



Nordson Corporation

OPERATOR CARD

P/N 1100472A

Ink-Dot System with Reservoir Manifold

Safety



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



WARNING: To prevent serious injury to personnel, relieve fluid and air pressures before servicing this equipment.

Use this equipment safely:

- Follow the instructions in this operator's card and the referenced manuals.
- Obtain and read the Material Safety Data Sheets for all materials used.
- This operator's card contains only the information necessary for daily operation and maintenance.

System Components

The major components are described in Table 1. See Figure 1 for component location.

Table 1 Major System Components

| Item | Description |
|------|---|
| 1 | Ink-Dot controller |
| 2 | Driver — Operates 2 Ink-Dot guns |
| 3 | Channels — Each channel activates an Ink-Dot gun |
| 4 | OUT light — Amber, pulses when you press the TEST switch |
| 5 | IN light — Green, lights when a trigger signal is present |
| 6 | Timer switch RUN — Enables the channel to respond to the driver inputs OFF — Disables the channel TEST — Checks quality of ink dot |
| 7 | Driver power switch — Enables or disables power to the driver |
| 8 | POWER Indicator — Lights when power to the driver is on |
| 9 | Controller power switch — Enables or disables power to the system |
| 10 | Ink-Dot gun — Can apply a dot 0.06–0.09 in. (1.52–2.29 mm) in diameter |
| 14 | Proximity sensor — Signals the Ink-Dot gun to spray when a can is properly positioned in front of the gun nozzle |
| 20 | Manifold reservoir — It uses the 1-liter bottles that the ink is shipped in to deliver ink to the system. The ink bottle threads into the manifold and is sealed by a gasket. |

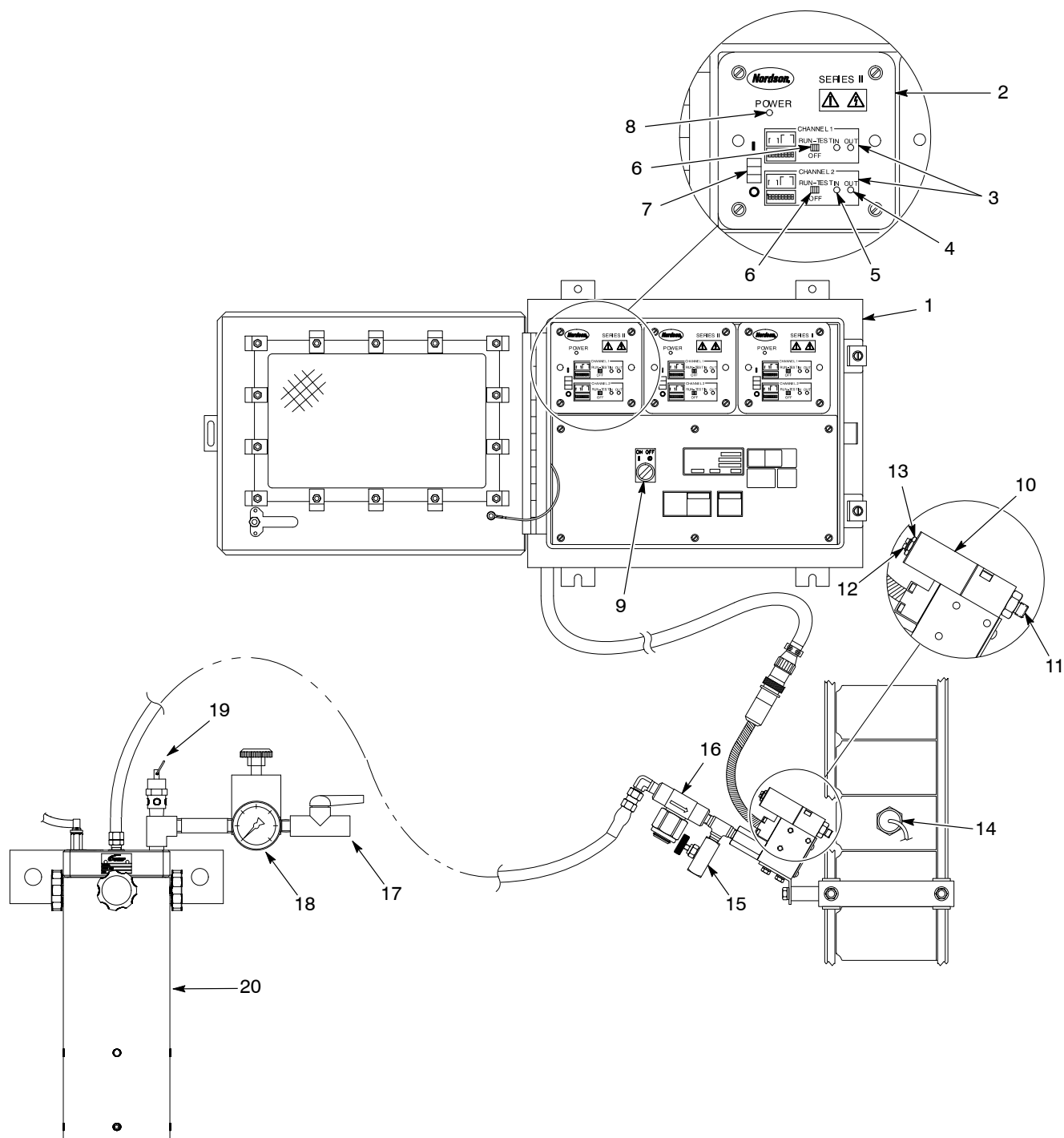


Figure 1 Typical System

- | | | |
|------------------------|----------------------------|----------------------------|
| 1. Ink-Dot controller | 8. POWER indicator | 15. Bleeder valve |
| 2. Driver | 9. Controller power switch | 16. In-line filter |
| 3. Channels | 10. Ink-Dot gun | 17. Air Shutoff Valve |
| 4. OUT light | 11. Nozzle | 18. Air pressure regulator |
| 5. IN light | 12. Armature sleeve | 19. Relief valve |
| 6. RUN/OFF/TEST switch | 13. Locknut | 20. Manifold reservoir |
| 7. Driver power switch | 14. Proximity sensor | |

System Setup Dimensions

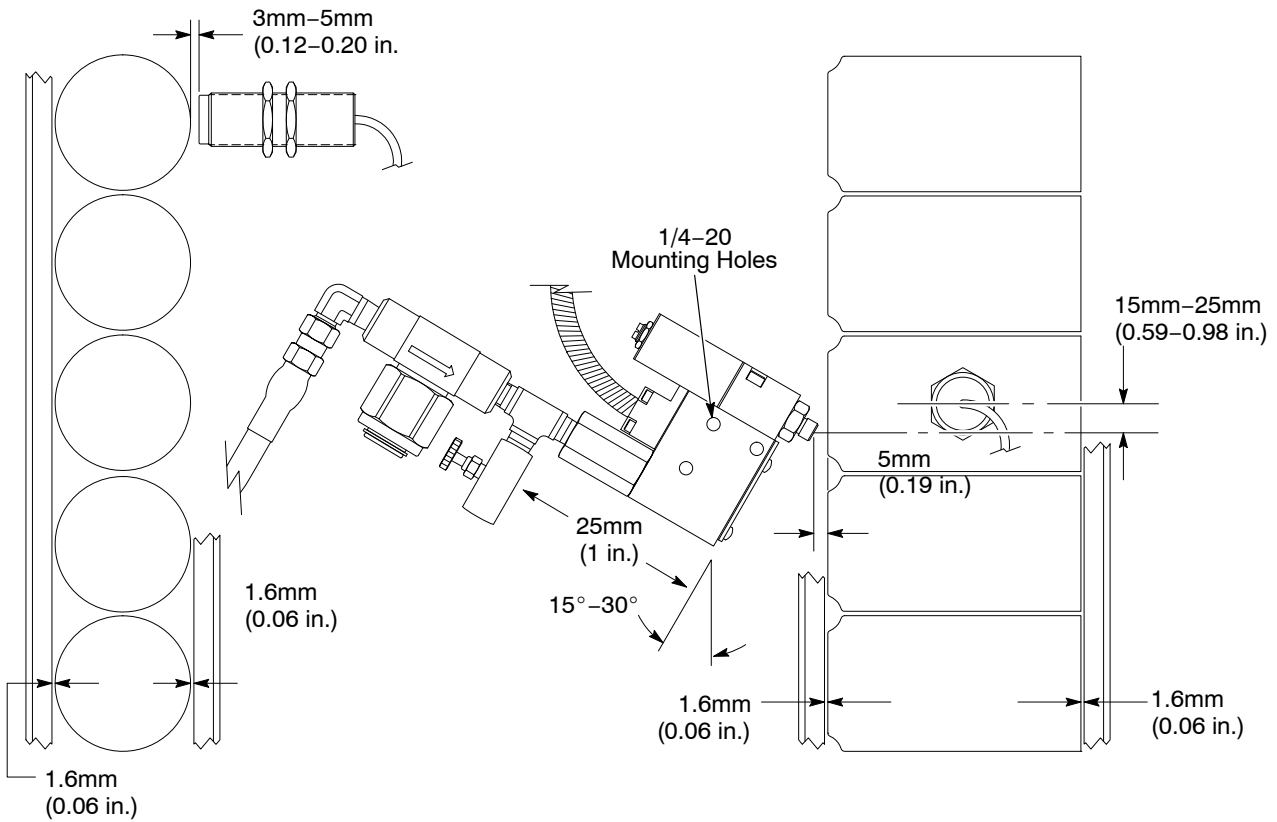


Figure 2 System Setup Dimensions

Initial Startup

See Figure 1. Before putting the system into service, flush the system with a compatible solvent.

NOTE: Obtain an empty ink bottle and fill it with a compatible solvent to flush the system.

1. Close the air shut-off valve (17).
2. Set the air pressure regulator (18) to 0 bar/psi. Pull the relief valve lanyard (19) to relieve system air pressure.
3. Install the ink bottle that is filled with a compatible solvent. Refer to the *Install an Ink Bottle* procedure if necessary.
4. Open the air shut-off valve. Set the air pressure regulator to 0.4–0.7 bar (5–10 psi).
5. Place a waste container under the bleeder valve (15). Open the bleeder valve and allow the solvent to flow through the system. This purges air from the system. Close the bleeder valve.
6. Manually trigger the Ink-Dot spray gun (10) several times to purge solvent from the spray gun.
7. Close the air shut-off valve. Pull up on the relief valve lanyard to relieve system air pressure.
8. Install an ink bottle. Refer to the *Ink Bottle Installation* procedure.
9. If necessary, manually trigger the Ink-Dot spray gun several times until ink flows from the gun.

Ink Bottle Installation



WARNING: Relieve fluid and air pressure to the Ink Dot system before performing the following procedure.

1. See Figure 3. Remove the thumb screws (1) securing the shroud (2) to the manifold (4).
2. If installed, remove the old ink bottle (3).

NOTE: Some ink bottles have a foil seal covering the opening. Remove the entire foil seal to ensure that the ink bottle is properly threaded onto the manifold.

3. Remove the cap from the ink bottle (3). If installed, remove the foil seal from the ink bottle.



CAUTION: Use extreme care when tightening the ink bottle to prevent stripping the threads.

4. Install the ink bottle (3) as shown and tighten until it makes contact with the gasket in the manifold. Continue to tighten the ink bottle another 1/4 to 1/3 turn to compress the gasket.
5. Install the shroud (2) using the thumb screws (1). Tighten the thumb screws finger tight.

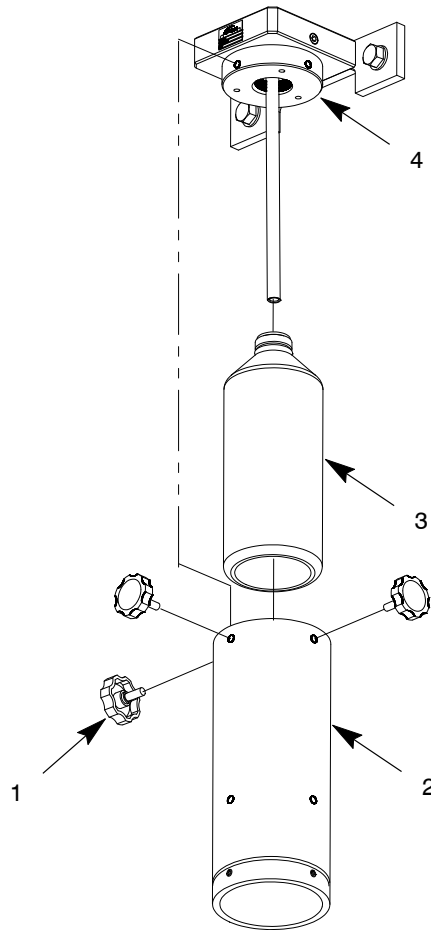


Figure 3 Installing an Ink Bottle

- | | |
|----------------|---------------|
| 1. Thumb screw | 3. Ink bottle |
| 2. Shroud | 4. Manifold |

Operation

Startup

1. See Figure 1. Open the air shut-off valve (17).
2. Set the air pressure regulator (18) to 0.4–0.7 bar (5–10 psi).
3. Turn on the Ink-Dot controller power switch (9).
4. Turn on the driver power switch (7).
5. Set the RUN/OFF/TEST switch (6) to RUN.
6. If desired, adjust the dot size. Refer to the *Dot Size Adjustment* procedure.

NOTE: The break-in period for the Ink-Dot gun valve seat is the first 10–24 hours of operation. If the dot size increases, refer to the *Dot Size Adjustment* procedure.

Shutdown



CAUTION: Failure to turn off the RUN/OFF/TEST switch can cause damage to the gun nozzle and ball and seat assembly.

1. See Figure 1. Set the RUN/OFF/TEST switch (6) to OFF.
2. Turn off the driver power switch (7).
3. Turn off the controller power switch (9).
4. Turn off the air supply link to the reservoir by closing the air shut-off valve (17).
5. Set the air pressure regulator (18) to 0 bar/psi. Pull on the relief valve lanyard (19) to relieve system air pressure.

Dot Size Adjustment

1. See Figure 1. Set the RUN/OFF/TEST switch (6) in the Ink-Dot control unit to OFF.
2. Set the air pressure regulator (18) to 0.5 bar (7 psi) at the ink reservoir.
3. Loosen the locknut (13).
4. Carefully screw in the armature sleeve (12) until it stops or bottoms out.
5. Unscrew the armature sleeve approximately $\frac{1}{12}$ of a turn or 30°.
6. Hold a piece of paper by the bottom of the can and in line with the nozzle (11).
7. Set the RUN/OFF/TEST switch (6) in the Ink-Dot control unit to TEST. Adjust the armature sleeve until the dot is the desired size, typically 2–3 mm.
8. Hold the position of the armature sleeve using a screwdriver. Tighten the locknut securely.

Unplugging a Nozzle

1. See Figure 1. Close the air shut-off valve (17).
2. Set the air pressure regulator (18) to 0 bar/psi. Pull on the relief valve lanyard (19) to relieve system air pressure.
3. Set the RUN/TEST/OFF switch (6) to OFF.
4. Remove the nozzle (11) and clean with flushing thinner and the nozzle brush.
5. Loosen the locknut (13). Back out the armature sleeve (12) one turn.
6. Install the nozzle.
7. Make sure the relief valve is closed.
8. Open the air shut-off valve. Set the air pressure regulator to 0.2 bar (3 psi).
9. Open the bleeder valve (15) to bleed air out of the hose. Close the bleeder valve.
10. Set the air pressure regulator to 0.4–0.7 bar (5–10 psi).
11. Set the RUN/OFF/TEST switch to RUN.
12. Adjust the dot size. Refer to the *Dot Size Adjustment* procedure.

Flushing the System

See Figure 1. Perform steps 1 through 8 of *Initial Startup*.

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