



EDS2002

Digital Dispensing System Manual



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General Operation.....

Initial Set Up

SPECIFICATIONS

Timer

0.008 to 99.99

Size

(L) 4.5"

(H) 6.25"

(D) 7.75"

Weight

Shot Meter: 2.1 lbs

Footswitch 6 oz

Power Supply 10 oz

Voltage Input

24VDC 1A

Air Input

35 -100 psi (2.5 - 7 bar)

Air Output

1 -100 psi (0.1 - 7 bar)

1) Plug the power supply included with the dispenser into an electrical outlet (either 110 or 220v), and connect the other end into the back of the dispenser labeled "24VDC IN".

2) Connect the included 1/8" male npt air quick connect fitting into the back of the dispenser labeled AIR IN 120 PSI MAX. Connect your regulated and filtered air to this quick connect fitting.

Caution ! Regulate your air pressure to 120 psi or less before connecting air to the dispenser. It is recommended that you use dry filtered air, to ensure there is no moisture or dirt that could potentially damage the circuitry of the dispenser.

3) Connect the foot pedal cord to the back of the dispenser and place the foot pedal on the floor in a comfortable position.

4) Turn the the ON/OFF switch labeled "POWER" to the upward position (ie: I position). The display on the front of the dispenser will either light up with a time display or simply show a "period" ● in the middle of the display. When a "period" shows on the front of the unit, the dispenser is in manual mode and is ready to dispense.

5) Connect a syringe adapter to the bottom right white fitting on the front of the unit.

6) Adjust the air pressure by turning the regulator knob until the desired air pressure is displayed on the gauge. Once you have the desired psi, you can push the regulator knob in to lock it.

7) Adjust the vacuum knob at the bottom left of the dispenser, counter-clockwise, to turn the vacuum on. You will hear a hissing noise and this will pull back material into the needle and syringe, reducing stringing or dripping . Only use if necessary (see troubleshooting for more info).

Advanced Operation.....

To enter the advanced features of the EDS2002 depress the MODE button just under the display. This will toggle you in and out of the menu features of the dispenser. When you toggle in and out of the MODE menu, the display will show one of the following:

<u>Mode</u>	<u>Description</u>	<u>Display/Dispense</u>
OFF	This is Manual Mode	•
INT	Teach Mode	00.00
AUTO	Timed Mode	00.00
SP 1	Storage Memory 1	00.00
SP 2	Storage Memory 2	00.00
↓	through	↓
SP 0	Storage Memory 10	00.00

To switch between any of these, hit the MODE button until one of the modes (in the left column listed above) shows on the display. Turn the MENU knob just to the left of the MODE button until you see the required menu mode. Hit MODE again to get back to the corresponding display (right hand column as listed above).

OFF MODE- Manual Mode

If you see the • you are already in manual mode and ready to dispense. If you see OFF in the display, manual mode has been selected but in order to dispense you must hit MODE again. In manual mode, the air path is open when the footswitch is depressed. The amount of material dispensed is dependent on the operator and how long the foot pedal is depressed. Material deposit volume and flow rate can be increased or decreased by adjusting the air pressure or changing the needle size.

INT- Teach Mode

Hit the MODE button to get into the menu. Turn the MENU knob clockwise until INT displays. To start dispensing, hit MODE again until you see 00.00 on the display. In INT mode, it is very similar to manual mode except the timer counts up for however long you depress the foot pedal. If you release the foot pedal and stop dispensing, then re-start, the timer/counter continues from where it left off. To reset the timer, hit the SEQUENT button on the back of the unit.

Advanced Operation.....

<u>Mode</u>	<u>Description</u>	<u>Display</u>
OFF	This is Manual Mode	●
INT	Teach Mode	00.00
AUTO	Timed Mode	00.00
SP 1	Storage Memory 1	00.00
SP 2	Storage Memory 2	00.00
↓	through	↓
SP 0	Storage Memory 10	00.00

AUTO- Standard Timed Mode

Hit the MODE button to get into the menu. Turn the MENU knob clockwise until AUTO displays. Hit MODE and you will see 00.00 displayed. Turn the MENU knob until the display shows the required time you would like to dispense for. Hit the foot pedal and the timer will activate the system for that time duration. You can change the time at any point, to increase or decrease the amount of material dispensed (as well as increase or decrease the air pressure using the regulator and gauge). At any point where there is a number displayed in AUTO mode, you can hit the RANGE button to toggle or change the decimal point position from 1/100 of a second (00.00) to 1/1000 of a second (0.000).

SP 1 through SP 0 - Storage Programs

* Important note # 1* - before continuing, please make sure when you see SP X (x designating a specific SP of 1,2,3,4,5,6,7,8,9,or 0) make sure there is NOT a dash between the SP and the number. If there is a dash, hit the SEQUENT button on the back of the unit and the dash will disappear. The dash is a feature that will be discussed later. (see page 5)

* Important note # 2" - before continuing, please make sure when you are in any of the MODES (OFF, INT, AUTO or SP X, make sure there is no period ● displayed on the right bottom of the display. If there is, hit the RANGE button once to clear the period from the display. (see page 6)

These are the storage areas of the dispenser. The procedure is very easy for storing different times in the EDS2002. Simply hit the MODE button, turn the MENU knob to one of the SP (storage program) areas, and hit MODE again. Adjust the time to what you desire to be stored in the dispenser. You can hit MODE at any time to confirm which SP you are in, and hit MODE again to see the time that you have set. Here is an example procedure for storing 10 programs in the unit: (times stated are just examples- replace with your desired times)

Advanced Operation.....

- 1) Hit MODE, turn the MENU knob to display SP 1, hit MODE again until 00.00 appears, then increase the time to 00.10
- 2) Hit MODE, turn the MENU knob to display SP 2, hit MODE again until 00.00 appears, then increase the time to 00.20
- 3) Hit MODE, turn the MENU knob to display SP 3, hit MODE again until 00.00 appears, then increase the time to 00.30
- 4) Hit MODE, turn the MENU knob to display SP 4, hit MODE again until 00.00 appears, then increase the time to 00.40
- 5) Hit MODE, turn the MENU knob to display SP 5, hit MODE again until 00.00 appears, then increase the time to 00.50
- 6) Hit MODE, turn the MENU knob to display SP 6, hit MODE again until 00.00 appears, then increase the time to 00.60
- 7) Hit MODE, turn the MENU knob to display SP 7, hit MODE again until 00.00 appears, then increase the time to 00.70
- 8) Hit MODE, turn the MENU knob to display SP 8, hit MODE again until 00.00 appears, then increase the time to 00.80
- 9) Hit MODE, turn the MENU knob to display SP 9, hit MODE again until 00.00 appears, then increase the time to 00.90
- 10) Hit MODE, turn the MENU knob to display SP 0, hit MODE again until 00.00 appears, then increase the time to 01.00

You now have 10 programs stored. To switch between programs, hit MODE and scroll to the desired SP, hit MODE again and that stored program time will display and be ready to dispense.

You can clear any of the SP programs by hitting the SEQUENT button on the back of the unit. This can only be done when there is the time displayed within an SP program. Ie: Hit MODE to confirm which SP program you are in, then hit MODE again to display the time stored in that particular program, then hit SEQUENT to reset to 00.00.

You can also choose to store different time resolutions (ie: decimal placement). Example: SP 1 can be 00.15 and SP 2 can be 0.255. To do this simply hit the range button to change the decimal point placement while setting a particular SP time.

SEQUENTIAL AND INTERRUPT

Sequential Dispensing

This is a feature that allows you to dispense sequentially any of the programs stored in SP 1 through SP 0. To activate this feature hit MODE and turn the MENU knob until you see any of the SP X numerals. Then hit the SEQUENT button once until you see a dash appear between the SP and the number. For example, if you scroll to SP 1, and hit the SEQUENT button, you should see SP - 1. This dash (initiating the sequential dispensing mode) will appear while you are in any of the SP's.

Hit the MODE button to display the time in that particular SP program. Now when you hit the footswitch, it will dispense that particular SP program once and then the display will show the next SP program time. When you hit the footswitch again, it will dispense what is displayed, then the display will switch to the next....and so on.

Note: the dispenser will automatically cycle through all the programs stored, but you will not be shown which SP it is, just the time will change on the display every time you depress the footswitch. If you have 3 programs stored, it will cycle through these three programs. If you have 10 programs stored, it will cycle through all 10 programs.

example:

SP - 1 is 00.01

SP - 2 is 00.55

SP - 3 is 00.00

SP - 4 is 0.250

SP - 5 is 00.00

SP - 6 is 00.00

SP - 7 is 1.520

SP - 8 is 00.00

SP - 9 is 00.00

SP - 0 is 00.00

Every time you hit the foot pedal, the time will change as follows:

00.01.....00.55.....0.250.....1.520 and then will start over with 00.01, etc....

Note- you have to hit the footswitch in order for the next program to dispense; the dispenser will not go through them automatically with one hit of the footswitch.

To deactivate sequential dispensing, with an SP - X showing, hit the SEQUENT button to remove the dash.

Interrupt Dispensing

When dispensing in any of the timed modes (ie: AUTO or SP 1, SP 2, etc...), and you hit the foot pedal, the dispenser will dispense for the particular time, and shut off. It doesn't matter if you release the footswitch or keep it depressed, it will dispense for the time you specified. You can turn interrupt mode on which will allow you to "break" the timed cycle.

To activate, simply go into any MODE (OFF, INT AUTO, SP 1....SP 0) and hit the RANGE button until a period ● displays toward the bottom right of the display. Then hit MODE to display the time, and set the time if not already done. To deactivate, hit MODE and then hit RANGE until the period disappears.

Example: you have the timer set to 05.00 seconds.

WITHOUT INTERRUPT you hit the foot pedal, and the machine will only stop dispensing when the 5 seconds are finished, regardless if you lift your foot off the footswitch or not.

WITH INTERRUPT, you hit the foot pedal and MUST keep it depressed continuously until the machine reaches 5 seconds and it will shut off automatically. If you release your foot at any time before the 5 seconds are reached, the dispenser will stop dispensing and will resume from that point when you re-activate the foot pedal.

This feature is especially useful for potting when you need to let your material settle for a period of time but still need a timed shot of material.

Troubleshooting.....

1) Dispenser does not turn on

Check the power connector on the back and make sure it is pushed in completely.

2) I hear air leaking

The vacuum may be on. Turn the vacuum knob on the front of the unit clockwise until the hissing stops. Also check your air connector fitting in the back of the unit for a tight fit. Use teflon tape if necessary.

3) Everything is on and seems to be working, but no material dispenses out of the syringe

Check the white adapter fitting that connects to the front /right of the dispenser, ensuring it is pushed in all the way. Also check to see that you have air pressure and the gauge is reading above 0 psi.

4) I can't turn the air pressure up or down

The regulator knob (large black knob on front of dispenser) is locked. Simply pull out towards you to unlock it. It will turn easily after this is done.

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