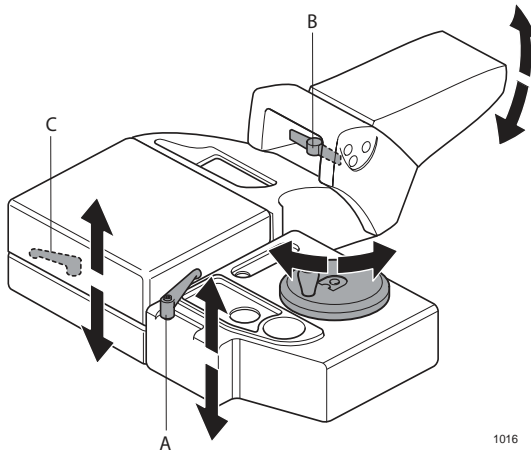
- D. Control for fork lift.
- E. Control for telescopic forks, straddle lift and/or side stabilisers (option).

F. Control lever for fork lift with buttons for telescopic forks, straddle lift and/or side stabilisers (option).

- The side stabilisers are controlled by moving the lever when button **1** is pressed.
- The straddle lift is controlled by moving the lever when button **2** is pressed.
- The telescopic forks are controlled with button **1** (in) and **2** (out).



**The steering console and arm rest are adjustable to suit different drivers:**

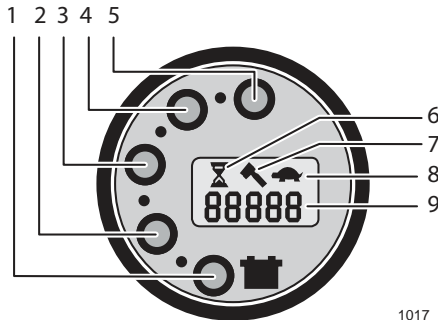


- Release lever **A** to adjust the steering console to a comfortable height.
- Release lever **B** and/or **C** to adjust the arm rest to a comfortable height.
- The steering wheel can be adjusted sideways to suit stacking or transporting by carefully moving it sideways.

# Multifunction Display Indicator (MDI)

## Display description:

Battery charging is indicated by means of five LEDs, four green and one red. When the battery is fully charged all the green LEDs are on. The LEDs go off as the battery becomes discharged, and when the battery charge has reached a level that requires the battery to be recharged the red LED (steady) goes on.



1. Steady red light: <10% battery capacity. Flashing red light: Error code indication
2. 25% battery capacity
3. 50% battery capacity
4. 75% battery capacity
5. 100% battery capacity
6. Hourglass: flashing indicates that the hour counter is active.
7. Spanner: error code shown / Service necessary
8. Tortoise: reduced top speed
9. Alphanumeric display

The display consists of a field with alphanumeric symbols and three different figurative symbols. The operating time, error codes and MDI software version are indicated by means of the alphanumeric display:

- The operating hours counter indicates the number of hours the truck has been in operation.
- The error codes are indicated by means of a pre-defined code and by the flashing of the red LED.
- The software version is shown briefly on start up - EPXXX, where XXX represents the version.

### Other symbols:

- A tortoise shows that the maximum speed is reduced.
- The spanner is shown when an error code is indicated, or when pre-programmed service must be carried out.
- The hourglass flashes when the hour counter is active.

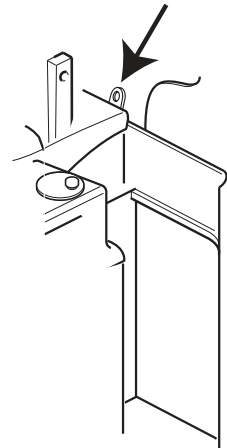
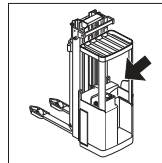
### Safety functions

The truck is equipped with a number of safety functions to minimise the risk of accidents:

- Automatic reduction of speed when driving with the forks up.
- Automatic reduction of acceleration when turning more than 45° (option).
- Reduced speed when driving in the direction of the forks (option).
- Automatic stop when a fault occurs in the electrical system.
- The battery can only be connected if the battery lock is secured.

### Battery maintenance

1. Remove the battery plug.
2. Lift up the battery lock.
3. Roll out the battery. Note that a safety stop is activated when the battery has been pulled halfway out.
4. Carry out battery maintenance, see chapter "Service instructions".
5. Roll in the battery after completed service.
6. Lock the battery in place with the battery lock and replace the battery plug.



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## Driving

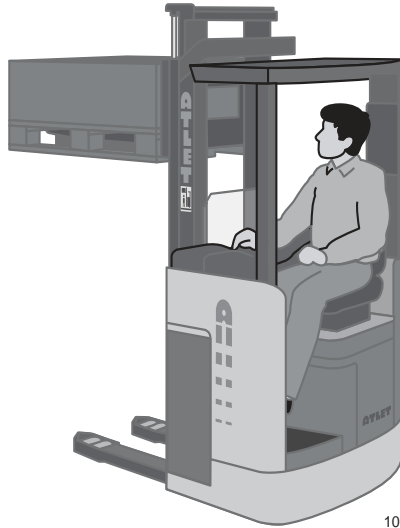
1. Enter the driver cab and turn the key switch to position ON.

**NOTE!** *A safety function prevents the truck from starting if one of the controls is activated when the key switch is turned to the ON position.*

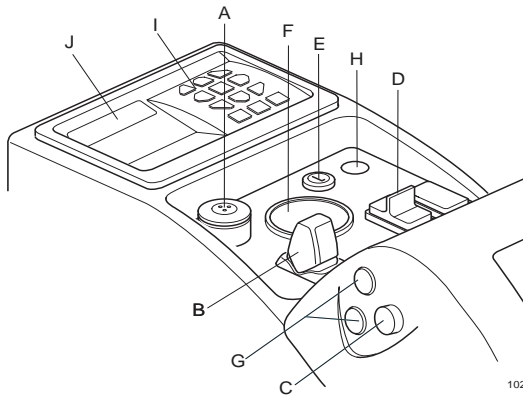
2. Grip the wheel spinner with the left hand and hold the right hand on the speed controller.
3. Release the brake by pressing down the brake pedal with the left foot and holding it pressed while moving.
4. The truck starts moving when the speed controller is moved forwards or backwards. The more the speed controller is activated, the higher the acceleration and the speed. The truck must be started and accelerated gently to spare the drive unit and the carried loads.
5. There are three ways of braking the truck:
  - Braking by reducing the deflection of the speed controller, or by returning it to neutral position. This ensures smooth braking and should be the method generally used.
  - Braking by means of reversing, i.e. changing the direction of travel. The braking force can be regulated by the way the speed controller is moved.
  - Braking by first releasing the speed controller to neutral position, and then releasing the brake pedal. Only used as emergency braking.
6. If the main power needs to be disconnected in an emergency: pull out the battery plug, or press the emergency stop button.

**NOTE!** *The truck should, if possible, be driven in the opposite direction to the direction the forks are pointing when transporting loads. This ensures that the driver has a better view, and makes the truck easier to manoeuvre. When driving in the direction of the forks the truck is sensitive to sharp turns. (Compare with reversing a car.)*

# Atlet Sit-on stacker (X-Ergo)



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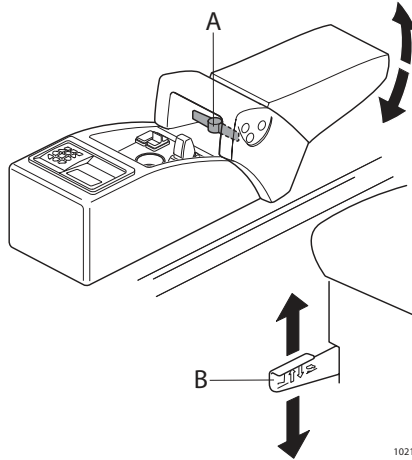


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- A. Emergency stop.
- B. Lever for fork lift.
- C. Signal button.
- D. Lever for fork lift with buttons for telescopic forks, straddle lift and/or side stabilisers (option).
- E. Power lock (option).
- F. Drive wheel direction indicator (option).
- G. Change-over switch for hand operated driving direction (option).
- H. Indicator lamp.
- I. Keyboard.
- J. Display.

## Driver environment

In order to increase comfort and driver ergonomics, there are a number of adjustment options.



Adjustment of arm support, chair height and foot support/floor.

1. By loosening lock **A** (max. one turn), the height of the arm support may be adjusted. Tighten the key to lock the arm support in a comfortable position.
2. The height of the chair may be adjusted by moving the **B** lever upwards.
3. The height of the foot support/floor may be adjusted by moving the **B** lever downwards.

**NOTE!** *The chair/floor must be adjusted while the truck is turned off, as there is a risk of unintentionally activating the accelerator pedal*

## Adjusting the driver's seat

The driver's seat is equipped with adjustable, gas damper which may be adjusted according to body weight. The back support may be set in three different positions. If the truck has a miniature steering wheel, there is an arm support that may be turned for a comfortable working position and folded up to make it easier climb in and out of the driver's seat.

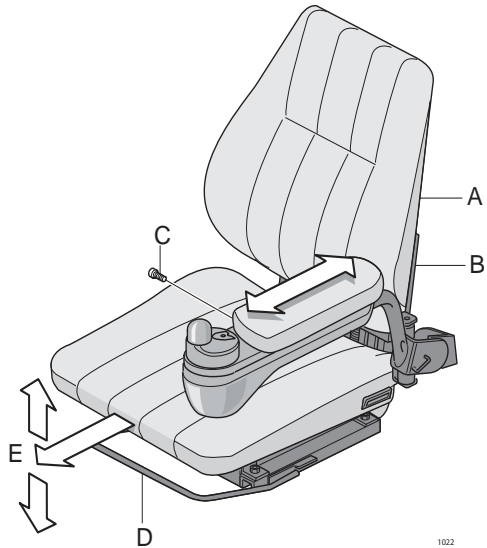
A. Adjusting the damper: The damper is adjusted using a lever on the chair frame behind the back of the chair.

B. Adjusting the back of the chair: Using the lever to the left of the back of the chair, the back may be set in three different positions.

C. Adjusting the arm support: By using the screw on the inside of the arm support, it may be set to a comfortable working position. The height is adjusted with two screws placed behind the arm support.

D. Adjusting the chair forward/backward: Using the loop under the chair, the chair may be moved forward or backward.

E. Adjusting the height of the front of the seat cushion: The front of the seat cushion may be adjusted to three different heights. The seat cushion is released by gripping the front and pulling it forward. When the required height is achieved, push the cushion backwards into the new position.

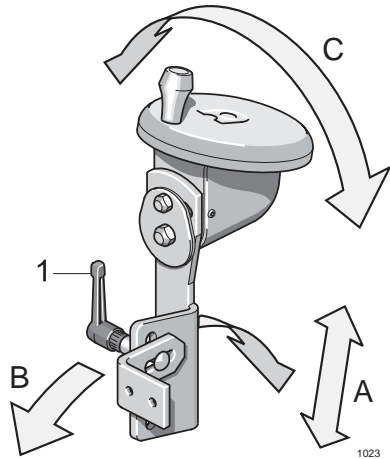


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## Adjusting the midi steering wheel (option)

The midi steering wheel has three different adjustment options:

- A. Raising and lowering: Loosen the lever **1**, adjust the height and retighten the lever.
- B. Tilting: Loosen the lever **1**, adjust the angle and retighten the lever.
- C. Turning the steering wheel sideways: The steering wheel is equipped with a friction coupling. Grip the entire steering wheel and turn it to the required angle.



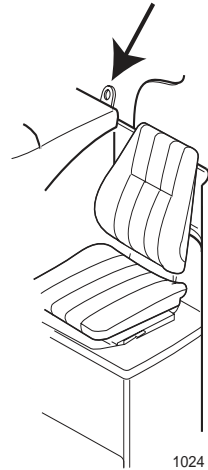
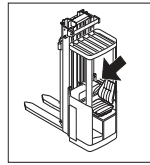
## Safety functions

In order to minimize the risk of accidents, the truck is equipped with several safety functions:

- Automatic speed reduction when driving with the forks raised.
- Automatic reduction of acceleration/speed in the event of major movements of the steering wheel to avoid tipping to the side.
- Speed reduction when driving in the direction of the fork (option).
- Automatic stop when a fault occurs in the electrical system.
- The battery may only be connected if the battery lock is secured.

## Battery maintenance

1. Remove the battery plug.
2. Lift up the battery lock.
3. Roll out the battery. Note that a safety stop is activated when the battery has been pulled halfway out.
4. Carry out battery maintenance, see chapter "Service instructions".
5. Roll in the battery after completed service.
6. Lock the battery in place with the battery lock and replace the battery plug.



## Driving

1. Enter the driver cab and start the truck according to the description of the truck computer. See section "Atlet truck computer ATC<sub>t4</sub>". If the truck is equipped with electric lock (option): turn the power lock to "ON".

**NOTE!** A security function prevents the truck from starting if any of the levers are activated when attempting to start the truck.

2. Grip the wheel spinner with your left hand, or keep your hand on the miniature steering wheel according to the instructions under item 3. Keep your right hand on the arm support, your left foot on the foot support (furthest to the left) so the left foot pedal is depressed, and your right foot on the brake (in the middle).
3. If the truck is equipped with a miniature steering wheel, place the entire palm of your left hand upon the purple knob on the miniature steering wheel, resting your arm on the arm support. The arm support is adjusted according to the movements you make. To adjust the arm support, see "Adjusting the driver's seat". The truck may be equipped with a midi steering wheel instead of a miniature steering wheel. See "Adjusting the midi steering wheel".
4. When you place your left foot on the left foot pedal and select a driving direction, the parking brake is released. There is no conventional parking brake with a lever.

5. The truck starts when the accelerator pedal (furthest to the right) and the forward- or reverse button in the pedal or hand operated button are pressed at the same time. The further the accelerator pedal is pressed, the higher the speed. The truck should be started and accelerated gently in order to protect the drive unit and any load carried.
6. The direction of travel may be changed by using the forward-/reverse switches located on the accelerator pedal. Certain trucks may have a hand operated switch (e.g. trucks equipped to operate in freezer areas or make 360 degree turns). The steering with the miniature steering wheel is progressive, i.e. the slower the truck moves, the more each turn of the wheel affects the wheel. Extremely slow movements of the steering wheel do not effect the steering.

**NOTE!** *The truck may be equipped with 360 degree turning, which means the direction of travel may be opposite to the one selected. Arrows on the display show the truck's direction of travel when accelerating.*

7. There are more ways to brake the truck:
  - The truck is equipped with an automatic brake function (motor brake), activated when pressure on the acceleration pedal is reduced. This provides a gentle braking effect and should be used first.
  - Release the acceleration pedal, select opposite direction of travel and press the acceleration pedal again for required braking effect (reverse brake).
  - Release the acceleration pedal and press the brake. Only to be used when another brake is not available (emergency brake).
8. Always keep your left foot on the foot support so that the left foot switch is pressed and press the acceleration, resp. braking pedal with the right foot.
9. The truck is equipped with a system which sends power back to the battery when the motor brake is activated in the case of lower pressure on the acceleration pedal. You should work with minor movements on the acceleration pedal to achieve smooth driving.
10. If the main power needs to be cut quickly: Pull out the battery plug, or press the emergency stop button.

**NOTE!** *The truck should, if possible, be driven in the opposite direction to the direction the forks are pointing when transporting loads. This ensures that the driver has a better view, and makes the truck easier to manoeuvre. When driving in the direction of the forks, the truck is sensitive to sharp turns. (Compare with driving a car in reverse).*

## The lift stop (option)



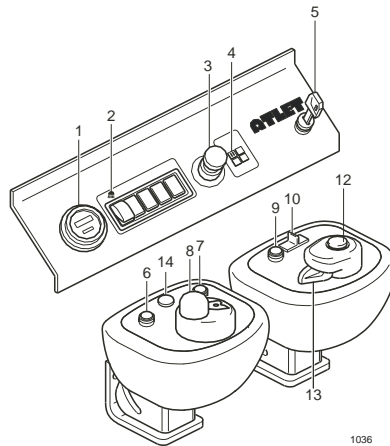
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If the truck is equipped with a lift stop, the lift movements will be stopped at a pre-set height and the symbol ^ is shown on the display, see ill. If the truck is also equipped with restart, the lift function can be

restarted if button  is pressed.



# Atlet Order Picker trucks (OPM, OPH, OPC, OPS)



1. Battery indicator / Timer
2. Headlamp switch
3. Emergency stop
4. Indicator for Rail guided steering
5. Key
6. 2-handed operation
7. Straight steering indicator
8. Steering wheel
9. Signal button
10. Platform up / down
11. –
12. Operating button
13. Speed controller, lever
14. Restart (if applicable)

## **Starting the truck**

1. Connect the Battery plug, located on the motor housing by the mast.
2. Close the gates (if applicable).
3. The emergency stop button (3) on the panel in the mast is pulled out.
4. Turn the key (5) to the "ON" position.

## **Driving**

Hold down the green operating button (12) on the speed controller using the palm of the right hand. Direction of travel and speed are selected using the lever (13). The truck is equipped with a system which feeds voltage back to the battery whenever the motor brake is activated by decreased deployment of the speed controller. A tip is to operate the speed controller using small movements in order to drive smoothly.

## **Brake**

Brake by:

- releasing the green button (12) on the speed controller.
- releasing the speed controller lever (13) and moving the lever in the opposite direction of travel.

## **Platform raising and lowering**

Moving the control (10) to the left lifts the platform. Moving the control to the right lowers the platform. Press the yellow button (14) in to restart the lift stop function. (If equipped). If the truck is equipped with a lift limiter, the lifting movement is stopped at a pre-set height. If the truck is also equipped with restart, the lift function can be restarted if the yellow button (14) is pressed.

## **Signal button**

The signal button (9) is located to the left of the lift controller.

## **Steering**

Steering is operated using a mini steering wheel (8). The sensitivity of the steering wheel can be adjusted by service personnel.

## **Two handed operation**

For safety reasons, the driver must have both hands occupied so as not to risk getting stuck when driving or when raising / lowering the driver cage

in narrow aisles. The button (6) with the hand symbol must be depressed when driving and when lifting /lowering when the truck is in narrow aisles.

## **Emergency lowering**

In an emergency situation, an emergency lower function can be activated from floor level.

1. Open the hatch above the battery. Be careful inside the motor compartment.
2. Ensure that no one is underneath or near the platform. Ensure that nothing is obstructing lowering.
3. Carefully turn the red wheel located on the hydraulic valve . Brake the movement before the platform reaches its lowermost position.  
Automatic damping does not function in these circumstances.

## **Life line**

Trucks with a lifting height in excess of 3 metres have a life line for descent if the lower function does not operate and emergency lowering cannot be carried out (when the forks are in a pallet shelf for example). See the safety regulations.

## **Driving in free areas**

When driving in free areas, the speed is reduced to crawler speed when the lift height is above the transport position.

## **Driving in narrow aisles with rail guided steering**

If the truck is equipped with rail guided steering and is driven in narrow aisles with rails, the speed reduction occurs at a higher pre-set lift height. There is an LED (4) on the control panel which indicates when the truck is in a guided narrow aisle. It is the driver's responsibility to monitor this function so that the LED does not light outside narrow aisles. If the LED lights up, immediate action is required before the truck is used any further.

# Atlet Reach trucks (UNS, UHS, UFS, USS)

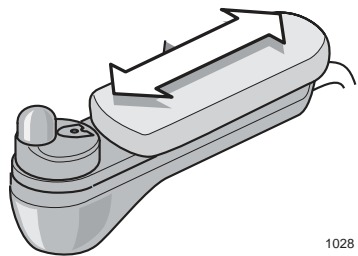
## Atlet Narrow aisle trucks (URF)



### Driving instructions

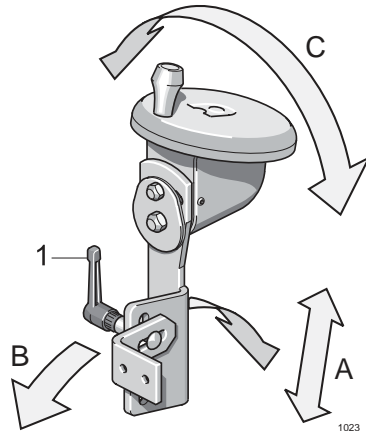
1. Start the truck as described by the truck computer. (refer to the "Atlet truck computer ATC II" section) The truck can be equipped with a miniature steering wheel or a midi steering wheel.

2. If the truck is equipped with a miniature steering wheel, the palm of the left hand must be placed over the small steering knob on the miniature steering wheel. The arm must rest on the elbow rest. The elbow rest adjusts to your movements. To adjust the elbow rest, refer to "Adjusting the driver's seat".



3. The truck may be equipped with a midi steering wheel instead. The midi steering wheel can be adjusted in 3 different ways:

- A. Raising and lowering: Loosen the lever **1**, adjust the height and retighten the lever.
- B. Tilting: Loosen the lever **1**, adjust the angle and retighten the lever.
- C. Turning the steering wheel sideways: The steering wheel is equipped with a friction coupling. Grip the entire steering wheel and turn it to the required angle.



- 4. Place the right hand by the hydraulic levers and the left foot on the foot rest (furthest to the left) so that the left foot breaker is depressed. At the same time place the right foot on the brake pedal (in the middle).
- 5. **URF:** Check that the forks are in the driving position. If the forks are raised or moved out from the transport position, the truck may only be driven at crawler speed (approximately 2.5 km/h). This also applies to narrow aisle trucks which are not rail guided when the forks are lifted higher than 0.5 m. When driving, the forks must be lifted above a pre-set height for the crawler speed to come into effect. Note that the turn and reach movements are restricted if the drive, lift or lower control is used first.
- 6. When you place your left foot on the left foot pedal and choose a direction of travel, the parking brake is released. There is no traditional parking brake with a lever.

**NOTE!** *If the left foot is lifted during travel, the truck will be braked to a standstill.*

- 7. The truck is started when the direction of travel has been selected and the accelerator pedal (furthest to the right) has been activated. In some trucks, the direction of travel selector is positioned by the hydraulic levers. The further the accelerator pedal is depressed the greater the speed. The truck must be started and accelerated gently in order to protect the drive unit and any cargo carried. Steering with the miniature steering wheel is progressive, that is to say the slower the truck is moving the more the effect of each turn of the wheel. Very slow movements of the steering wheel will not produce any reaction in the steering.

**NOTE!** *Do not steer the truck using a pincer grip, i.e with the steering knob between the thumb and index finger. The arm must rest on top of the elbow rest and steering must be carried out using the hand. This is to avoid any industrial injury.*

**NOTE!** *The truck can be fitted with 360 degree steering which means that the driving direction can be opposite to that chosen. Arrows on the display or on an indicator show the truck's travelling direction when applying power.*

8. There are two or three ways of braking the truck:
  - release the accelerator pedal, select the opposite direction of travel and then depress the accelerator pedal to obtain the desired braking power (reversing brake).
  - release the accelerator pedal and then depress the brake pedal as required.
  - the truck is equipped with an automatic brake function. This cuts in when the accelerator pedal is released when driving. The truck will then brake, (does not apply to UFS).
9. **UFS:** Always equipped with 360° degree steering. When travelling sideways, turn the right-hand rail wheel 90° by pushing the fourth hydraulic lever away from you with the lever button (or the button beside the lever) pressed down. The drive wheel will automatically follow the turning of the rail wheel. However a certain degree of adjustment with the steering wheel may be necessary. The truck only has one drive wheel. It may careen during hard acceleration or braking. The truck must therefore be started and stopped smoothly.

**NOTE!** *If the drive wheel and rail wheel are not aligned in the same direction, the truck may make an unexpected turn.*

**NOTE!** *If the left-foot switch is released while travelling, the truck may turn unexpectedly.*

10. **URF:** Rail guided steering: Drive with the mast facing forwards when entering an aisle. When the front inner wheel reaches the rail, the truck must be turned so that it is aligned with the aisle. When the indicator lamp for straight steering comes on you can drive into the aisle. If the steering wheel is not in the straight ahead steering position, a buzzer will sound and the truck will decelerate crawler speed.
11. **URF:** Driving out: The truck must be completely out of the aisle before the turn is begun.

12.If the power needs to be cut quickly, pull out the battery plug or push the emergency stop if the truck is fitted with one.

## Hydraulic functions

Lever 1 is located closest to the operator.

### Hydraulic functions UNS/UHS/USS

LEVER	AWAY FROM YOU	TOWARDS YOU
1	Lower	Lift
2	Mast out	Mast in
3	Tilt down	Tilt up
4	Shift pedal side	Shift seat side
5	Other	Other

**NOTE!** *If the truck is equipped with fork spread function, the fork spread function is located on lever 5.*

### Hydraulic functions UFS

LEVER	AWAY FROM YOU	TOWARDS YOU
1	Lower	Lift
2	Mast out	Mast in
3	Tilt down	Tilt up
4	Rail wheel anti-clockwise	Rail wheel clockwise
5	Fork spread	Fork together

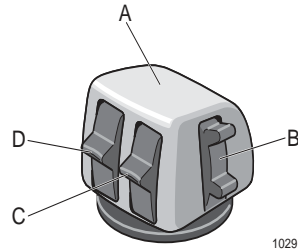
**NOTE!** *The fork spread function (lever 5) must not be used with any load on the forks. The forks may misalign and damage the boom. For the same reason, do not use this function when the forks are against the supports. Lift the forks first.*

## Hydraulic functions URF

LEVER	AWAY FROM YOU	TOWARDS YOU
1	Lower	Lift
2	Shift pedal side	Shift seat side
3	Turning anti-clockwise	Turning clockwise

### Hydraulic functions, Ergologic

- A. Lifting and lowering functions are obtained by moving the complete control away from, or towards the driver.
- B. Control for tilting the mast.
- C. Control for mast in or out.
- D. Control for side shift.



**NOTE:** Location of the controls for tilting the mast out/in may be reversed.

### Stability Support System, S3

S3 is an electronic safety and monitoring system that improves stability and safety when loading and driving. Trucks fitted with S3 reduce the maximum speed for driving and certain hydraulic functions, depending on the height of the forks above the floor, the position of the fork carriage, and when the drive wheel is turned more than 2-3 degrees in any direction. If the truck is started with the forks raised an instruction is given on the truck computer display to lower the forks.

### Protection from tipping sideways

When the driver increases speed too quickly or is driving too fast in combination with sharp turns there is a risk of tipping. The S3-system "thinks ahead" and can immediately compensate by reducing the speed and acceleration, at the same time as the vehicle is stabilised sideways to minimise the risk of tipping accidents. The speed is also reduced when the forks are raised and the mast pushed out.



## Improved control at top speeds

Since the truck is more difficult to steer in the direction of the forks at high speed, the speed is limited in this situation. The system also modulates the ratio between the speed of the truck and the sensitivity of the steering wheel to ensure optimum control of the vehicle in all situations, and to prevent instability.

## Protection from tipping



Tipping forces are generated when loads are handled at high heights and when the mast is pushed out and tilted, especially in combination with the truck moving over the floor. In this situation the S3 system immediately takes action by giving new directives to the control system for operation of the mast.

- At high load heights S3 limits the number of operations that can be done at the same time. The speed of the operations is also limited to further enable precise and safe handling.
- Simultaneous lever functions are permitted at low and medium load heights, but even here the system guarantees minimum abruptness and prevents undesirable movements.

This ensures the retention of safe load handling in all situations, even if the driver is careless with the levers.

## Battery maintenance

### UNS, UHS, USS, UFS with battery on carriage

1. Move in the mast until it stops.
2. Continue to operate the control while pressing  on the keyboard.  
The mast moves in a little further.
3. Release the battery lock with the foot and hold pressed down. Move the battery out at the same time by moving the mast back out. Do not stretch that the battery cable, loosen the cover over the battery.
4. Service the battery according to the battery instructions. Pull in the mast at the same time as the  key is pressed on the keyboard. The battery is locked automatically without using the battery lock.

## UNS, UHS, USS, UFS, URF with battery on rollers

1. Release the battery lock.
2. Slide the battery out on the battery carriage.
3. Service the batteries according to the battery instructions.
4. Slide the battery back.
5. Install the battery lock.

## Adjusting the driver's seat

The driver's seat is equipped with adjustable, gas damped suspension. This can be adjusted to different bodyweights. The backrest can be angled to 3 different positions. The elbow rest can be turned for a comfortable working position and folded up to facilitate entry and exit to and from the driver's seat.

### Adjusting Tergo seat

UNS/UHS-Tergo is equipped with a manually tilting seat with head rest which is more comfortable when high stacking. It also minimises the risks of strains.

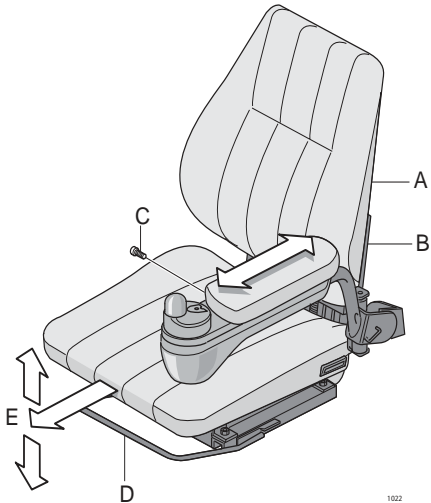
A. Adjusting the damper: The damper is adjusted using a lever on the chair frame behind the back of the chair.

B. Adjusting the seat back: Using the lever to the right of the seat back, you can adjust the seat back in three different positions.

C. Adjusting the elbow rest: It can be turned to a comfortable working position using the screw on the inside of the elbow rest.

D. Adjusting the seat backwards/ forwards: The seat can be moved forwards and backwards using the loop under the front of the seat.

E. Adjusting the height of the front of the seat cushion: The front of the seat cushion may be adjusted to three different heights. The seat cushion is released by gripping the front and pulling it forward. When the required height is achieved, push the cushion backwards into the new position.



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- F. Tilting the manual Tergo seat: Tilt the seat by leaning backwards at the same time as the seat tilts 15° the seat cushion slides forwards. When the seat is raised it returns to the original position.



## Cabs

For the comfort of the driver, trucks used in cold stores can be equipped with a cab. The cab is equipped with single or double glazing depending on whether the truck is to be driven in the cold store continuously or between cold store and room temperature stores. For the same reason the cab can be equipped with either one or two heaters. The roof hatch can be opened from both the inside and the outside and is used as an emergency exit.

## Settings

The truck is equipped with one or two heaters and adjustable vents as described below:

A. Lower heater.

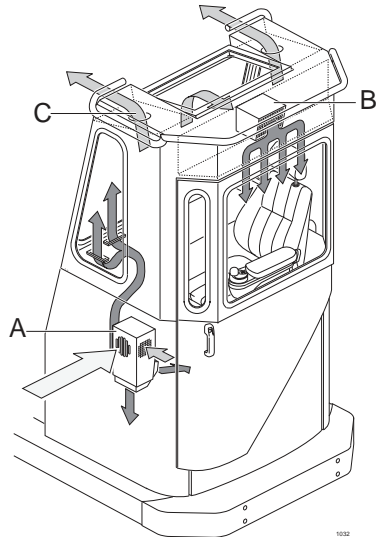
The heater has a vent shutter that can mix exterior and interior air as desired. The air is distributed in the lower part of the cabin and to the glass by adjust-able vents.

B. Upper heater.

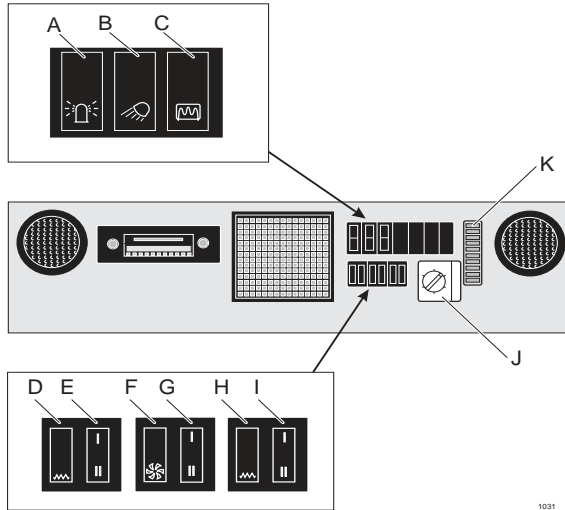
The heater circulates and heats the cabin air only. There are 4 vents in the panel above the driver which can be opened/closed and angled.

C. Extraction vents.

There are two extraction vents in the roof by the front screen which can be opened/shut as necessary.



## Functions



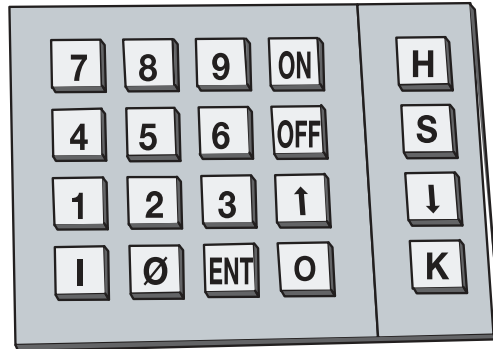
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Above the driver is a panel with buttons, controls and, as an option, a radio with loudspeakers. The following functions are mounted:

- A. Warning light on/off (additional equipment)
- B. Work lighting on/off (additional equipment)
- C. Electrically heated glass on/off (additional equipment)
- D. Fan with heat on/off for the upper heater
- E. Heat high/low for the upper heater
- F. Fan on/off for the lower heater
- G. Fan low/high speed for the lower heater
- H. Heat on/off for the lower heater
- I. Heat low/high for the lower heater
- J. Thermostat
- K. Fuse holder

# ATLET Truck Computer ATC II

## UNS, UHS, UFS, USS, URF



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Some of the Atlet trucks are equipped with a truck computer. In these cases, information is transmitted to the truck via the keyboard and is displayed on the panel. The truck is not equipped with a manual start key but is started and stopped by pressing buttons on the keyboard. The driver will need a user number and a password to start the truck.

The truck computer consists of a keyboard, a display panel and a control unit. The keyboard and display functions and the functions that can be used by the driver are described below:

### The keyboard

The keyboard consists of 20 keys with the following functions:

**ON** Starts the truck after a temporary stop.

**H** (Horn). Activate the horn. A separate signal button is located to the left of the handle for your right hand.

**OFF** Switches the truck off for a temporary stop.

**S** (Service). Provides various service functions and a language function.

**↑** The key is used to browse upwards in the menus and to acknowledge lift stop with restart. The key is also used when changing the battery, and for restart of lift stop (option).

**↓** The key is used to browse downwards in the menus. The key is also used to activate/deactivate the crawler mode.

**ENT** (Enter). Confirms entered commands.

**K** (Key). Key function. Use when starting up before logging in and out of the truck.



Numerical keys 0 -9

**3** Also use the key for tilt centering (option).

**4** Also use the key for side-shift centering (option).

**I** **O** (In) (Out). Used for height pre-sets.

## The display



1034

The display consist of two rows, the upper information row and the lower status row.

The various functions activate a number of menus. The choice of a function from a menu is made using the numerical keys. The "arrow" keys are used to browse between the various functions in a menu.

## **When the truck is started the following will appear on the display:**

### **Battery indicator**

The truck computer contains a battery indicator that checks that the battery capacity does not fall too low. The capacity is shown as a percentage, where 100% represents a fully charged battery.

- If the capacity falls to 25 %, "Low Batt" is displayed. The numerical % then starts to flash.
- If the capacity falls to 20%, and the truck is equipped with a battery indicator with cut-out, the lift function is shut off.

**NOTE!** *These percentages are standard values. These values can be altered by authorised service personnel.*

### **Operating time**


The display will always show the total operating time of the truck. This is shown in hours. (For example 10h.)


### **Date and time**

The upper row of the display always shows the date and time when in operational mode.

### **Crawler mode or normal speed**

A symbol for the normal speed mode  (hare) or the crawler mode

 (tortoise) will always be shown depending on which of the modes is

activated. The speed is selected using arrow key . This button has an ON/OFF function.

## Driving Direction

The arrows in the display indicate the chosen direction of travel.




## Error messages

All error messages will be shown on the status row of the display. An error message will be presented in the form of a code consisting of the letter E and a numerical code, such as E15.

**NOTE!** *If this occurs, contact authorised service personnel.*

## Functions





The truck has a number of different functions that are available on various menus. These menus and functions can be reached by pressing  (Service).

**NOTE!** *Most of the functions are only available to authorised personnel.*

## Language function

The truck computer can present nearly all text and information in four different languages. English, Swedish, German and French. Use the "Choose Language" function to select the language. This function is on the "Service" menu.

Carry out as follows:

1. Press . You are now in the Service menu.
2. Press . Press . You have now selected the "Select language" function.
3. Select the desired language. Confirm by pressing . The following are available:
  - 0: Exit
  - 1: English
  - 2: Swedish
  - 3: German






4: French

5 and 6 may also be available.

4. To exit, select  and then press .



### Changing and storing the driver's password

This function can be found on the "Local Service" menu. Carry out as follows:

1. Press . You are now in the Service menu.
2. Press . Press . You have chosen function no 2, "Local Service".
3. Enter code: ?????? < Key in the password for "Local Service">

*NOTE! This password is not the same as the driver's password. Contact an authorised person if you do not know this password.*

You are now in the menu for the "Local Service" function.

4. Select function . Press .
5. User ID: ? <Key in your user number>.
6. Driver category 1–4 (applies to AC operation only).
7. Old code: ???? <Key in the old password > (if the old code is registered).
8. New code: ???? <Key in the new password>.
9. Verify: ???? <Key in the new password in order to confirm>.









**NOTE!** *Do not use 0000 as your password as this will disable the password function.*

10. Exit by pressing  twice. Start the truck with the new password.

## Driver parameters


The driver can enter his own personal profile, on the condition that the individual driver ID is used. The personal profile is activated each time the driver starts the truck.

### Enter a personal profile as follows:


1. With the battery plug connected, but in “logged off ” mode, press the  -button.
2. Select “6. Driver param” by pressing , or scrolling with the arrow keys. Press .
3. Enter your unique start code.
4. A parameter menu will appear:
  0. Exit
    1. Maximum speed [20 - 100%]
    2. Acceleration dri. [20 - 100%]
    3. Redu.brake.dri. (motor braking) [0 - 100%]
    4. Reverse braking [50 - 100%]
    5. Gentle hydraulics [0/1]
    6. Steering high speed [20 - 100%]
    7. Steering low speed [20 - 100%]. Minimum same as high speed.
    8. Steering 180/360 [0/1]
5. Move to the parameter you wish to change. Use the number keys to enter a new value. Save the value by pressing .
6. When you have finished, select  “Exit” followed by  to leave the menu.
7. Leave the service menu by pressing  “Exit” and .
8. Log on to the truck and test drive.

## Starting and turning off the truck

### Starting the truck

1. Connect the battery plug. Check that the emergency stop function, if applicable, is disengaged.
2. Ensure that no pedals / controls are affected.
3. Press , which has the same function as the manual key.
4. The text "User ID: ?" will now be displayed. Key in your user number. The truck will be delivered with the user number: 1. This must then be changed so that each driver receives a unique user number.
5. The text "Code: ????" will now be displayed. Key in your password. The truck will be delivered with the password: 2222. This must then be changed so that each driver receives a unique password.
6. Place the left foot on the left foot breaker.
7. The truck is now ready for use.

### Stopping the truck temporarily

1. Press . The automatic parking brake will now engage.

**NOTE!** *The truck is now logged into with your password. This function is only meant to be used during short breaks. If the truck is to be turned off at the end of a shift etc you must use the function **TURNING OFF THE TRUCK**.*

### Starting the truck after a temporary stop

1. Press .

### Turning off the truck

1. Press .
2. Pull out the battery plug.

**NOTE!** *Emergency stop function must not be used for shutting down the truck.*

# Trucks equipped with height pre-set

## Basic

The driver selects a withdrawal or placement level from the keyboard and engages "lift" via the joystick. The pump switches on and operates with a speed corresponding to the joystick signal. The truck computer registers the levels as they are passed. When the selected level is reached, the pump effect is reduced to the pre-set effect (UP PWM) and switches off completely after a selected period of time (UP TIME). If withdrawal has been selected, the computer lowers the forks until the level is once again reached. This is done to achieve more precise positioning. When the joystick is in the neutral position after the level is reached, the pre-set is completed (LEVEL REACHED).

There are limiters which restrict system use if it has not been correctly reset or if an invalid level has been selected.

## Operation

### Select

To select withdrawal, press "O" or "I" for placement. The display will read "select level". Press numeral for level. If the forks are above the selected level, "Invalid!!" warning is displayed and the selection is not accepted.

If "Ent" is pressed instead of a numeral during withdrawal selection, the forks will be lowered to the nearest level. This can be used during unloading.

If the forks have not affected the reset sensor after operator log-on, the display will read "Syst. Not reset!" and the height pre-set cannot be activated.

If all information is correct, the display reads "Level: k:nn(mm)" until the level is reached or the command is undone. 'k' is either I for placement or O for withdrawal; 'nn' is selected level and 'mm' is current level.

### Undo

To change/reset a selection, move the joystick briefly to lower. The display will read "Level CANCELLED!!". NOTE! Using the Undo or Lower command when the forks are near a sensor can result in level miscalculation. The truck computer will ascertain this in certain positions and display the "Sys. Not reset" warning text. Lower the forks to reset level to allow the system to recover.

Undo with lift command when unloading.

## **Lift**

Manoeuvre the joystick towards the driver until the pump switches off and allow the joystick to return to the neutral position. Stopping and starting in mid-lift will not erase the level selection. During withdrawal, the forks will first go past the level selected, the pump switches off and the forks lower to the correct position.

When the joystick is in the neutral position and the level is reached, the display reads "Level reached!!"

## Procedure examples

### Ex.1: Retrieve load

The driver retrieves a load at level 3.

1. The driver selects "O" for withdrawal level.
2. The driver selects "3" + "ENT". The display reads "Level:O03(00)" where "O03" indicates that the driver has selected withdrawal level 3, "00" indicates last level passed.
3. The driver manoeuvres the joystick until the forks stop and the display reads "Level reached!!"
4. Manoeuvre completed!

### Ex.2 Newly logged on

The driver has just logged on, the forks are above the reset level and the driver wishes to place the load on level 5.

1. The driver selects "I" for placement. The display reads "Sys. Not reset".
2. The driver lowers forks to reset level.
3. The driver selects "I" again for placement followed by "5" and "ENT". The display reads "Level: I05(00)" where I05 indicates that he has selected placement level 5 and 00 indicates last level passed.
4. The driver manoeuvres the joystick until the forks stop and the display reads "Level reached!!"
5. Manoeuvre completed!

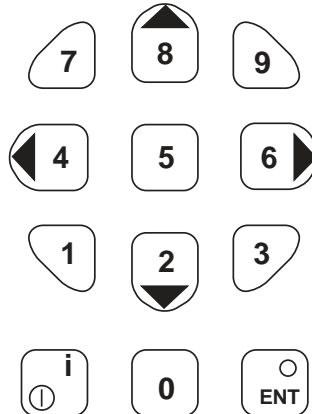
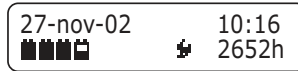
### Ex. 3: Unloading

The forks are at Placement level 2 and the driver wishes to unload onto a pallet shelf.

1. The driver selects "O" for withdrawal.
2. The driver selects "ENT" for the correct level. The display reads "Level: O02(02)" where "O02" indicates that withdrawal level 2 is selected and "02" indicates the fork level.
3. The forks are automatically lowered to the level.
4. Manoeuvre completed!

# ATLET Truck Computer ATC<sub>t4</sub>

X-Ergo, PLL, PLP, PS, PP\*, PSD, PSL



1037

## Introduction

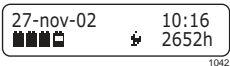
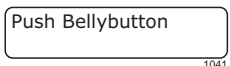
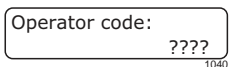
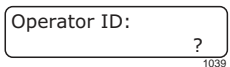
With Atlet's ATC<sub>t4</sub> -system, the truck is equipped with a control and monitoring system consisting of a display, a keyboard, and a control unit. The system is also equipped with a buzzer in order to catch the driver's attention in various situations.

## General

In order to start the truck, the driver must enter operator id and operator code. Using the display, the driver may find a lot of information after turning on the truck, e.g.: date, time, battery status, as well as any error codes and warnings.

Operator id and operator code are supplied along with the delivery of the truck. The code must be changed after delivery.

## Starting the truck



1. Connect the battery plug. The display will briefly show an introduction image.
2. You will be asked to enter operator id. Note that there must be as many digits as question marks.
3. Enter your operator code.
4. If the truck has a steering lever, the belly-button must be pressed to start the truck (applies only for trucks with steering levers).
5. When the valid operator id and operator code are entered, the truck will be ready to drive.



**NOTE!** *If the lever is activated when the truck is started, you will see a message on the display asking you to reposition the lever to neutral position. Then the truck may be operated. This means that sudden movements are avoided when starting.*



## Standby position

Standby position should only be used during shorter interruptions of work. At the close of work or when the truck is left without supervision, it should always be turned off.


27-nov-02 10:16  
standing by...  
1043

1. To go to standby: Keep the  button pressed until you see the text "standing by..." on the display.
2. To go back to operative state: Press the  button again briefly.

## Turning off the truck

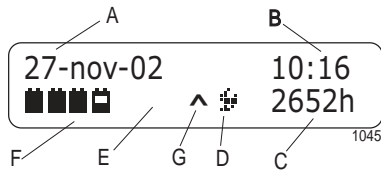
shutting down...  
1044

Operator ID:  
?  
1039

1. To turn off the truck: Keep the  button pressed for approx. two seconds. The display will show "shutting down..." and then show the log-in text.

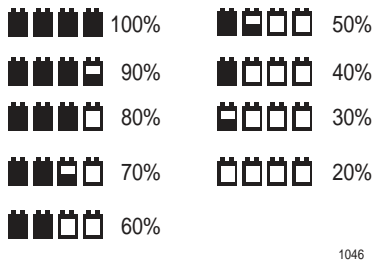
**NOTE!** Always turn off the truck in accordance with the above instructions before the battery plug is connected to avoid locking the program or damaging the ATC<sub>t4</sub> system.

## Symbols and characters on the display



- A. Date: Day-month-year.
- B. Time: Hours-minutes.
- C. Hour meter: Shows active time or logon time. Normally, total active time is displayed.
- D. Symbol normal speed / slow speed: Shows whether the truck is in normal speed or crawler mode (hare/tortoise).
- E. Field for error codes: An error code consisting of an E+digits is shown if a fault occurs (if a warning is displayed, it covers the entire upper row).
- F. Battery indicator: Shows battery status.
- G. Symbol for lift stop.

## Display of battery status



If the battery is discharged, the battery indicator will start blinking and a buzzer will sound at regular intervals. If the battery is not recharged or replaced, the lift function will shortly be deactivated in order to avoid harming the battery or preventing the truck from functioning normally. A deactivated lift function is indicated by a lit ^ symbol to the left of the hare/tortoise symbol.

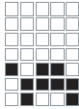
**NOTE!** When the battery status display indicated discharged battery, the battery must be recharged/replaced.

## Normal or crawler mode





### Normal speed mode

A symbol for normal speed (hare) or crawler (tortoise) is always shown on the display, depending on which is currently active.



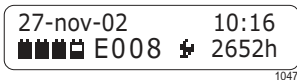
### Crawler mode

It is possible to activate crawler mode manually during operations. Select crawler

mode by press  button. (Press  button to go directly to normal speed).

Various safety systems in the truck may automatically reduce the speed in certain situations. For example, driving with forks lifted high and/or folded side stabilisers may result in lower speed. The symbols for normal speed or crawler mode are not changed by reducing the speed.

## Error messages



### Error codes

An E-code is shown on the display if a fault occurs in the truck. When an E-code is displayed, the truck will enter "error proof mode", meaning the truck's functions are prevented from operating. Certain faults are corrected automatically, and then the E-code is turned off.

**NOTE!** *In the case of serious faults, the E-code is shown on the display even though the situation might have been corrected. If this happens, contact service technicians.*

Release Throttle  
■■■■■ 2652h

1048

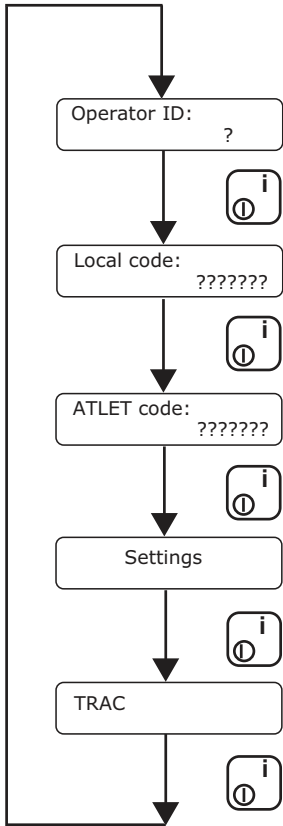
## Warnings

There are a number of different warnings used by ATC<sub>t4</sub> in order to catch the driver's attention in the case of an operational error. When a warning is shown on the display, the buzzer will also sound every other minute as long as the driver does not follow the command. Certain of the truck's systems will also not be operable until the driver has followed the command on the display.

- Release Throttle: The driver is asked to position the speed lever in neutral.
- Release Controls: The driver is asked to set all levers to their neutral positions.
- Release Tiller: The driver is asked to position the tiller arm in parking mode (applies only to trucks with tiller arm).

Other warning messages are shown if e.g. a system in the truck is starting to get overheated. If the warnings do not disappear even when the driver has followed the instructions on the display, contact service technicians.

# Menus



1049

ATC<sub>t4</sub> has a number of functions that are available in a menu system. There are five basic menus with several sub-menus. Use



button to navigate between the basic menus. Certain basic menus require passwords to make them accessible.

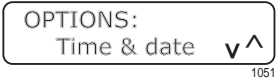
- Operator : Menu to start the truck.
- Local : For use by local warehouse management.
- Atlet : For use by authorized service personnel.
- Settings : Under "settings" there is an option to set the language to be used on the display. ATC<sub>t4</sub> supports Swedish, English, German, and French. One more language may be installed using a special software.
- Trac: For use by authorized service personnel.

# Navigation in menus



## Horizontal navigation



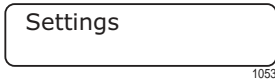
## Vertical navigation




Arrow keys (buttons 4, 6, 2, 8 on the keyboard) are used for navigating through the menus. You may navigate either vertically or horizontally. The available alternative is shown on the display.

- To enter a menu: press the  button.
- To exit from a menu: press the signal button or the  button when "Exit" is shown on the display.


## Change language

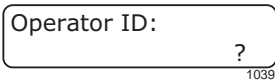


1. Navigate to "Settings", using the  button.

2. Press the  button.



3. Navigate with the arrow keys to select language, press the  button to confirm the selection.



4. You will now enter the login mode automatically with the new language setting.

# General when Loading and Unloading

## Responsibility for the load

The driver of the truck is responsible to the supervisor for the load carried during transport. There must not be any risk of the load tipping or sliding off during transport. The driver of the truck has the right and duty to refuse to carry any load that is a clear safety hazard. Read the machine information plate for your truck performance level.

## Responsibility for others

Operate the truck so that there is no risk of an accident. No one may pass or stand under a raised lift, whether it is loaded or not. The driver has the right and duty to see that these directives are followed.

## Maximal load

The maximal loading capacity of the truck must never be exceeded. (See the Machine plate on the truck.) Note the effect of the centre of gravity on the lifting capacity. Check carefully if the lifting capacity of the truck has been changed due to the attachment of extra equipment.

## Picking up a load

Always pick up a load so that it comes to rest as close to the mast as possible.

**NOTE!** *Bear in mind the displacement caused by changes in the centre of gravity.*

## Double stock

The following applies to trucks with adjustable outriggers which make 2 pallet handling possible: Adjust the speed to the floor conditions, load distribution and when cornering. Remember that a higher centre of gravity makes the truck less stable. Try to have the load as low as possible, always with the heaviest load lowermost.



# General when Stacking and Picking

## Stacking

1. Approach the stack with the load in the lowered position.
2. The outriggers must (if installed) be extended when the forks are lowered. Check that there is sufficient space to extend the outriggers before doing so. Never start to lift the load before the indicator lights have lit.
3. Lift the load sufficiently high that it clears the stack or shelf and then drive towards the stack.
4. When the load is in a suitable position - lower it onto the stack or shelf.
5. Lower the fork so that it is freed from the load/pallet. Check that the area behind the truck is empty, before reversing from the stack.
6. Lower the fork into its travelling position.
7. Retract the outrigger stabilisers.

## Trucks with tilt function

1. Approach the stack with the load in a lowered position and the mast tilted backwards.
2. Manoeuvre the mast to its vertical position, lift the load so that it clears the stack or shelf.
3. Drive towards the stack and then lower the load onto the stack.
4. Lower the fork so that it is freed from the load/pallet. It is easier to release the fork if the mast is tilted forwards. Check that the area behind the truck is empty before reversing away from the stack.
5. Lower the fork to the travelling position and tilt the mast backwards.
6. When you fetch a load from a stack, carry out these movements in reverse order.

## **Picking**

1. Approach the shelf.
2. Raise the driver platform to the required level.
3. Pull the goods out or put them in.
4. Lower, then drive to the next shelf etc.
5. When driving short distances, straight ahead and with a clear passage, the driver platform need not be lowered. The truck is equipped with automatically controlled crawling speed.
6. Always have a clear view in the driving direction. Ensure that there are no obstacles in the way.

# Service Instructions

## Daily maintenance (before each shift)

### Responsibility: The driver

**NOTE!** *Naked flames and smoking are strictly forbidden when carrying out acid weight and acid level tests.*

**NOTE!** *Loading ergonomics must be observed during battery change or battery check.*

1. Battery check, see the battery manufacturer's maintenance instructions.
2. Check that the battery cables, connectors and covers are correctly fitted and undamaged.
3. Ensure that the battery is securely fastened in its holder.
4. Check the truck for signs of oil leakage.
5. Check the transport- and safety signals.
6. Check the function of the transport brakes and parking brakes.
7. Ensure that the wheels show no signs of external damage.
8. On trucks equipped with truck computers, check according to the test routine. Ensure that no error messages are displayed.
9. The battery indicator must be checked on trucks equipped with truck computers.

**NOTE!** *Malfunctions noticed during daily maintenance must be reported to the supervisor. Refer to the driver instructions.*

# Daily Service (after each shift)

## Responsibility: The driver

### Battery charging

Battery service must only be carried out by qualified personnel. This training is given at the truck driving course. However, batteries can be recharged by other personnel if plugs are used when connecting the batteries to the recharging device. Batteries must be recharged according to the recommendations of the manufacturer. Only fully automatic rechargers may be used. If an unregulated recharger is used, check the battery charge by measuring the acid weight in the cells.

**NOTE!** *The acid weight must also be checked when using an automatic recharger. For other details regarding the battery and the automatic recharger, see the separate maintenance instructions on the battery and charger.*

## Weekly Service (30 operating hours)

### Responsibility: The driver

1. Clean the battery, see the battery manufacturer's maintenance instructions.
2. Check the oil level in the hydraulic system by extending all hydraulic cylinders to their limits positions. Then check that the truck operates to maximum lifting height without the pump sucking in air.
3. Check that the wheels have not separated, tyre/hub and tyre/band.
4. Check the acid level, see the battery manufacturer's maintenance instructions. Generally applicable: When the acid level is checked the value for a fully charged battery should be 1.25-1.28 (25°C). The acid level must not be less than 1.16 (25°C), i.e. at least 20% capacity left if the battery is to achieve its full operating time.
5. The outside of the truck must be cleaned. Vacuum and wipe the driver's area with a damp cloth. Take care when using a hose and water. The electrical panel and circuit boards must always be protected from water spray when washing.

# Continuous Maintenance

## B-Service

### **Responsibility: The supervisor**

See EN 1726 or ISO 3691

The B-Service is carried out by ATLET service or by specially trained personnel. B-Service is normally carried out after 250 hours of operation, every 3 months or where the working conditions or use may determine the service interval. A service interval of 100 hours is recommended for trucks operating in cold stores. The B-service mainly consists of checking consumable components in order to achieve the highest standards of operational safety.

The B-service consists of the following:

- Operating test of manoeuvre controls
- Check the signal horn
- Driving test forwards, backwards and cornering
- Check the drive unit
- Check the wheels
- Test the brakes
- Check oil levels and for oil leakage
- Check the hydraulic assembly, pipes and hoses
- Check the cylinders
- Operating test, lifting and lowering
- Lubrication as set out in the lubrication chart
- Measurement and check of the battery and charging function.

# A-Service

## Responsibility: The supervisor

See EN 1726 or ISO 3691

The A-Service is carried out by ATLET service or by specially trained personnel. The A-Service is normally carried out after 500 hours of operation, or six months or where the working conditions or use determine the service interval. An A-service consists of a check of the entire truck with emphasis on both personal safety and operational safety.

In addition to the points set out in the B-service, an A-service consists of the following:

- An oil change and filter replacement as set out in the instructions
- Check for damage to the chassis
- Check of mountings
- Check of damage to welds
- Check of the forks

Continuous maintenance must be carried out by specially appointed, qualified personnel with a thorough knowledge of the functions, usage and maintenance of the truck.

To obtain the best results from your truck investment, we advise you to contact Atlet Service and to take out a service agreement for continuous maintenance.

# Safety Regulations

**WARNING!** *ATLETAB or its authorised representative must be contacted, if, after delivery, the truck is equipped with additional units or other accessories which could influence the stability of the truck.*

## **The driver has the authority and the responsibility to refuse to drive the truck in the following cases:**

- If the truck constitutes a clear safety hazard.
- If the load constitutes a clear safety hazard.
- If the truck has been repaired, changed or adjusted without the corrections being approved by the supervisor.
- If the truck driver's physical or psychological condition is such that he/she can be a safety hazard.

## **The driver has the authority to:**

- Prevent unauthorised persons from using the truck for which he/she is responsible. An unauthorised person is someone who has not received permission from the supervisor and someone who lacks training.
- Prevent anyone from walking or standing under a raised lift, whether this is empty or full.

**WARNING!** *Take great care in the machinery compartment, for hot surfaces etc.*

## **General traffic regulations**

Follow the general traffic regulations of the Road Traffic Ordinance and the local traffic directives for public areas (and where these are applicable, also within private grounds, industrial zones etc.).

## **Driving in public areas**

The truck must not be driven on public roads outside a specific area.

## **Distance between vehicles**

Remember that the vehicle in front of you may stop suddenly. Keep a reasonable distance.

## **Passengers**

Passengers must not ride on the truck unless otherwise indicated on the truck.

## **Clearance height**

Bear in mind that the truck cannot be used where the clearance height of an opening is less than the height of the drivers cab, the load or the mast.

## **The truck in an elevator**

The truck can only be driven into an elevator if this has been authorised. Make sure that the capacity of the elevator is never exceeded. (The weight of the truck plus the weight of the load). The truck must always be driven into the elevator with the load first. Never place the truck or the load within the elevators risk zones. Ensure that the truck's brakes have been engaged before the elevator is started!

**NOTE!** *The weight of the battery is additional.*

## **Floor load**

Carefully check notices or directives about the maximum floor load or maximum wheel pressure to ensure that these are not exceeded. Truck weight - refer to the specifications on the machine plate!

**NOTE!** *The weight of the battery is additional.*

## **Signalling**

Use the signal horn to attract attention.

## **Reduced vision**

Slow down when approaching crossings and other places where the line of vision is reduced. Avoid driving in the same direction as the forks if the load in front of you obstructs your sight. Find someone to help you, if your vision is blocked.

## **Right of way for trucks carrying loads**

When meeting at crossing points or narrow aisles, the loaded truck has right of way over an unloaded truck.



## **Transports**

In normal conditions, driving with the forks raised is forbidden other than when lifting or removing a load from a shelf etc. Sit-on or ride-on stackers should be driven in the opposite direction of the forks when possible. This will allow better visibility and manoeuvrability. Driving with the forks pointing forward may cause the truck to manoeuvre unexpectedly. (Compare with driving a car in reverse)

## **Speed**

Adjust the speed to the floor conditions, the line of sight and operational safety. Avoid fast acceleration, rapid braking and cornering at speed – there is a risk for overturning or that the load will fall off!

## **Driving space**

Ensure that you have sufficient space for the truck - both the driver and the load - in narrow aisles. Narrow door openings that will not permit two-way traffic must be entered through the centre of the opening. Remember that the rear of the truck requires extra room when turning. Follow the truck paths marked within the driving area.

## **Risk zones**

Do not drive near the edges of loading bays, gangways etc where there is a risk of driving off and overturning. Be careful when operating close to colour marked risk zones.

## **Overturning**

Keep hold of the steering wheel or a handle if the truck overturns. Do not jump!

## **Trucks on another vehicle's loading platform or on a gangway**

Before the truck is driven from a loading bay and onto the platform of a lorry or wagon you must always check the maximum load capacity of the gangway. There must also be devices that prevent the gangway from sliding. You must also remember to check the maximum load capacity of the vehicle that you intend to drive onto. There must also be devices (e.g. brake blocks) that prevent the vehicle from moving. The weight of the truck - refer to the specifications on the machine plate!

**NOTE!** *The weight of the battery is additional.*

## **Direction of travel when driving on slopes**

### **Counter balance trucks**

These trucks are always driven with the forks towards the crown of a slope or hill.

### **Outrigger trucks**

These trucks are always driven unloaded with the forks facing away from the crown of the hill or slope.

### **Reach trucks**

These trucks are always driven with the forks towards the crown of a slope or hill and with the load lowered and tilted.

## **Normal operating conditions**

Stacking must be carried out with the mast vertical and the forks horizontal on solid, clean and level ground. Drive with the load lowered and the mast or forks tilted backwards (if the truck is equipped with tilt function), on a clean, level, solid ground. The centre of gravity of the load must be located in the centre of the longitudinal aspect of the truck.

## **Exceptional operating conditions**

When the operating conditions differ from the normal conditions above, the following steps must be taken:

- If the working conditions are of a permanent nature, an agreement must be drawn up with the supervisory authority and any other party concerned.
- If the working conditions are of a temporary nature, use a larger truck or reduce the load appropriately.

## **Work in hazardous environments**

A truck operating in an area where there is a risk of fire, or in any other high risk area, must be specially equipped for the purpose.

**NOTE!** *A truck is not normally equipped for these situations.*

## **Parking**

The truck must not be left unattended other than in specified parking areas. The truck must always be parked on a level surface. If the truck is equipped with a parking brake, this must always be engaged. The forks must be lowered to their lowest position, so that no one can accidentally trip over them. Always turn the ignition to the "OFF" position so that the truck is non-operational. If the truck is equipped with a truck-computer, the functions "OFF" or "K" must be used to turn it off. Unauthorised personnel must not use the truck - Always remove the ignition key from the electrical lock when leaving the truck. However, at the end of the shift the conditions of the fire insurance must determine whether the key is removed from the ignition or not. Check! If the truck is left unused for a prolonged period without it being recharged, e.g. between two shifts, the battery plug must be disconnected.

**NOTE!** *Do not block access to fire fighting equipment or fire doors by parking the truck or placing goods in front of them.*

## **When lifting the truck**

The truck must only be lifted using the lifting loops intended for this purpose.

## **Awareness!**

Always be aware of personnel in the neighbourhood when operating the truck.

## **Swinging loads**

The truck is not equipped to handle hanging loads that may start to swing.

## **In the event of accidents**

Report all accidents or incidents immediately to the supervisor. If possible, leave the truck where it is. If possible, take action to lessen the damage or harm, especially if there are people hurt. Avoid actions that might hinder the accident investigation. In general, you must await the decision of the supervisor.

## **Noise levels**

Noise levels at the driving position are lower than 70 dB(A) in accordance with European standard EN12053.

## **Vibration**

Body vibration is between  $0.1 - 1.1 \text{ m/s}^2$  depending on truck type and floor surface in accordance with European standard EN 13059. On a flat floor surface the body vibration are less than  $0.5 \text{ m/s}^2$ .

## **Work platforms**

National regulations or recommendations for working with work platforms must be followed when temporarily lifting persons with non driver lifting trucks.

## **Protective shoes**

Protective shoes must be worn when working with trucks according to European standard EN-345:1-S1.

## **Additional units / Trailers**

ATLET AB or its authorised representative must be contacted if, after delivery, the truck is equipped with additional units, tows hitch equipment for trailers or other accessories which could influence the stability or braking capacity of the truck.

## **Laser equipment**

If the truck is equipped with laser equipment, e.g. for positioning, the following applies

Laser radiation.

Do not stare into the beam.

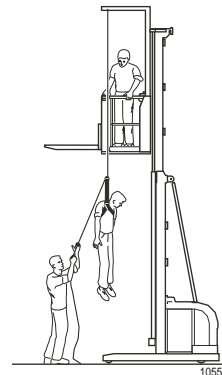
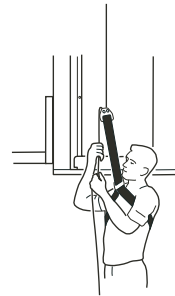
Class 2 Laser Product

## Descent using a lifeline

There is a lifeline on driver lifting trucks with a lift height greater than 3 meters for descent in emergency situations. Always try to emergency lower the cage first, see the instructions for the relevant model of truck.

When the cage cannot be lowered using emergency lowering, take out the lifeline which is located in a holder on the underside of the driver's protective roof.

1. Secure the carabiner on the life line in the driver's protective roof.
2. Fasten the belt under the arms. Tighten the buckle.
3. Throw the roll onto the floor.
4. Brake the line by pulling the line underneath the brake. Slide down the line by gradually releasing the line.
5. The next person pulls the line up, unhooks the line from the carabiner and secures the other end to the carabiner. Throw out the free end. The line is now ready for its next use.
6. To lower an injured, handicapped or unconscious person, always control the descent from the ground.
7. Check the line after use. Replace the line if it is worn.





# Ordering Manuals

ATLET does not automatically send out spare parts catalogues with delivery of your truck. You have the option of ordering the Master Manual from your local distributor. Delivery time is estimated at around three weeks.

The table below shows the item number for each truck type. Complete the order and send it to your local distributor.

TRUCK TYPE	P/N	QUANTITY
A-Ergo	005968	
OP	005946	
PLL/PSD/PSL/PLE	119004	
PLP	119005	
PP	119034	
PS/PSH	119027	
TLL/TLP	005814	
TP	005867	
TS	005937	
URF	005969	
U*S AC POWER PLUS	005952	
X-ERGO	119003	

Company: .....

Name: .....

Address:.....

Country .....

Tel: .....

Fax: .....

