

Blooming your face _____

IntroFill™



Auto Injection System

INTROFILL INJECTOR

IntroFILL USER MANUAL

Contents

1. Product Overview

1.1 Introduction

1.1.1 Overview

1.1.2 Operation principle

1.1.3 Electrical Ratings

1.1.4 Protection Type and Degree for Ratings

1.1.5 Safety Device

1.1.6 Operating System Diagram

1.2 System Component

1.2.1 Product Component

1.2.2 Product Component and function

2. System Operation

2.1 Preparation before use

2.2 Order of use

2.3 Installation directions

2.4 Touch Screen functions

3. Storage Management

4. Cleaning Air filter

5. Cleaning Inside machine

6. How to change gun's tube

7. Other Caution

1. System Overview

1.1 Introduction

1.1.1 Overview

IntroFiLL is a power tool to inject a medicinal fluid to a patient in a constant pace.

1.1.2 Operation Principle

This device receives power from its power input section, and is controlled by buttons of control section (power switch, touch screen). It helps inject a medicinal fluid into skin by operating hand piece and suction motor in installation section.

1.1.3 Electrical Ratings

- 1) Rated Voltage : AC 90-264 VAC
- 2) Frequency : 47-63Hz
- 3) Power Consumption : 264W

1.1.4 Protection Type and Degree for Ratings

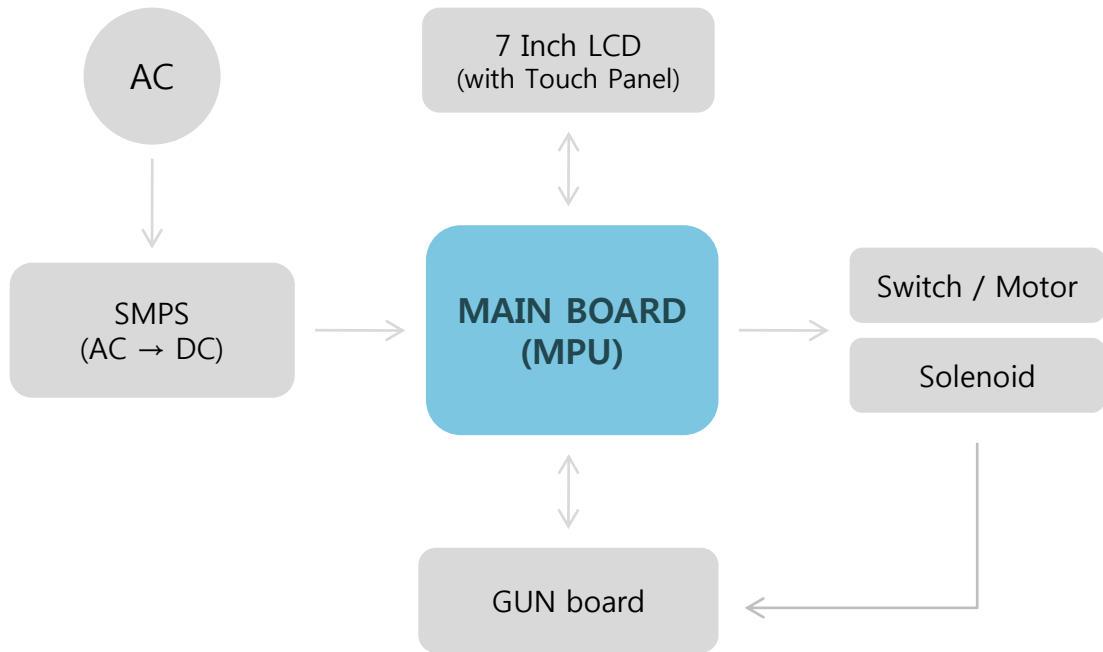
Grade 1 Device

1.1.5 Safety Device

- 1) Overcurrent prevention FUSE(SMPS)
- 2) In case of overcurrent to the injection motor, the device will stop and ring an alarm.

1. System Overview

1.1.6. Operating System Diagram



Classification	Function
Power input section	A section that receives AC power input and supplies DC power
Display Section	Display of user input/output and LCD
Control Section	section that adjusts suction pressure by controlling the motor and SOLENOID, and controls the operation of GUN, in accordance with the input and output of display section.
GUN Section	Fill in a medicinal fluid, and use DC motor to inject it in an arranged setting.

1. Product Overview

1.2 System Component

1.2.1 Product Component



① Main Body



② Gun Board



③ Air Filter



④ Cleaning bottle Hose



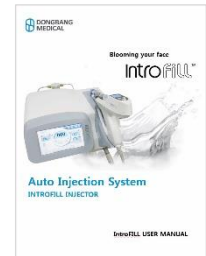
⑤ AC Power Cable



⑥ Cleaning Bottle



⑦ Silicon hose



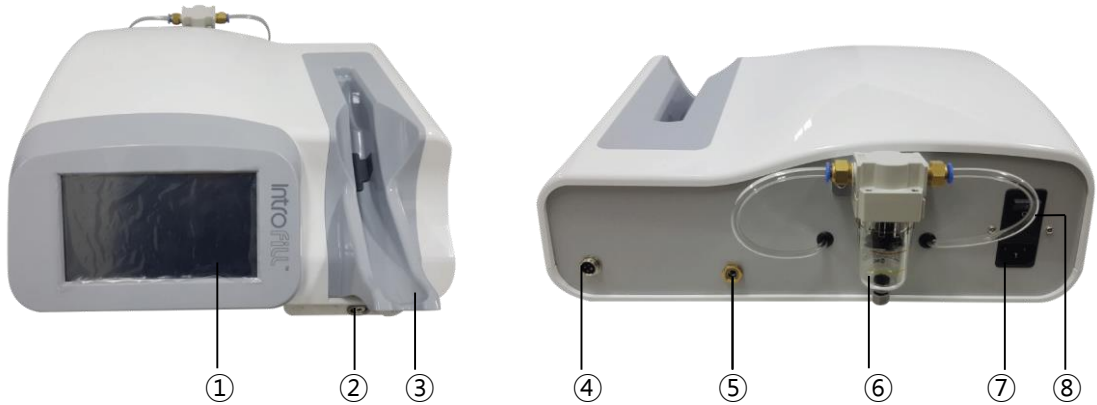
⑧ User's Manual

No.	Component	EA
①	Main Body	1
②	Gun Board	1
③	Air Filter	1
④	Cleaning Bottle Hose	2
⑤	AC Power Cable	1
⑥	Cleaning Bottle	1
⑦	Silicon Hose	10
⑧	User's Manual	1

1. Product Overview

1.2.2 Product Component and Function

< Main Body >



No.	Name	Function
①	Screen	Controlling the operational command of the device
②	Gun's Connector Socket	Connecting injector gun to the main body
③	Gun's Holder	Holding injector Gun
④	Cable Connector Socket	Connecting the cable to the main body, enabling data input / output on PC
⑤	Out Air Hole	Outlet of flow backward wastes inside the machine
⑥	Air Filter	Refluxed drug reservoir
⑦	Power Connector	Connecting to power cable
⑧	Power Switch	Power ON/OFF Switch

1. Product Overview

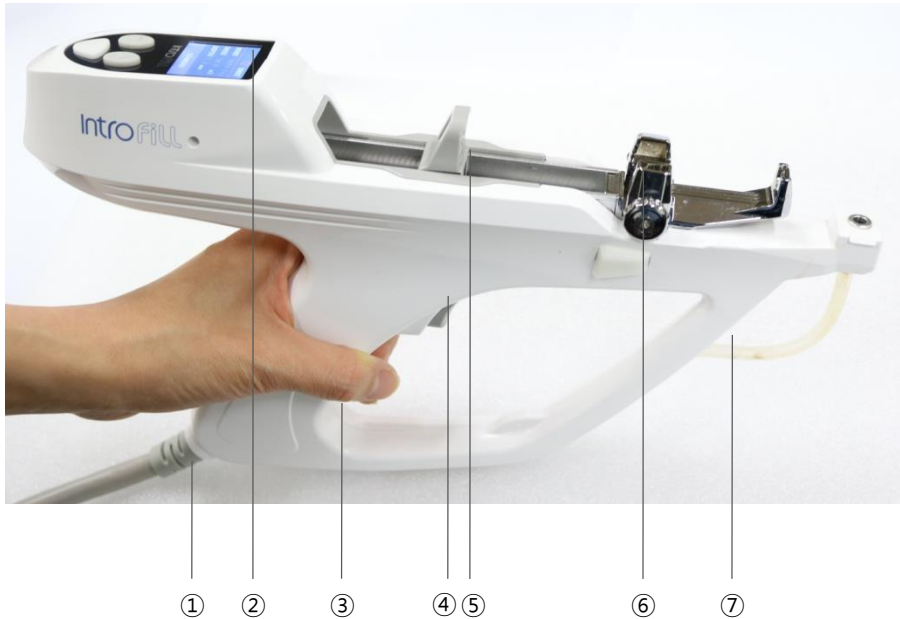
< Gun - part1 >



No.	Name	Contents
①	LCD Screen	Indicate total shot count
②		Indicate selected Mode : DOSE, CONTINUE, Auto Inject
③		Indicate selected DOSEGE
④		Indicate selected needle depth
⑤		Indicate Ready / Stand-by
⑥	BACKWARD	Move the syringe shaft backward
⑦	FORWARD	Move the syringe shaft forward
⑧	Stand by	Ready / Stand by

1. Product Overview

< Gun - part2 >



No.	Name	Functions
①	Gun Cable	Connecting gun to main body
②	LCD Screen	Checking the status of treatment
③	Holder	Gun's holder
④	Injector Trigger	Operating ON/OFF
⑤	Piston Holder	Holding the piston
⑥	Syringe Holder	Holding the syringe
⑦	Vacuum Tube	Sucking foreign objects by tube

2. System operation

2.1 Preparation before use

- 1) Put sterilized gloves on.
- 2) Prepare a syringe with a medicine-injected needle attached.

2.2 Order of use

- 1) Move back the syringe holder of the injector in order not to disturb the attachment of a syringe.
- 2) Attach a syringe to the injector and move the syringe holder to an appropriate position.
- 3) Attach a needle and other components needed to the syringe.
- 4) Turn on the power switch at the back of the main body, and check the LCD at the front being activated.
- 5) Set a syringe capacity, dose, operation mode, depth and pace using touch input.
- 6) Change the status to "Ready" by pushing the Standby button.
- 7) Use the trigger of the handpiece to inject the medicine to the patient.

2. System Operation

2.3 Installation directions

2.3.1 Install Air filter



>>



>>



Install air filter by screw on the back side of main body.

After install filter, linking two part of connecting hose as like image.
(Make sure the hose not fall out, it must be fit in to end of hole exactly)

2.3.2 Install Syringe/ Needle Tip



>>



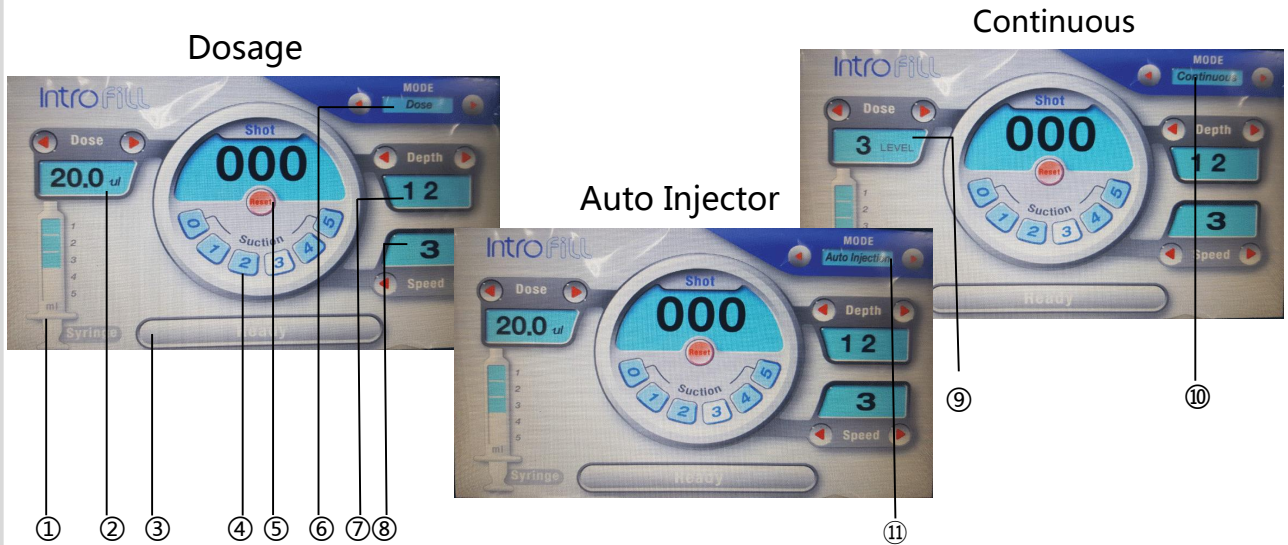
>>



Prepare the tip and syringe >> Linking the tip and syringe, then install to Gun >> Fixed attachment by syringe and Piston holder's controlling

2. System Operation

2.4 Touch Screen Function



No.	Function
①	Setting the syringe capacity (1ml, 3ml, 5ml)
②	Setting each DOSE syringe in micro liter unit
③	Ready to "Shot" in "Ready" status
④	Setting the pressure of the suction pump (0: suction off, 1~4: suction pressure change)
⑤	SHOT COUNT RESET
⑥	Selecting MODE (DOSAGE)
⑦	Setting the injection depth of the needle (0.2~4.0mm, 0.2mm step)
⑧	Setting the pace of syringe push bar (1~5)
⑨	CONTINUOUS Mode – Setting the dosage(ml) per minute of medicine in the syringe (1ml/min, 3ml/min, 5ml/min)
⑩	Selecting MODE (CONTINUOUS)
⑪	Auto Injector Mode – the device constantly repeats needling and suction in 3 seconds interval.

2. System operation

<Dosage Table>

* Dosage and shot count by syringe size

No.	1cc		3cc		5cc	
	Dose (ul)	Shot	Dose (ul)	Shot	Dose (ul)	Shot
1	5.0	200	10.0	300	10.0	500
2	5.6	180	12.5	240	11.1	450
3	6.3	160	14.3	210	12.5	400
4	7.1	140	16.7	180	14.3	350
5	8.3	120	20.0	150	16.7	300
6	10.0	100	25.0	120	20.0	250
7	12.5	80	33.3	90	25.0	200
8	16.7	60	50.0	60	33.3	150
9	25.0	40	66.7	45	50.0	100
10	50.0	20	100	30	100	50
11	100	10	200	15	200	25

- NOTICE : Must be use level 1 speed, due to over 100ul inject one time.

<Continuous Mode>

Type	Dose
1cc	1ml/min, 3ml/min, 5ml/min
3cc	
5cc	

3. Storage management

1. Turn off the main power
 2. Make used needle tip and syringe separate from the gun and dispose.
 3. Detach all the accessories such as Gun, Adaptor, Cables, from the main body and organize.
 4. Using alcohol gauze, clean all the foreign object on the device.
 5. Storage cool and dry place
 6. Must cleaning inside the machine after check air filter in every session of treatment
(Refer to below cleaning method)
- * NOTICE : If not cleaning air filter often it may cause of break down. In this case we do not cover warranty valid.

4. Cleaning Air filter



1. Turn the air filter anticlockwise direction and separate it.
2. Separate air filter from the main body then clean it and make it dry.
3. After dry air filter, install in reverse order as same way of separation.
4. Turn on the machine and check the vacuum's condition.

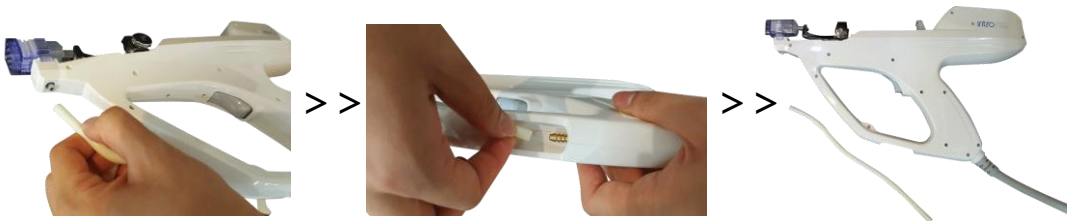
5. Cleaning Inside Machine



1. Prepare the cleaning bottle.
2. Separate air filter's both hose, and connecting cleaning bottle's hose.
(Push the blue rubber ring and pull it out when the hose's separation.)
3. Turn on the vacuum and start cleaning by tepid water. (Vacuum level 5, during 1minute)
4. Detach cleaning bottle's hose and reconnect air filter's hose to the main body.
5. Check the full function of machine.

6. How to change gun's tube

When the tube clogged by foreign object it should be change the gun's tube as like below the picture.



7. Other Caution

1. Inappropriate use of the device might lead to inappropriate treatment. Please be careful with the use of the device and a disposable sterilized needle, and contact instantly in case of abnormal functioning of the device.
2. Do not operate the device arbitrarily in case of malfunction or disorder of the device. Please turn the power off and contact us instantly.
3. If the machine does not work, do not disassemble and do not direct attempt repair. must call your service center.
4. After using the machine must check air filter's condition and take proper action.
(Refer to cleaning method)



Blooming your face —————

IntroFill™

DONGBANG MEDICAL Co.,Ltd.