HYDRO INJECTOR II

Operation manual



DAOL MED
MEDICAL DEVICE & AESTHETIC

HYDRO INJECTOR II

Before use

-. Users should read this manual thoroughly to be well informed with safety and usability

-. If customers use the medical device such as Hydro Injector II inappositely, it cause the side effect or problem.

-. To take proper precautions and note the potential danger, refer to the pictures of operation manual.

-. Do not disassemble or remodel autonomously and it cause the problem.

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HYDRO INJECTORⅡ

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HYDRO INJECTORII

Components

①



② Main device

②



② Hand Piece

③



③ Power cable

④



④ Foot switch

⑤



⑤ Syringe holder(1/2/3/5/10CC) 2EA

⑥



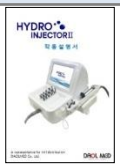
⑥ Suction tube
(connected to needle and hand piece)

⑦



⑦ Clean bottle

⑧



⑧ Operation manual

⑨



⑨ 9 Pin Needle Tip 3EA
Needle length of adjustable type :
max 3mm

Structure

Front view



NO	Name	Function
①	**Main device**	To set value, language and connect the hand piece
②	**Control Display Screen**	To set Mode, shot count and suction power level
③	**Hand piece**	To install the syringe and needle
④	**Connector of hand piece**	To connect hand piece to main device
⑤	**Syringe holder**	To hold the syringe of each CC (1/2/3/5/10CC)
⑥	**Pusher**	To push the solution of the syringe
⑦	**Pusher button**	To forward or reverse pusher manually
⑧	**Needle tip**	9pin needle for solution injection
⑨	**Inhalation tube**	Connector to connect needle and hand piece (Suction tube)
⑩	**Syringe connector**	To hold the syringe

Structure

Rear view



NO	Name	Function
①	**Power button**	"I": ON "O": OFF
②	**Filter bottle**	To filter the foreign substance for main device protection and clean
③	**Power cable connector**	Power cable connector for operation (110V~240V / 50Hz, 60Hz)
④	**Foot switch connector**	To connect the foot switch to main device
⑤	**Fuse**	Fuse specification : 250V 3A, 2EA

Structure

Control Display Screen



NO	Name	Function
①	**MODE**	How to use hand piece 1. Continuous : Solution can be injected as much as users want 2. Filler : For high viscosity solution 3. Dose : For low viscosity solution 4. Auto-Dose : Solution is injected automatically 5. Normal-Shot : Injection of solution without suction. It is for scalp or other parts which do not need suction.
②	**SHOT COUNT**	Setting shot count (10 ~300 shots)
③	**SYRINGE**	Setting syringe (1/2/3/5/10CC)

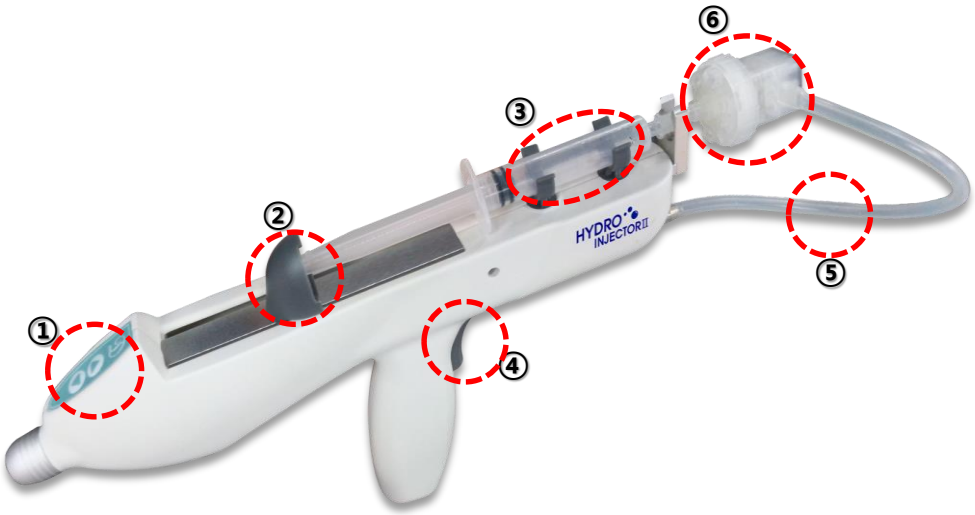
Structure

Control Display Screen

NO	Name	Function
④	**REVERSE**	Level setting to reduce solution loss (1/2/3/4/5) 1=Move back 5% of pusher travel distance 2=10% 3=15% 4=20% 5=25%
⑤	**SUCTION POWER**	Suction power setting (1/2/3/4/5)
⑥	**LANGUAGE**	Language selection (English/Chinese/Russian)
⑦	**Gauge**	To show the remained solution
⑧	**CLEAN**	Clean function mode to avoid malfunction of device (14Page)
⑨	**RE**	RESET button : Hand piece reset
⑩	**M1, M2, M3**	3 Memory function (Hold for 3 seconds) To save the CC and shot count
⑪	**Used amount**	Indication of used solution
⑫	**Pusher button**	To forward
⑬	**STANDBY /READY**	STANDBY : Function setting available READY : Operation mode

Structure

Hand piece



NO	Name	Function
①	**Pusher button**	To forward or reverse pusher manually
②	**Pusher**	To push the solution of the syringe
③	**Syringe connector**	To hold the syringe
④	**Shot button**	Button for shot (Continuous, Filler, Dose, Normal Shot, without Auto-Dose)
⑤	**Suction tube**	Tube for suction and clean function
⑥	**Needle tip**	9Pin needle tip

Installation

①



② Connect the power cable to back side of device

②



② Connect the foot switch to back side of device

③



③ Connect the hand piece to connector marked red. For disconnection, hold the low red mark and pull it out.

④



④ Connect the syringe to holder (connect the right CC of syringe)

⑤



⑤ Install the syringe to hand piece

⑥



⑥ When needle is installed to hand piece, the end line should be shown above image.

Precaution

Connect the hand piece cable before turning on.
(It causes the malfunction.)
If needle setting position is wrong, the injected solution amount can be different.

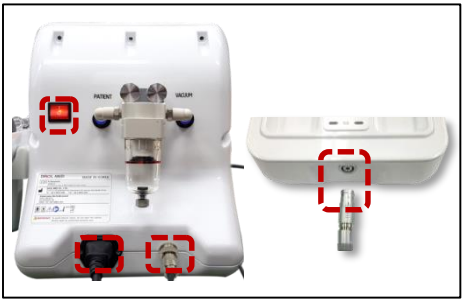
How to use

Power ON and operation

① **After connecting hand piece cable, power cable, foot switch, turn on the power.**

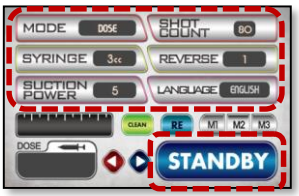
(I: ON, O: OFF After power on, you can see the red color 110V ~ 240V / 50Hz, 60Hz)

①



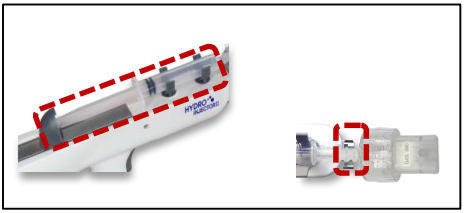
② Mode setting of Control Display Screen, Shot count setting, Syringe size setting, Suction power setting.

②



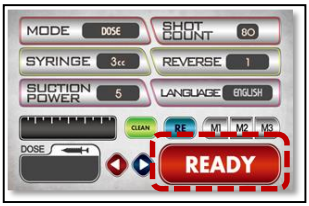
③ Connect the syringe and needle to hand piece.

③



④ If STANDBY button is pressed of Control Display Screen(②), READY mode is turned and it means ready to operation.

④



Precaution before/after use

※ Users always should be careful of safety and follow the procedure of operation manual.

Preparation before use

1. Before use, read this manual and be well informed of precaution.
2. Check the proper temperature and humidity for stable treatment.
3. Check if power switch is OFF.
4. Power cable should be connected to ground.
5. Install the device in place where no explosive materials to avoid electric spark.
6. Do not put the liquid which can affect the device.
7. Install in a place where air calculate is available and avoid corner or shelf.
8. Before using accessories, check the disinfection of accessory.
9. Use the rated voltage by manufacturer.
10. Connect the power cable to power socket.
11. Connect main device and hand piece.
12. Wear the gloves sterilized.
13. Prepare the syringe which is connected sterilized needle.

Precaution before use

1. Use the device under doctor's prescription and guide.
2. Be careful about the precautions for use according to the prescription of the specialist and the fatal side effects caused by careless use.
3. Check the precaution about the patient condition.
4. Only an expert is allowed to use this device.
5. While installing the device, check the follow.

-. Install in a place where there is no water.
-. Install the device in a place where there is no effect by atmospheric pressure, temperature, humidity, ventilation, sunlight, dust, salt, air including ion.
-. Be careful about safety conditions such as slope, vibration, shock, etc.
-. Do not install the device in a place where there is chemical drug or gas generating
-. Note the power frequency, voltage and allowable current (or power consumption) Power cable should be connected to ground and check the connected plug and electrical outlet.
-. Follow the voltage 110V~240V / 50Hz, 60Hz.
-. Needle and syringe should get license and certificate.

6. Precaution before use

-. Check switch, polarity, device setting, meter and if the device works properly.

-. The hospital should be careful as wrong operation cause the risk.

-. Before use, check if the device is set well and make the environment of normal using such to avoid fall or damage.

-. Users must use the applicable syringe or needles of operation manual.
-. The syringe or needles which are not applicable, it cause the injury to patient due to needle removal

Precaution during operation

1. While connecting sterilized syringe and needle, if the connection is not tight, solution can
   be leaked so check the connection between syringe and sterilized needle.
2. If the suctioned solution is sucked into the device, it may cause the malfunction, users
   regularly check the filter.
3. Considering using time, hand piece needs to be clean 1 or 2 times a week with clean function. (Refer to 14 page)
4. If the abnormality is found, users take proper action for example let the patient be safe and stop the device.
5. Patients who are implanted with a pacemaker or pacemaker electrode may be affected by pacemaker function and may cause ventricular fibrillation and should be used with caution.
   In general, this device should not be used in conjunction with devices that are involved in the life support of the human body such as pacemakers.
6. Check the ground condition and do not touch the power plug with wet hand.
7. In case of failure, after taking first aid, ask engineer about repair.
8. Flammable materials should be kept away from the sparking range and should be used after confirming that they are far apart.



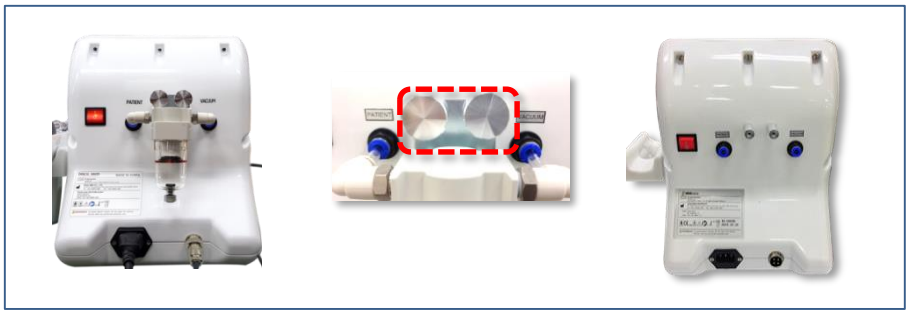
Precaution

The needle is a disposable E.O gas sterilized product and take needle out from the sterilization bag. (Do not reuse)

Storage and maintain

Clean function

1. Release the screw of back side of device and disassemble the hose.
   (To disassemble hose, the hose should be pulled out by pressing the blue part)



2. Connect the bottle to main device by matching Patient, Vacuum between bottle and device.



Storage and maintain

Clean function

3. Prepare the 800cc warm water in the bottle, put the suction tube of hand piece into the water.



4. Press clean button of control display screen 3 times then suction will be started and wait until the warm water is suctioned fully.



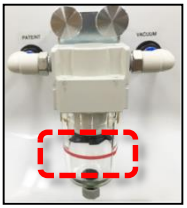
5. Repeat No.3 and 4 minimum 3 times.
(Empty the bottle after each clean function.)

6. After repeating clean function 3 times, stop the clean function by pressing the clean button.

7. After disassembling bottle, assemble the filter in reverse order of No.1

Filter management

-. The foreign substance is over the red line of filter, device might get damage so disassemble the filter by turning the filter anti clockwise and clean it.
(In case of ring loss, device can not work properly)



Note

Note		Contents
① **Model name**		Hydro Injector Ⅱ
② **Manufacturer's address**		DAOL MED 4F, Yongmasan-ro 434, Jungnang-gu, Seoul, Republic of Korea, 02189
③ **Country and company**		Korea, DAOL MED
④ **Serial number, the date of production**		Mention after production
⑤ **Weight and packing unit**		1 set
⑥ **Function and how to use**		Refer to the operation manual
⑦ **Precaution for use**		Refer to the operation manual
⑧ **Other information**	1) Frequency	50Hz, 60Hz
	2) Rated voltage	AC 110V ~ 240V
	3) Max Power of consumption	60VA
	4) Fuse specification	250V 3A 2EA
⑨ **This device is for medical use**		