

Sematic® Series 2200 Dispensing Unit (SD340)

Automatic Liquid Dispenser



Polymer Systems Technology Limited

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Registered in England No. 2569742 VAT No. GB 603 969 522 EORI No. GB603 969 522 000

Technical Data Sheet

Semmatic® series 2200 dispensing unit (SD340*)

PPG SEMMATIC® series 2200 dispensing unit (SD340*) is a precision system that applies accurate, consistent amounts of adhesives, lubricants, silicones, epoxies and other assembly fluids from controlled beads to uniform dots.

The benefits of the system's consistent fluid application include higher yields, reduced material costs, better process control, and a safer working environment. The *Semmatic* series 2200 dispensing unit (SD340*) features digital timer control with a range of 0.01 seconds to 31 seconds and vacuum draw back to prevent dripping when dispensing low viscosity fluids. The unit is supplied complete with a *Semco* hybrid syringe "starter pack" of high quality, precision molded *Semco* disposable components.

Series 2200

| Description | Part number |
|---|-------------|
| <i>Semmatic</i> 2200 dispensing unit (SD340*) | 500000 |

*SD340 *European version.*
Available only in Europe.



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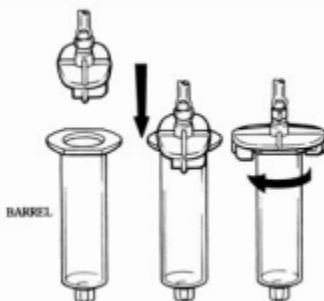
Semmatic®2200 automatic liquid dispensers with their versatile design make them perfectly suited for a wide variety of dispensing applications, from microdot deposits to large potting and filling.

- Digital Timer Control
- No Dripping on very low viscosity liquids
- Timing intervals from 0.01-31 seconds

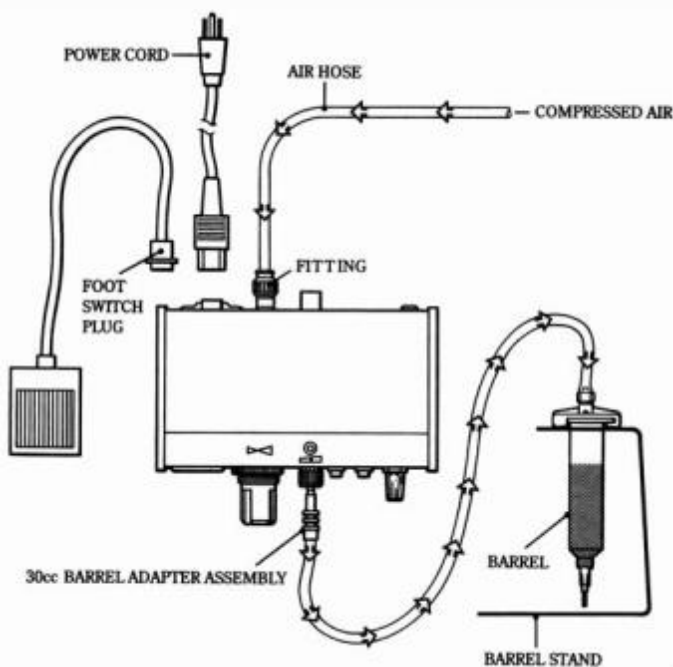
I. Setting Up

1. Connect air hose to filtered compressed air 70-100 psi (5-7 bar) and connect fitting to dispenser.
2. Insert Foot Switch Plug.
3. Insert and twist 30cc barrel adaptor connector to 30cc barrel.
4. Insert power cord female plug into dispenser and insert the male plug into a grounded outlet – CHECK VOLTAGE LABEL on back of unit.
- 5.

Fill barrel (with Barrel Tip Cap on the Barrel) with material to be dispensed and lock barrel to adaptor as shown.



II. Air & Electrical Set Up Diagram



Specifications

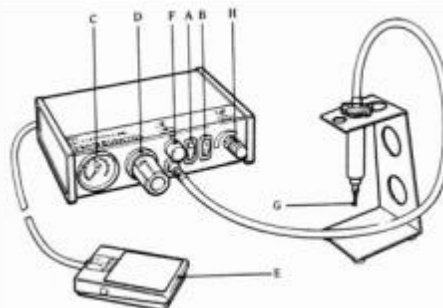
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|-------------------------------|--|
| Part Number 500000 | Semmatic® 2200 with Accessories |
| Digital Timer | Programmable 0.01-1, 0.1-10, 0.2-20 and 0.3-30 seconds |
| Cycle Initiation | Maintained or Momentary |
| Repeat Tolerance | 0.1% |
| Size | 8 5/8" x 8 1/2" x 2 2 5/8" (22 cm x 21 cm x 6.7 cm) |
| Internal & Foot Pedal Voltage | 24 vdc |
| Cycle Speed | 600+/Minute |
| Air Input | 70-100 psi (5-7 bar) |
| Air Output | 1-100 psi (0.1-7 bar) |
| Barrel "Suck Back" feature | |

Dispensing Accessories Supplied with Unit

| Qty. | Part Number | Description |
|------|-------------|------------------------------------|
| 1 Ea | 361000 | 10cc Adaptor Head Assembly |
| 1 Ea | 363000 | 30cc Adapter Head Assembly |
| 3 Ea | 361016 | 10cc Hybrid Syringe Barrel Natural |
| 3 Ea | 363016 | 30cc Hybrid Syringe Barrel Natural |
| 3 Ea | 361005 | 10cc P-Piston Yellow |
| 3 Ea | 361035 | 10cc WP-Piston White |
| 3 Ea | 363005 | 30cc P-Piston Yellow |
| 3 Ea | 363035 | 30cc WP-Piston White |
| 3 Ea | 361003 | 10cc Flange Cap Red |
| 3 Ea | 363003 | 30cc Flange Cap Red |
| 6 Ea | 310045 | Black Spiked tip Cap |
| 1 Ea | 231843 | 14 Gage Needle, Dark Green |
| 1 Ea | 231846 | 15 Gage Needle, Orange |
| 1 Ea | 231849 | 18 Gage Needle, Pink |
| 1 Ea | 231852 | 19 Gage Needle, Brown |
| 1 Ea | 231853 | 20 Gage Needle, Yellow |
| 1 Ea | 231856 | 21 Gage Needle, Green |
| 1 Ea | 231857 | 22 Gage Needle, Black |
| 1 Ea | 231860 | 23 Gage Needle, Light Blue |
| 1 Ea | 231863 | 25 Gage Needle, Blue |
| 1 Ea | 231866 | 26 Gage Needle, Peach |
| 1 Ea | 231867 | 27 Gage Needle, Tan |
| 1 Ea | 231869 | 30 Gage Needle, Lavender |
| 1 Ea | 232728 | 14 Gage Plastic Needle, Dark Green |
| 1 Ea | 232734 | 18 Gage Plastic Needle, Pink |
| 1 Ea | 232749 | 30 Gage Plastic Needle, Lavender |

Understanding the Functions of your Dispenser Display

- Turn unit on.
- Turn amber light on. This will provide continuous flow of material as long as the foot pedal is depressed.
- Turning the pressure adjust knob (D) allows for adjustments of air pressure.
- Push foot pedal to start dispensing.



The amount of liquid dispensed depends on air pressure, size of dispense tip (G), viscosity of material and time of pulse (F). To produce timed deposits, press (B) to turn amber light off.

Helpful Hints for Making Deposits

- Hold the barrel at approximately 60° (+ or - 20°) angle (Fig. 1).
- After making deposit remove tip as shown (Fig. 2).
- Do not permit the liquid to flow back into the controller as shown (Fig. 3).
- Increase or decrease size of dots by either:
 - Increasing or decreasing time only (F) **OR**
 - Increasing or decreasing pressure only (C) (D), **OR**
 - Increasing or decreasing size of tip (G)
 - Increasing or decreasing any combination of time, pressure and size of tip.
- For thin liquids, like water, you can prevent dripping by slowly turning the vacuum control (H) counter clockwise. Too much vacuum will cause bubbles and suck liquid back into the controller thus creating permanent damage to the unit.

Fig. 1

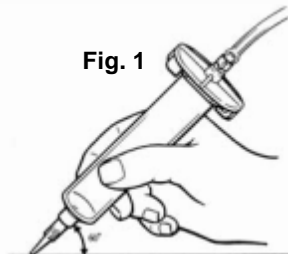


Fig. 2

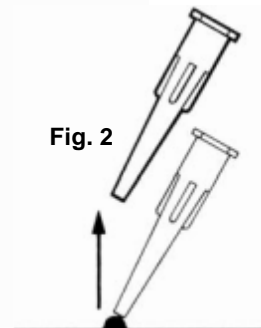
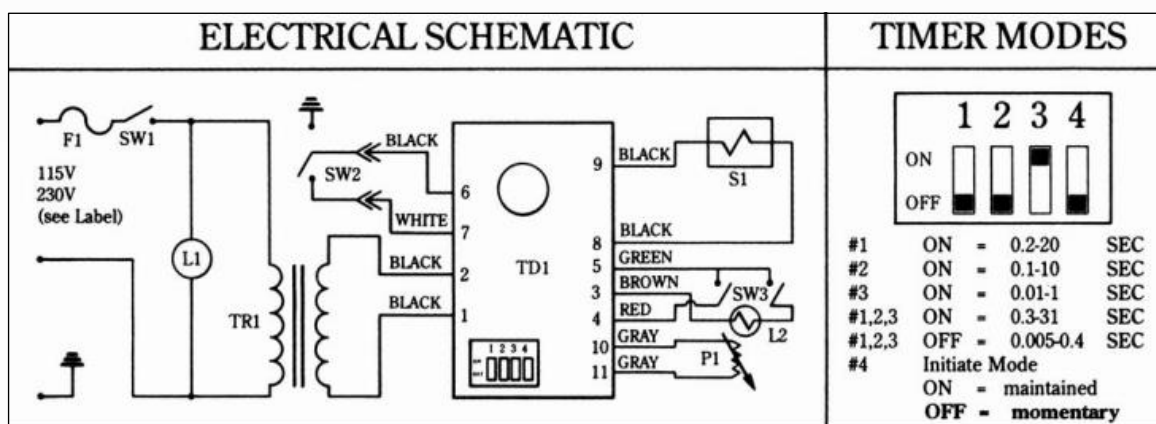
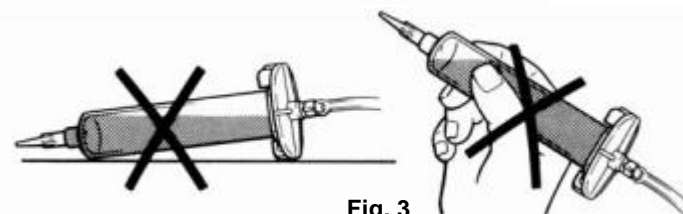
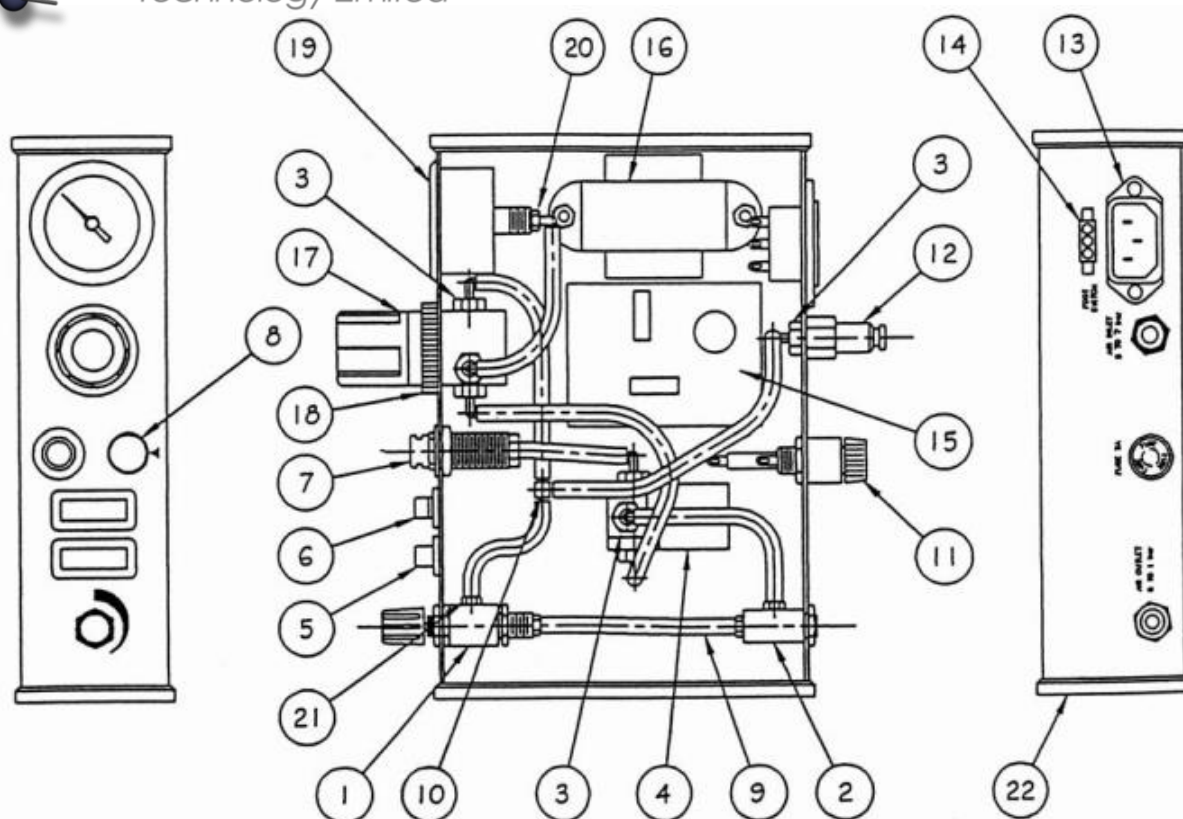


Fig. 3



| | Part Number | Description |
|-----|-------------|----------------------|
| F1 | 500027 | Fuse 115 VAC |
| SW1 | 500010 | Power Switch 115V |
| SW2 | 500028 | Foot Pedal Switch |
| SW3 | 500009 | Steady Switch |
| S1 | 500008 | Solenoid |
| TD1 | 500019 | PC Board |
| P1 | 500012 | Timer Potentiometer |
| TR1 | 500020 | Transformer 115V-24V |

NOTE: Circuit is operated by switch SW2 closure. If control is transferred from foot pedal to external device, be sure NO VOLTAGE is introduced into the circuit. Use only mechanical relay or switch to provide contact closure.



| No. | Part Number | Description | Qty. |
|-----|-------------|--------------------------|------|
| 1 | 500005 | Needle Valve | 1 |
| 2 | 500006 | Vacuum Transducer | 1 |
| 3 | 500007 | Nylon Elbow | 7 |
| 4 | 500008 | Solenoid | 1 |
| 5 | 500009 | Steady Switch | 1 |
| 6 | 500010 | Power Switch | 1 |
| 7 | 500011 | Female Quick Connect | 1 |
| 8 | 500012 | Potentiometer | 1 |
| 9 | 500013 | Blue Urethane Tubing | 2 |
| 10 | 500014 | Barb Tee | 1 |
| 11 | 500015 | Fuse Holder | 1 |
| 12 | 500016 | Air Inlet Fitting | 1 |
| 13 | 500017 | AC Receptacle | 1 |
| 14 | 500018 | Plug | 1 |
| 15 | 500019 | PC Board | 1 |
| 16 | 500020 | Transformer | 1 |
| 17 | 500021 | Regulator | 1 |
| 18 | 500022 | Regulator, Mounting Ring | 1 |
| 19 | 500023 | Gage, 0-100 PSI | 1 |
| 20 | 500024 | Barbed Elbow | 1 |
| 21 | 500025 | Nylon Fitting | 2 |
| 22 | 500026 | JB Side Panel | 2 |

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting for his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

 **PPG Industries**
Semco® Packaging &
Application Systems

NOTE: All tubing is the same. Tubing P/N 500013. This tubing must be ordered by length (feet).

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