Nozzle Detect Sensor Assembly

Description

The nozzle detect assembly contains a detection sensor and mounting unit to allow flexible installation in order to provide confirmation of the dispenser nozzle's presence, location, and orientation.

See Figure 1.

Sensor button descriptions:

- *SET* — Press for one second or less to change the setting value, press for three seconds or more to access the setting screen.

- *DISPLAY* — Press for one second or less to change the setting value, press for three seconds or more to switch to the display screen.

- *MODE* — Press for one second or less to change the setting value, press for three seconds or more to switch to the display screen.
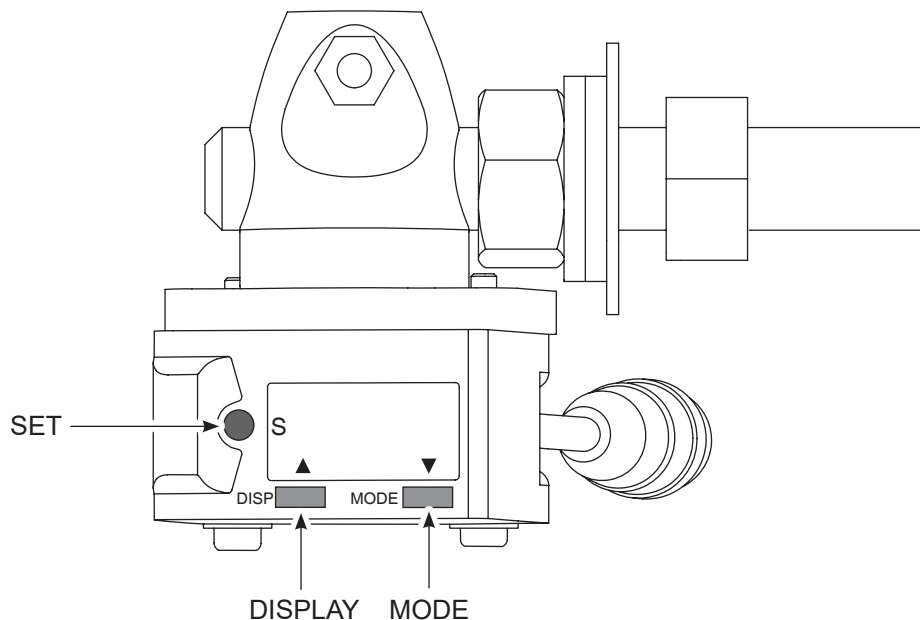

Figure 1 Nozzle Detect Sensor Assembly Buttons

Installation

NOTE: The following instructions are for mounting the nozzle detect sensor assembly to the Nordson supplied nozzle detect stand. The nozzle detect sensor assembly can be mounted using the unistrut and spring nut or bracket mounted using a through hole. Customer specific stand or bracket mounting instructions are not provided, but the programming instructions are universal.

Tools Required	
4 mm hex key wrench	Phillips-head screw driver
19 mm open end wrench	

Unistrut Mount with Spring Nut Installation

See Figure 2 and refer to the following instructions.

1. Slide the nozzle detect sensor assembly (6) into the hose and cable support bracket (4). When the nozzle detect sensor assembly (6) is in the desired position, tighten the jam nut (3) on the nozzle detect sensor assembly (6) with the 19 mm open end wrench to secure in place.

2. Connect the cable to the cable connector (7).

3. To adjust the sensor vertically, loosen the bolt (5) on the hose and cable support bracket (4), move to the desired position and secure with the bolt (5).

4. To adjust the sensor horizontally, loosen the jam nut (3) with the 19 mm open end wrench on the nozzle detect sensor assembly (6), move the nozzle detect sensor assembly (6) to the desired position and secure the jam nut (3) with the 19 mm open end wrench.

5. To adjust the angle of the nozzle detect sensor assembly (6), use the 4 mm hex key wrench to loosen the socket head screw (1). Rotate the nozzle detect sensor assembly (6) on the post (2) to the desired angle then tighten the socket head screw (1) with the 4 mm hex key wrench.
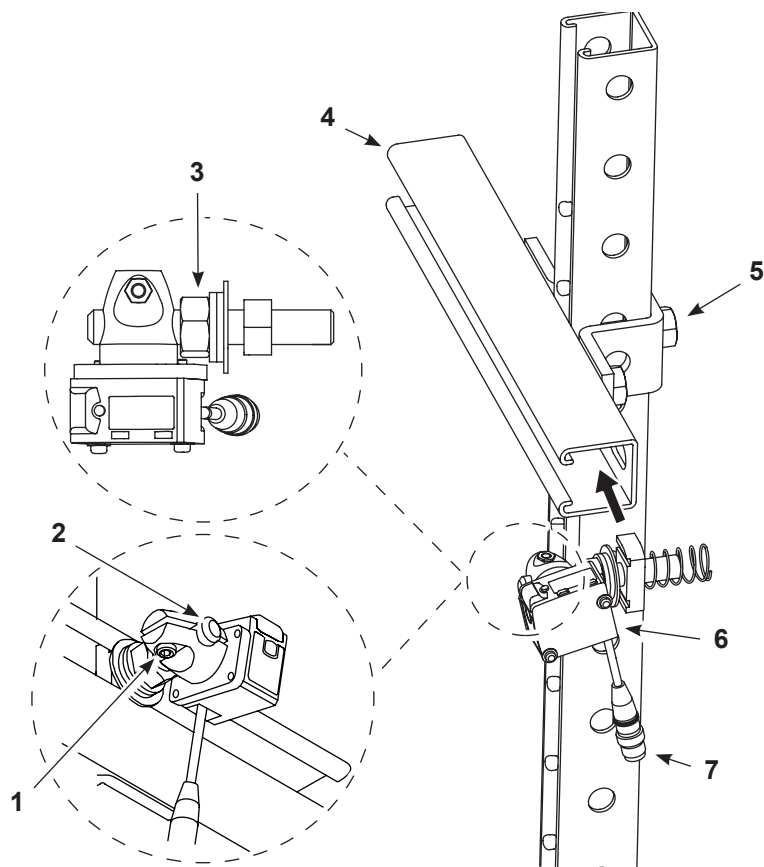
Figure 2   Unistrut Mount with Spring Nut Installation

Bracket Mount with Through Holes

See Figure 3 and refer to the following instructions.

1. Install the nozzle detect sensor assembly (7) into the through hole on a bracket (5) and secure in place with a washer (6) and rear/bottom jam nut (4). Tighten the rear/bottom jam nut (4) using a 19 mm open end wrench.

2. Connect the cable to the cable connector (8).

3. To adjust the nozzle detect sensor assembly (7) front-to-back, loosen the rear/bottom jam nut (4)
    and front/upper jam nut (3) move to the desired position. Secure the nozzle detect sensor assembly (7) by tightening the rear/bottom jam nut (4) and front/upper jam nut (3) with the 19 mm open end wrench.

4. To adjust the nozzle detect sensor assembly (7) horizontally, loosen the rear/bottom jam nut (4) with the 19 mm open end wrench on the nozzle detect sensor assembly (7), move the nozzle detect sensor assembly (7) to the desired position and secure the rear/bottom jam nut (4) with the 19 mm open end wrench.

5. To adjust the angle of the nozzle detect sensor assembly (7), use the 4 mm hex key wrench to loosen the socket head screw (1). Rotate the nozzle detect sensor assembly (7) on the post (2) to the desired angle then tighten the socket head screw (1) with the 4 mm hex key wrench.
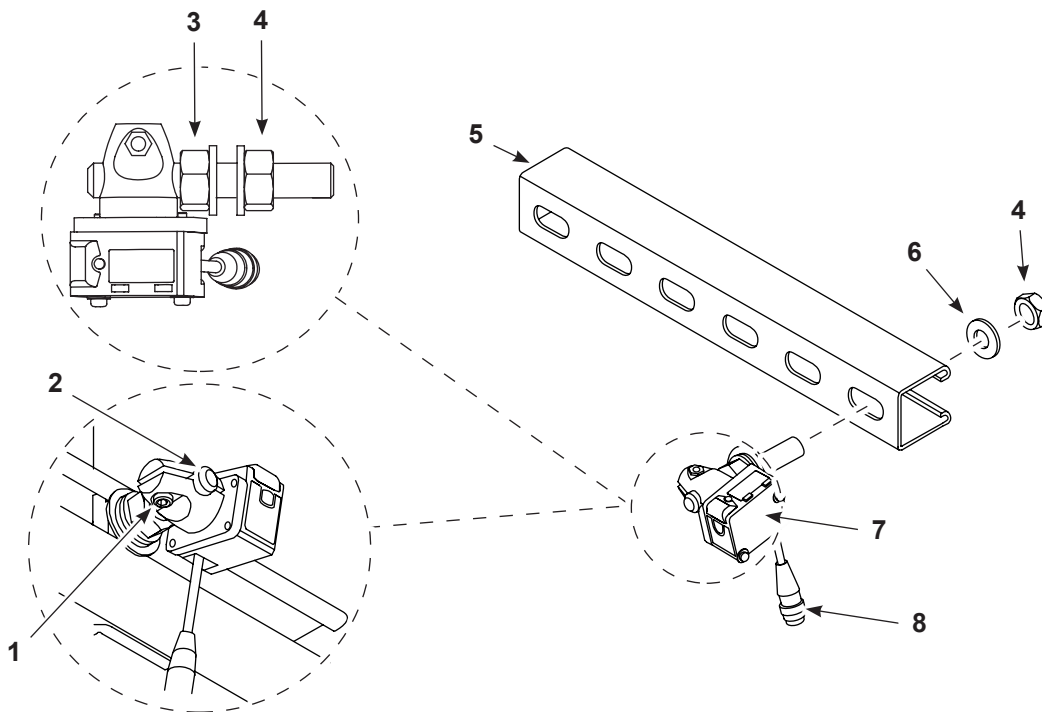

Figure 3 Bracket Mount with Through Holes Installation

Programming
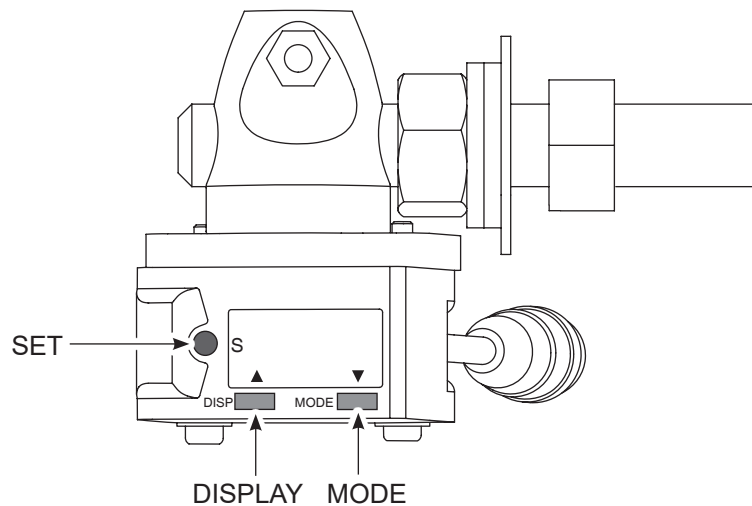
See Figure 4 and refer to the following instructions.

SET — S

DISP   MODE

DISPLAY   MODE

Figure 4 Nozzle Detect Sensor Assembly Buttons

Initial Programming

1. Press the *MODE* button to begin programming.

2. Use the MODE and DISPLAY buttons to navigate through the menu to *Out1 + Out 2* option.

3. Press the *SET* button to set and save the *I/O* option to *Out1 + Out2*.

4. When the *I/O* option is set, the *Output* setting window comes up.

5. Use the MODE and DISPLAY buttons to navigate through the menu to *PNP* option.

6. Press the *SET* button to set and save the *Ouput* option.

7. When the *Output* option is set, the *End Configuration* window comes up.

8. Press the *SET* button to end configuration.

9. Press the *MODE* button to bring up the *Save Configuration* window.

10. Press the *SET* button to save the configuration and end setup.

Detailed Programming

1. Press and hold the *MODE* button for three or more seconds.

2. Use the *MODE* and *DISPLAY* buttons to scroll through the menu options.

3. Press the *SET* button to select an option and set/save the option.

4. See the setting chart below for the individual settings and parameters.

Option	Setting
Response Time	1000 ms
Output 1 Logic	N.C.
Output 1 Mode	Standard
Output 1 Timer	OFF
Output 2 Logic	N.O.
Output 2 Mode	Stability
Advanced Settings	ON
Hysterisis	Custom
Hysterisis Value	0
Sensitivity	High
Output Hold	OFF
Brightness	30%
Interface	Channel 1
Password Lock	OFF
Initialize	No

5. At the end of the menu when all the settings are complete, press the *MODE* button.

6. Press the *SET* button to finalize and save the settings.

Setting the Nozzle Detect Sensor Assembly to the Nozzle

1. Point the laser at the nozzle.

2. Press the *SET* button once. Make sure that *SET* is showing on the screen.

3. Press and hold the *SET* button until the *DATUM* screen opens up.

4. Use the *MODE* and *DISPLAY* buttons to set the tolerance to ±3.

5. The sensor is now set up.

NOTE: The sensor displays a *GREEN* light where there is no nozzle detected and an *ORANGE* light when a nozzle is detected.

Reset the Settings

1. While pressing the *MODE* button, press the *SET* button five times.

2. When the *Initialize?* window comes up, use the *MODE* and *DISPLAY* buttons to scroll to the *Yes* option.

3. Press the *SET* button to reset the parameters and return the nozzle detect sensor assembly to the factory setting.

Parts

To order parts, call the Nordson Industrial Coating Systems Customer Support Center at (800) 433−9319 or contact your local Nordson representative.
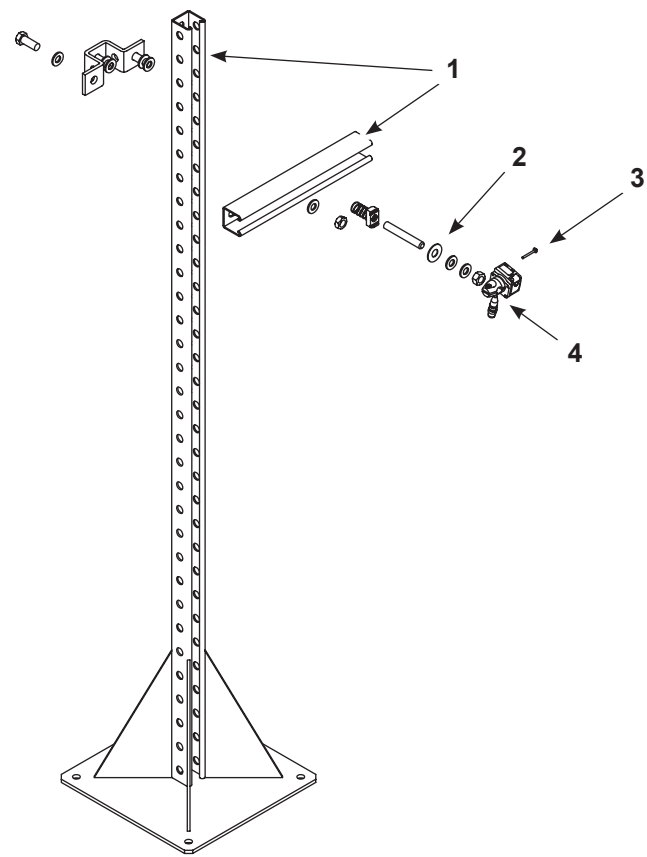
10017203

Figure 5 Nozzle Detect Sensor Assembly Parts

Item	Part	Description	Quantity	Note
—	1612794	NOZZLE DETECT, adjustable, w/ stand, black	—	
	1618105	NOZZLE DETECT, adjustable, w/ stand, dark gray	—	
	1618106	NOZZLE DETECT, adjustable, w/ stand, light gray	—	
	1618225	NOZZLE DETECT, adjustable, w/ stand, white	—	
1	1609482	• BRACKET, hose and cable support, black	1	
	1608483	• BRACKET, hose and cable support, dark gray	1	
	1618141	• BRACKET, hose and cable support, light gray	1	
	1618224	• BRACKET, hose and cable support, white	1	
2	1612970	• KIT, nozzle detect, sensor head	1	
3	- - - - - -	• • WASHER, flat, regular, ½ ,zinc	1	
4	- - - - - -	• SCREW, hex, ½-13 x 1.250, cap, zinc	2	
NS	- - - - - -	• CABLE, 4-pin micro DC, 18 awg, 15 m, male/female	1	
NS: Not Shown				