

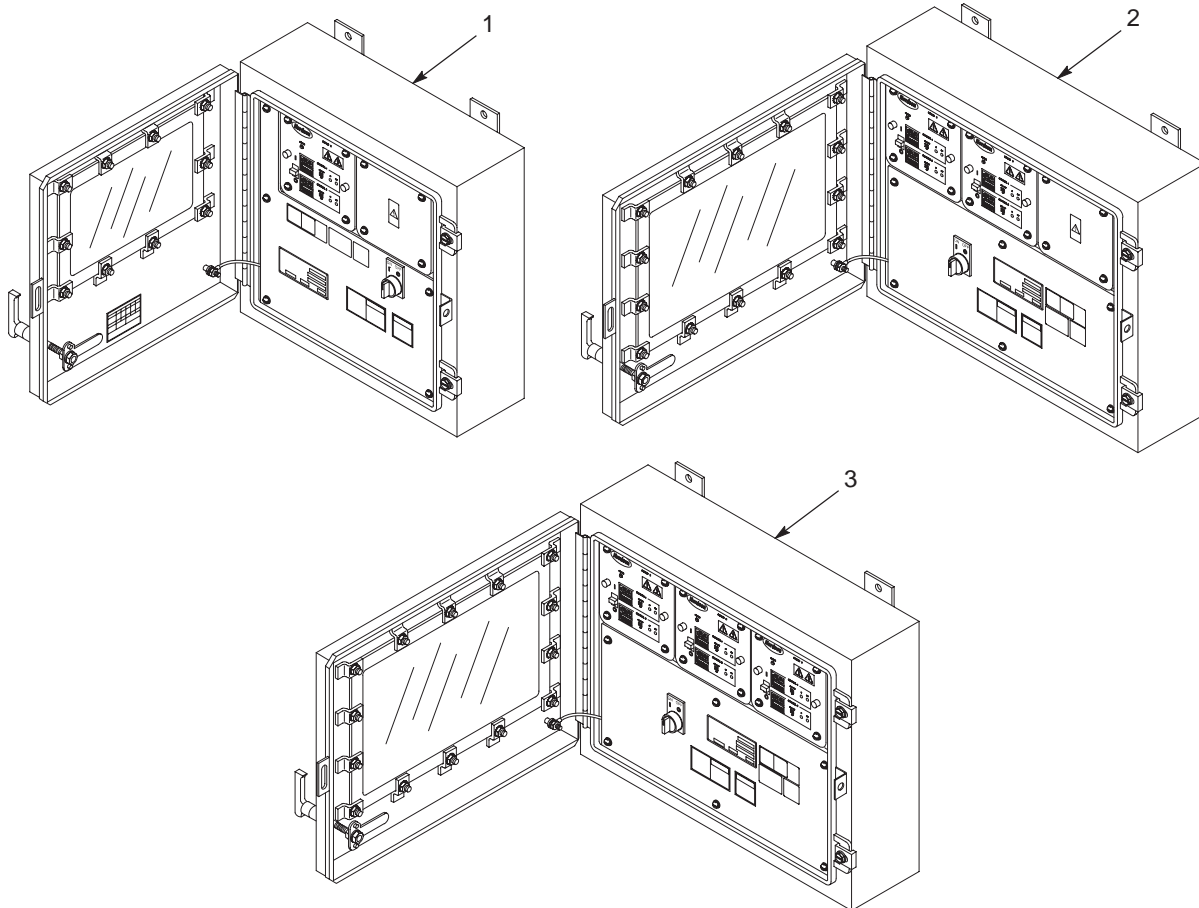
Ink-Dot™ Series II Driver

Introduction

See Figure 1. Ink-Dot Series II controllers can have from one to three driver modules. Any existing controller can easily be retrofit with the Series II driver. The Ink-Dot Series II Driver provides the following features:

NOTE: Any combination of delay, duration, and double-dotting can be selected by the customer. To make adjustments, refer to *Dot Adjustment* on page 5.

- Adjustable dot duration
- Adjustable delay
- Double-dot option
- Extended masking time
(to assist in the reduction of unwanted double dots)



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Figure 1 Ink-Dot Series II Controllers/Driver Modules

1. One or two applicator controller (one driver module)
2. Three or four applicator controller (two driver modules)
3. Five or six applicator controller (three driver modules)

Installation



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



WARNING: Disconnect equipment from line voltage. Failure to observe this warning could result in personal injury, equipment damage, or death.

Removing the Existing Driver

1. Shut off all power to the controller. Allow two minutes for the driver to dissipate any residual electrical charge.
2. See [Figure 2](#). Remove the screws (11) and washers (12) to remove the existing driver module (13) from the enclosure (1).
3. Carefully pull the driver module out of the enclosure.

Input and Output Wiring

See [Figure 2](#). There are two input (2, 3) and two output connectors (6, 8) on each driver module (13). The input connectors receive the sensor signal. The output connectors relay the sensor signal to the applicator so the proper delay and duration of the dot is achieved.

The four input and output connectors are orange. The Series I driver's input and output connectors may be reused if they are in good condition when you replace the Series I driver module with the Series II driver module.

Reusing the Series I Input and Output Connectors

1. Pull the connectors off of the Series I driver, leaving the wires intact.
2. Pull the input and output connectors from the Series II driver and save them as replacements.
3. Disconnect the wires from the Series I driver module's power connector.
4. Disconnect the Series I driver's ground wire from the enclosure.

Replacing the Input and Output Connectors

1. If the input connectors (2, 3) and output connectors (6, 8) on the driver module (13) need to be replaced, remove the wiring from the connectors.
2. Match up the numbers on the wires with the numbers on the Series II orange input and output connectors and attach the wires.

Table 1 Gun Driver Wire Designations

Code on Wire	Code	Description
First Position Number	1 through 9	Applicator Number
Second and Third Position Number	01 through 09	Connection Number

3. Disconnect the wires from the Series I driver module's power connector.
4. Disconnect the Series I driver's ground wire from the enclosure.

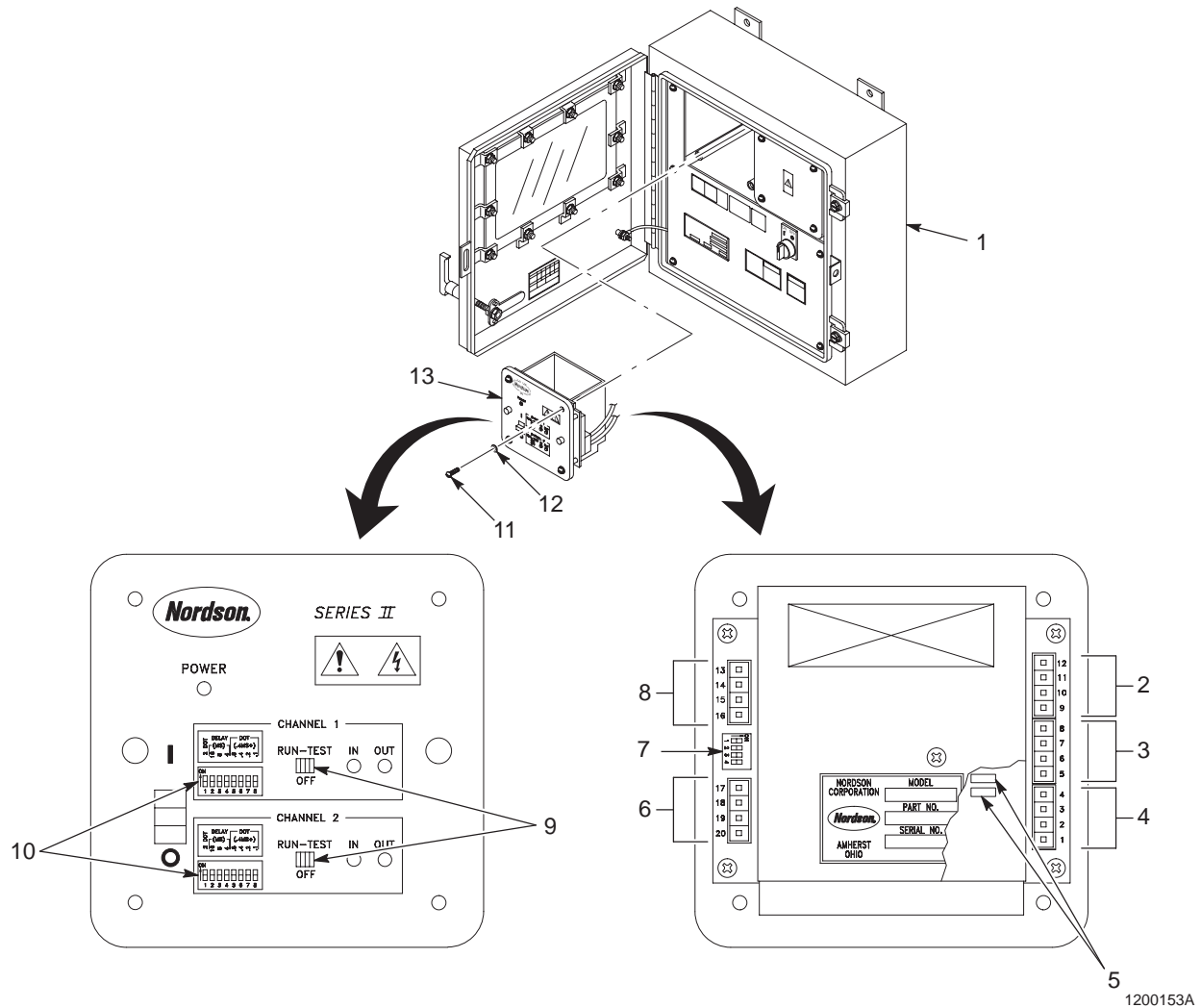


Figure 2 Ink-Dot Series II Driver (One or Two Applicator Driver Shown)

- | | | |
|--|---|------------------------------|
| 1. Enclosure | 6. Applicator 2 output connector (orange) | 10. Front panel dip switches |
| 2. Applicator 1 input connector (orange) | 7. Applicator head dip switches | 11. Screws (4) |
| 3. Applicator 2 input connector (orange) | 8. Applicator 1 output connector (orange) | 12. Washers (4) |
| 4. Power connector (gray) | 9. RUN/OFF/TEST switch | 13. Driver module |
| 5. Fuses | | |

Power Wiring



WARNING: Ground each driver module to the controller cabinet. Connect each driver module's ground wire to the controller cabinet ground stud. Failure to observe this warning may result in personal injury, equipment damage, or death.

See [Figure 2](#). Power and neutral wires are connected and daisy-chained to each module's gray power connector (4).

Use Table 2 to connect the input power wires to the driver modules and daisy-chain power to other modules.

Table 2 Input Power Wiring/Daisy-Chaining the Driver Modules

Quantity of Driver Modules	Terminal	Function
Single Driver Module	1	L1: Input Power
	2	L12: Output Power
	3	L2: Neutral
	4	L22: Neutral
Quantity of Driver Modules	Terminal	Function
Two Driver Modules	1	L12: Input Power
	2	L13: Output Power
	3	L22: Neutral
	4	L23: Neutral
Quantity of Driver Modules	Terminal	Function
Three Driver Modules	1	L13: Input Power
	2	Not Used
	3	L23: Neutral
	4	Not Used

Installing the Driver

1. See [Figure 2](#). Snap the gray power connector (4) into the Series II driver module.

NOTE: The gray power connector is keyed to fit only into the power socket.

2. Snap the input connectors (2, 3) and output connectors (6, 8) into the Series II driver module.

NOTE: Be careful to properly position the input and output connectors on the Series II driver.

3. After all connections are complete, place the Series II driver module (13) into the enclosure (1) and secure it with the screws (11) and washers (12).

Dot Adjustment

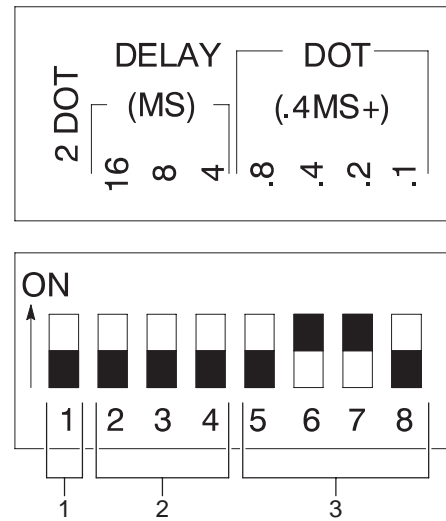
NOTE: When you first start up the driver, make sure that the front panel dip switches are in the factory-set positions illustrated in Figure 3.

1. See Figure 2. Put the RUN/OFF/TEST switch (9) in the TEST position.
2. Observe the dots being produced.
3. See Figure 3. Use the following guidelines to adjust the front panel dip switches to achieve the desired results.

NOTE: Each set of dip switches controls one channel (applicator) of the driver. The dip switches allow individual adjustment for each applicator.

Switches	Function	Factory Default Setting	Adjustment Range
1	Double Dot	Off	On/Off
2, 3, 4	Delay	0 MS	0-28 MS (4 MS increments)
5, 6, 7, 8	Duration	1.0 MS	0.4-1.9 MS (0.1 MS increments)

4. When all necessary adjustments have been made, put the RUN/OFF/TEST switch in the RUN position.



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Figure 3 Front Panel Dip Switches

1. Double dot switch
2. Delay switches
3. Duration switches

Note: The shaded areas in Figure 3 represent the actual dip switch.

Parts

See [Figure 2](#).

Item	Part	Description	Quantity	Note
2, 3, 6, 8	168175	INPUT/OUTPUT CONNECTOR, plug, orange, 4 pin, with label	4	
4	933755	POWER CONNECTOR, plug, gray, 4 pin, with label	1	
5	939967	FUSE, 2.5 amp, fast acting, 250 V, 5 x 20 mm	2	
10	171686	SWITCH, dip, 8 position	2	
13	245321	DRIVER MODULE, series II, Ink-Dot	AR	

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