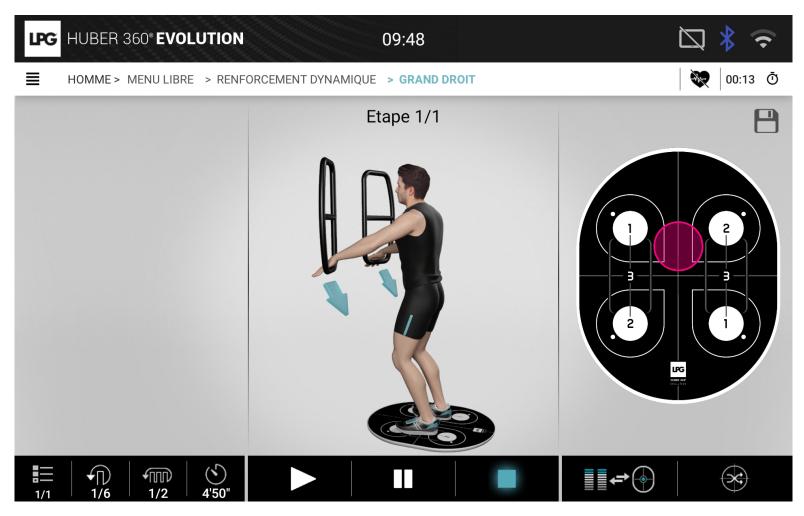
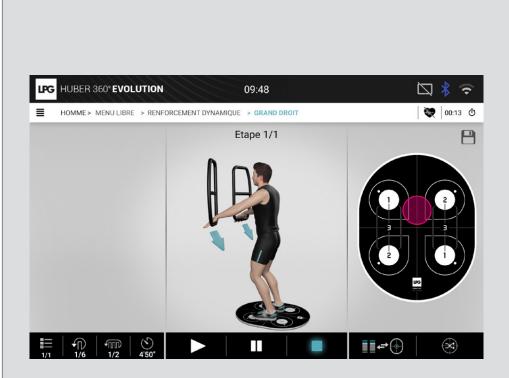
# HUBER 360° EVOLUTION

# TOUCHSCREEN USER GUIDE







### USER GUIDE Touch interface HUBER 360° EVOLUTION

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Version 1 from 05/20

# $\rightarrow$ SUMMARY

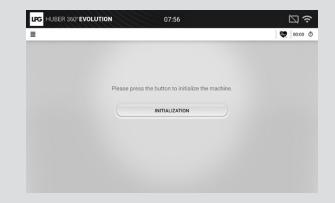
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# $\rightarrow$ PRESENTATION

This document describes the use of the software installed on HUBER 360<sup>®</sup>. It is not intended to explain how to use the product, but merely to show how the unit functions from the user's point of view.

When the machine is turned on, a boot screen appears.

 $\rightarrow$  INITIALIZATION



INITIALIZATION MACHINE

This screen allows you to initialize the HUBER  $360^{\circ}$  and to verify that is functioning properly.

It is important not to touch the handles and not to stand on the platform during this initialization phase as doing so will distort the values measured by the force sensors.

If the initialization is successful, you will hear a sound and the ID screen will appear.

3

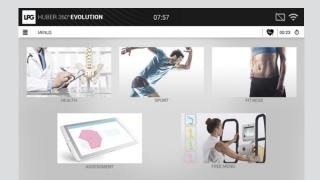
**IDENTIFICATION** 

This screen allows the user to identify him or herself before starting their exercise. A session can be closed at any time in order to change the user ID. The icon for the user session is visible on the main screen: LPG HUBER 360" EVOLUTION 07:56  $\Box \widehat{\mathbf{S}}$ C 00:00 HUBER 360° EVO LPG 00:19 Ō Press dispaly time or burger menu to close a session ≡ MAN > Home OK Settings A pop-up confirmation appears to Ā Session confirm or cancel this action. (1)Switch off To enter guest mode : Username : Man or Woman Password: 1234 → REGISTERED USER → AUTOMATIC LOG OUT A tablet must be connected to the machine to use this mode. When the machine has not been used for 5 minutes, a log out request screen In this case, the user's data is read and the session data will be saved to the tablet. appears. This screen is the same as the one used to log out manually. The user can confirm The connection can be set up in two ways: or cancel the request to log out. • From the tablet (this connection mode will not described in this document) • From the machine touchscreen (via the virtual keyboard) If the user does not react within 5 minutes, he or she will be automatically logged out of the session. The user needs to fill out the following fields to identify him or herself: User ID: Username • PASSWORD: User's password If the user ID or the password are incorrect, a pop-up error will be displayed. If they are correct, the program selection screen will be displayed. A new menu called « My programs » will appear on the main screen.

# $\rightarrow$ MENUS

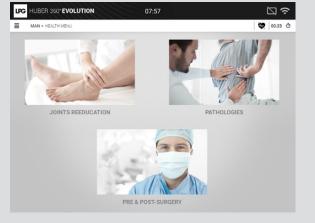
### 4 menus are included in HUBER 360<sup>®</sup> EVOLUTION:

- Health
- Sport
- Fitness
- Free menu



# $\rightarrow$ HEALTH MENUS

- 3 menus are included in the heath menu :
- Joints reeducation
- Pathologies
- Pre and post-surgery



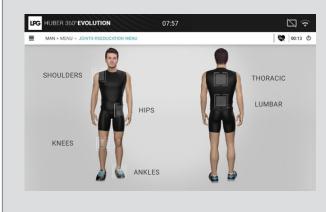
# → PATHOLOGIES

20 protocols by pathologies for man. 23 protocols by pathologies for woman

ALZHEIMER'S	МУОРАТНУ	Protocols only for woman
ANKLE SPAIN	OBESITY	POST-PARTUM (PERINEUM 3)
CARDIOVASCULAR REHABILITATION	OVERWEIGHT	LUMBAGO (PERINEUM 4 & 5)
CONCUSSION	PARKISON'S	PRE-PARTUM
DISC PROTHESIS	REATHLETISATION	
FALL PREVENTION	RESPIRATORY INSUFFICIENCY	
HEMIPLEGIA	SCOLIOSIS	
HERNIATED DISC	VESTIBULAR DISORDER	
KNEE OSTEOARTHRITIS		
KNEE SPRAIN		
LUMBAGO		
MULTIPLE SCLEROSIS		

# $\rightarrow$ JOINTS REEDUCATION

Different parts of the body are framed and can be selected. Complete protocol for each joint.



# $\rightarrow$ PRE & POST SURGERY

Different parts of the body are framed and can be selected. Complete protocol before and after surgery.



# $\rightarrow$ SPORT MENUS

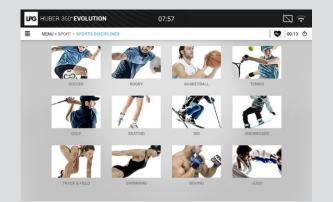
2 menus are included in the sport menu :

- · Sports disciplines
- Muscle recovery



# $\rightarrow$ SPORTS DISCIPLINES

Protocols for more than 12 sports disciplines. For example snowboard protocol can be used also for surf and skateboard.



# $\rightarrow$ MUSCLE RECOVERY

Different parts of the body are framed and can be selected. Complete protocol for each muscle group.



# $\rightarrow$ FITNESS MENUS

3 menus are included in the fitness menu :

- High Intensity Interval Training
- Stretching
- Assessment



# $\rightarrow$ HIGH INTENSITY INTERVAL TRAINING

Select from 1 to 4 goals and then click OK. Select a level and a duration.

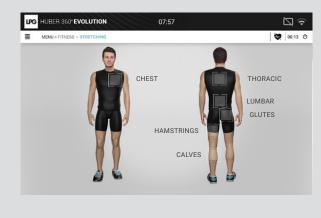


# $\rightarrow$ STRETCHING

MENUS

4

Different parts of the body are framed and can be selected. Exercise for each muscle.



# $\rightarrow$ FITNESS ASSESSMENT

There are 5 tests in this menu :

- Balance test
- Strength test
- Coordination test
- Core stability test
- Cardio test



# $\rightarrow$ MEDICAL ASSESSMENT

The report mode can be used to perform diagnostic tests and generate a full assessment of the patient.

The machine has to be connected to a tablet to use this feature.

There are seven tests:

- Stability test
- Unipodal test
- Walking test
- Limits of stability test
- Mobility restriction test
- Maximum strenght test
- Coordination test



Each of these tests is controlled by the tablet. Likewise, the results will only be visible on the tablet.

The application needs to be on the identification screen to access the tests.

### > Stability test

This test has two stages:

- Eyes open
- Eyes closed

A positioning chock is used to perform this test. The pressure center coordinates are measured at 40 Hz and sent to the tablet. Each stage is 50 seconds long.



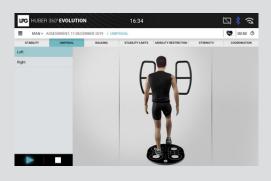
# → MEDICAL ASSESSMENT (SUITE)

### > Unipodal test

This test has two stages:

- Balance on the left leg
- Balance on the right leg

The pressure center coordinates are measured at 40 Hz and sent to the tablet. Maximum of 30 seconds per stage.



### > Walking test

The display shows an example, indicating each step.

The pressure center coordinates are measured at 40 Hz and sent to the tablet.



### > Limits of stability test

This test has eight stages: The maximum distance from the center of mass in the direction defined by the tablet is measured. This direction varies from  $0^{\circ}$  to 315°, in increments of 45°.

The maximum distance in each direction compared to zero is sent to the tablet.



# $\rightarrow$ MEDICAL ASSESSMENT (SUITE)

### > Mobility restriction test

This test has eight stages: The platform moves in the specified direction, then stops only when a command from the tablet is received. The maximum incline angle is sent to the tablet.

This direction of the movement varies from  $0^{\circ}$  to  $315^{\circ}$ , in increments of  $45^{\circ}$ .



### > Maximum strenght test

This test has two stages:

- Exertion in the pushing direction
- Exertion in the pulling direction During each stage, the maximum exerted force is measured. The maximum values are then sent to the tablet.

### > Coordination test

The coordination test is performed using the force values measured in the maximum force test. This test consists of 30 levels of increasing difficulty. In order to pass a level, the user has to remain in each of the handle targets for at least three seconds.

The platform moves in random directions during this test. The level and the total exercise time are sent to the tablet at the end of the test.





# $\rightarrow$ FREE MENU

6

FREE MENU

The free menu is used to select one of the four main categories:

- Flexibility and Mobility
- Dynamic Reinforcement
- Posture and Balance
- Resistance

Selecting a category will display its corresponding menu.

# $\rightarrow$ FLEXIBILITY AND MOBILITY

Different parts of the body are framed and can be selected. Once the part is selected, Flexibility (if available) or Mobility (if available) must be selected.



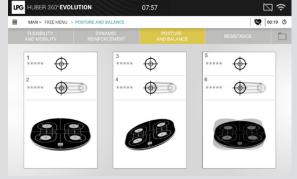
# → DYNAMIC REINFORCEMENT

Different parts of the body are framed and can be selected.



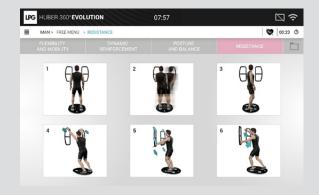
- Three categories of games are available in this menu:
- Fixed platform
- Inclined platform
- Mobile platform

In each of these categories, a fixed or mobile platform target can be selected.



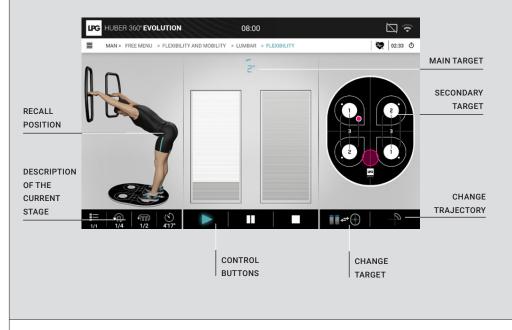
# $\rightarrow$ RESISTANCE

This category has six different activities. The first three set a platform target and the last three a handle target.



# $\rightarrow$ SETTINGS

### The exercise screen has different parts



# $\rightarrow~{\rm CONTROL}~{\rm BUTTONS}$

These buttons allow the user to control the protocol:

Button	Description
	The protocol has started.
	The protocol has been paused.
	The protocol has been stopped.

# $\rightarrow$ DESCRIPTION OF STAGES

A description of the stage currently in progress is possible on the following table:

This table indicates, in the following order:

- The number of repetitions completed and remaining
- · the current series
- remaining time before finishing the current stage.

This evolves as the protocol progresses.

# $\rightarrow$ POSITION RECALL





As the protocol progresses, the position to be

During a protocol it is represented by the 3D image

of a person, and during the Free Menu by recalling the chosen positions of the feet and hands.

The arrows indicate the direction of the effort.

respected is recalled.

# $\rightarrow$ TARGET TO REACH

There are two categories for target

SETTINGS

- Platform target: targeted positioning of the platform
- Handle target: targeted force with the handles

The main target is displayed in the center of the screen by default. The scores displayed at the end of the exercises are solely based on this target.

# $\rightarrow$ HANDLE TARGET

The handle target is used for force exertion objectives.

Several settings can be adjusted to increase or decrease the complexity as well as modify the exercise objectives:

- Force objective
- Target size

These settings can be adjusted via the corresponding control panel.

If only one handle is being used, a single target is displayed.

Once the target has been reached, it is highlighted.



# → PLATFORM TARGET

The platform target shows the posture the user needs to assume to position his or her center of mass within the specified area.

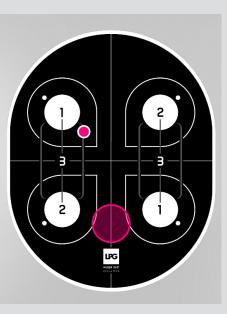
The target settings can be adjusted via the corresponding settings panel.

When two targets are displayed, each target needs to be reached one after the other.

A circular or elliptical motion can also be applied to the target.

Several scales are available in order to zoom in on the target: 1/8, 1/4, 1/2 and 1/1.

Once the target has been reached, it is highlighted.



### HANDLE TARGET SETTINGS $\rightarrow$

SETTINGS

The handle target settings can be modified by pressing the corresponding area on the handle target.

These settings can be changed at any time during the exercise.

If no action has been detected after eight seconds, the panel closes automatically.

TARGET PRECISION (5% - 40%)



The OK button closes the control panel.

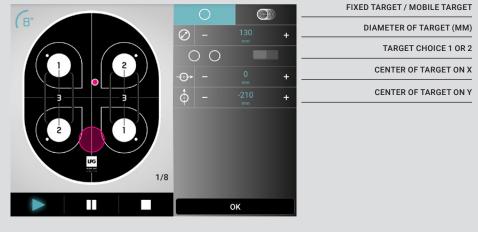
# → PLATFORM TARGET SETTINGS

The platform target settings can be accessed by tapping the platform target window.

These settings can be changed at any time during the exercise.

If no action has been detected after eight seconds, the panel closes automatically.

### > A FIXED TARGET



### > TWO FIXED TARGETS



# → ADJUSTING STAGE SETTINGS

Stage settings can no longer be accessed once the exercise has been started. This panel is accessed by clicking on the description area of the current stage. If no action has been detected after eight seconds, the panel closes automatically.

ACTION TIME (S)				
· · · · · · · · · · · · · · · · · · ·	+	10"	-	
PAUSE TIME (S)	+	10"	-	B
NUMBER OF REPETITIONS	+	8	-	<b>-</b> D
REST TIME (S)	+	10"	-	Ŵ
SERIAL NUMBER	+		-	- MD
TOTAL STAGE TIME		2'30"		$\odot$
		ОК		

### > MOBILE TARGET ON AN ELLIPSE

SETTINGS



ELLIPSE

The OK button closes the control panel.

# $\rightarrow$ ADJUSTING TRAJECTORY SETTINGS

Trajectory settings can no longer be accessed once the exercise has been started. This panel is accessed by clicking on the trajectory button. If no action has been detected after eight seconds, the panel closes automatically.



The trajectories are available in this panel.

→ TRAJECTORY « POSITION »



Trajectory settings are adjusted using polar coordinates (with  $\alpha$  and  $\theta$ ).

# INCLINATION OF THE CENTER OF THE ELLIPSE (0° - 10°) ROTATION OF THE CENTER OF THE ELLIPSE (0° - 360°) LIMIT OF THE ELLIPSE ON X LIMIT OF THE ELLIPSE ON Y ORIENTATION OF THE ELLIPSE (0° - 360°) PLATFORM SPEED (1% - 100%) ACCELERATION (1 TO 3) DIRECTION OF ROTATION

# $\rightarrow$ TRAJECTORY « SPIRAL »

→ TRAJECTORY « ELLIPSE »

INCLINATION OF POINT A (0°- 10°) ROTATION OF POINT A (0°- 360°)

	≣ м.
ANGLE OF SPIRAL CENTER (0°- 10°)	· .
ROTATION OF SPIRAL CENTER (0°- 360°)	+
ENDING POINT OF SPIRAL (0°- 10°)	$\varphi$
NUMBER OF CIRCLES (1 TO 15)	
PLATFORM SPEED (1% - 100%)	$\neq c$
ACCELERATION (1 TO 3)	_ <u>}</u>
DIRECTION OF ROTATION	
OUTWARD - BACK	
	*
	$(\Rightarrow)$

 LUEG
 HUBER 360' EVOLUTION
 08:01

 Image: mail of the mail

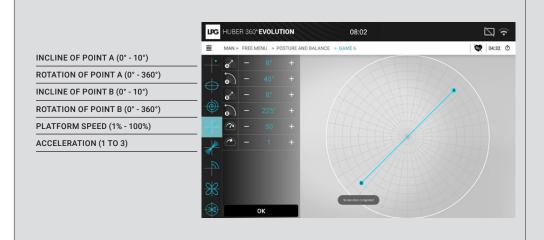
 $\bowtie$ 

💘 04:16 Ō

# → TRAJECTORY «SEESAW»

# $\rightarrow$ TRAJECTORY « DIAL »

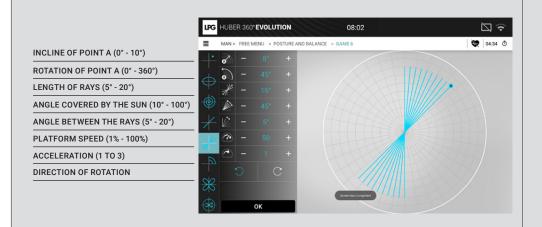
SETTINGS

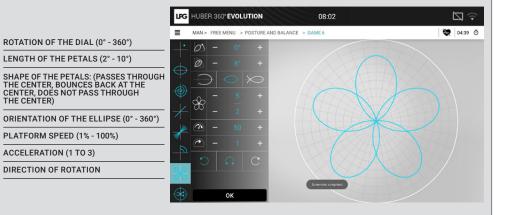




### → TRAJECTORY « SUN »

 $\rightarrow$  TRAJECTORY « ROSETTE »

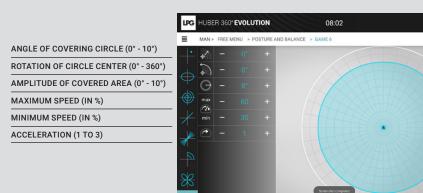




 $\square \widehat{\mathbf{a}}$ 

💓 04:37 Ō

# → RANDOM TRAJECTORY



# $\rightarrow$ FORCE CALIBRATION

 $\Box \diamondsuit$ 

Q 04:42 O

Some protocols start out with a phase to calibrate the maximum force that can be exerted during the exercise.

There are as many calibration phases during an exercise as there are stages. These phases can be skipped using the close panel button, and the force can be manually adjusted during the exercise:



If this phase is not skipped, the user is asked to exert all of his or her strength while maintaining the recommended position.

After exerting the force, the settings can be adjusted on each handle:

The maximum force percentage for the exercise is displayed at the top of the panel after it has been calibrated.



# $\rightarrow$ scores

Scores are displayed at the end of each exercise if at least one action has been started.

Depending on the main target specified in the protocol, a platform or handle score is displayed.

> SPORT							1
	> MUSCLE RECOVER	₹Y > CHEST	> DYNAMIC REINFORC	EMENT > PECTO	RALIS MAJOR		13:00
							E
		00		00			
AVERAG	E STRENGTH	θĐ	9 DaN	θĐ	8 DaN		
COORDI	NATION	ÐÐ	82 %	θÐ	40 %		
COORDI	NATION	$\bigcirc$		47 %			
	3		i		$\rightarrow$		
	COORDIN	AVERAGE STRENGTH COORDINATION COORDINATION		COORDINATION	COORDINATION	COORDINATION	coordination     Image: Coordination       Image: Coordination     Image: Coordination       Image: Coordination     Image: Coordination

- A handle target score displays:
- Average force (left + right)
- Rate of coordination (left + right)
- Achievement level
- A platform target score displays:
- Rate of coordination
- Achievement level

The rate of coordination represents the total time on target over the total exercise time. It is displayed as a percentage.

The achievement level is displayed on the score screen as a number of stars. The next level is achieved if and only if:

- The rate of coordination is greater than or equal to 70% in all stages.
- The protocol has been completed in full

# → SCORES (SUITE)

Heart rate data can be displayed if a heart rate monitor is worn during the exercise.

The buttons below the score can be used to perform the following actions if a program is in progress:

Button	Description
3	Replay the protocol
$\rightarrow$	Current program: perform the following protocol Guest mode: close the window
i	Detailed information on scores from each stage.



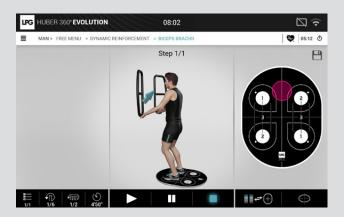
The i button: a score of 68 for stage 1 and 2 on the right was not high enough to validate the level. For this example, the first star.



# $\rightarrow$ SAVING A MODIFIED PROTOCOL

The floppy disk icon can be used to save and name a modified protocol.





				Please c	hoose a	n exerc	cise name	9			
			ACL RIGH	IT KNEE							
				CANCEL		C	ок				
0	W	2 E	° R	<sup>4</sup> т	5 Y	6	U 7		0°	P	Ø
	4	S	D	F	G	Н	J	ĸ	L	F	0
+	Z	>	( C	; \	/ E	3	Ν	М	!	?	+
?123	,										@

Pressing this button will display customized exercises saved on the machine.

→ VISUALIZING CUSTOMIZED EXERCISES



It is possible to save 20 customized exercises on your machine.

A ACL RIGHT KNEE G GOLF Game 5	N	MAN > FREE MENU	> CUSTOMIZED EXERCISES	<b>Q</b>	17:52 Č
A ACL RIGHT KNEE G GOLF Game 5				RESISTANCE	C
G GOLF Game 5	٩				
Game 5	А	ACL RIGHT KN	EE		
	G	GOLF			
D. Build the		Game 5			
P Post Partum	Ρ	Post Partum			

# $\rightarrow$ DELETING CUSTOMIZED EXERCISES

Press on the trash button and the exercises you want to delete to delete saved exercises.

8

LPG HUBER 360° EVOLUTION 16:34 **A** MAN > FREE MENU > CUSTOMIZED EXERCISES 💘 18:21 Ō ≡ Q × 1 selected item(s) CANCEL A ACL RIGHT KNEE 🗹 G GOLF Game 5 P Post Partum

 $\rightarrow$  ACTIVATION

When the Bluetooth dongle is inserted, an icon appears: 💦

When this icon is pressed, a pop-up window appears showing all heart rate monitors in the vicinity. A heart rate monitor can then be selected.

08:07	⊠ * ≎
Bluetooth	
SETTINGS	
76AB3085FEC23	
	SETTINGS

The selected heart rate monitor will be used throughout the entire session. It will be automatically deselected after logging out.

# $\rightarrow$ HEART RATE MONITOR

appears in the «ToolBar».

The heart rate belt can still be configured from the Settings menu. Once a belt has been selected, cardiac rhythm



The cardiac rhythm is used to calculate the average heart rate during the action stages.

Once the belt has been disconnected and no other belt is present, cardiac rhythm will be erased.

# $\rightarrow$ **PRESENTATION**

# The control panel is accessible from the main menu (carousel) as well as from the unit initialisation and user session screens. It is displayed as follows:

LPG HUBER 360° EVOLUTION	08:06	<b>A</b>
E	SETTINGS	
$\Box_{\odot}$ Date and time		>
Eanguage		>
Update		>
Sound		>
Display		>
🗢 WiFi		>
🗱 Bluetooth		>
Tablet		>
() System information		>
License Agreement		>
X Maintenance		>

# $\rightarrow$ SET LANGUAGE

You can set the language on the screen as follows:

The choice of language is registered in a configure file once the language has changed. This same language will be used for the other applications (Application Setup).

Changing the language causes (in certain cases) the carousel to reset with new labels.



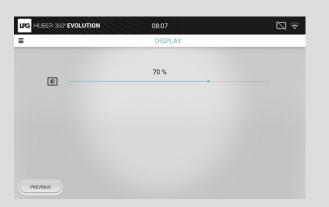
# $\rightarrow~$ SETTING DATE AND TIME

This screen allows you to adjust the date and time of the unit.

The date and time of the unit cannot be changed once the function has been activated. In addition, it is necessary to reboot the unit to register the changes.



These two buttons allow the screen backlight to be increase or decrease. Changes are saved in the configuration file so that they are remembered after restarting the machine.

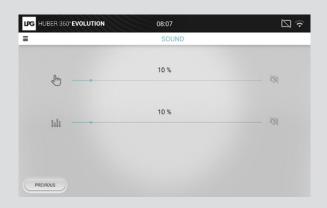


# $\rightarrow~$ Adjusting sound level

These two buttons adjust the sound level.

There is also a mute button.

Changes are saved in the configuration file so that they are remembered after restarting the machine.



10

**CONTROL PANEL** 

# $\rightarrow$ WIFI CONNECTION SETTINGS

This screen is used to select the wifi network to communicate with the tablet. Only wifi networks beginning with "lpg" are displayed.

Changes are saved in the configuration file so that they are remembered after restarting the machine

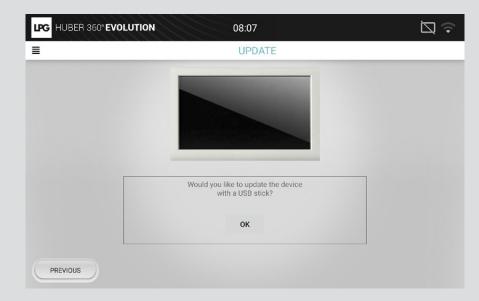


# $\rightarrow$ UPDATES

The HUBER 360<sup>®</sup> software can be updated regularly. Updates require a USB stick containing a «xxxxpack-lpg» file. The following screen allows you to launch an update:

The cancel button allows you to leave this page and return to control panel.

The confirm button launches the «setup» application for updates. The screen turns off until the setup application has launched.



10

CONTROL PANEL

# $\rightarrow$ MAINTENANCE

### Maintenance screens can be accessed from the Settings menu.

PG HUBER 360" EVOLUTION	16:34	🖾 🖇 🔊
1	SETTINGS	
Lo Date and time		
Eanguage		>
Update		>
Sound		>
Display		>
🗢 WiFi		>
* Bluetooth		
Tablet		
() System information		>
License Agreement		>
X Maintenance		>

### A virtual keyboard is used to enter the password:



# $\rightarrow$ MANAGING ERRORS

All subgroups are monitored once the application has initialised. Several error or fault levels can appear:

- the «Critical» level (danger for the user)
- the «Warning» level (no danger for the user)

These two error levels are notified in the « Toolbar » as follows:

Button	Action	Description
	Error display	Critical error
	Error display	Warning error

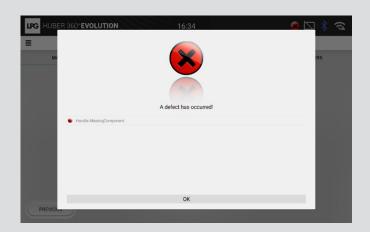
These errors differ from each other.

The list of errors and their descriptions are available in the appendix.

# $\rightarrow$ CRITICAL ERROR

### Once a critical error has occurred, a pop-up appears on the screen:





SCREEN 49 : POP-UP FOR A CRITICAL ERROR

This pop-up lists all the detected errors (regardless of critical or warning level). All controls are now on «safety mode»:

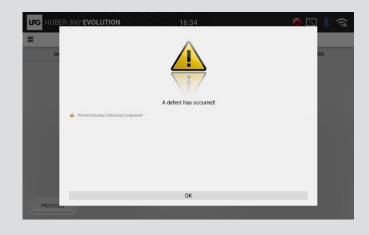
- the column has stopped
- platform rotation has been halted

Confirming this message closes the pop-up, but the icon in the Toolbar remains even if the error disappears; all Critical errors will be maintained. At the same time, the controls cannot be restarted after a Critical error has occurred. Rebooting the unit allows you to reset the system and erase all errors.

# $\rightarrow$ WARNING ERROR

Once a Warning error occurs, the Warning icon appears in the toolbar. In this case no pop-up appears and the controls are not set to «Safety mode».

The warning can only be seen by clicking on the Warning icon in the Toolbar.



SCREEN 50 : VISUALISATION OF WARNING ERRORS

When a Warning error message disapears, it is removed from the failings' list.

If you have any questions about operating or maintaining your device, please contact your local dealer or LPG SYSTEMS customer service: LPG SYSTEMS

Technoparc de la Plaine - 30, rue du Dr Abel CS 90035 - 26902 Valence Cedex 09 - France Tél. : +33 (0)4 75 78 69 00 / Fax : +33 (0)4 75 42 80 85