

XPERT UNIT®



EN - User manual



TABLE OF CONTENTS

Implantology motor

1. DESCRIPTION OF SYMBOLS	21
2. AREA OF USE	22
3. INDICATIONS	22
4. SAFETY	22
5. DESCRIPTION	25
6. CONNECTIONS - INSTALLATION	26
7. COMMISSIONING	28
8. USE	29
9. PARAMETER MANAGEMENT	33
10. CLEANING-DISINFECTION-STERILISATION	33
11. CONDITIONS OF USE AND STORAGE	34
12. WARRANTY	34
13. MANUFACTURER'S RESPONSIBILITIES	35
14. REGULATIONS	35
15. ANOMALIES AND FAULTS	35
16. FEASIBLE TROUBLESHOOTING OPERATIONS BY THE USER	37
17. AGENCY - TECHNICAL INSPECTION OF SAFETY	37
18. ELECTROMAGNETIC COMPATIBILITY	37
19. REFERENCE	39

1. DESCRIPTION OF SYMBOLS

	Alternating current.		Fragile.		Transport in standing position; with the top facing the direction of the arrow.
	Type B equipment.		Store in a dry place.		Sterile device
	Warning : Adhere to the operating instructions.		Maximum permitted stack load 50 kg.		Do not reuse, single-use device
	Protective earth		Handle with care.		Do not throw in the domestic dustbin
	Manufacturer		Device expiry date		Do not tilt
	Class IIa device in compliance with the European directive 93/42CEE.		Device manufacturing lot number.		Protection against foreign bodies > 1 mm
	Thermoisinfectable device.		Series number.		Protection against strong water spurts in all directions
	Sterilisable at a specific temperature		Humidity limit.		Follow the operating instructions.
	Do not use if the packaging is damaged.		Atmospheric pressure limit		Do not sterilise
	Protect from light.		Commercial reference number of the device.		Refer the instruction manual/brochure
	Permissible temperature limits.		Risk of getting crushed - Do not bring fingers in contact with the rotating parts when the pump is on		

2. AREA OF USE

XPERT UNIT®, the implantology and dental surgery motor is exclusively meant for placing implants and for dental or bone surgeries (for example : tooth extractions, apicoectomy, bone modelling or bone smoothing).

With regard to implant surgery procedures, it helps carry out surgery tasks while helping the practitioner to carry out drilling, tapping, and screwing.

The use of this appliance is reserved for certified dental health professionals who are competent and qualified, or for those who work under their supervision.

The Anthogyr product is exclusively intended to be used in dental medicine. Any inappropriate use is prohibited.

3. INDICATIONS

You have just acquired your new dental implantology motor, XPERT UNIT®.

Anthogyr congratulates you for your choice and thanks you for the confidence that you have placed in it.

In order to get complete and sustainable benefit from this product, it is recommended that you read this user manual first and perform the recommended inspection and maintenance tasks.

This Anthogyr product is used exclusively with the accessories provided by Anthogyr (micromotor, pedal, power supply cable). The use of any other accessory is prohibited.

This equipment is compatible with most of the surgical contra-angles and handpieces available on the market. However, the technical features of this product are usable only if it is combined with an Anthogyr Mont-Blanc contra-angle.

It is strongly recommended to use the Anthogyr irrigation lines. The use of compatible and adaptable irrigation lines can create malfunctioning for which Anthogyr cannot be held responsible in any way.

It is essential to take all the precautions mentioned with the symbols E in order to use the equipment in the best condition and with total safety.

The manufacturer reserves the right to make changes or improvements in the equipment arising from new technical developments. This does not give retrospective right toward the equipment already installed.

To ensure that the Anthogyr product is operational at all times and to maintain it in good working condition, adhere to the maintenance, disinfection, and sterilisation instructions (see paragraph "10 - Cleaning, disinfecting, and sterilising").

Only the Anthogyr technicians or those trained by Anthogyr are authorised to repair of the MD (check your equipment control parameters after maintenance operations; it is possible that it has been set to default values).

Copying and distributing these instructions requires prior written consent of the Anthogyr company.

The user is under obligation to :

- Use only products that are free of defects.
- Protect patients, third parties, and oneself from any danger.
- Avoid any contamination to spread through the product.

The user is responsible for checking the operating safety and the condition of the equipment before each use.

While using the product, it is essential to adhere to the national legal provisions and particularly :

- Provisions applicable to connecting and starting the MD.
- Provisions applicable to safety at work.
- Provisions for prevention of accidents.

4. SAFETY

4.1. WARNING SIGN

	Warning sign
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In order to avoid any physical or material damage, this document divides the safety instructions into 3 levels of danger.

ATTENTION	Indicates a hazardous situation that may cause material damage or from minor to moderate injuries.
WARNING	Indicates a hazardous situation that may cause serious/fatal injuries.
DANGER	Indicates maximum danger created by a situation that may immediately cause serious/fatal injuries.



4.2. SAFETY INSTRUCTIONS

4.2.1 - External interference

The equipment is certified to comply with the standards of electromagnetic compatibility in force.

ATTENTION	The user shall however ensure that no electromagnetic disturbance creates further risk. To avoid disturbing the proper functioning of the electromagnetic equipment, it is recommended to adhere to the stipulated distances among devices ("Electromagnetic compatibility").
WARNING	The equipment is not designed to withstand shocks from an electric defibrillator.

4.2.2 - Electrical connection

DANGER	ELECTRICAL SHOCK / ELECTROCUTION Non-compliant electrical connection Compulsorily check that the power supply voltage is identical to the one mentioned on the control box. Check the power supply cable before every use. Never insert or pull the plug from the wall socket with wet hands.
WARNING	To avoid any risk of an electric shock, this equipment must only be connected to a power supply network equipped with a protective earth.

4.2.3 - Environment

ATTENTION	Do not tilt the device. Ensure that the cords do not obstruct free movement of people. Do not use the device near ionising radiation. The device must be connected to a wall socket close by that is easily accessible. The required power cords include a plug that can bear at least 125% of the rated current of the device. Use a maximum impedance network of 4Ω.
DANGER	Do not use this product in premises with explosion hazards. Do not expose the equipment to water splashes or water mist. Do not put metallic objects into the equipment to avoid any risk of electric shock, short-circuit, or emission of dangerous substances.
DANGER	ELECTROCUTION Accidental penetration of liquid in the box. Before every use, check and ensure impermeability of the recipients of liquids. In case any liquid penetrates the equipment, do not touch it and immediately disconnect the power supply cable from the electricity network. Make sure that the surface of the equipment is completely dry before reconnecting the power supply cable.

4.2.4 - Use of the device

ATTENTION	Do not move the device while in use. We strongly recommend to limit the torque so as not to exceed the recommendations of the manufacturers for the instrumentation used. This is to limit the risk of injury and deterioration of instruments.
WARNING	Once the servicing work is completed, switch off the device. Unplug it from the electrical mains in the event of prolonged non-use.

4.2.5 - Storage conditions

ATTENTION	Recommended conditions : keep protected from moisture and at room temperature. Keep away from sunlight, sparks and other sources of ignition. Temperature : from -20 °C to +70 °C. Air humidity level : from 5% to 95%. Incompatible materials : acids and other solvents.
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4.2.6 - Peristaltic pump

ATTENTION	Do not operate the pump if the irrigation line is blocked or closed by a clamp. Place the fluid to be pumped always above with respect to the pump, in order to ensure optimum operation of the latter. Always keep the rollers of the pump head and all the moving parts clean and free of contamination and debris.
-----------	--

ATTENTION	Do not open the guard when the pump is rotating. Do not put your fingers in contact with the rotating parts when the pump is in operation.
-----------	--

DANGER	Never attempt any repair alone.
--------	--

4.2.7 - Micromotor and micrometer cable

ATTENTION	Refer to the usage instructions supplied with the micromotor and/or micrometer cable to familiarise yourself with all safety and usage aspects.
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4.2.8 - Hygiene and maintenance

DANGER	Sterilisable products are supplied in non-sterile condition and are required to be decontaminated and sterilised before the first use as well as immediately after each use.
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ATTENTION	Do not use any spray directly on the MD to clean it; preferable to use wipes.
-----------	--

ATTENTION	Refer to the usage instructions supplied with the micromotor and/or micrometer cable to familiarise yourself with all maintenance aspects.
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4.2.9 - Malfunction

In the event of abnormal operation (flickering screen, noisy pump motor, vibrating micromotor) :

- Immediately stop using the device.
- Try to locate or eliminate the problem with the help of the descriptive document (paragraph "- Anomalies and faults").
- If it is not possible to locate or eliminate the problem with the help of the descriptive document, switch off the device and call the Anthogyr After-Sales Service.

DANGER	Never attempt any repair alone.
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Anthogyr After-Sales Service - Tel. : +33 (0)4 50 58 50 53 - Fax. : +33 (0)4 50 93 78 60 - contact@anthogyr.com

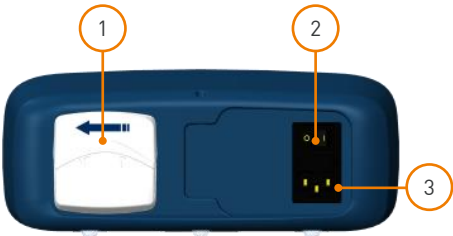


5. DESCRIPTION



N°	Name
A	Wireless pedal
B	Cabinet
C	Irrigation line
D	Charging adapter
E	Power cord
F	Micromotor cord

N°	Name
G	Micromotor
H	Bracke
I	Micromotor protective casing
J	Front face of protection
K	Clips for irrigation line
L	Micromotor support



Rear face



Front face

N°	Name
1	Peristaltic pump
2	ON/OFF Button (I/O)
3	Power socket 220V / 110V
4	Touch screen
5	Connector for micromotor cable

Français

English

Deutsch

Español

Italiano

Português

Nederlands

中国的

عربي

Technical Specifications		
Dimensions	Cabinet (w x d x h)	243 x 222 x 102 mm
	Pedal (l x d x h)	280 x 170 x 70 mm
	Micromotor (Ø x l)	Ø23 x 115 mm
	Micromotor cable (l)	2 m
Weight	Cabinet	2.5 kg
	Pedal	1 kg
	Micromotor	110 g
	Micromotor cable	110 g
Electrical	Input power supply	from 100 to 240 V (50-60 Hz)
	Power consumption	200 to 300W
	Input fuse	Ø5 x 20 - T5A 250 V
Classification	Cabinet	IP4X
	Pedal	IPX6
Electrical classification	Class	I according to IEC 60601-1
	Type	B
Classification Bluetooth	Group	1
	Class	B
	FCC ID	QOQBGM111
	IC	5123A-BGM111
Micromotor	Rotation speed	100 - 40000 rpm
	Motor connection	Model with light : TYPE 1-short Model without light : TYPE 4-short
Peristaltic pump	Maximum flow rate at 100% with Anthogyr line	120 ml/min
	Pump pipe Øext	Ø7 mm
	Pump pipe Øint	Ø4 mm
CE classification	Directive 93/42/CEE	Class IIa conforming to rule 8 for cabinet / pedal / micromotor cable / micromotor class I conforming to rule 1 for the micromotor mount / clips
Display	N.cm	Torque (Newton-centimetre)
	rpm	Speed (revolutions per minute)

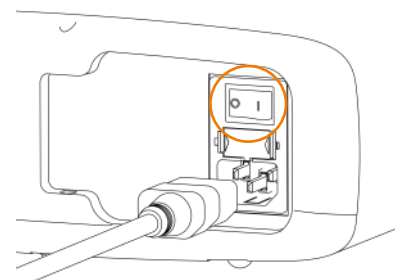
6. CONNECTIONS - INSTALLATION

- ⚠ It is imperative to familiarise yourself with all the safety instructions before installation and use of the device (see paragraph "2 - Safety").
- ⚠ Refer to the usage instructions supplied with the micromotor and/or micrometer cable to familiarise yourself with all safety, maintenance and usage aspects.

6.1. MAINS CONNECTION

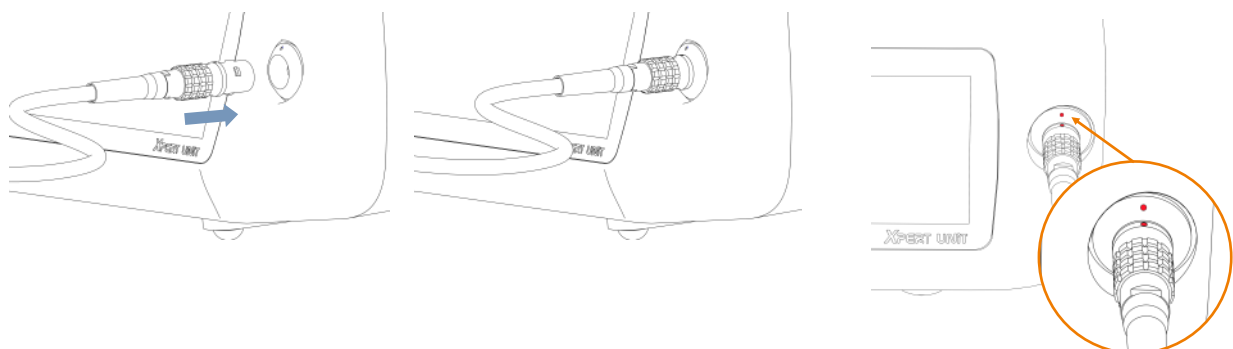
- ⚠ Use only the power cable supplied by the manufacturer.

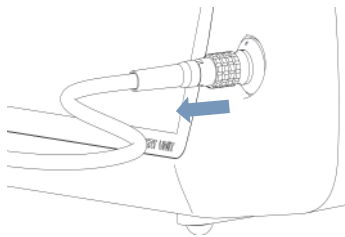
Do not forget to verify that the supply voltage is exactly same as the one mentioned on the control cabinet and the power switch is in the **Position 0**.



6.2. CONNECTION / DISCONNECTION OF THE MICROMOTOR

Align the red dot of the micromotor socket to the red dot of the connector on the front face of the cabinet and clipper :



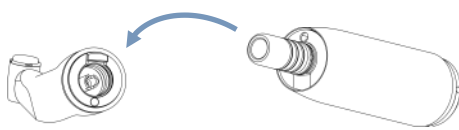


To disconnect, remove the safety mechanism in the following way :
Pull the mobile part of the connection in the direction of arrow.

⚠ Do not disconnect the micromotor cable from the console directly by pulling the cable!



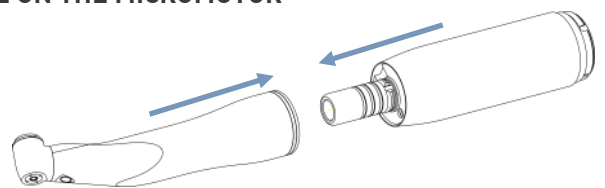
6.3. CONNECTION / DISCONNECTION OF A CONTRA-ANGLE ON THE MICROMOTOR



Engage the contra-angle on the motor nose.

Rotate the contra-angle on the motor nose until it is positioned correctly.

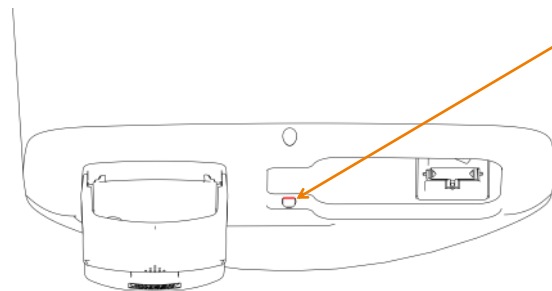
On the contra-angles opening, a small 'snap' confirms that the positioning is correct.



ATTENTION

The LED micromotor (Ref XP311L) is not compatible with LED contra-angles.

6.4. POSITIONING OF THE BRACKET AND THE BAG

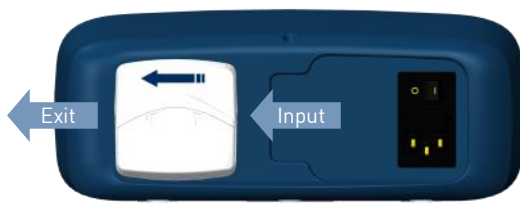


Orient the bracket plate with the plate at the rear of the cabinet.
The positioned bracket must not turn by itself.

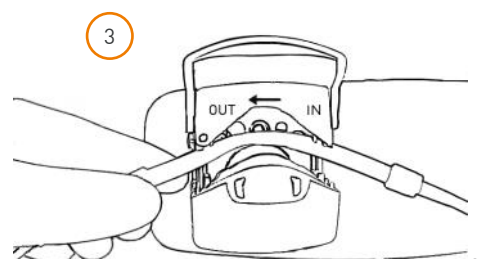
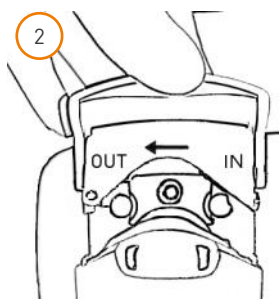
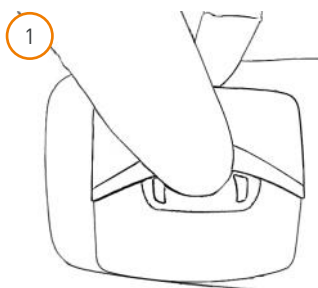
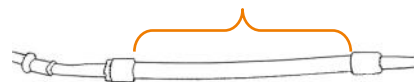
Suspend the bag of physiological liquid on the bracket.

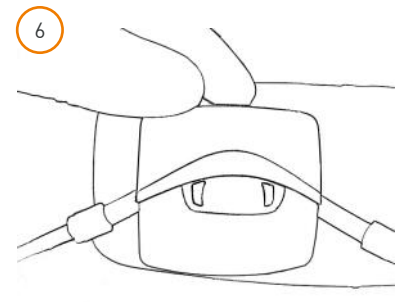
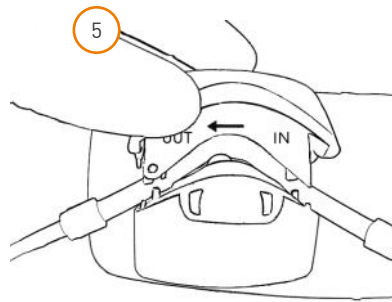


6.5. PLACEMENT OF THE IRRIGATION LINE IN THE PERISTALTIC PUMP



Part to be inserted in the pump





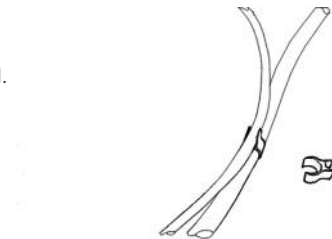
ATTENTION

Do not operate the pump, if the irrigation line is blocked or closed by a clamp.
Place the fluid to be pumped always above with respect to the pump, in order to ensure optimum operation of the latter.
Keep the rollers of the pump head and all the moving parts always clean and free of contamination and debris.
Do not open the guard when the pump is rotating.



6.6. PLACEMENT OF IRRIGATION CLIPS

Place the irrigation clips on the micrometer cable at regular intervals (between 15-20 cm).
Position the irrigation line along the micrometer cable by inserting it into the clips.



7. COMMISSIONING

7.1. POWER-UP

Set the power switch to **position I**



At startup, all the pictograms on the screen light up and the device emits a beep.

** The code Er02002 at startup means there is an anomaly with the date and time. The date and time synchronise automatically with the mobile app when you are connected.*

7.2. WIRELESS PEDAL CONNECTION

7.2.1 - At the 1st use

At unit startup, the pictogram  display means that the pedal is on standby.

Press on the pedal lever to quit the standby mode.

→ As soon as the pictogram  lights up, the pedal is ready to be used.

→ If the pictogram  remains lit up, proceed to pair the pedal with the unit (see section 7.2.3).

7.2.2 - When using daily :

At unit startup, after a few seconds, the pictogram  goes out and the pictogram  lights up.

If the pictogram remains lit after the unit startup, press on the pedal lever to quit the standby mode.

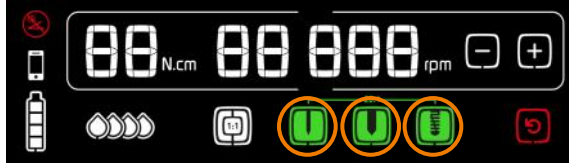
→ As soon as the pictogram  lights up, the pedal is ready to be used.

→ If the pictogram  remains lit up, proceed to pair the pedal with the unit (see section 7.2.3).

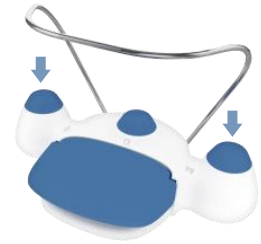


7.2.3 - How to pair the pedal with the unit

- 1 - Press on the pedal lever.
- 2 - Press the 3 green buttons on the screen at the same time.



- 3 - The logo  flashes until the pairing is complete (time to achieve pairing = about 30 sec)
 - 4 - Press the 2 end buttons on the pedal.
 - 5 - A beep at the console confirms the pairing : the logo  disappears and the logo  is displayed.
- If after all these actions, the pictogram remains lit, see the section "Anomalies and errors"



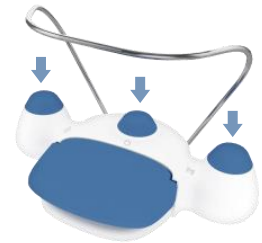
7.2.4 - How to place the pedal in extended standby.

If you don't plan to use your motor for an extended period of time (> 30 days), or you wish to transport it by air, placing the pedal in extended standby mode is recommended.

To do so, just press on the 3 pedal buttons simultaneously.

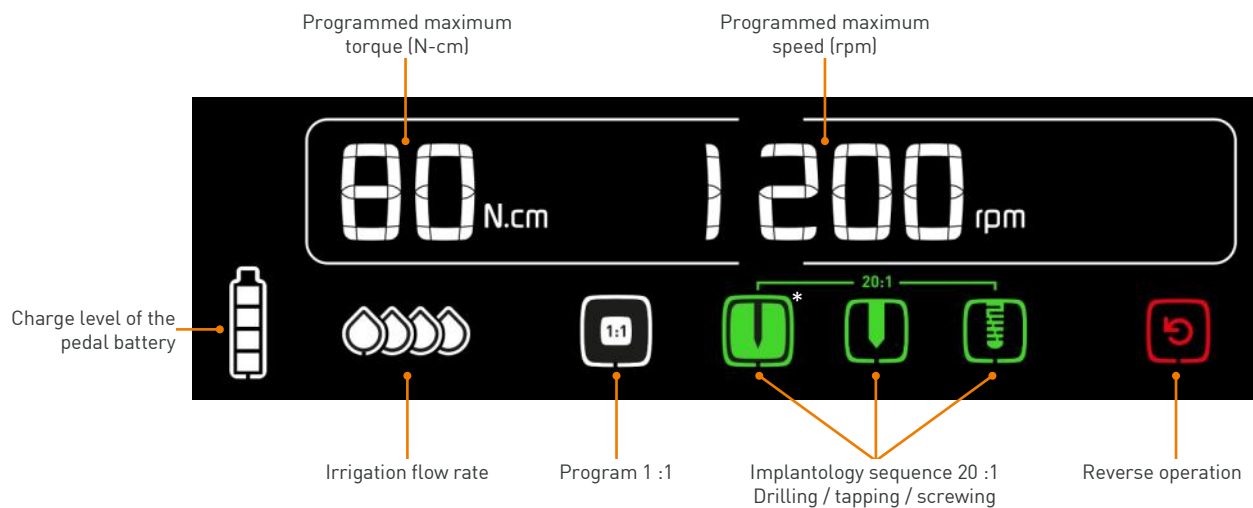
The persistent display of the symbol  on the screen confirms that the pedal is on standby.

To leave standby mode, just press on the pedal lever (see start of section 7.2.1).



8. USE

8.1. DEFINITION OF THE DISPLAY



* the coloured square indicates the current program.

Pump				
0%	25%	50%	75%	100%
				

Battery				
0%	25%	50%	75%	100%
				

8.2 PARAMETERS OF PROGRAMS (FACTORY SETTING)

To select a program on the screen, press on the pictogram of the selected program. For navigation to the pedal between the implantology sequence programs, see para. 8.5.

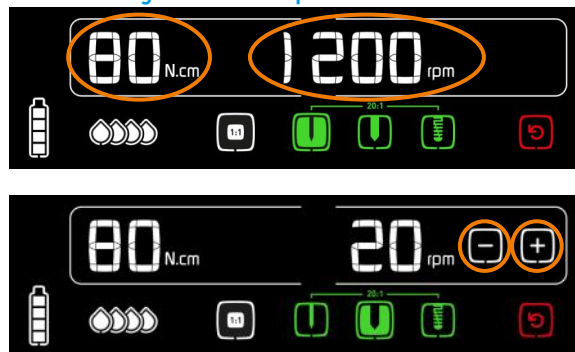
	In normal mode				In reverse mode			
	20 :1 Drilling	20 :1 Tapping	20 :1 Screwing	Ratio 1 :1	20 :1 Drilling	20 :1 Tapping	20 :1 Screwing	Ratio 1 :1
Speed (rpm)	1200	20	15	40 000	2000	40	30	15 000
Torque * (N.cm)	80	80	80	80	80	80	80	80
Direction of rotation	right	right	right	right	left	left	left	left
Pump	100%	100%	0%	100%	0%	0%	0%	0%
Display of the torque	NO	YES	YES	NO	NO	YES	YES	NO
Display of the speed	YES	YES	YES	YES	YES	YES	YES	YES
Beep	/	/	/	/	YES	YES	YES	YES

At the startup, the program "drilling" is active. The program parameters can be changed by following the instructions given below.

* The range of setting from 5 to 80 N.cm. These values are valid only for the contra-angles of the MontBlanc® Implant series (10400X-XL / 16400X-XL). **With these contra-angles, the accuracy of torque is $\pm 10\%$ for the range from 5 to 80 N.cm.**

8.3. SETTING THE VALUES OF SPEED / TORQUE / FLOW RATE

8.3.1 - Setting the rotation speed and the maximum torque



- 1 - Pressing on the parameter to be changed (speed or torque).
- 2 - The parameter starts flashing and the buttons +/- appear.
- 3 - Adjust the value of the parameter with the buttons + or -.
- 4 - Press on the parameter to validate. The parameter stops flashing.
- 5 - The parameter automatically stops flashing after 5 seconds and the set value is saved.

NOTE 1 : Value of the parameter is saved permanently for the program.

NOTE 2 : You cannot operate the pedal during the setting of the parameters.

8.3.2 - Setting the irrigation flow rate

For setting the irrigation flow rate, press on the pictogram

Each press increases the flow rate by 25% (display of an additional drop).



At 100%, an additional press makes the irrigation flow rate 0%.

To cut off the irrigation and reset to a given flow rate, use the ON / OFF function of the pedal. (See paragraph 8.5).

8.4. DISPLAY OF THE LAST TORQUE REACHED

The XPERT UNIT® motor allows you to validate the tightening torques to be saved. These torques will be exported with the mobile app XPERT UNIT® and used on the web portal.

Displaying and saving the tightening torques

In tightening mode, (button lit up) when the motor has stopped, the torque displayed is the maximum torque programmed (Screen A).



A



When the motor is rotating, the torque displayed on the screen is the instantaneous torque (Screen B).



B

When the motor stops, the last torque remains displayed **for 30 seconds**, before the display returns to the maximum torque programmed (Screen A).

* To re-display the last torque, **long** press on the torque shown on the setpoint screen (Screen A).

The last torque obtained is displayed with the active patient No. (Screen C).



C

When **long** pressing on the value of the torque, **the value of the torque is saved** (a confirmation beep is heard).

To return to the setpoint screen without saving the torque value with the patient number, press

Patient numbering

To make it easier to identify the saved torques, you can enter the patient number corresponding to the saved torques. This information will appear in the data exported with the mobile app.

To edit the patient number, press on the **PXX** area. This area will start flashing and the + and - buttons will appear.

Once adjusted, press on the **PXX** area to validate or wait 3 seconds without doing anything.



To return to the setpoint screen without saving the torque value with the patient number, press

You may also edit the patient number after the setpoint screen (Screen A) by pressing if this is already lit.



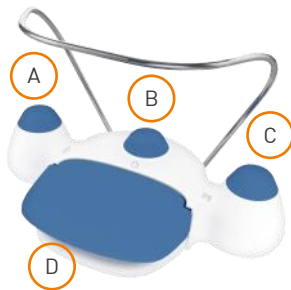
To return to the setpoint screen without saving the torque value with the patient number, press

IMPORTANT : EACH TIME THE PEDAL IS PRESSED, THE LAST TORQUE OBTAINED IS ERASED.

IMPORTANT : EACH TIME THE EQUIPMENT IS TURNED ON, THE PATIENT NUMBER GOES BACK TO P01.

8.5. USE OF THE PEDAL

Description of pressing different buttons and lever



Pressing lever (D)	Variation in the rotation speed of the micromotor
Pushing lever (D)	Illumination of the light for 3 seconds
Short pressing on the left button (A)	Irrigation ON / OFF (the flow rate set on the screen is preserved)
Long pressing on the left button (A)	Startup of the pump at the maximum flow rate without the micromotor rotating (rinsing function)
Short pressing on the middle button (B)	Activation / deactivation of the reverse mode
Long pressing on the middle button (B)	Torque reduction in 5 increments
Short pressing on the right button (C)	Moving from one sequence to the next
Long pressing on the right button (C)	Torque increase increased in 5 increments

8.6. BACKUP POWER FOR THE WIRELESS PEDAL



This pictogram symbolises the charge level of the battery of the pedal.

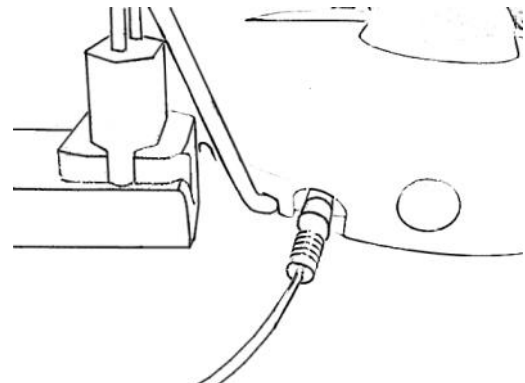
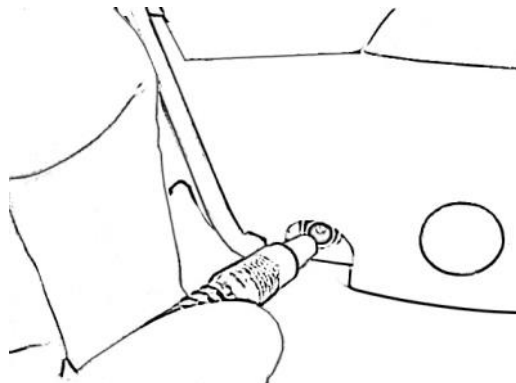


When the battery charge level has reached 25%, at least one day of use of the pedal will remain. The device beeps and the pictogram flashes, indicating the need to recharge soon (see instructions below).



When charge level of the battery reaches 0%, the device will beep every 30 seconds and it is not possible to use the motor. Recharge according to the following instructions.

8.7. RECHARGING THE PEDAL BATTERY



Connect the charging adapter to the pedal through the connector located at the rear of the pedal.
Connect the adapter to the mains to power it.



On screen, this logo is animated to indicate that the charging is in progress.



When this logo is displayed, the battery is fully charged.

→ The motor can be used in a normal manner during the charging of the pedal battery.

8.8 STOPPING THE MOTOR

At the end of the dental procedure :

- Set the switch to **position 0**.
- Remove the tool fixed to the contra-angle.
- Remove the bottle or the bag of physiological liquid from the bracket.
- Remove the drill of the irrigation line from the bottle or the bag of physiological liquid.
- Remove the clips for irrigation lines.
- Disconnect the contra-angle from the micromotor.
- Lay the micromotor on the micromotor support.



8.9 MEDICAL DEVICE LIFECYCLE

If used in a proper manner, the micromotor and its cable have a lifecycle corresponding to 250 cleaning and sterilisation cycles; the pedal has a lifecycle corresponding to 5 years of use.

However, these indications are not a warranty because wear may appear prematurely, depending on how the device is maintained (cleaning and sterilisation).



9. PARAMETER MANAGEMENT

ACTIVATION / DEACTIVATION OF AUDIO WARNINGS

List of audio warnings

Description	Can be deactivated
Weak battery	NO
Operating in reverse	NO
Programmed maximum torque reached	YES*
Validation of sending data to a connected device	YES*
Pairing of the pedal to the console	NO
Complete integrity at the startup of the console	NO

*To activate/deactivate audio warnings, press on the button REVERSE on illumination of the console.

10. CLEANING-DISINFECTION-STERILISATION

DANGER

Sterilisable products are supplied in non-sterile condition and are required to be decontaminated and sterilised before the first use as well as immediately after each use.

Use disinfectant products in accordance with the instructions given by their manufacturers.

The MDs that can be sterilised can withstand a temperature between 134 °C and 137 °C for 3 or 18 minutes following the laws of the country in force.

Remove the irrigation line and throw it in a safety container meant for soiled medical items (single-use irrigation line).

ATTENTION

Do not use any spray directly on the MD to clean it; preferable to use wipes.

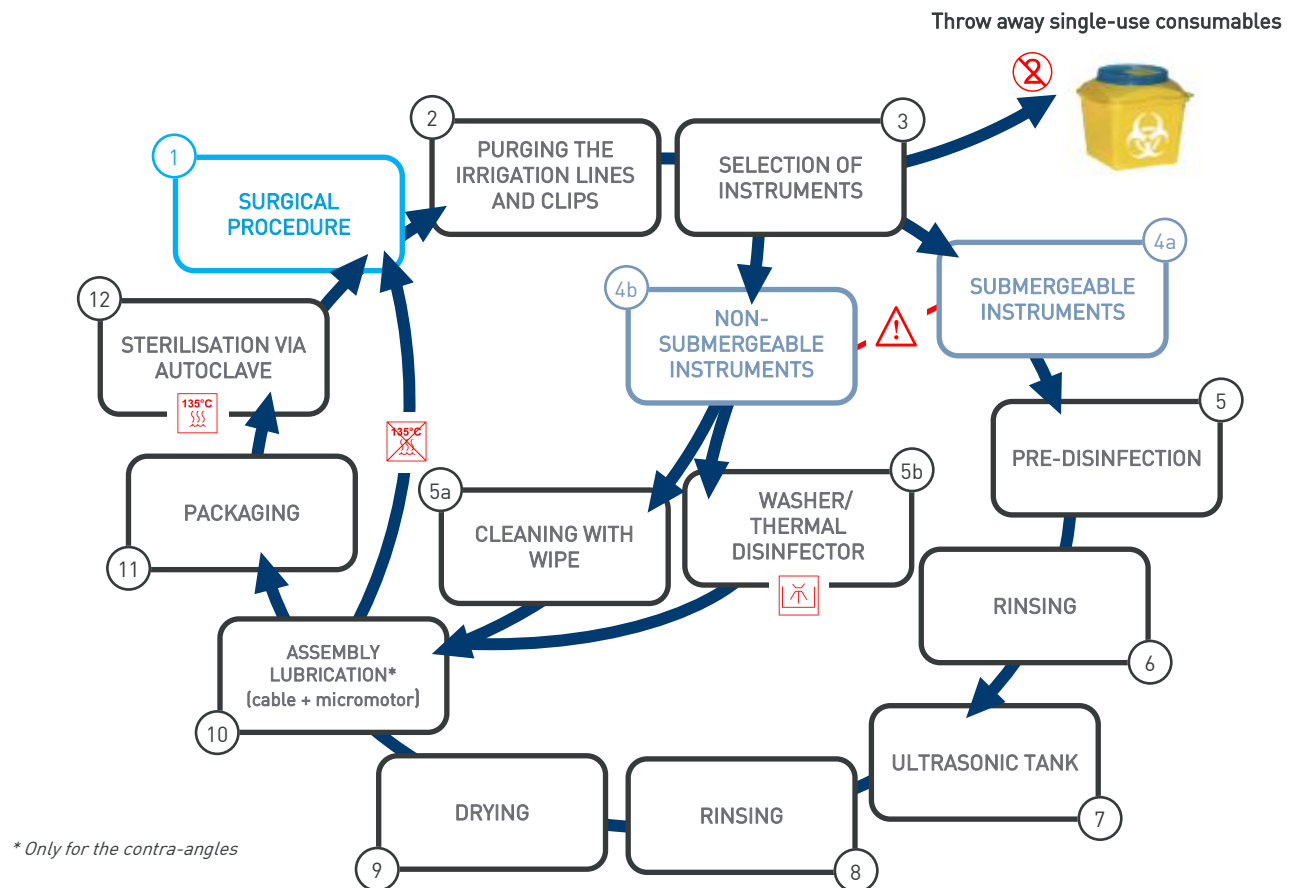
ATTENTION

Refer to additional instructions on the micromotor and micromotor cable for more information.

OVERVIEW OF MAINTENANCE

Single-use 	Thermodisinfected 	Disinfectable by wipes and non-sterilisable 	Disinfectable by wipes and sterilisable (no immersion) 	Disinfectable by immersion (ultrasound) and sterilisable 
♦ Bags of physiological liquid ♦ Irrigation lines ♦ Screen Protection ♦ Micromotor protection casing	♦ Micromotor ♦ Contra-angle	♦ Cabinet ♦ Pedal	♦ Micromotor cable ♦ Micromotor	♦ Bracket ♦ Motor support ♦ Clips for fixing the irrigation line ♦ Contra-angles of the MontBlanc®

CLEANING-DISINFECTION-STERILISATION CYCLE



11. CONDITIONS OF USE AND STORAGE

Conditions of use and operation	
Temperature	+10°C to +40°C [50°F to 104°F]
Relative humidity	15 to 80 %
Atmospheric pressure	70 to 106 kPa
Conditions of use and storage	
Temperature	-20°C to +70°C [-4°F to 158°F]
Relative humidity	5 to 95 %
Atmospheric pressure	70 to 106 kPa

12. WARRANTY

WARRANTY 24 months

- This device is guaranteed for parts and labour against any manufacturing defect for a period of 24 months from the date of invoice.
- This warranty does not apply to wearing parts.
- Any modification or addition to the product without the express consent of the company Anthogyr will nullify this warranty.
- The warranty will lapse in case of non-observance of the technical instructions provided with all our devices.
- Anthogyr cannot be held responsible for damages and their consequences resulting or possibly resulting from normal wear and tear, incorrect use, cleaning or maintenance, non-observance of the instructions regarding use or connection, scaling or corrosion, impurities in the water supply system, or chemical or electrical influences that are unusual or non-compliant with the user manual, maintenance and assembly instructions of Anthogyr and other instructions of manufacturers.
- The transport expenses for return of goods for repair at Anthogyr are to be borne by the customer, even if the repair is done under warranty.
- The warranty covers shipping costs for return of the items to the customer.
- In order to consider warranty claims, please keep a copy of the invoice or a copy of the delivery note along with the device.
- The MDs must be returned in cleaned and sterilised condition in a closed bag with proof of passage to the autoclave, the authentic coloured indicator, with a letter stating the reason for return.
- The renewal of spare parts is assured for 7 years after the commercial stoppage of the product.



13. MANUFACTURER'S RESPONSIBILITIES

The present instruction does not substitute instructions of peripheral products.

Anthogyr reserves the right to modify the device and/or the user manual without prior notice.

The following points, if not followed, will annul the responsibility of Anthogyr :

- All the recommendations of Anthogyr must be respected during installation (voltage supply, electromagnetic environment, etc.)
- The device must be used in an electrical installation conforming to the regulations in force.
- The use of this device must be restricted to the operation for which it has been designed.
- No modification, extension and setting as an afterthought, should be made by a third party or any other person.
- Opening and repairs can be carried out only by persons trained by Anthogyr or persons who have been authorised.
- Only original spare parts of Anthogyr must be used.
- The product must be used in accordance with the assembly, service and maintenance instructions.
- All the instructions contained in this document must be followed.

14. REGULATIONS

According to the standards ISO11498 and ISO7494, the device comes under the category of dental treatment devices.

This MD is classified as IIa according to European directive 93/42/EC.

This equipment is manufactured in conformity with the currently applicable standard pursuant to IEC60601-1.

This equipment has been designed and manufactured according to an ISO 13485 quality assurance system.

As an electrical and electronic equipment, disposal of the product must be carried out as per a specialised collection, removal, and recycling or destruction chain (particularly in the European market, with reference to the directive no. 2002/96/CE dated 23/01/2003).

When the product reaches its end of life, we recommend that you contact your dental equipment reseller, in order to know how to proceed.



The box, wireless pedal, micromotor, and the micromotor cable include components that must be treated as non residential waste.

ATTENTION

It is prohibited to throw the pedal into a domestic bin.

Put the pedal in a special container meant for the treatment of e-waste.

15. ANOMALIES AND FAULTS

This part is intended to help the user in case of problems.

In the event of abnormal operation (flickering screen, noisy pump motor, vibrating micromotor), immediately stop using the device and call the Anthogyr After-Sales Service. If it is not possible to locate or remove a problem with the help of this descriptive document, or if the malfunction signals still remain active, switch off the device and call the Anthogyr After-Sales Service. Don't attempt to disassemble the control cabinet, the motor or the control pedal.

DANGER

Never attempt to carry out repairs alone.

15.1. ERROR CODES AND MEANINGS

It is possible to remove the error message from the screen by pressing on it. In the event of a major problem, the cabinet restarts. If the error message reappears, please contact the Anthogyr After-Sales Service.

Error code	Description of the fault	Possible solutions
Er 02 001	♦ Torques as well as the system parameters (setting, error file) are not saved any longer. ♦ Check the different parameters of the sequences (speed, torque, flow rate)	The assembly can still be used. Contact the Anthogyr After-Sales Service for more information.
Er 02 002	♦ The date and time are incorrect ♦ The date and time can be updated using the mobile application. ♦ Attention : if the date and time are not correct, the retrieval of information using the mobile application will be inaccurate.	
Er 05 001	♦ The motor is still usable, but the pump runs the risk of not operating.	
Er 02 004	♦ The screen encounters operating problems ♦ The micromotor/pedal/micromotor assembly can still be used safely with the pedal to complete the ongoing care.	If the problem persists, do not use the motor / pedal / micromotor any longer. Contact the Anthogyr After-Sales Service for more information.
Er 02 005	♦ The touch bar encounters operating problems ♦ The micromotor/pedal/micromotor assembly can still be used safely with the pedal to complete the ongoing care.	
Er 02 006 Er 02 007	♦ Update the cabinet software using the mobile application	
Er 04 006	♦ Overheating of the micromotor. ♦ Let the micromotor be idle for 30 minutes to 1 hour so that it cools.	

Error code	Description of the fault	Possible solutions
Er 02 005 - Er 02 006 Er 02 007 - Er 04 001 Er 04 002 - Er 04 003 Er 04 004 - Er 04 005 Er 04 006 - Er 04 007 Er 04 008 - Er 04 009 Er 04 010 - Er 04 011 Er 04 012 - Er 05 001	♦ The electronics encounters a hardware or software failure	Do not use the micro-motor/pedal/ micromotor any longer Return to the Anthogyr After-Sales Service is mandatory



If it is not possible to locate or solve the problem with the help of different descriptive documents, switch off the device and call the Anthogyr After-Sales Service.

Depending on the error code, it is also possible to use the mobile application to send information to the Anthogyr After-Sales Service.

15.2. MALFUNCTION

Malfunction	Probable causes	Possible solutions
The micromotor does not rotate	♦ The micromotor is not connected to the cabinet ♦ The micromotor is jammed ♦ The pedal is not detected and no longer allows to interact with the cabinet.	♦ Ascertain that the cable is connected to the cabinet ♦ Mount a contra-angle with a tool of large diameter and try to rotate it ♦ See pedal problems below.
The pedal is not detected by the cabinet	♦ The pedal is not (or longer) paired with the cabinet / the pedal is of ♦ The battery is completely discharged	♦ Proceed to the pairing of the pedal (see section 7.2.3) ♦ Turn on the pedal (see section 7.2.1) ♦ Put the pedal for recharging
The battery logo indicates that recharging is not taking place (no animation)	♦ The battery does not get charged ♦ The charger is defective or assembled incorrectly	♦ Contact the After-Sales Service
After putting the pedal battery for charging, the battery logo is always flashing and the level has remained at 25%	♦ The battery does not get charged	♦ Contact the After-Sales Service
No spray or low flow rate, or leakage problem	♦ The flow rate of the pump is 0% or too low ♦ The irrigation line has not been placed correctly ♦ The irrigation line is defective or has been pinched*	♦ Adjust the flow rate of the pump on the screen ♦ Check the positioning of the line in the pump. ♦ Check the mounting direction of the line in the pump ♦ Change the irrigation line ♦ Use the Anthogyr irrigation line
The tool of the contra-angle does not turn	♦ Bad connection of the tool in the contra-angle ♦ The contra-angle has been damaged ♦ The motor is jammed	♦ Check the tool and its placement ♦ Change of contra-angle ♦ Check the integrity of the motor, if the cable is connected properly to the cabinet
The screen does not light up	♦ The power to the device has been switched off ♦ The fuses have blown ♦ The power socket is defective ♦ The differential circuit breaker of the electrical installation is OFF ♦ The power cord is defective ♦ The electronic card and/or the screen are HS	♦ Ascertain that the cabinet is attached properly to the mains and/or that the (I/O) button is on position I ♦ Replace the fuses (see §16) ♦ Change the wall socket ♦ Reset the differential circuit breaker of the electrical installation ♦ Replace the power cord ♦ Contact the After-Sales Service

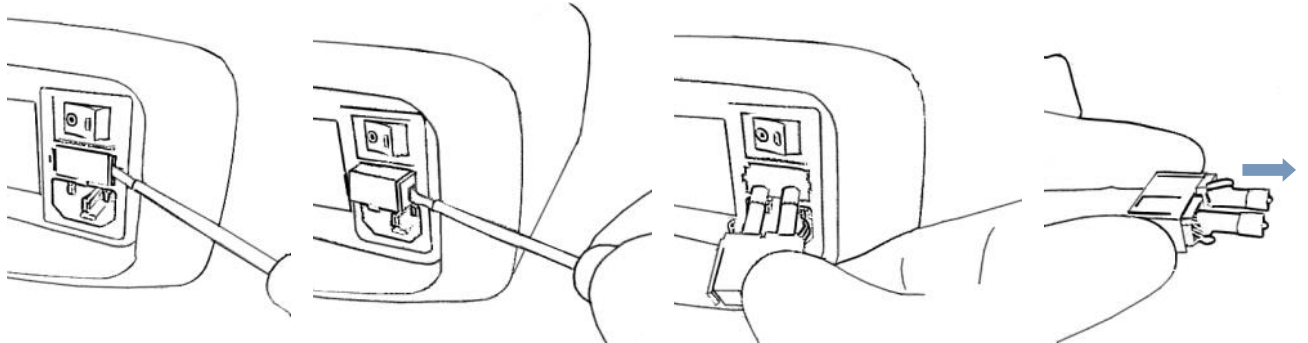
*The use of "compatible" or "adaptable" lines may generate malfunctions. Prefer the use of Anthogyr lines. [Ref. 11052-10 or 11052-5]

If it is not possible to locate or eliminate the problem with the help of above different descriptive documents, switch off the device and call the Anthogyr After-Sales Service.

Anthogyr After-Sales Service
Tel. : +33 (0)4 50 58 50 53
Fax. : +33 (0)4 50 93 78 60
contact@anthogyr.com



16. FEASIBLE TROUBLESHOOTING OPERATIONS BY THE USER



Checking and replacement of fuses.

- Switch off the cabinet with the ON / OFF button (I/O).
- Unplug the power cord from the wall socket.
- Unplug the power cord from the cabinet.
- Remove the fuse box located between the (I/O) switch and the power socket with a flat screwdriver.
- Take out the 2 fuses.
- Check the status of the fuses and, if necessary, change them (SPT Ø5x20-T5A-250 V with a breaking capacity of 1500A)
- Put back the 2 fuses in the box.
- Keep the box in place again.

DANGER

Don't attempt to disassemble the control cabinet, the motor or the control pedal.

17. AGENCY - TECHNICAL INSPECTION OF SAFETY



The XPert UNIT® motor for implantology and dental surgery must be subjected to technical inspection by a regular agency at least once in 3 years (unless the legislations of countries in force are different).

The technical inspection of safety must be carried out by an agency authorised by Anthogyr.

- | | |
|---|--|
| → Visual inspection of all the external parts | → Inspection of the pedal operation |
| → Measure the leakage current of the MD (cabinet + pedal) | → Inspection of the pump operation |
| → Measurement of the leakage current at the patient side | → Inspection of the screen operation |
| → Measurement of electrostatic discharge (ESD) | → Internal visual inspection, if external damages, signs of over-heating, abnormal noise or failures are observed. |
| → Inspection of the motor operation | |

Anthogyr After-Sales Service
 Tel. : +33 (0)4 50 58 50 53
 Fax. : +33 (0)4 50 93 78 60
 contact@anthogyr.com

18. ELECTROMAGNETIC COMPATIBILITY

- This product requires special precautions to be taken regarding electromagnetic compatibility. It must be installed and commissioned according to the instructions given in the paragraph "Connections/installation".
- Certain types of mobile telecommunication devices, such as mobile phones, are likely to interfere with this product. Therefore, it is not recommended to use them during the use of the MD.
- The separation distances recommended in this paragraph must therefore be followed.
- This product must not be used near or on another device. If this cannot be avoided, it is necessary to check prior to use its proper operation under the conditions of use.
- The use of accessories other than those specified or sold by Anthogyr as replacement parts, can result in increased radiation or decreased immunity of this product.

Français

English

Deutsch

Español

Italiano

Português

Nederlands

中国的

عربي

Directives and declaration of the manufacturer - Electromagnetic radiations		
The XPERT UNIT® motor is intended to be used in the environment specified below. It is advisable for customer or user of the XPERT UNIT® motor to ensure that it is used properly in such an environment.		
Radiation test	References of the standards	Compliance
RF radiations	CISPR 11 Group1 Class B	Speaker port : Group 1 Class B 10 m ♦ 30MHz - 230MHz = 30dBµV/m ♦ 230MHz - 1GHz = 37dBµV/m Input power : 240Vac / 50Hz Limits : Group 1 Class B 0.15MHz to 0.5MHz ♦ 66 to 56dBµV QP / 56 to 46dBµV AV 0.5MHz to 5MHz ♦ 56dBµV QP / 46dBµV AV 0.15MHz to 0.5MHz ♦ 60dBµV QP / 50dBµV AV
Harmonic radiations	IEC 61000-3-2	220Vac 50Hz access : Limit Class A
Voltage fluctuation / flickers	IEC 61000-3-3	230Vac 50Hz access : PST <1 PLT > 0.65
The motor XPERT UNIT® uses RF power only for its internal functions. Therefore, its RF radiations are very low and are not likely to cause any interference in nearby electronic equipment. XPERT UNIT® motor is suitable for use in all premises, including domestic premises and those directly connected to the low-voltage public electricity supply network feeding the buildings for domestic use.		

Directives and declaration of the manufacturer - Electromagnetic immunity			
The XPERT UNIT® motor is intended to be used in the environment specified below. It is advisable for customer or user of the XPERT UNIT® motor to ensure that it is used properly in such an environment			
Radiation test	References of the standards	Compliance	Electromagnetic environment - directives
Off-peak period of power, short interruptions and voltage fluctuations in electrical power supply input lines	IEC 61000-4-11	AC power supply : 240Vac @50Hz ♦ 0% U_T : 0.5 cycle at 0 °, 45 °, 90 °, 135 °, 180 °, 225 °, 270 °, 315 ° (criterion A) ♦ 0% U_T : 1 cycle - Single phase at 0 ° (criterion A) ♦ 70% U_T : 25 cycles - Single phase at 0 ° (criterion A) ♦ 0% U_T : 250 cycles (criterion C)	It is advisable that quality of the electricity supply network is that of a typical commercial or hospital environment. If user of the XPERT UNIT® motor requires continuous operation during interruptions in the electricity supply network, it is recommended to power the XPERT UNIT® motor from an uninterrupted power supply or a battery.
Conducted RF disturbances	IEC 61000-4-6	Effective 3V from 150kHz to 80 MHz (criterion A)	It is advisable that portable and mobile RF communication devices should not be used near any part of the XPERT UNIT® motor, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance : $d = 1.2 \sqrt{P}$
Electrostatic discharges	IEC 61000-4-2	±8kV at the contact ±2kV, ±4kV, ±8kV, ±15kV in the air (criterion B)	It is advisable that the floor is made of wood, concrete or ceramic tiles. If floors are covered with synthetic materials, then the relative humidity should be at least 30%.
Fast transient bursts	IEC 61000-4-4	AC power supply : ±2kV (100Hz) / 240Vac @50Hz DC power supply : ±2kV (100Hz) Line input / output : ±1kV (100Hz) (CriterionB)	It is advisable that quality of the electricity supply network is that of a typical commercial or hospital environment.
Magnetic field at the electrical power supply network frequency (50/60 Hz)	IEC 61000-4-8	Level : 30A/m (50Hz) (Criterion A)	It is advisable that the magnetic fields at the electrical power supply network frequency have characteristic levels of a representative location in a typical commercial or hospital environment.
Radiated RF disturbances	IEC 61000-4-3	3V/m from 80MHz to 2.7GHz (Criterion A)	Recommended separation distance : ♦ $d=0.4\sqrt{P}$ from 80 MHz to 800 MHz ♦ $d=0.7\sqrt{P}$ from 800 MHz to 2.5 GHz where P is the characteristic of maximum output power of the transmitter in watts (W), according to the manufacturer of the transmitter and d is the recommended separation distance in metres (m). It is advisable that the field intensities of fixed RF transmitters, determined by an electromagnetic investigation on site^a, are below the level of compliance in each range of frequencies^b. Interferences may occur close to the device marked with the following symbol : 
Surge voltage	IEC 61000-4-5	AC power supply : 240Vac @50Hz ♦ ±0.5kV, ±1kV, ±2kV between phase and earth ♦ ±0.5kV, ±1kV, between phases DC power supply : ♦ ±0.5kV, ±1kV, ±2kV between phase and earth ♦ ±0.5kV, ±1kV, between phases Line input / output : ±2kV (criterion B)	It is advisable that quality of the electricity supply network is that of a typical commercial or hospital environment.



Recommended separation distances between portable and mobile RF communication devices and the XPERT UNIT® motor			
XPERT UNIT® motor is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. Customer or user of the XPERT UNIT® motor can contribute to prevent electromagnetic interferences by maintaining a minimum distance between the portable and mobile RF communication devices (transmitters) and the XPERT UNIT® motor as recommended below, depending on the maximum transmission power.			
Rated maximum output power of the transmitter in W	Separation distance depending on the transmitter frequency (m)		
	From 150kHz to 80MHz $d = 1.2\sqrt{P}$	From 80MHz to 800MHz $d = 0.4\sqrt{P}$	From 800MHz to 2.7GHz $d = 0.7\sqrt{P}$
0.01	0.12	0.04	0.07
0.1	0.38	0.13	0.22
1	1.20	0.40	0.70
10	3.80	1.30	2.20
100	12.00	4.00	7.00

For transmitters for which the rated maximum output power has not been given above, the recommended separation distance "d" in metres (m) can be estimated by using the equation applicable to the transmitter frequency, where 'P' is the characteristic of maximum transmission power of the transmitter in watts (W), according to the manufacturer.

NOTE 1 : U_r is the AC voltage of the network before application of the test level.

NOTE 2 : At 80 MHz and at 800 MHz, the higher frequency range applies.

NOTE 3 : These directives may not apply in all situations. Electromagnetic propagation is affected by the absorption and the reflection by structures, objects and persons.

^a The field intensities of fixed transmitters, such as the base stations for the radio phones (cellular / wireless) and land mobile radios, amateur radio, AM and FM broadcasting and TV broadcasting, cannot be provided theoretically with accuracy. To evaluate the electromagnetic environment due to fixed RF transmitters, it is advisable to consider an electromagnetic investigation on site. If intensity of the field, measured at the location where the XPERT UNIT® motor is used, exceeds the applicable RF compliance level as above, it is advisable to monitor the XPERT UNIT® motor to verify that its operation is normal. If abnormal performances are observed, then additional measures may be necessary, such as reorientation or relocation of the XPERT UNIT® motor.

^b Over the frequency range from 150 kHz to 80 MHz, it is advisable that field strengths are less than 3 V/m.

19. REFERENCE

Reference	Description
XP000	XPERT UNIT motor without light
XP000L	XPERT UNIT motor with light
XP000L-P	XPERT UNIT motor with light
XP010	XPERT UNIT motor without light + 10400X contra-angle
XP010L	XPERT UNIT motor with light + 10400X contra-angle
XP020	XPERT UNIT motor without light + 16400X contra-angle
XP020L	XPERT UNIT motor with light + 16400X contra-angle
XP411	Motor support
XP412	Clips for hanging of the irrigation line (x 10)
XP311L	LED Micromotor
XP311	Non-LED Micromotor
XP312	Micromotor cable
XP313	Micromotor XPERT UNIT non LED + cable
XP313L	Micromotor XPERT UNIT LED + cable
XP216	AC/DC charging adapter 8W-5V (INPUT : 100-240VAC; 0.4A; 50-60Hz / OUTPUT : 5.0VDC; 1.6A)
XP415	Bracket
11053	Screen protection film
11054	Micromotor protection casing
11052	Irrigation line for bag or bottle
16400XL	Implantology contra-angle light XS
16400X	Implantology contra-angle XS

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