

CleanSpray[®] Controller

Customer Product Manual

Part 108330-02

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For parts and technical support, call the Industrial Coating Systems Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

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Obsolete

Contact Us

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CleanSpray® Controller

Safety

Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to persons operating or servicing equipment.

Qualified Personnel

Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

Intended Use

Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include

- using incompatible materials
- making unauthorized modifications
- removing or bypassing safety guards or interlocks
- using incompatible or damaged parts
- using unapproved auxiliary equipment
- operating equipment in excess of maximum ratings

Regulations and Approvals

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

Personal Safety

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment. Before adjusting or servicing moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.
- Relieve (bleed off) hydraulic and pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- While operating manual spray guns, make sure you are grounded. Wear electrically conductive gloves or a grounding strap connected to the gun handle or other true earth ground. Do not wear or carry metallic objects such as jewelry or tools.
- If you receive even a slight electrical shock, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.

Personal Safety *(contd)*

- Obtain and read Material Safety Data Sheets (MSDS) for all materials used. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.
- Make sure the spray area is adequately ventilated.
- To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.

High-Pressure Fluids

High-pressure fluids, unless they are safely contained, are extremely hazardous. Always relieve fluid pressure before adjusting or servicing high pressure equipment. A jet of high-pressure fluid can cut like a knife and cause serious bodily injury, amputation, or death. Fluids penetrating the skin can also cause toxic poisoning.

If you suffer a fluid injection injury, seek medical care immediately. If possible, provide a copy of the MSDS for the injected fluid to the health care provider.

The National Spray Equipment Manufacturers Association has created a wallet card that you should carry when you are operating high-pressure spray equipment. These cards are supplied with your equipment. The following is the text of this card:



WARNING: Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor that you suspect an injection injury.
- Show him this card
- Tell him what kind of material you were spraying

MEDICAL ALERT—AIRLESS SPRAY WOUNDS: NOTE TO PHYSICIAN

Injection in the skin is a serious traumatic injury. It is important to treat the injury surgically as soon as possible. Do not delay treatment to research toxicity. Toxicity is a concern with some exotic coatings injected directly into the bloodstream.

Consultation with a plastic surgeon or a reconstructive hand surgeon may be advisable.

The seriousness of the wound depends on where the injury is on the body, whether the substance hit something on its way in and deflected causing more damage, and many other variables including skin microflora residing in the paint or gun which are blasted into the wound. If the injected paint contains acrylic latex and titanium dioxide that damage the tissue's resistance to infection, bacterial growth will flourish. The treatment that doctors recommend for an injection injury to the hand includes immediate decompression of the closed vascular compartments of the hand to release the underlying tissue distended by the injected paint, judicious wound debridement, and immediate antibiotic treatment.

Fire Safety

To avoid a fire or explosion, follow these instructions.

- Ground all conductive equipment. Use only grounded air and fluid hoses. Check equipment and workpiece grounding devices regularly. Resistance to ground must not exceed one megohm.
- Shut down all equipment immediately if you notice static sparking or arcing. Do not restart the equipment until the cause has been identified and corrected.
- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored.
- Do not heat materials to temperatures above those recommended by the manufacturer. Make sure heat monitoring and limiting devices are working properly.

- Provide adequate ventilation to prevent dangerous concentrations of volatile particles or vapors. Refer to local codes or your material MSDS for guidance.
- Do not disconnect live electrical circuits when working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Shut off electrostatic power and ground the charging system before adjusting, cleaning, or repairing electrostatic equipment.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.

Halogenated Hydrocarbon Solvent Hazards

Do not use halogenated hydrocarbon solvents in a pressurized system that contains aluminum components. Under pressure, these solvents can react with aluminum and explode, causing injury, death, or property damage. Halogenated hydrocarbon solvents contain one or more of the following elements:

<u>Element</u>	<u>Symbol</u>	<u>Prefix</u>
Fluorine	F	"Fluoro"
Chlorine	Cl	"Chloro"
Bromine	Br	"Bromo"
Iodine	I	"Iodo"

Check your material MSDS or contact your material supplier for more information. If you must use halogenated hydrocarbon solvents, contact your Nordson representative for information about compatible Nordson components.

Action in the Event of a Malfunction

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out system electrical power. Close hydraulic and pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the system.

Disposal

Dispose of equipment and materials used in operation and servicing according to local codes.

Description

See Figure 1. The Nordson CleanSpray controller operates a CleanSpray nozzle-cleaning applicator during two-piece can coating operations. The controller consists of a circuit board with DIP switch settings. The DIP switches are used to set these functions:

Function	Setting
Can Index	1–15 cans
Delay	1–15 ms in 1-ms increments
Wash/Spray Duration	1–255 ms in 1-ms increments

An optional Extended Watchdog timer is available for use with the CleanSpray controller. The timer allows the clean spray to continue pulsing at a desired frequency (6–64 second intervals) after the lacquer applicator has stopped spraying. This prevents lacquer from drying on the nozzle tip during periods of spray machine downtime. Refer to *Parts* for ordering information.

NOTE: The *Extended Watchdog Pulse Timer* instruction sheet is included with this manual. Refer to the instruction sheet or contact your local Nordson representative for more information.

The controller can be converted for use as a timing control unit. An optional pushbutton switch is available for manual operation. Refer to the *Parts* section for ordering information.

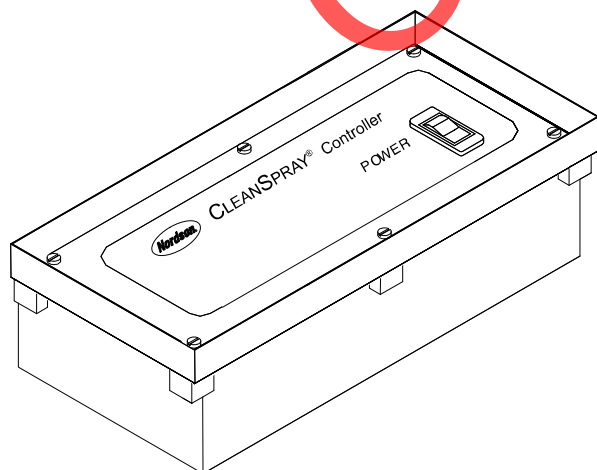


Figure 1 CleanSpray Controller

Theory of Operation

See Figure 2.

Wash Spray Request

The start of a clean spray is controlled through the spray request circuit. The spray request circuit receives input signals from the lacquer applicator coil driver, one-second extended watchdog timer, and if used, an optional manual spray input or optional extended watchdog timer.

The signal from the lacquer applicator is optically isolated and then sent to the can indexer. The can indexer can be set from 1–15 cans. This allows the operator to set the controller to start a clean spray after every can or up to every 15th can. The can indexer is enabled on the start of a lacquer spray but will not start a clean spray until the lacquer spray is turned off. The can indexer is reset whenever a clean spray cycle is initiated.

The one-second watchdog timer automatically starts a clean spray if one has not been performed in one second. The timer is reset upon power up and does not start timing until a lacquer spray occurs. To prevent a clean spray during a lacquer spray, the timer is reset each time the lacquer spray gun is triggered.

The optional manual spray input allows the operator to start a clean spray. The controller will not allow a clean spray during a lacquer spray.

Wash Delay Timer

The wash delay timer allows a delay of 1–15 milliseconds (in 1-msec increments). This allows the lacquer spray to completely stop before a clean spray begins.

Wash Timer

The wash timer provides a clean spray duration of 1–255 milliseconds (in 1-msec increments). When the wash cycle is stopped, the spray request and timer circuits are reset.

Output Driver and Power Supply

The output driver provides 20 Vdc at 1.2 amps to drive the CleanSpray applicator coil. The power supply is configured for 120 Vac or 240 Vac operation. The 5 Vdc supply for the control circuitry is provided by a regulator.

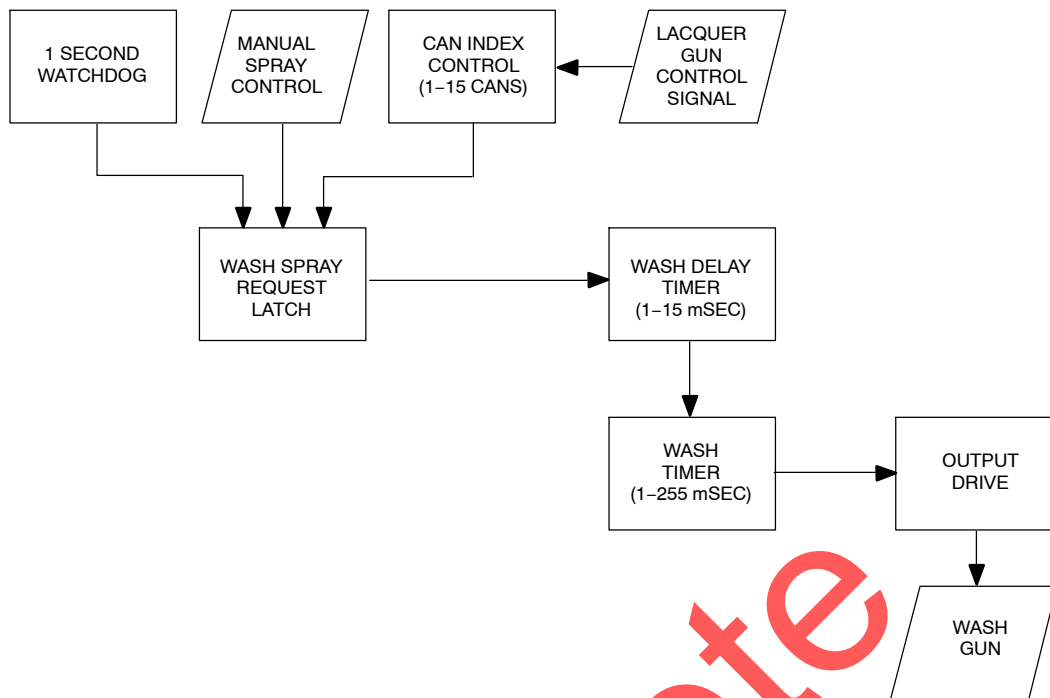


Figure 2 CleanSpray Operation Block Diagram

Installation



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

Install the controller in accordance with all local codes.

Cover Removal

1. See Figure 3. Remove the screws (1) securing the cover (2).
2. Disconnect the power switch terminals (3) from the circuit board (4).
3. Remove the circuit board.

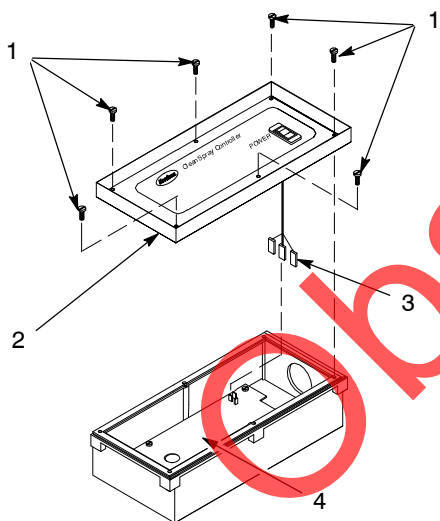


Figure 3 Cover Removal

1. Screws
2. Cover
3. Switch terminals
4. Circuit board

Mounting

The CleanSpray controller can be surface mounted or installed to customer supplied DIN rails. Mount the controller in an area that is free from excessive vibration, dust, moisture, and ambient temperatures above 60 °C (140 °F) or below 0 °C (32 °F). The controller dimensions are 229 mm (9 in.) x 102 mm (4 in.) x 73 mm (2.86 in.).

Surface Mounting

1. See Figure 4. Place the enclosure against the mounting surface.
2. Mark the centers of the mounting screw holes on the mounting surface. Make sure the marks are 152-mm (6-in.) apart, center to center.
3. Drill two 5-mm ($7/32$ -in.) holes at the location of the two marks.
4. Use the screws (1), washers (2) and nuts (3) included with the controller to secure the enclosure to mounting surface.

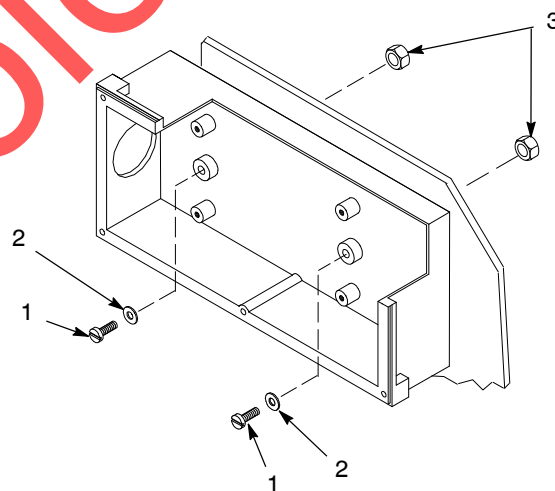


Figure 4 Surface Mounting

1. Screws
2. Washers
3. Nuts

Horizontal DIN Rail Mounting

1. See Figure 5. Make sure the DIN rail (1) is at least 229-mm (9-in.) long.
2. Install an end bracket (2) on the DIN rail. Tighten the stop screw (3) securely.
3. Secure the clips (4) to the enclosure with the screws (6) and washers (5). Screws, washers, and clips are included with the controller.
4. Install the enclosure by snapping the clips into the DIN rail.
5. Re-install the circuit board.

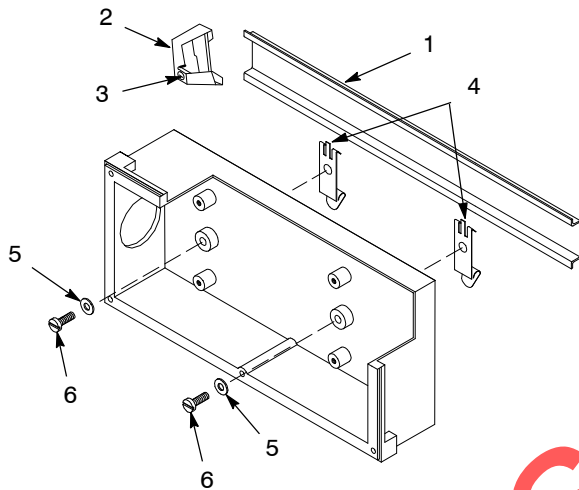


Figure 5 Horizontal DIN Rail Mounting

1. DIN rail
2. End bracket
3. Stop screw
4. DIN rail clips
5. Washers
6. Screws

Vertical DIN Rail Mounting

1. See Figure . The DIN rails (1) must be 152-mm (6-in.) apart center-to-center and at least 102-mm (4-in.) long.
2. Secure the clips (2) to the enclosure with the screws (4) and washers (3). Screws, washers, and clips are included with the controller.
3. Install the enclosure by snapping the clips into the DIN rails.
4. Re-install the circuit board.

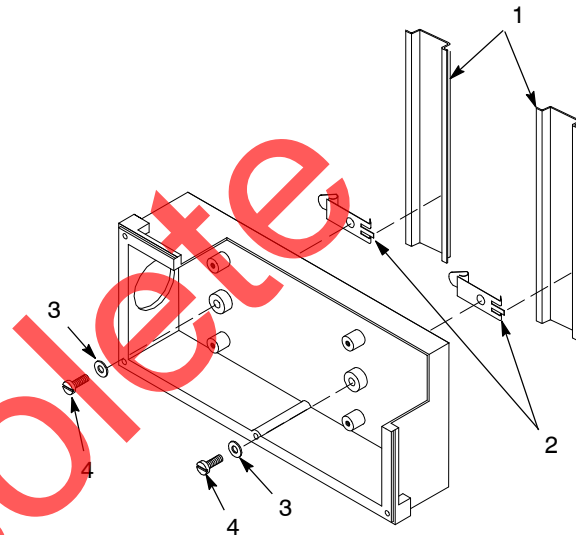


Figure 6 Vertical DIN Rail Mounting

1. DIN rail
2. DIN rail clip
3. Washers
4. Screws

Installation Kit Assembly

Assemble the installation kit components and install them on the enclosure before making electrical connections.

Hardware Installation

See Figure 7.

1. Screw the nipple (5) into the conduit tee body (6) until hand-tight.
2. Thread a locknut (3) all the way onto the nipple and install a washer (4) on top of the locknut.
3. Insert the nipple through the hole in the enclosure (1).
4. Thread a washer (4) and locknut (3) onto the nipple end inside the enclosure.
5. Tighten the locknuts against the washers with channel-lock pliers.



CAUTION: Do not use a screwdriver to tighten the locknuts. The screwdriver might slip and damage the enclosure and other plastic parts.

6. Thread the bushing (2) onto the end of the nipple.

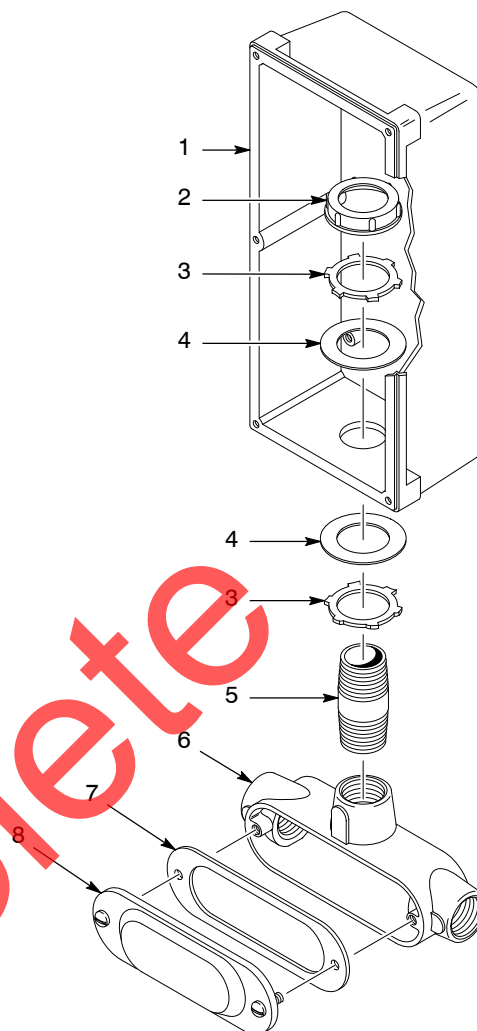


Figure 7 Installation Kit Hardware Installation

- | | |
|--------------|---------------------|
| 1. Enclosure | 5. Nipple |
| 2. Bushing | 6. Conduit tee body |
| 3. Locknuts | 7. Gasket |
| 4. Washers | 8. Conduit cover |

Electrical Installation



WARNING: All electrical connections must be made by a qualified electrician and must conform to all applicable local codes.

Ferrite and Wiring Installation

See Figures 8 and 9.

Install the power supply, lacquer applicator coil, and CleanSpray applicator coil wiring as required according to local code and your installation requirements. Pull wiring through conduit before making connections to the controller, if required. Conduit tee ports are $\frac{3}{4}$ -in. NPT.

NOTE: Use 22-gauge AWG wire to connect the lacquer applicator coil wiring to the CleanSpray controller. Wiring not furnished with the controller.

1. Route the power supply, lacquer applicator coil, and CleanSpray applicator coil wiring through the conduit tee and into the enclosure as shown in Figure 8.
 - The power supply wiring (6) must be routed through the round ferrite (5) included with the controller.
 - The CleanSpray applicator coil wiring (1) must be routed through the square ferrite (3). Snap the ferrite around the wiring.
2. If installing a manual wash circuit or the optional extended watchdog timer, route the wiring through the conduit tee and into the enclosure.
3. See Figure 7. Install the gasket (7) and conduit cover (8) on the tee. Tighten the cover screws.

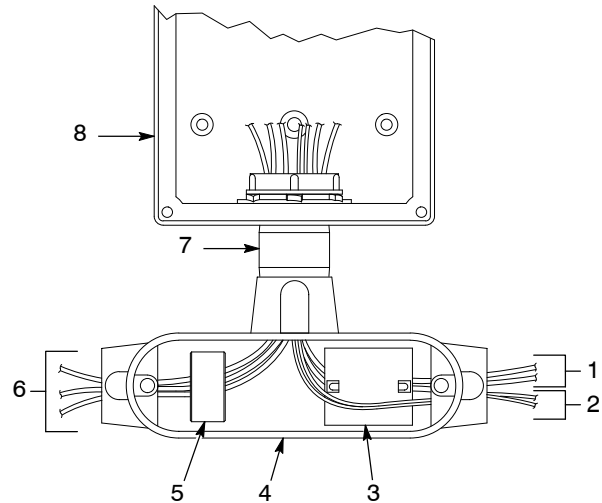


Figure 8 Ferrite and Wiring Installation

- | | |
|--------------------------------------|------------------------|
| 1. CleanSpray applicator coil wiring | 5. Round ferrite |
| 2. Lacquer applicator coil wiring | 6. Power supply wiring |
| 3. Square ferrite | 7. Nipple |
| 4. Conduit tee | 8. Enclosure |

Electrical Connections



CAUTION: Input voltage must be nominally 115 or 240 Vac, 50/60 Hz. Connecting any other voltage will result in improper operation and may damage the controller. Controllers are shipped configured for 240 Vac.

1. See Figure 9. Locate connector P3 on the circuit board. Connect the power supply wires and MOV surge suppressor included in the ship-with kit as shown. Tighten the connector screws.
2. Locate connector P1 on the circuit board. Connect wiring as shown. Tighten the connector screws.

Voltage Setting

Locate switch S3 on the circuit board. Position the switch so the correct input voltage is visible.

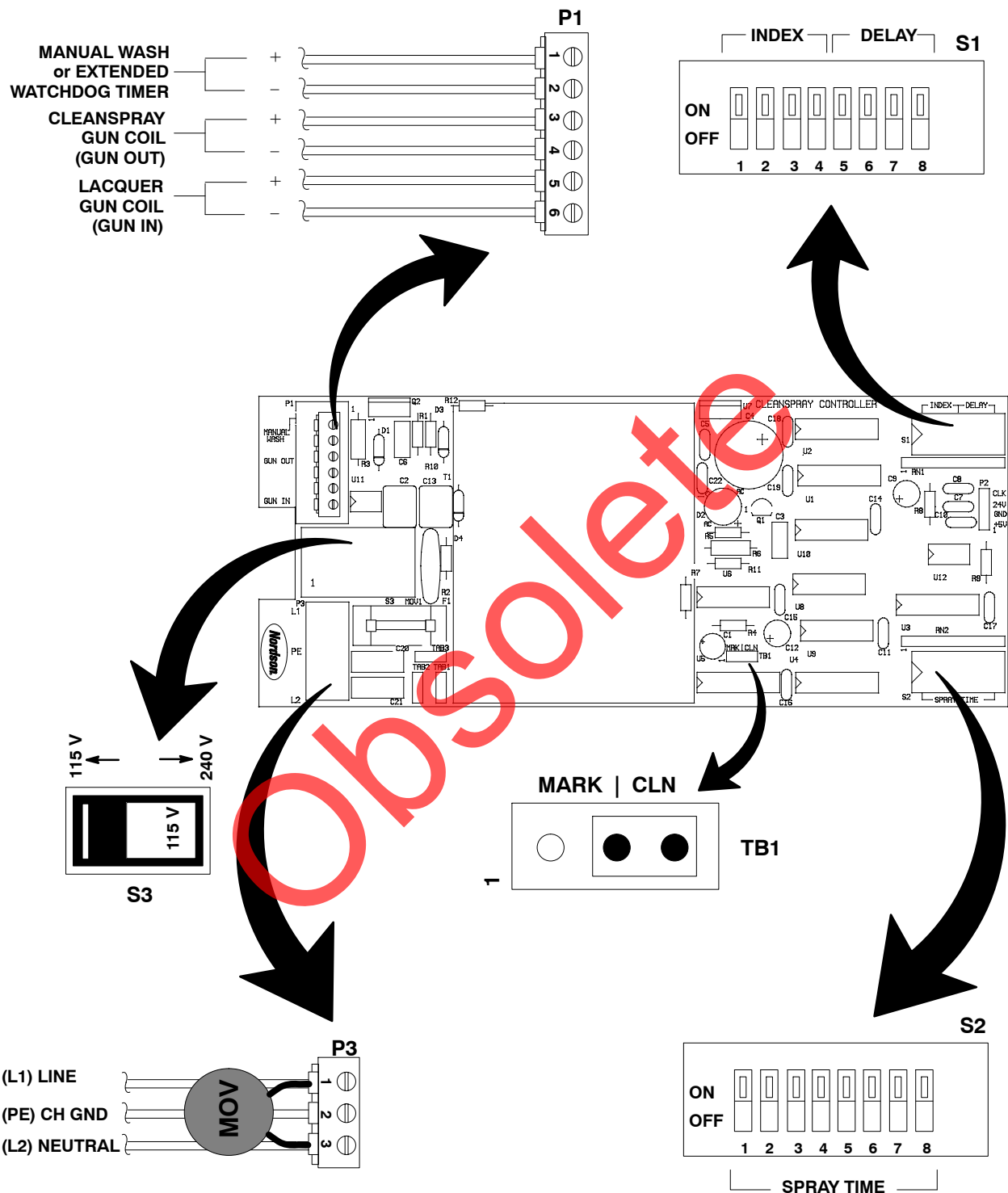
Electrical Installation (contd)

Figure 9 Electrical Connections and Switch Settings

Clean/Mark Setting

See Figure 9. Locate TB1 and make sure the jumper is set to the CLN position (short pins 2 and 3).

Can Index/Time Delay Setting



CAUTION: Do not set the DELAY to 0 msec (S1 switches 5–8 OFF). This allows the CleanSpray applicator to spray continuously and may damage it.

Locate S1 on the circuit board. The DIP switches are binary-count switches.

Function	DIP Switch	Setting
Can Index	1	8 cans
	2	4 cans
	3	2 cans
	4	1 can
Time Delay	5	8 ms
	6	4 ms
	7	2 ms
	8	1 ms

Can Index/Time Delay Example

To set the can index for 10 cans and the time delay for 9 ms, turn these DIP switches ON:

Can Index Switches	Time Delay Switches
1 (8 cans)	5 (8 ms)
3 (2 cans)	8 (1 ms)

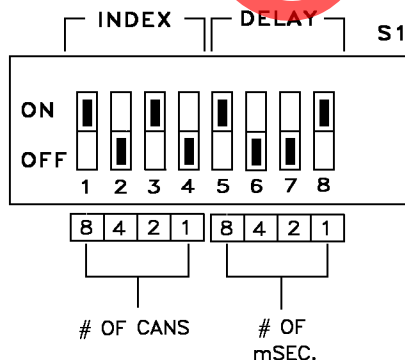


Figure 10 Can Index/Time Delay Settings

Spray Time Setting

Locate S2 on the circuit board. The DIP switches are binary-count switches.

DIP Switch	Setting
1	128 ms
2	64 ms
3	32 ms
4	16 ms
5	8 ms
6	4 ms
7	2 ms
8	1 ms

Setting Spray Time Example

To set the spray time for 93 ms, turn these DIP switches ON:

DIP Switch	Setting
2	64 ms
4	16 ms
5	8 ms
6	4 ms
8	1 ms

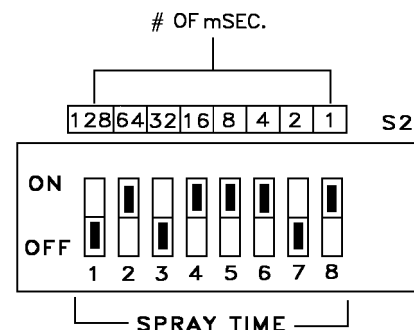


Figure 11 Spray Time Setting

Cover Installation

1. See Figure 3. Connect the power switch terminals (3) to the circuit board (4) as follows:
Terminal 1 to TAB 1
Terminal 2 to TAB 2
Terminal 3 to TAB 3
2. Use the screws (1) to install the cover (2) on the controller. Tighten the screws securely.

Operation

Operation of the CleanSpray controller is dependent upon the system it is used in. Turn the controller ON during system startup. Turn the controller OFF during system shutdown or before doing any maintenance.

Obsolete

Troubleshooting



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

These troubleshooting procedures cover only the most common problems. If you cannot solve the problem with this information, contact your local Nordson representative for help.

Problem	Possible Cause	Corrective Action
1. No power to the controller	AC power is off	Turn AC power on.
	Connector P3 is not wired correctly	Check the wiring at P3.
	Fuse F1 is blown	Replace the fuse.
	Voltage Select switch S3 is not set to proper voltage	Ensure voltage select switch S3 is set for the proper voltage.
	Power switch wire harness is not seated properly on circuit board	Ensure power switch is properly connected to circuit board.
2. CleanSpray gun not firing or fires erratically	Voltage Select switch S3 is not set for proper voltage	Ensure voltage select switch S3 is set for proper voltage.
	Switch S2 is not set properly	Set switch S2 for proper time.
	24 VDC supply is defective	Using a voltmeter set for DC volts, check connector P2, pins 3 and 2. Voltage must be 24–34 VDC. Replace circuit board if voltage check fails.
	5 VDC supply is defective	Using a voltmeter set for DC volts, check connector P1, pins 1 and 2. Voltage must be 5 VDC. (+/- 0.5 VDC). Replace circuit board if voltage check fails.
	NC (normally closed) switch is being used with manual input	Replace switch with NO (normally open) switch.
3. CleanSpray gun does not stop firing.	Delay switches on S1 is not set properly	Ensure delay switches are not set to 0 (all switches OFF).
4. Optional watchdog timer not functioning.	TB1 jumper is not set	Ensure TB1 is set in the CLN position (TB1 pins 2 and 3 shorted).
5. Manual input signal not working	Connector P1 is not wired properly	Check connection on P1, pins 1 and 2 for proper polarity.

Repair



WARNING: To prevent serious injury to personnel or damage to equipment, make sure power is off before performing maintenance or repair.

Power Switch Replacement

1. See Figure 12. Remove the screws (1) securing the cover (2).
2. Disconnect the power switch wire harness (3) from the circuit board (4).
3. Remove the power switch (5) from the front panel.
4. Install the new power switch into the front panel.
5. Connect the wire harness to the circuit board:
Terminal 1 to TAB 1
Terminal 2 to TAB 2
Terminal 3 to TAB 3
6. Use the screws (1) to install the cover (2) to the controller. Tighten the screws securely.

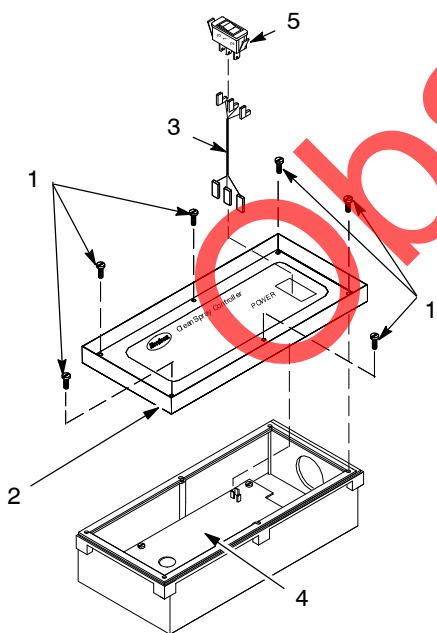


Figure 12 Power Switch Replacement

- | | |
|------------|------------------|
| 1. Screws | 4. Circuit board |
| 2. Cover | 5. Power switch |
| 3. Harness | |

Circuit Board Replacement

1. See Figure 13. Remove the screws (1) securing the cover (2).
2. Disconnect the power switch harness (3) from the circuit board.
3. Disconnect P1 and P3 terminal connectors from the circuit board (4).
4. Remove the screws (5) and washers (6) securing the circuit board.
5. Install the new circuit board and secure it with the screws and washers.
6. Connect P1 and P3 terminal connectors to the circuit board.
7. Connect the power switch harness to the circuit board as described in *Power Switch Replacement*.
8. Install the cover and tighten the screws securely.

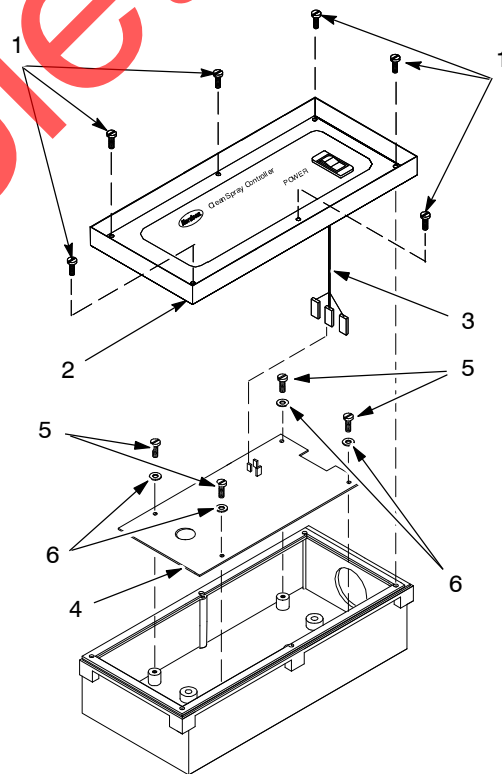


Figure 13 Circuit Board Replacement

- | | |
|------------|------------------|
| 1. Screws | 4. Circuit board |
| 2. Cover | 5. Screws |
| 3. Harness | 6. Washers |

Fuse Replacement

1. See Figure . Remove the screws (1) securing the cover (2).
2. Locate the fuse (3) on the circuit board (4). Replace the fuse.
3. Install the cover and tighten the screws securely.

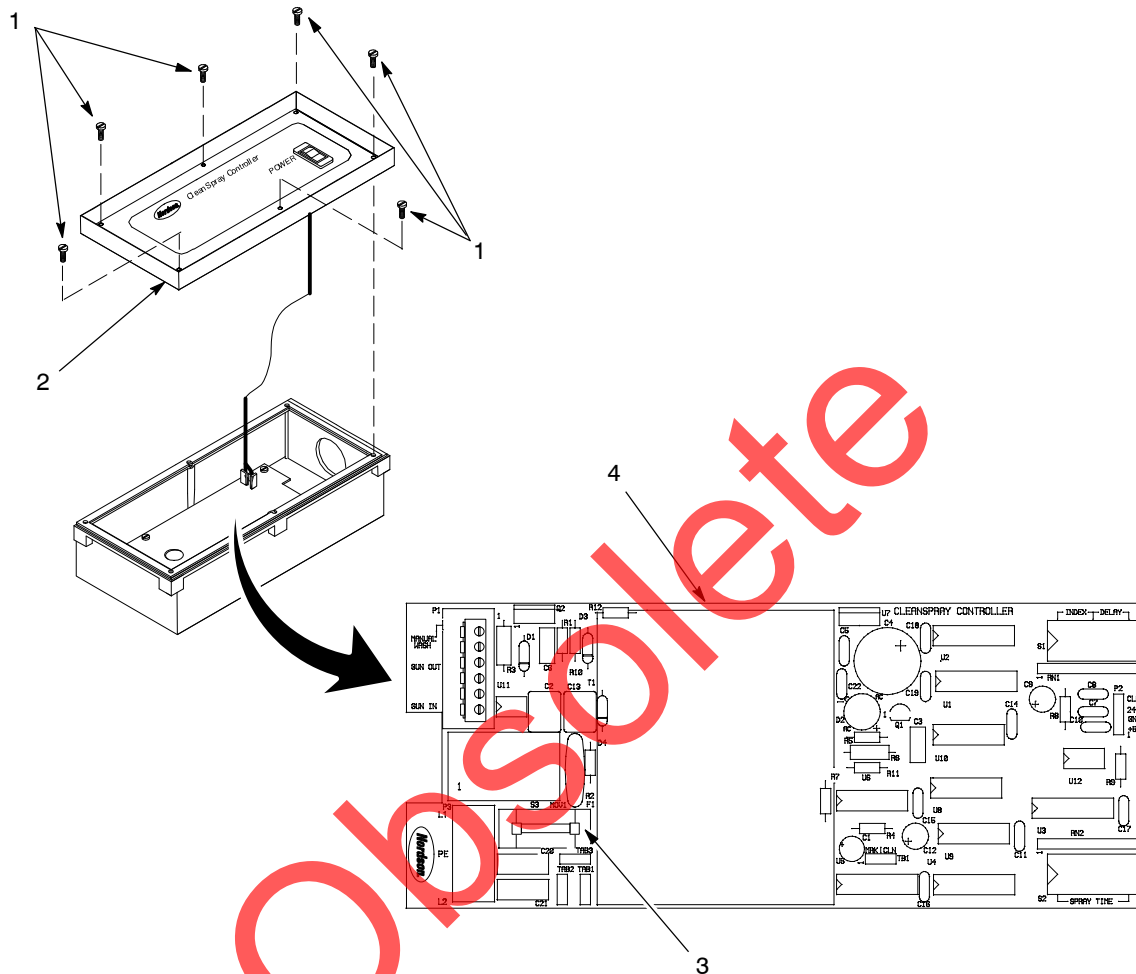


Figure 14 Fuse Replacement

- | | |
|-----------|------------------|
| 1. Screws | 3. Fuse |
| 2. Cover | 4. Circuit board |

Parts

To order parts, call the Nordson Finishing Customer Support Center at (800) 433-9319 or your local Nordson representative.

CleanSpray Controller

See Figure 15 for controller parts, Figure 16 for ship-with parts.

Item	Part	Description	Quantity	Note
—	147387	CONTROLLER, CleanSpray	1	
1	119165	• ENCLOSURE assembly	1	
2	145711	• CIRCUIT BOARD, CleanSpray	1	
3	981497	• SCREW, pan head, #4-40 x 0.312, zinc	4	
4	983101	• WASHER, lock	4	
5	981496	• SCREW, pan head, #4-40 x 0.375, zinc	6	
6	147385	• SWITCH, power, CleanSpray	1	
7	-----	• HARNESS, switch, CleanSpray	1	
8	326947	• CLIP, din, rail	2	A
9	982097	• SCREW, pan head, M4 x 25, zinc	2	A
10	983402	• WASHER, flat, M4	2	A
11	984715	• NUT, hex, M4	2	A
12	939741	FUSE, 0.25A, 250V, slo-blo, 5 x 20 mm	1	B
NOTE A: Mounting hardware.				
B: Must be ordered separately.				

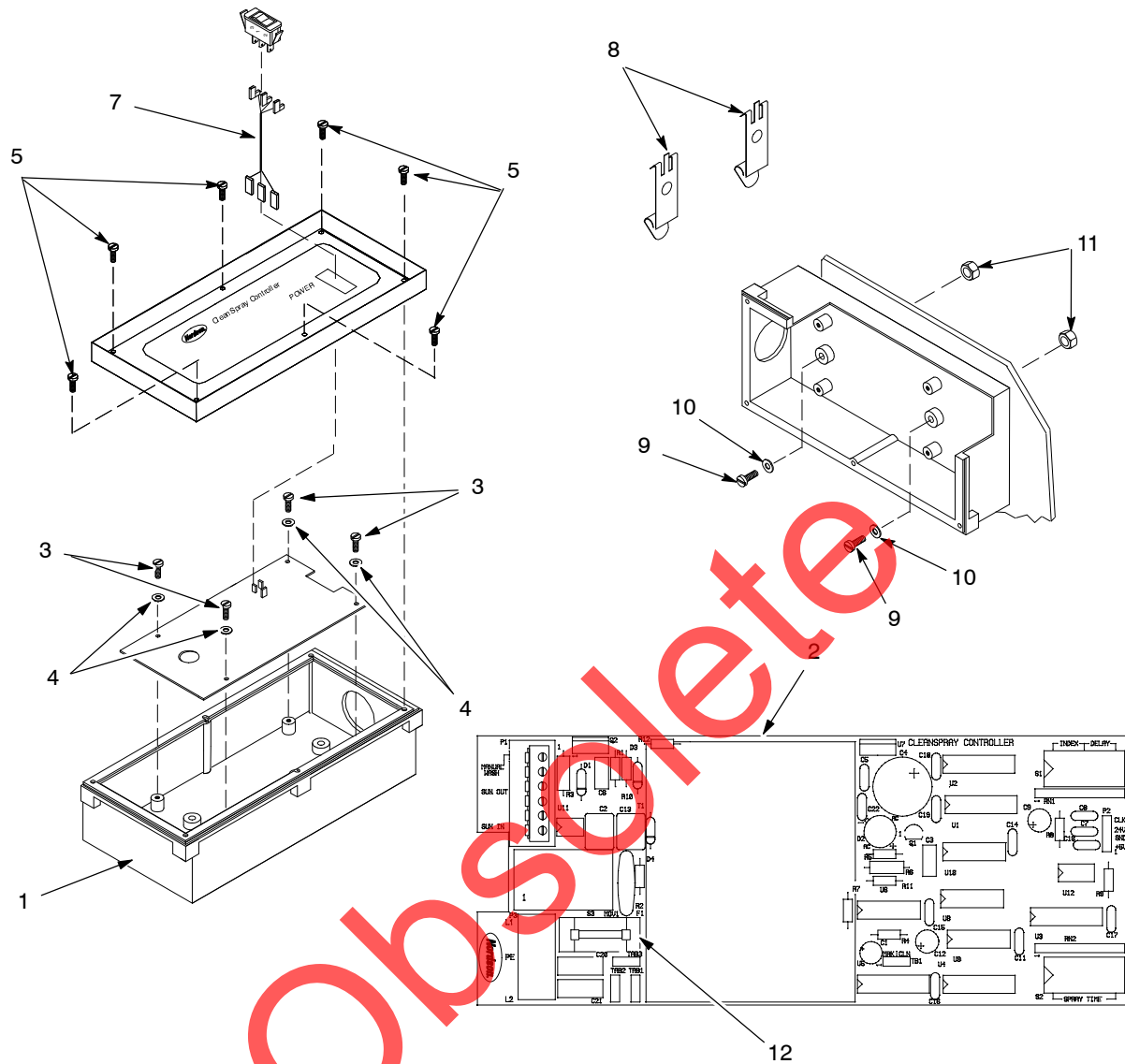


Figure 15 Controller Parts

CleanSpray Controller Ship-With Parts

See Figure 16. These parts are shipped with the CleanSpray Controller and must be installed when you install the controller.

Item	Part	Description	Quantity	Note
—	227182	INSTALLATION KIT, CleanSpray controller	1	
1	-----	• BUSHING, $\frac{3}{4}$ in., insulating, plastic	1	
2	-----	• LOCKNUT, $\frac{3}{4}$ in., steel	2	
3	-----	• WASHER, reducing, 1 x $\frac{3}{4}$ in.	2	
4	-----	• NIPPLE, conduit, $\frac{3}{4}$ x 1- $\frac{1}{2}$ in., rigid, galvanized	1	
5	-----	• CONDUIT BODY, $\frac{3}{4}$ in., aluminum, T	1	
6	-----	• GASKET, body, $\frac{3}{4}$ in., neoprene	1	
7	-----	• COVER, conduit body, $\frac{3}{4}$ in., aluminum	1	
8	227180	SUPPRESSOR, 109 ohms, 100 MHz	1	A
9	185068	SUPPRESSOR, ferrite, 13.4 mm dia	1	A
10	177691	SUPPRESSOR, transient voltage, 130 J	1	A
NOTE A: These items MUST be installed as shown in Electrical Installation, Figures 8 and 9.				

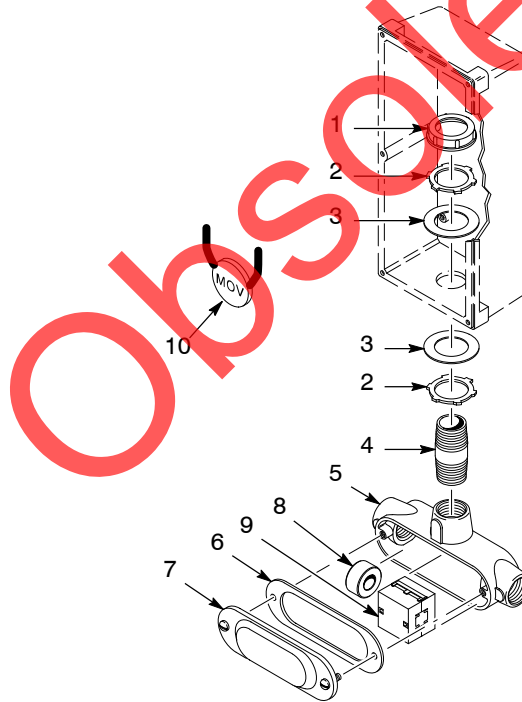


Figure 16 Controller Ship-With Parts

Options

Part	Description
172148	SERVICE KIT, pulse timer (Extended Watchdog Timer Kit)
149092	SWITCH, cord, 6 ft. (Manual Spray Option)

Specifications

Inputs	
Lacquer Applicator Input Signal	2–50 Vdc, high true signal, 30 ns minimum pulse width, optically isolated to 7500 V peak
Manual Spray Signal or Extended Watchdog Timer (Options)	Low true input (0.9 Vdc max., 1 mA) or switch closure (normally open)
Power	120/240 Vac, 50/60 Hz, single phase, 24 VA, internal switch selectable
Outputs	
CleanSpray Applicator Output Signal	20 Vdc, 1.2 amp max.
Environment	
Operating Temperature	0–60 °C (32–140 °F)
Storage Temperature	-20–85 °C (-4–185 °F)
Timing	
Timing Channel	1
Time Settings:	
Delay	1–15 ms
Duration	1–255 ms
Resolution	1 ms
Timer Accuracy	5% ± 1 ms
Repeat Accuracy	± 1 ms
Timer Controls	
Timing	PCB-mounted DIP switches, binary count
Triggers	Gun Input/Can Indexer Manual Input Extended Watchdog Timer
Can Indexer	1–15 cans
Indexer Controls	Lacquer applicator driver signal for index reset with optional extended watchdog timer or manual spray
Optional Extended Watchdog Timer	Provides automatic wash after approximately one second of no lacquer applicator fire, triggered by applicator driver signal.
Mechanical	
Mounting	Wall Machine Surface DIN Rail
Dimensions	See Figure 17.

Dimensions

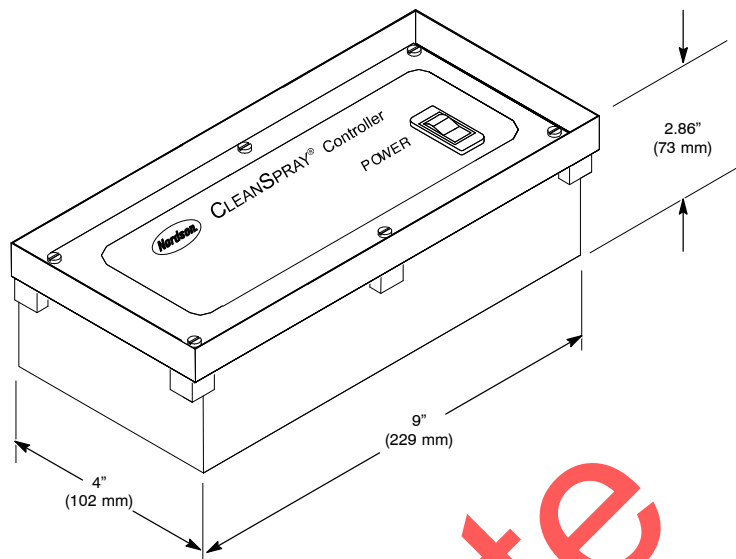


Figure 17 Controller Dimensions

DECLARATION of CONFORMITY

Product: Clean Spray System

Models: Clean Spray, Clean Spray II, or Clean Spray XT Applicators used with Clean Spray Controller

Description: This system consists of a Clean Spray Controller (driver), a supplied timer signal and a Clean Spray Applicator. This system is used to spray water on the nozzle of a can lacquer applicator and unplug it or keep it from plugging by cleaning it.

Applicable Directives:

2006/42/EC (Machinery Directive)

2006/95/EC (Low Voltage Directive)

2004/108/EEC (Electromagnetic Compatibility Directive)

Standards Used for Compliance:

IEC60417 (2002)

EN55011 (2009)

EN12100-1 (2011)

EN61000-6-3 (2007)

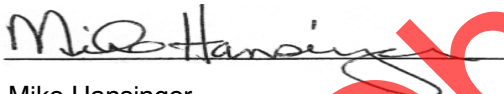
EN60204 (2006)

Principles:

This product has been manufactured according to good engineering practice.
The product specified conforms to the directive and standards described above.

Certificates:

DNV – ISO9001:2008 (Houston, Texas, USA)



Date: 21 March 2011

Mike Hansinger
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Nordson Authorized Representative in the EU

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