



Hove Easy Grease Carry

Manual



Table of Contents

General description of the machine	- 5 -
Manual dosing mode	- 5 -
Automatic dosing mode.....	- 5 -
Intended use.....	- 5 -
Safety rules	- 5 -
On delivery of the machine	- 6 -
When using the machine for the first time.....	- 6 -
Charging the battery	- 6 -
Cleaning the machine	- 6 -
Assembly.....	- 7 -
Daily use	- 7 -
After use	- 7 -
Operating the machine	- 8 -
Battery Switch.....	- 8 -
Control Panel	- 9 -
General Buttons.....	- 9 -
Change settings.....	- 9 -
Set AUTO GRAMS.....	- 10 -
Set DENSITY.....	- 10 -
Set SPEED	- 10 -
Set MODEL #	- 11 -
Running the machine.....	- 11 -
Start of automatic dosing	- 11 -
Pausing/aborting.....	- 12 -
Start of manual dosing.....	- 13 -
Pausing/aborting.....	- 13 -
Empty detection	- 13 -
Remote Control	- 14 -
Display	- 14 -
Push buttons	- 14 -

L_{pA} Sound Pressure Level

- 67 dB(A)

Power Input

- Max. 120 W

Disposal

This machine is in accordance with Directives 2002/95/CE, 2002/96/CE and 2003/108/CE on reduction of hazardous substances in electrical and electronic equipment (RoHS) and the disposal of waste from such equipment (WEEE).

When the machine is to be disposed, it must be collected separately from other waste according to applicable regulations.

Technical Data

General

- Piston pump

Dimension

- Size: 70 x 21 x 21 cm
- Weight: 13,5 kg

Power supply

- Battery: Li-ion 24V / 6Ah
- Charger: 29,4VDC / 2A
- Ext. power supply: 100-240VAC / 50-60Hz : 24VDC/7,5A

Drive

- PMDC Electric motor
- 24V DC / 93W

Maximum Output Pressure

- Cont.: 100 bar/1450 psi
- Peak.: 150 bar/2176 psi

Output Volume

- 120 ml/min
- 4,06 oz/min

Operation

- Semi-automatic

Controller

- Hove Electronic Controller

Repeatability

- +/- 1 %

Automatic dosing - 15 -

 Pausing/aborting - 15 -

Manual dosing..... - 15 -

 Pausing/aborting - 15 -

Cleaning and maintenance..... - 15 -

In the event of damage to the machine..... - 16 -

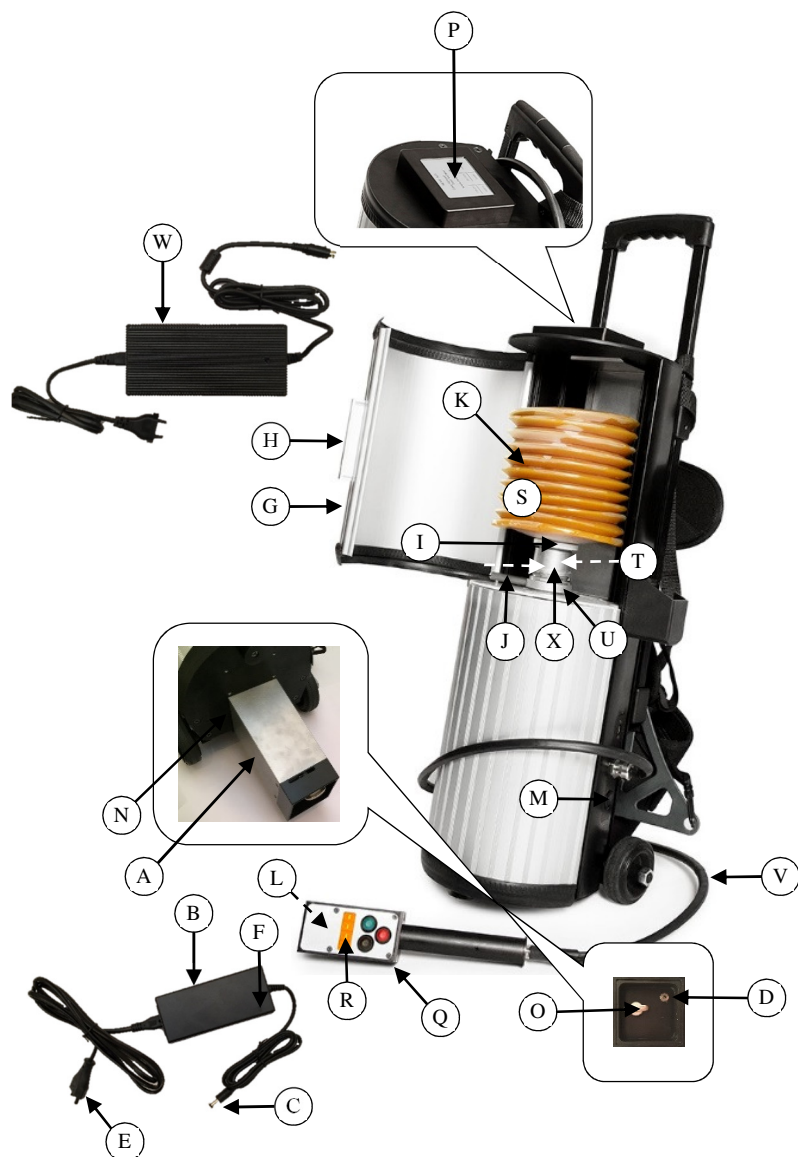
 ⚠ Warning - 16 -

 What to do if an error occurs? - 16 -

 Troubleshooting guide..... - 16 -

Disposal - 17 -

Technical Data - 17 -



Once a year, check the pump as to correct measuring check that the density factor is set correctly in the display for the lubricant used for control). Pump a certain amount and check the weight. If the weight is not correct we recommend you to contact Hove A/S to have the flow meter checked.

In the event of damage to the machine

Warning

Unless agreed otherwise, only HOVE A/S may carry out repairs and alterations to the machine.

Worn or defective parts must be replaced by original spare parts. Incorrect repairs or use of non-original spare parts can lead to serious damage to the machine and danger to the user.

If the machine is visibly damaged (cracks, holes, etc.) the machine should no longer be used, but must be repaired or discarded.

What to do if an error occurs?

You can often remedy errors to the machine without submission for repair. The following table shows the possible causes of errors and tips to remedy them.

Troubleshooting guide

Fault	Possible Causes	Remediation
No light in Control Panel and Remote Control displays	a) Machine automatically switched off b) Battery discharged	a) Put the Battery Switch to the "Off" position for 5 seconds and then back to the "On" position. b) Recharge battery
Control Panel does not respond to touching	a) Unknown error	a) Restart the machine by putting the Battery Switch to the "Off" position for 5 seconds and then back to the "On" position.
Grease /liquid runs irregularly/spouting out of the pump when pumping (there is air in the system)	a) Air leak at cartridge/adaptor connections b) O-rings	a) Screw cartridge properly onto adaptor b) Replace O-ring


Automatic dosing




Press the black button to start automatic dosing.

The display shows  briefly and the pump starts.

During pumping out the **remaining** amount of grease counts down to zero at the display.

When the counter reaches zero, the pump stops and the display flashes .

After some seconds, the display shows and  the machine is ready again.

Pausing/aborting

If desired, you can pause the pump during the automatic dosing by pressing any button.

You can restart the pump by pressing the black button, or abort the automatic dosing by pressing the red button for 2 seconds.

Manual dosing



Press the green button to start manual dosing.

The display shows  briefly and the pump starts.

During pumping out the **dosed** amount of grease counts from zero and upwards at the display.

Pausing/aborting

When the counter reaches the required amount, or if you want to pause the pumping, press any button.

You can restart the pump by pressing the green button, or abort the manual dosing by pressing the red button for 2 seconds.

Cleaning and maintenance

Regular inspection and maintenance of the machine helps to ensure smooth operation.

Always clean the Hove Easy Grease Carry after use. Check regularly the O-ring (S) at the bottom of the adapter thread (T) for wear and tear. Check regularly the O-ring (U) at the cartridge locking mechanism for wear and tear. Check regularly pressure hose (V) for damages. If the outer surface is severely damaged, we recommend replacing the hose.

- (A) Battery
- (B) Battery charger
- (C) Charger plug
- (D) Battery connector
- (E) Battery charger power plug
- (F) Charge indicator LED
- (G) Top cover
- (H) Handle
- (I) Grease cartridge adapter
- (J) Lock lever
- (K) Hove Grease Cartridge
- (L) Hose connection at remote control
- (M) Battery switch
- (N) Battery compartment
- (O) Battery lock
- (P) Control panel
- (Q) Remote control
- (R) Remote control display
- (S) Adapter O-ring
- (T) Adapter thread
- (U) Cartridge locking mechanism O-ring
- (V) Pressure hose
- (W) External power adapter
- (X) Cartridge locking mechanism

General description of the machine

Hove Easy Grease Carry is a battery powered automatic lubrication pump for direct lubrication of bearings. The battery makes the pump independent of mains power and thus ideal for lubrication tasks at hard-to-reach places. If needed, operation time can be prolonged by powering the machine by an external power adapter.

The built-in transport wheels of the lubrication pump make the job easier at long distance between lubrication points, and the included carrying strap allows you to have both hands free e.g. at ladders and stairs.

The machine can perform the lubrication task in two different ways:

Manual dosing mode

You start and stop the pump manually. The display shows the **dosed** amount of grease during the pumping process.

Automatic dosing mode

You preset the **wanted** amount of grease. The display shows the **remaining** amount of grease during the pumping process. If needed, you can start and stop the pump manually. When the pump has dosed the preset amount of grease, the pump will automatically stop.

Intended use

You can use the machine for lubrication of bearings in any industry. Only use the machine for this purpose.

Safety rules


- Only persons who have read and understood the operating instructions may operate the machine
- Never use the machine to other purposes than described above under "Intended use"
- Never point the hose from the machine at people or animals
- Always wear safety glasses and gloves when working with lubrication
- Always use the built-in handle for carrying the machine. Always use approved lifting equipment for lifting the machine to great heights. Always use required personal safety equipment when using lifting devices in connection with high level lifting.
- Only use an original battery charger supplied from Hove A/S. If the mains plug of the battery charger has a safety earth connection, you must connect it to a safety earth connected mains outlet. Properly connect the battery to the charger.
- Handle the battery with care:

Remote Control



Display

When the machine is ready for use, the Remote Control Display (Q) shows the battery charge level by means of one to  four bars.

During operation of the machine, the Remote Control Display (R) shows the status of the corresponding dosing  counter.

Push buttons

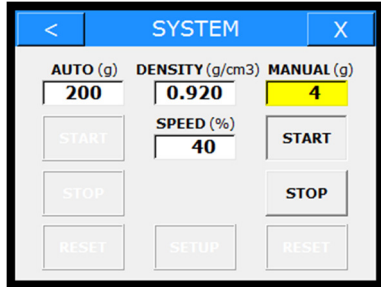


The black button starts/stops the pump at automatic dosing.

The green button starts/stops the pump at manual dosing.

The red button resets the dosing counters

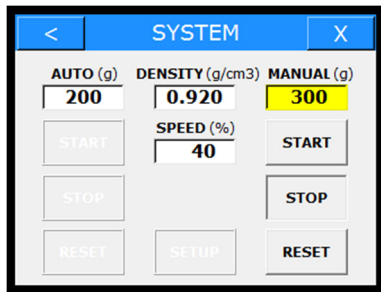
Start of manual dosing



Press the MANUAL START button.

- The pump starts and the **dosed** amount of grease counts from zero and upwards in the yellow field.

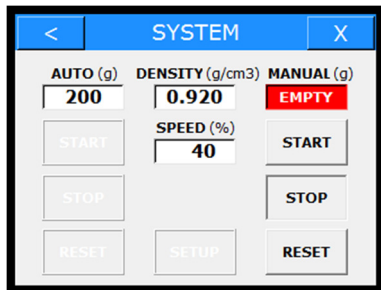
Pausing/aborting



When the MANUAL grease counter reaches the required amount or if you want to pause the pumping, press the MANUAL STOP button.

- You can restart the pump by pressing the MANUAL START button, or reset the counter and end the manual dosing by pressing the MANUAL RESET button.

Empty detection



If the built in flowmeter does not register any grease flow for a predetermined time during manual or automatic dosing, the pump stops and the grease counter turns red and flashes "EMPTY".

- Press START for restarting the pump or RESET for aborting the dosing.

- Do not leave or charge the battery where the temperature may become high
- Do not get the battery wet
- Do not drop the battery or in other ways apply strong impacts to the battery
- Do not disassemble or modify the battery
- Do not short circuit the battery terminals or charger connector
- Do not use a battery that requires very frequent charging. Scrap the battery.
- Remove the battery from a device that is not being used for an extended period of time
- Charge the battery before storing it for an extended period of time
- Only use an external power adapter supplied from Hove A/S. If the mains plug of the power adapter has a safety earth connection, you must connect it to a safety earth connected mains outlet.

On delivery of the machine

- Immediately check the packaging and machine for shipping damage. Do not use the machine if damaged. Contact Hove A/S.
- Dispose of packaging material according to applicable regulations.
- Read the instruction manual carefully. It contains important information about the use and maintenance. Keep the instruction manual for future reference.

When using the machine for the first time

Charging the battery

Fully charge the battery (A) before use. Use only the supplied battery charger (B).

- Connect the charger plug (C) to the battery connector (D).
- Connect the power plug of the battery charger (E) to an outlet with 100-240VAC.
- The indicator LED (F) of the battery charger lights red during the charging. When it turns green, the battery is ready for use. Turn off the mains supply or disconnect the power plug before disconnecting the charger plug from the battery connector.

Cleaning the machine

- Clean the Hove Easy Grease Carry to prevent any contamination of grease or pump.
- As described under "Assembly", flush the pump through with 300 grams of the desired type of grease before initial start. The machine's functions have

been thoroughly checked at the factory. This may be the cause of small remaining quantities of grease in the machine. The flushing ensures the removal of any remaining grease and it gives the opportunity to test the machine's functions before using it for lubrication applications.

Assembly

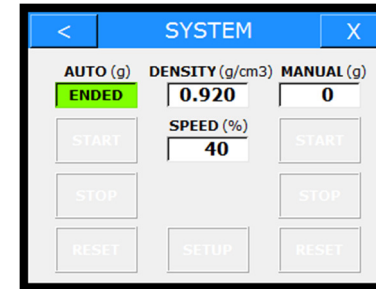
- Open the top cover (G) using the handle (H). Press at the handle while you open to release the top cover from the locked position.
- Dismantle the adapter (I) by turning the lock lever (J) fully to the left.
- Screw the adapter onto a full Hove Grease Cartridge (K) with the desired type of grease. Be sure to screw the adapter sufficiently firm, so the join is airtight.
- Install the grease cartridge with adapter on the machine. Lock the adapter by turning the lock lever fully to the right.
- Route the remote control hose connection (L) to a bucket or similar for collecting grease during the test.
- Turn off the battery connection by putting the battery switch (M) in the "Off" position.
- Install the battery in the battery compartment (N). Turn the battery lock (O) fully to the left before inserting the battery, and afterwards turn the lock fully to the right to lock the battery.
- Turn on the battery connection by putting the battery switch (M) in the "On" position.
- The machine is ready when the MAIN screen appears at control panel (P).
- Start the pump in manual dosing mode and pump out 300 grams of grease to flush the pump through.

Daily use

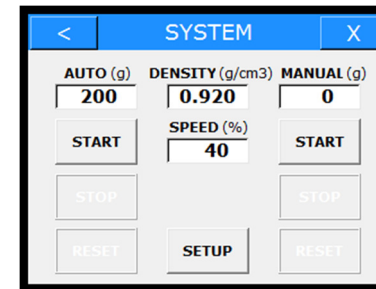
- Observe the safety and operating instructions on the machine and the used lubricants.
- Always flush the pump with the new type of grease in the event of a changing the grease type.
- If you use the same hose for all types of grease, make sure to flush the hose before use.

After use

- If an external power adapter is connected, unplug it from the mains supply and disconnect it from the machine.
- Put the Battery Switch (L) in the "Off" position.
- Clean the Hove Easy Grease Carry to prevent any contamination of grease or pump.

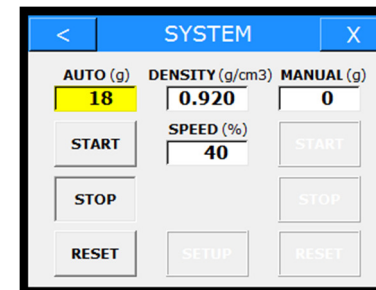


- When the AUTO grease counter reaches zero, the pump stops and the AUTO grease counter turns green and flashes "ENDED".



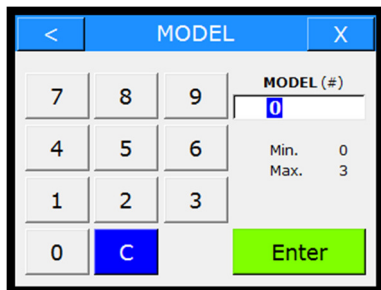
- After some seconds the AUTO grease counter changes to the preset value and the machine is ready again.

Pausing/aborting



- If desired, you can pause the pump during the automatic dosing by pressing the AUTO STOP button.
- You can restart the pump by pressing AUTO START button, or abort the automatic dosing by pressing the AUTO RESET button.

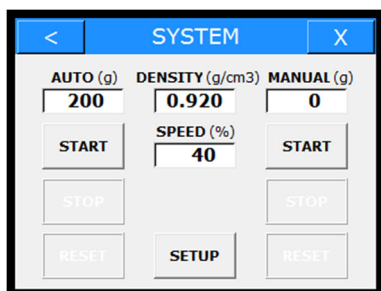
Set MODEL



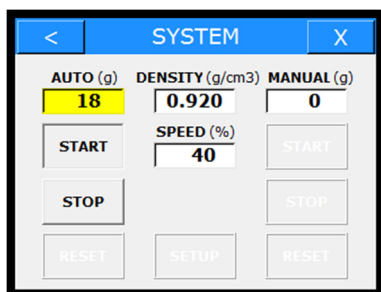
This function is password protected. Entering anything will have no effect.

Running the machine

Start of automatic dosing



Press the AUTO START button



- The pump starts and the **remaining** amount of grease counts down to zero in the yellow field.

- Demount and dispose of empty Hove grease cartridges in an environmentally safe manner according to current regulations of the country where the machine is used.
- Close the Hove Easy Grease Carry. Make sure that the lid is closed correctly.

Operating the machine

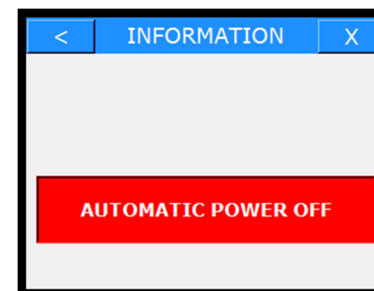
Battery Switch



You can use the rechargeable battery or an external power adapter (W) as power supply for the machine.

Put the Battery Switch in the "On" position for battery operation or in the "Off" position for external power operation.

When the machine is battery operated, it automatically turns off when it has not been active for 30 minutes. To restart the machine put the Battery Switch to the "Off" position for 5 seconds and then back to the "On" position.

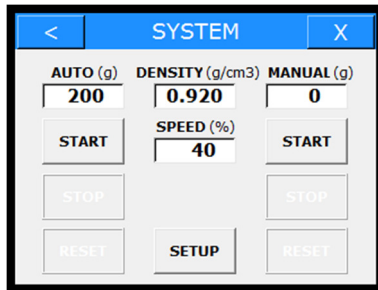


The machine gives a warning before the power is actually switched off. The power-off can be canceled by pressing anywhere at the screen, or by pressing any button at the remote control.

Control Panel



The MAIN screen appears in the display a few seconds after switching on the Hove Easy Grease Carry. Select the required language by pressing the corresponding button on the screen.



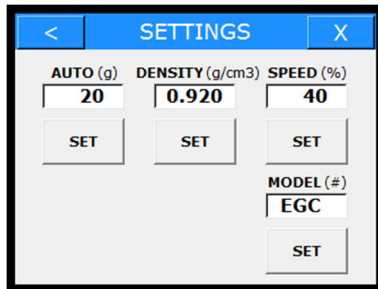
By selecting a language, the main screen will shift to the SYSTEM screen

General Buttons

< Returns to the previous display screen.

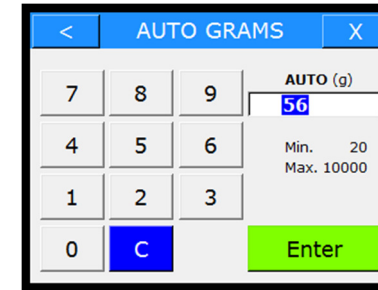
X Returns to the SYSTEM screen.

Change settings



Press the SETUP button for entering the SETTINGS screen.

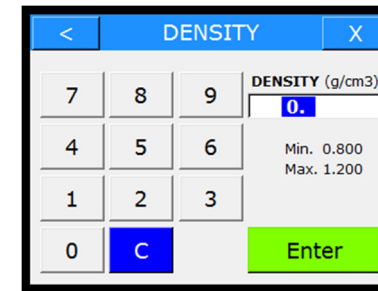
Set AUTO GRAMS



Enter the required grease dose. The entered value will automatically be limited to "Min." or "Max." values.

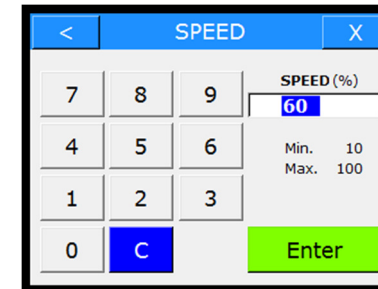
- Press **C** to cancel the entered value.
- Press **Enter** to confirm the entered value.

Set DENSITY



Enter the required density of the grease. The decimal point is set automatically after the first digit.

Set SPEED



Enter the required pump speed (% of max.)