



HOVE

EASY GREASE V.5

Operator and Owner's Manual



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GENERAL DESCRIPTION

Hove Easy Grease v. 5 is a 48VDC automatic lubrication pump for direct lubrication of bearings.

It can be powered from the detachable 100 – 240VAC / 50-60Hz Class II power supply unit or an optional 48VDC / 6Ah Li-ion battery unit.

This unique setup eliminates the grease pump's protective earth (PE) and thus the related risk of electric shock due to improper equipment earthing.

The optimal battery makes the pump independent of mains power and thus ideal for lubrication tasks in hard-to-reach places. The battery is designed to pump approx. 15 kg of grease before charging is required.

The Easy Grease v.5 functions in two different ways; semi-automatic and full-automatic.

FULL-AUTOMATIC MODE (WITH SCANNER)

The full-automatic mode is the preferred mode for the Easy Grease v.5. In full-automatic mode the Easy Grease v.5 is controlled by the Smart Lube app and scanner. In this mode, all functions are pre-programmed and works like **“Scan and Pump”**. Use the scanner for all functions; connecting to the Easy Grease v.5, selecting the Grease Cartridge and scan the QR- codes located near the lubrication points. The QR-codes will be provided, and on request glued on the equipment, by Hove.

SEMI-AUTOMATIC MODE (WITHOUT SCANNER)

Alternatively, when no Smart Lube option is selected, you can operate the Easy Grease v.5 in semi-automatic mode without Smart Lube. In semi-automatic mode the Easy Grease v.5 is controlled via the display included in the pump. The detachable display can be re-located outside the cover for convenience and connected with the extension cord.

INTENDED USE

You can use the Easy Grease v.5 for lubrication of bearings in any type of equipment. The Easy Grease v.5 can also be used to fill up Central Lubrication Systems.

Don't use the Easy Grease v.5 for any other purpose than described above!

SAFETY

- Read and understand the instructions as written in this manual
- Do not use the Easy Grease v.5 for any other purposes than described in "**Intended use**"
- Never point the hose from the Easy Grease v.5 to people or animals
- Follow the local legislations for working on height and for working with electrical and moving equipment Follow all site-recommendations
- Always wear safety glasses and gloves when working with lubrication
- Always use the built-in handle for carrying the Easy Grease v.5
- Always use approved lifting equipment when lifting the Easy Grease v.5
- Always use required Personal Protection Equipment (PPE) when using lifting devices
- Only use Hove A/S approved spare parts
- Properly connect the battery to the charger or the power supply to the mains outlet
- Do not short circuit the power supply connector, battery connector, or charger connector
- Do not open the power supply unit, battery unit, or charger unit
- Handle the battery with care:
 - Do not leave or charge the battery where the temperature may become higher than 50°C (120°F)
 - Do not short circuit the battery
 - Do not let the battery get wet
 - Do not drop the battery, or in other ways apply impacts to the battery
 - Do not disassemble or modify the battery
 - Dispose a battery that requires very frequent charging
 - Remove the battery from a device that is not being used for an extended period
 - Charge the battery before storing it for an extended period

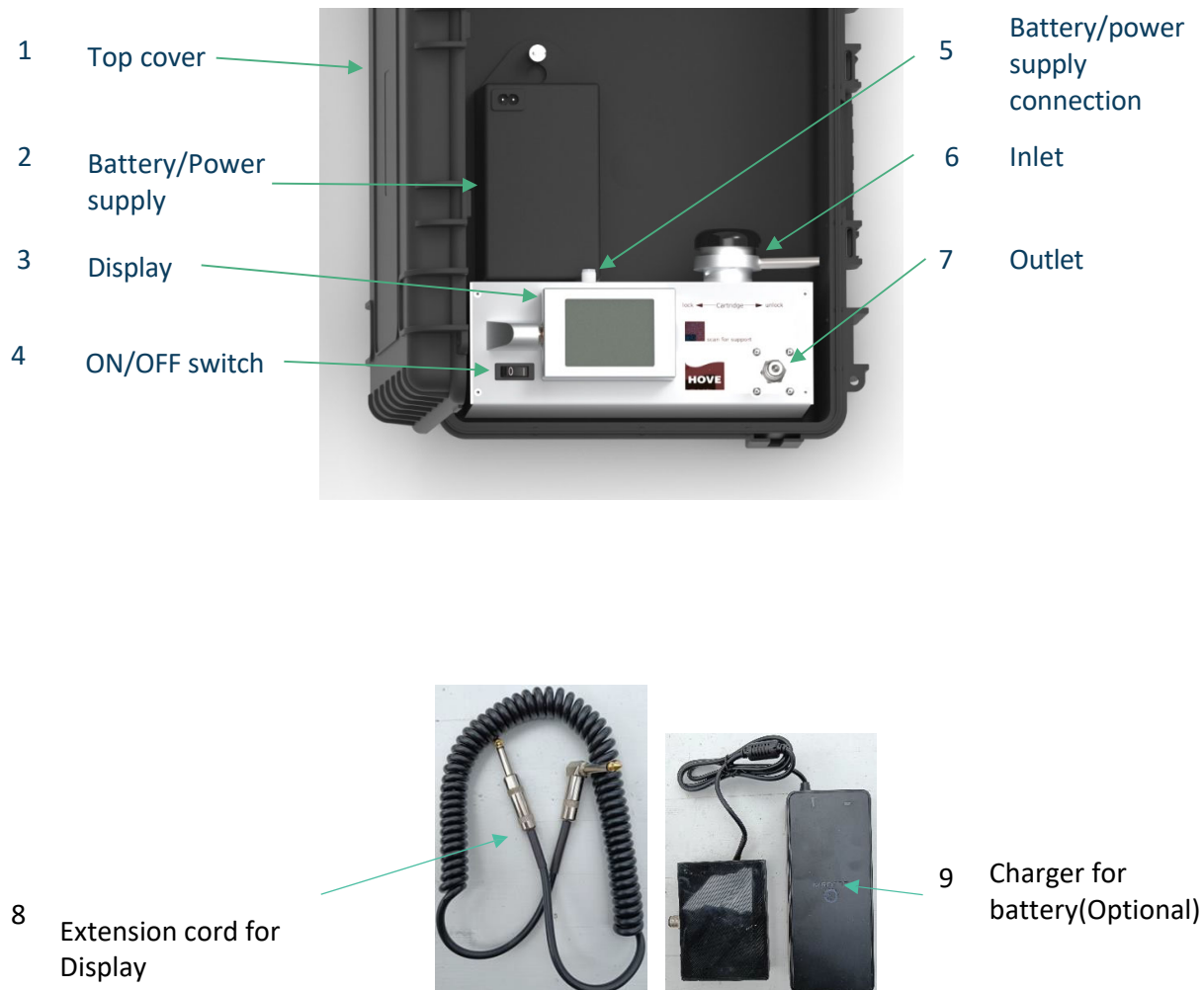
ON DELIVERY OF THE EQUIPMENT

- Check if the packaging is intact
- Do not use if damaged
- Dispose packaging material according to local regulations
- Read the instruction manual carefully. It contains important information about the use and maintenance
- Keep the instruction manual in a safe, accessible location for future reference

THE PACKAGE INCLUDES

- Hove Easy Grease v.5 grease pump
- Flushing adaptor
- Cartridge adapter
- Power supply
- Extension cord for display
- Battery and charger (optional)
- Lubrication hose (optional)

THE PRODUCT



PREPARATIONS

CHARGING THE BATTERY (optional)

- Fully charge the battery (2) before use
- Use only the supplied battery charger (9)
- Connect the battery (2)p to the charger for battery (9)
- Connect the power plug of the battery charger to an outlet with 100-240VAC
- The indicator LED 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

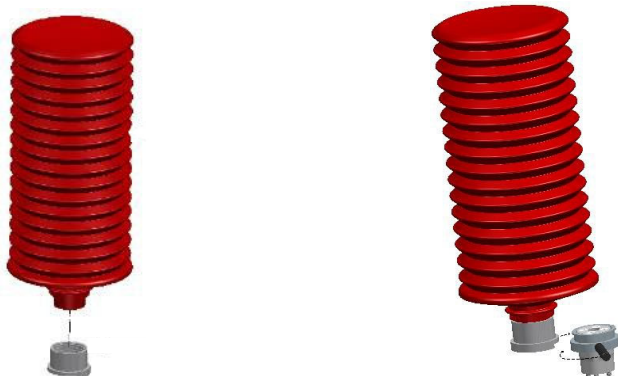
CLEANING THE MACHINE BEFORE FIRST USE

- Clean the inside of Easy Grease v.5 with a lint-free cloth rag to prevent any contamination of grease or pump
- Flush the pump with the desired type of grease before start (see section “Flushing the Easy Grease v.5”)

PREPARING THE EASY GREASE V.5

- Open the top cover (1)
- Make sure the power switch (2) is in “OFF” position
- Remove the adapter (6) by turning the lock lever (5) fully counter-clockwise
- Screw the adapter onto a full Hove cartridge (11) with the desired type of grease
 - Be sure to screw the adapter sufficiently firm, so the joint is airtight
- Install the grease cartridge with adapter on the machine
- Lock the adapter by turning the lock lever (5) fully clockwise
- Switch ON the machine (2)

The machine is ready when the MAIN screen appears on the display (3)



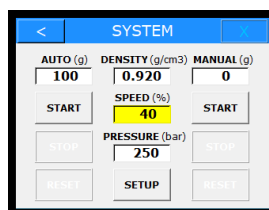
CONNECTING TO SMART LUBE (FULL-AUTOMATIC MODE)

Switching on Bluetooth in the Easy Grease v.5

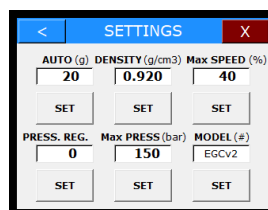
- Switch on the pump
- Select **“Language”**
- Select **“Settings”**
- Select **“Set”** under **“Model (#)”**
- Type in the following code: **45654**
- Select **“Set”** under **“Smart Lube (#)”**
- Type **“1”** under **“Smart Lube (#)”**
- Press **“Enter”**
- The screen returns to start screen
- The MAC address on the pump display appears
- The pump is ready for Bluetooth pairing with the PDA



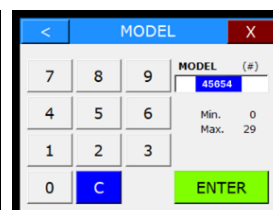
Start screen



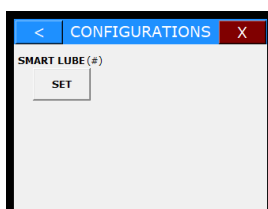
System screen



Set model



Type “45654”



Set Smart Lube



Type “1”



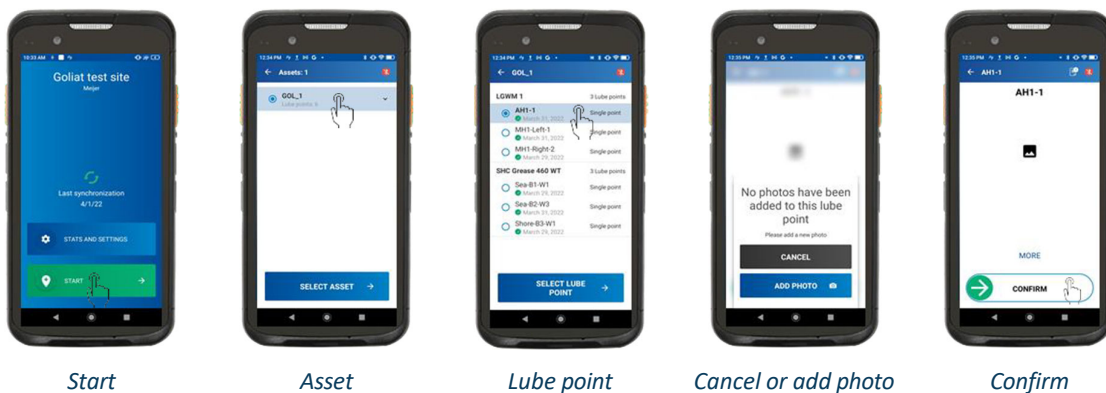
*Start screen appears
with the MAC number*

The pump remains in **“Bluetooth mode”** until it is manually switched off

See also instructions on how to connect the Easy Grease v.5, Hove Smart Lube and Portal, in the manual of the Smart Lube

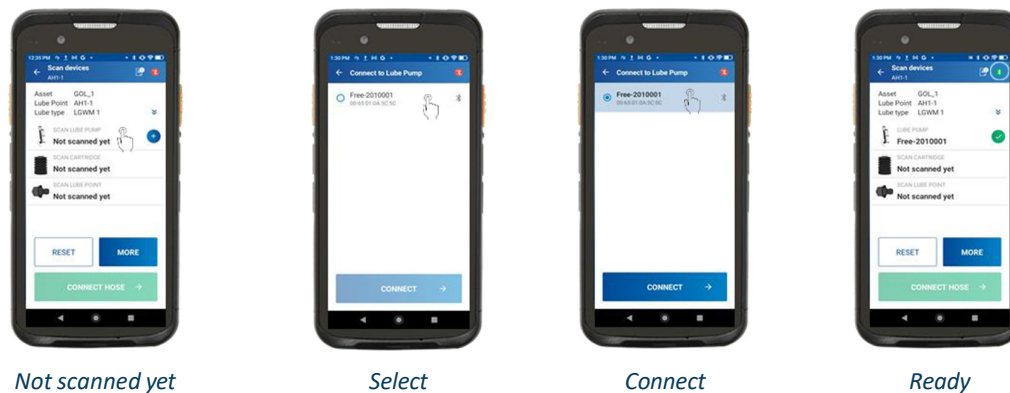
Connecting the Hove Easy Grease v.5 with the Hove Smart Lube

- Open the Hove Smart Lube app on your PDA or smartphone
- Press **“Start”**
- Select an **“Asset”**
- Select any **“Lube Point”**
- Optionally **“Add a photo”** (when missing) or select **“Cancel”**
- Swipe **“Confirm”**
- **“Scan”** the QR-code located in your pump
- The Bluetooth logo appear green
- The pump and HSL are now connected
- The system remembers the pump until shutdown



Alternatively, you can also add the Easy Grease v.5 manually:

- Press **“+”** next to **“Not scanned yet”**
- Select correct pump
- Press **“CONNECT”**
- A green circle appears next to the name of the pump
- The Bluetooth logo appear green
- The pump and HSL are now connected
- The system remembers the pump until shutdown



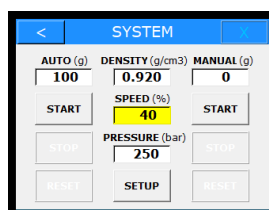
SELECTING “SEMI-AUTOMATIC MODE” AND “MANUAL MODE”

In semi-automatic mode and manual mode, the pump is not connected to Smart Lube, but instead all functions are controlled by the display.

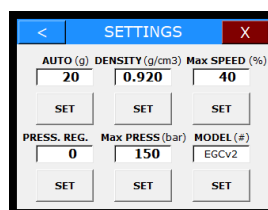
- Switch on the pump
- Select “Language”
- Select “Settings”
- Select “Set” under “Model (#)”
- Type in the following code: **45654**
- Select “Set” under “Smart Lube (#)”
- Type “0” under “Smart Lube (#)”
- Press “Enter”
- The screen returns to start screen
- The MAC address on the pump display disappears



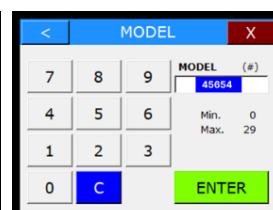
Start screen



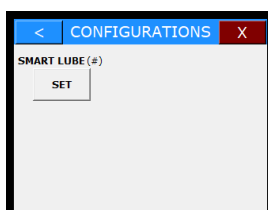
System screen



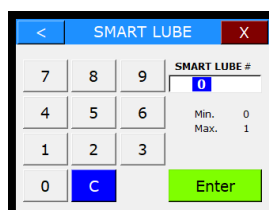
Set model



Type “45654”



Set Smart Lube



Type “0”



Start screen appears

The Easy Grease v.5 is now in Semi-automatic/manual mode and remains in this mode until manually changed. In this mode, the Easy Grease v.5 cannot connect to Bluetooth and the Smart Lube option is not available

USING THE HOVE EASY GREASE V.5

OPERATING THE MACHINE

The Hove Easy Grease v.5 has been designed to be extremely user-friendly. It is easy to operate, easy to maintain, and easy to use. The Hove Easy Grease v.5 operates indoors and outdoors under harsh conditions

Hove advises to use the Hove Easy Grease v.5 together with the Hove Smart Lube (Full-Automatic mode) to get the most out of the system.

Refer to the manual of the Hove Smart Lube for more information

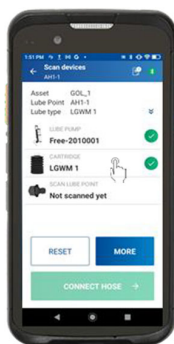
OPERATING IN FULL-AUTOMATIC MODE (WITH SCANNER)

- Make sure that the machine is ready to operate as described in section **“PREPARATIONS”**
- Switch ON the machine
- The start-up display appears
- Select your language
- The system display appears
- Switch on Bluetooth. Follow the instruction in section **“Connecting to Smart Lube (Full-Automatic Mode)”**
- Open the Hove Smart Lube app on your PDA (scanner or smartphone)
- Connect the Easy Grease v.5 with Smart Lube via Bluetooth. Follow the instructions in section **“Connecting the Hove Easy Grease v.5 with the Hove Smart Lube”**

The above procedure only must be performed once during your lubrication round. The Easy Grease v.5 and Smart Lube are now connected and ready to use

Scan the Cartridge

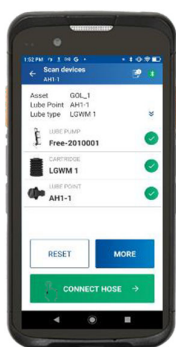
- Point the PDA towards the QR-code on the cartridge
- Press **“SCAN-key”** until a sound is heard
- A green circle appears next to the cartridge name on the display
- The system remembers which cartridge is in the pump
- The system remembers how much grease is left in the cartridge



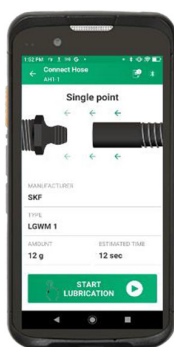
Cartridge scanned

Scan the QR-code near the lubrication point

1. Scan the grease lube point
 - Point the PDA towards the QR-code on the lube point
 - Press **“SCAN-key”** until a sound is heard
 - A green circle appears next to the lube point name on the display
2. Press **“Connect Hose”**
3. Press **“Start Lubrication”**
 - The pump starts to pump grease
 - When finished, the screen shows **“Lubrication done”**
4. Press **“Next Lube”**
5. Repeat step 1...4 until all lubrication points are filled up



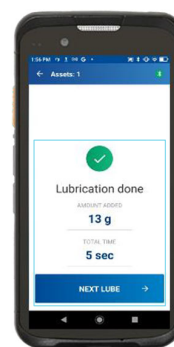
Connect hose



Start lubrication



Lubrication in progress



Lubrication done

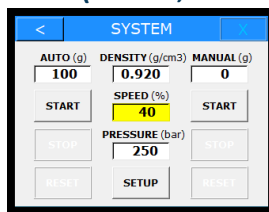
OPERATING IN SEMI-AUTOMATIC AND MANUAL MODE (WITHOUT SCANNER)

- Switch on the pump
- Make sure the Easy Grease v.5 is in **“Semi-automatic mode”**. See **“selecting “Semi- automatic mode” and “Manual mode””**
- After selecting your language, the **“System”** screen appears

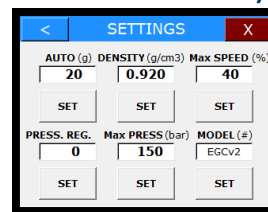
- Check if all values are correct (“Auto”, “Density” “Speed” and “Pressure”)



Start screen



System “Setup”



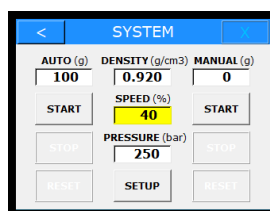
Press “Set” under the item to change

Operating in “Semi-automatic” mode

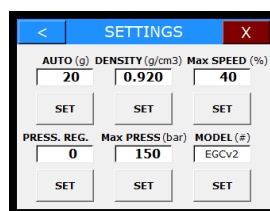
- Select “Setup”-
 - Select “Set” under “Auto (g)”
 - Type the required amount of grease
 - Press “Enter”
 - The values are saved and remain the same until manually changed
- Connect the hose to the grease nipple
 - Press “Start”
 - The Easy Grease v.5 starts pumping grease
 - The field “Auto” turns yellow and counts down until the desired amount of grease has been pumped into the bearing
 - The field turns green and reads “Ended” for several seconds, and then returns to the default state
 - At any time, you can press “Stop” to stop the pump
 - Repeat step 1 and 2 until all grease points are lubricated.
 - You can change the value under “Auto” (amount of grease to be pumped) at any time during the operation



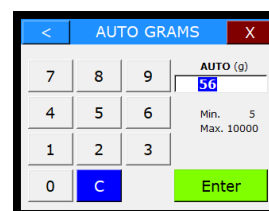
Start screen



System, press “Setup”



“Set” under “Auto”



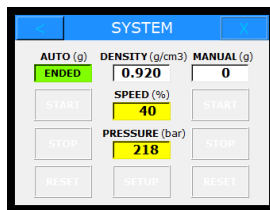
Select the amount of grease (g) and “Enter”



Press "Start"



System counts down



When ready: "Ended"

Operating in "Manual" mode

- Switch on the pump
- After selecting your language, the "System" screen appears
- Select "Start" under "Manual"
 - The Easy Grease v.5 starts pumping grease
- Press "Stop" to stop pumping grease

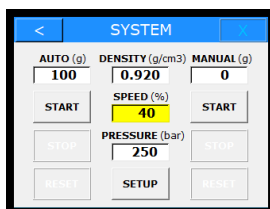
Note: The Easy Grease v.5 continues to pump grease into the bearing until the "Stop" button is pressed!

- The value under "Manual" keeps counting upwards until "Reset" has been pressed

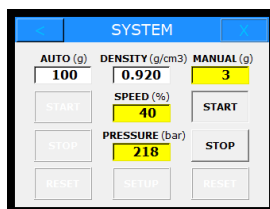
Note: It is advisable to decrease the speed in "Manual" mode, to prevent over-lubrication!



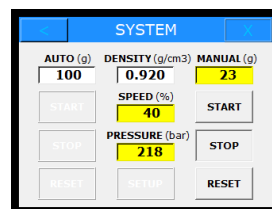
Start screen



Press "Start" under "Manual"



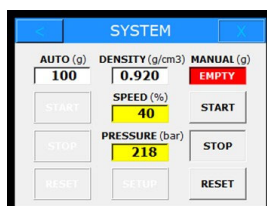
System counts until "Stop" is pressed



"Stop", the value remains until "Reset" is pressed

EMPTY CARTRIDGE

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

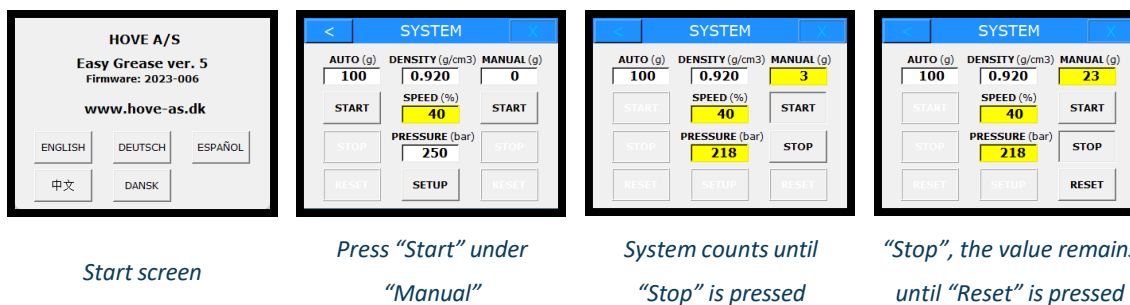


FLUSHING THE EASY GREASE V.5

The Easy Grease v.5 should be flushed each time you use a different type of grease. This will flush out the remaining grease in the system and the hose. Flushing prevent contamination to build up and mixing two types of grease.

- Switch on the pump
- After selecting your language, the “System” screen appears
- Select “Start” under “Manual”
 - The Easy Grease v.5 starts pumping grease
- Observe the change in colour of the grease
- Press “Stop” to stop pumping grease when the colour has changed to an even shade

Note: The Easy Grease v.5 continues to pump grease into the bearing until the “Stop” button is pressed!



AFTER USE

- Switch OFF the machine
- Clean the Hove Easy Grease Easy Grease v.5 with a lint-free cloth to prevent any contamination of grease or pump
- Dispose empty Hove grease cartridges in an environmentally safe manner according to current local regulations

TECHNICAL DATA

General

- Pump Unit

Dimension

- Size: 470 x 365 x 190mm
- Weight: 8,5kg (9kg with battery)

Power supply

- Power supply: 100 – 240VAC/50-60Hz
- Battery: Li-ion 48V/6Ah (optional)
 - 1-hour battery life at 100% speed and 250bar

Drive

- BLDC Electric motor

Maximum Output Pressure

- Continuously: 250bar/3.625psi

Maximum Output Volume

- 500ml/min
- 17oz/min

Operation

- Full-automatic
- Semi-automatic

Controller

- Hove Electronic Controller

Dosing Repeatability

- +/- 1%

LpA Sound Pressure Level

- 58dB(A)

Power Consumption

- Max. 350W

EU DECLARATION OF CONFORMITY

Hove Easy Grease Easy Grease v.5 ver. 2 is in conformity with:

Directive 2014/30/EU - Electromagnetic Compatibility (EMC)

Directive 2006/42/EC - Machinery (MD)

Directive 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS)

Directive 2014/68/EU - Pressure equipment (PED)

And the following harmonized standards and technical specifications have been applied:

EMC:

Emission: Product family standards EN 301 489-1 v2.1.1

Sub-standard: EN 301 489-3 v.2.1.1

Product family standard, Measurement, control and laboratory equipment

EN 61326-1:2013

Immunity: Product family standards EN 301 489-1 v2.1.1

Sub-standard: EN 301 489-3 v.2.1.1

Product family standard Measurement, control and laboratory equipment

EN 61326-1:2013

Electrical Safety:

EN 60204-1:2018 - Safety of machinery - Electrical equipment of machines - General requirements

EN 62133-2:2017 - Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems

TROUBLESHOOTING

In most cases, the problem at hand can be solved by following the below troubleshooting guide. In case the Easy Grease v.5 is found to be broken, please contact your nearest Hove dealer or repair centre: www.hove-as.com/contact

CAN'T CONNECT THE EASY GREASE V.5 TO THE SMART LUBE

- Make sure both the PDA and the pump are in **“Bluetooth mode”**
 - See section: **“CONNECT SCANNER TO BLUETOOTH”** and **“CONNECT THE PUMP TO HOVE SMARTL LUBE”**
 - If the issue remains, please contact us: www.hove-as.com/contact/

CAN'T START PUMPING WITH THE SMART LUBE

- Make sure the Easy Grease v.5 is connected to Smart Lube via Bluetooth
- Make sure the Grease Cartridge is not empty
- Make sure the type of grease is the correct one. If not, change the cartridge and flush the pump before use
 - If the issue remains, please contact us: www.hove-as.com/contact/

CAN'T FIND MY EASY GREASE V.5 IN THE PORTAL

- Make sure the pump data is inserted to the Portal
 - If the issue remains, please contact us: www.hove-as.com/contact/

SYSTEM IS “FROZEN”

- Switch OFF the Easy Grease v.5 for at least 30 seconds and switch ON again
- Close the Smart Lube app and re-open
 - If the issue remains, please contact us: www.hove-as.com/contact/

CONTACT US

TECHNOLOGY WITH INGENUITY

Hove A/S is a Danish-owned company that was founded in 2000 and has grown significantly since. Hove A/S has its own production and development departments.

We sell and develop:

- Specially designed pumps
- Dosing units
- Fittings
- Flow distribution systems

SUPPORT, SERVICE, AND REPAIR

HEAD QUARTERS

Hove Service Center	Phone:	+45 61 71 22 83
Herstedøstervej 7	Whatsapp:	+45 61 71 22 83
DK-2600 Glostrup	Email:	repairs@hove-as.dk
Denmark	Website:	www.hove-as.dk

Other service centers are listed at www.hove-as.dk

Dealer

Hove A/S

Hove Service Center	Phone:	+45 70 22 10 22
Herstedøstervej 7	Fax.:	+45 70 22 10 82
DK-2600 Glostrup	E-mail:	hove@hove-as.dk
Denmark	Web:	www.hove-as.dk