

Nordson Corporation

# OPERATOR'S CARD

P/N 187 725A

## DG-1000 Fluid Control System

### Safety



**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

To use this equipment safely,

- follow the instructions in this operator's card.



**WARNING:** Relieve air and fluid pressures before servicing this equipment.

- obtain and read the Material Safety Data Sheets for all materials used.

### Introduction

This operator's card contains only the information necessary for daily operation and maintenance. It also contains a parts list for ordering information. Use Table 1 to record operating parameters. Use [Figure 1](#) for the following procedures.

### Operation

The following paragraphs provide operating procedures for the DG-1000 fluid control assembly.

**NOTE:** The DG-1000 dispenser is not illustrated.

## Operation *(contd.)*

### ***Filling the System with IPA***

1. Turn the FLUID MODE valve (1) to FILL.
2. Remove the caps from the flux and the isopropyl alcohol (IPA) reservoirs (6, 8). Fill the reservoirs and install the caps.
3. Turn the FLUID SELECT valve (4) to IPA.
4. Adjust the FLUID PRESSURE ADJUST regulator (3) until the FLUID PRESSURE display (5) reads 5 psi.
5. Turn the FLUID MODE valve (1) to RUN.
6. Set the DG-1000 AIR PRESSURE regulator (2) to 65–85 psi.

**NOTE:** Use the purge program or manually actuate the DG-1000 dispenser.

7. Actuate the dump valve on the DG-1000 dispenser. Purge material for 3–4 sec. Turn off the dump valve.
8. Manually actuate the DG-1000 dispenser solenoid valve until solvent flows out of the DG-1000 dispenser.

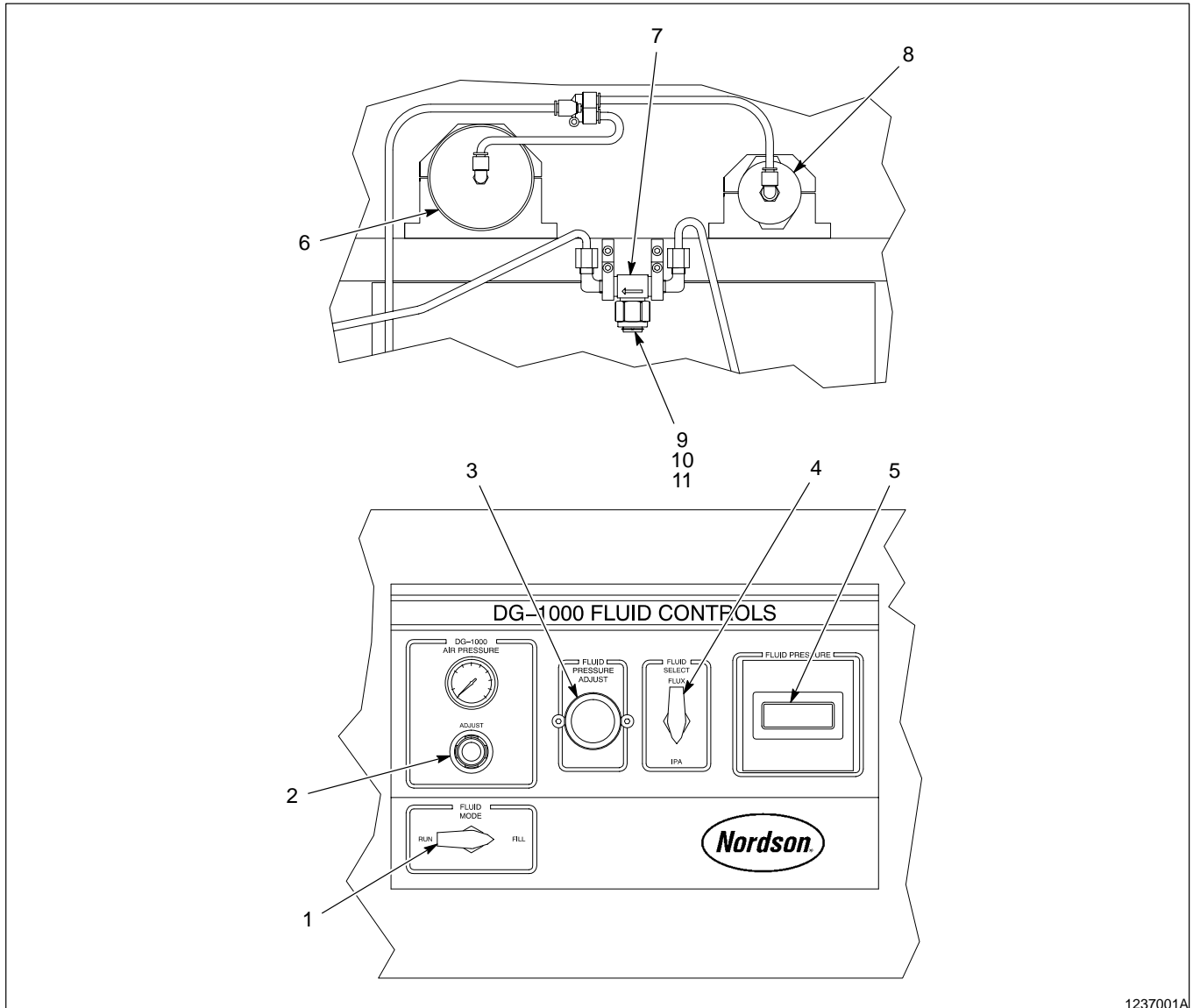
### ***Filling the System with Flux***

**NOTE:** Place an empty container under the DG-1000 dispenser to prevent material from splashing.

1. Make sure that these parameters are set:

|                   |        |
|-------------------|--------|
| DG-1000 pressure: | 65 psi |
| fluid pressure:   | 5 psi  |
| fluid mode:       | RUN    |
| fluid select:     | IPA    |
2. Open the 3-way purge valve on the DG-1000 dispenser.
3. Purge the DG-1000 dispenser until IPA appears.
4. Close the 3-way valve on the DG-1000 dispenser.
5. To remove the solvent from the fluid lines, adjust the FLUID PRESSURE ADJUST regulator (3) until 13 psi appears on the FLUID PRESSURE display (5).
6. Open the DG-1000 dispenser dump valve for 15 sec. Close the dump valve.
7. Adjust the FLUID PRESSURE ADJUST regulator (3) until 5 psi appears on the FLUID PRESSURE display (5).
8. Turn the FLUID SELECT valve (4) to FLUX.
9. Open the DG-1000 dispenser dump valve. When flux appears, close the dump valve.
10. Actuate the DG-1000 dispenser for 10 sec or until flux appears.
11. Adjust the fluid pressure to the normal operating set point.
12. Run the TEST program.

## Operation *(contd.)*



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Fig. 1 DG-1000 fluid control assembly

- |                                    |                           |                   |
|------------------------------------|---------------------------|-------------------|
| 1. FLUID MODE valve                | 5. FLUID PRESSURE display | 9. Filter element |
| 2. DG-1000 AIR PRESSURE regulator  | 6. Flux reservoir         | 10. Filter gasket |
| 3. FLUID PRESSURE ADJUST regulator | 7. Filter                 | 11. Filter cap    |
| 4. FLUID SELECT valve              | 8. IPA reservoir          |                   |

## Operation *(contd.)*

### **Purging Flux**

Perform these steps to purge flux from the system:

1. Turn the FLUID SELECT valve (4) to IPA.
2. Actuate the dump valve on the DG-1000 dispenser. Purge until flux thins out or IPA appears. Close the dump valve.
3. Manually actuate the DG-1000 dispenser solenoid valve until solvent flows out of the DG-1000 dispenser.

## Maintenance

Clean the filter (7) periodically:

1. Adjust the FLUID PRESSURE ADJUST regulator (3) until 0 psi appears on the FLUID PRESSURE display (5).
  2. Turn the FLUID MODE valve (1) to FILL.
  3. Place a container under the filter (7).
  4. Remove the filter cap (11).
  5. Remove the filter element (9) from the filter (7) and clean with a compatible solvent. Inspect the following:
    - the filter (7) for foreign materials
    - the filter element (9) for damage
    - the filter gasket (10) for damage
  6. Replace the filter element and gasket, if necessary.
- NOTE:** A clean filter may cause an air bubble in the fluid line. If this occurs, perform the *Filling the System with Flux* procedure.
7. Install the filter element (9) and gasket (10) on the filter (7).
  8. Install the filter cap (11) and tighten securely.
  9. Turn the FLUID MODE valve (1) to RUN.
  10. Adjust the FLUID PRESSURE ADJUST regulator (3) until 5 psi appears on the FLUID PRESSURE display (5).

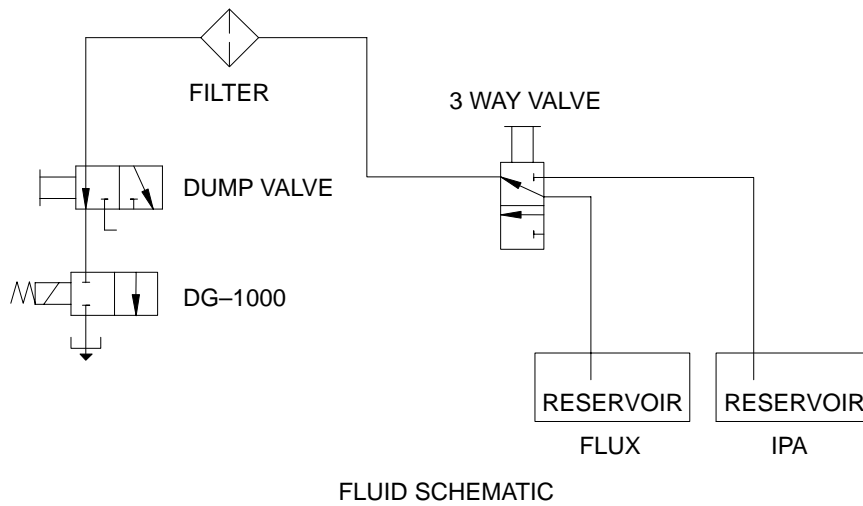
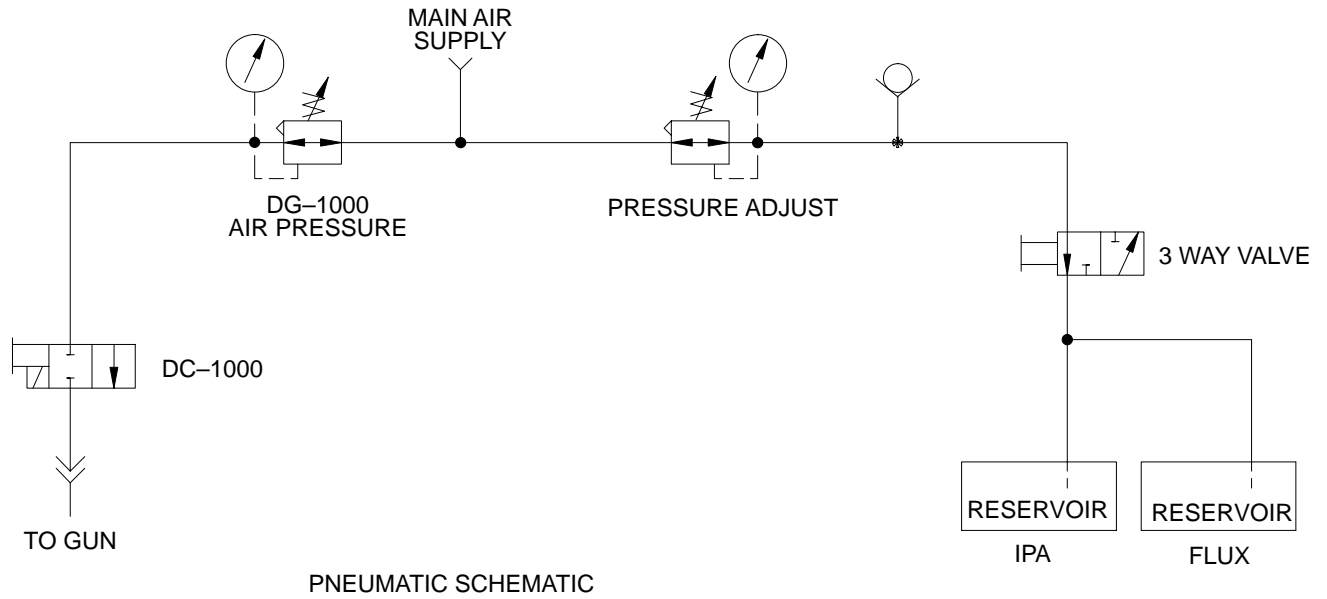
## Parts

| Item | Part    | Description                             | Quantity | Note |
|------|---------|---|----------|------|
| —    | -----   | Fluid control assembly, DG-1000         | 1        |      |
| 1    | 226 297 | • Gage, fluid pressure                  | 1        |      |
| 2    | 971 234 | • Elbow, male 1/8 NPT, 1/4 OD           | 4        |      |
| 3    | 103 899 | • Valve, (DIR), manual 3-way            | 2        |      |
| 4    | 135 455 | • Regulator 0–60 psi                    | 1        |      |
| 5    | 901 491 | • Regulator, air                        | 1        |      |
| 6    | 901 245 | • Gage, pressure, 0–100 psi             | 1        |      |
| 7    | 972 659 | • Connector, female, 1/4 tube x 1/8 NPT | 1        |      |
| 8    | 972 716 | • Connector, male, 1/4 tube x 1/8 NPT   | 1        |      |
| 9    | 226 294 | • Cartridge, HDPE, 20 oz                | 1        |      |
| 10   | -----   | • Cartridge, retainer, 20 oz            | 1        |      |
| 11   | 226 253 | • Seal, 3 OD, 2.25 ID x 0.250           | 1        |      |
| 12   | -----   | • Cap, fluid retainer, 20 oz            | 1        |      |
| 13   | 900 509 | • 1/4 OD Black polyethylene             | 12 ft    |      |
| 14   | 175 464 | • 1/4 OD Teflon tubing, red             | 12 ft    |      |
| 15   | 226 299 | • Transducer, pressure                  | 1        |      |
| 16   | 973 151 | • Elbow, pipe, hyd, 90, 1/4, stl, zn    | 1        |      |
| 17   | 226 298 | • Valve, adjustable check valve         | 1        |      |
| 18   | 973 260 | • Tee, pipe, hyd, 1/4 stl, zn           | 1        |      |
| 19   | 971 235 | • Connector, male 1/8 NPT, 1/4 OD       | 1        |      |
| 20   | 142 092 | • Valve, check, 1/4, kalrez O-ring      | 1        |      |
| 21   | 971 266 | • Elbow, male 1/4 NPT, 1/4 OD           | 5        |      |
| 22   | 972 119 | • Elbow, male 1/8 NPT, 1/4 OD           | 4        |      |
| 23   | 972 672 | • Union, Y, 1/4 OD, 1/4 OD              | 1        |      |
| 24   | 226 254 | • Filter                                | 1        |      |
| 25   | 169 636 | • Filter element                        | 1        |      |
| 26   | 179 367 | • Gasket, filter                        | 1        |      |
| 27   | 226 295 | • Cap, retainer, 6 oz                   | 1        |      |
| 28   | -----   | • Cartridge, retainer, 6 oz             | 1        |      |
| 29   | 226 296 | • Cartridge, HDPE, 6 oz                 | 1        |      |
| 30   | 971 233 | • Elbow, male 1/4 NPT, 1/4 OD           | 2        |      |



# Schematics

See Figure 3.



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Fig. 3 Fluid and pneumatic schematics

