



Nordson Corporation

OPERATOR'S CARD

P/N 334685B

Sure Coat[®] Application Controller

Introduction



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

This operator's card contains only basic operating procedures for the Sure Coat application controller.

Refer to *Part G: Application Controller* of the *Sure Coat Modular Gun Control System* manual for detailed configuration, operation, and troubleshooting instructions.

Startup

1. The application controller should automatically turn on when the main booth power turns on. If it does not, locate the power switches on the back of the application controller and the modular gun control system and turn them to the on position.
 - The system performs an internal check for approximately 20 seconds.
 - The white **Touch to Configure** screen appears on the application controller, displaying a countdown timer. Allow the timer to count down to 0.
 - The system continues to load software for approximately 35 seconds.
2. Make sure that the
 - booth exhaust fans are on,
 - powder recovery system is operating,
 - powder in the hopper is fluidized, and
 - all connections are secure.
3. Make sure that the central control unit's LOCAL LED is off. If the LED is on, press the LOCAL key to put the central control unit into Remote mode.
4. The Startup Menu appears when the self test is complete. Touch one of the following buttons to access the daily operation functions:
 - **Status:** Gun and part status monitoring
 - **Control:** Trigger, style, and purge control

NOTE: The Startup Menu will not appear if the initial testing and configuration steps have not been completed. Refer to *Part G: Application Controller* in the *Sure Coat Modular Gun Control System* manual for information about initial configuration steps and the functions of the **Setup** and **Special Functions** buttons.
5. Turn on the main air supply.

Status Monitoring Functions

Screen Navigation

Touch the **Status** button on the Startup Menu to access the Status Monitoring screens.

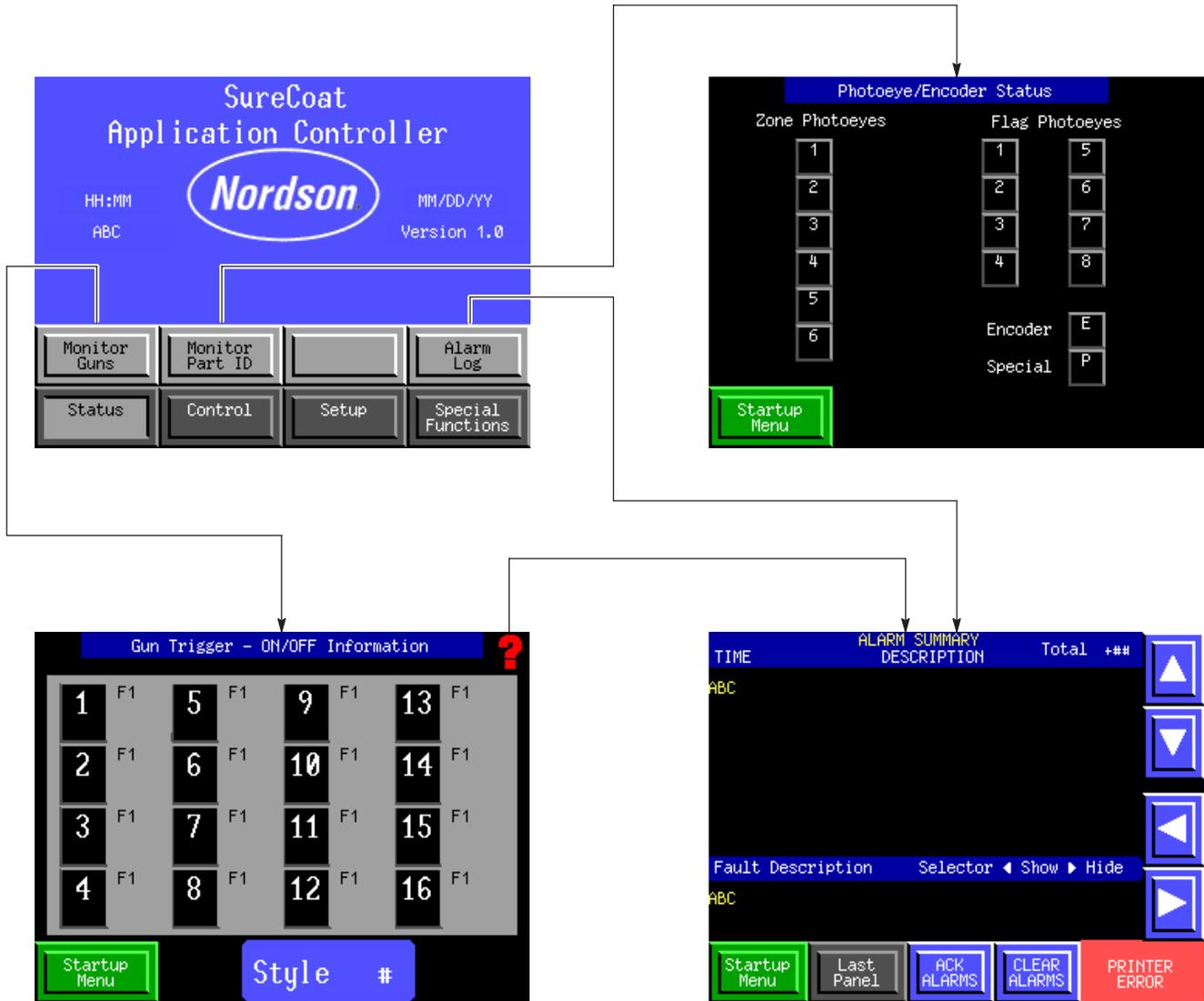


Figure 1 Status Monitoring Screens

Status Monitoring Functions *(contd)*

Gun Trigger - On/Off Information

Touch the **Monitor Guns** button to view gun status.

Heading	
Gun (#)	<p>Black: Gun is off</p> <p>Green: Gun is triggered</p> <p>Red: Gun is triggered; fault is detected</p>
F1	Flow rate 1 air pressure is selected
F2	Flow rate 2 air pressure is selected
AFC	Green: AFC function is active
Style #	Current active style (for gun 1)
NOTE: Other guns may be operating under other styles, but the active style on the screen represents gun 1.	

Photo Eye/Encoder Status

Touch the **Monitor Part ID** button to view the photo eye and encoder status.

Indicator	Meaning
Zone photo eye (#)	<p>Black: Zone photo eye does not detect a part</p> <p>Green: Zone photo eye detects a part</p>
Flag photo eye (#)	<p>Black: Flag photo eye does not detect a flag</p> <p>Green: Flag photo eye detects a flag</p>
Encoder (E)	Green (blinking): Encoder detects conveyor travel
Special (P)	Not used in this system

Alarm Summary

Refer to the *Troubleshooting* section of Part G of the *Sure Coat Modular Gun Control System* manual for more detailed troubleshooting instructions.

Viewing Faults

Access the **ALARM SUMMARY** screen by touching one of the following icons:

- The **Alarm Log** button on the Startup Menu
- The ? icon (when present) in the upper-right corner of any screen

The top half of the **ALARM SUMMARY** screen lists the time that each fault occurred, a brief description of each fault, and the total number of active and inactive faults. Fault descriptions appear in one of two colors:

- **Green:** Active fault
- **Gray:** Inactive/acknowledged fault

Clearing and Acknowledging Faults

Faults that do not critically affect system operation may be acknowledged. The system will still operate if several non-critical faults are present and have been acknowledged.

Critical faults may not be acknowledged. A critical fault requires immediate operator intervention before the fault is cleared and the system returns to normal operation.

Refer to the following table for a description of the buttons on the **ALARM SUMMARY** screen.

Button	Function
▲	Scrolls up list of faults
▼	Scrolls down list of faults
◀	Displays Fault Description at bottom of screen
▶	Hides Fault Description at bottom of screen
Last Panel	Returns user to previous screen
ACK ALARMS	Acknowledges a new, non-critical fault; fault remains on the ALARM SUMMARY screen
CLEAR ALARMS	Clears an acknowledged fault; removes fault from the screen
PRINTER indicator	Not used

Control Functions

Screen Navigation

Touch the **Control** button on the Startup Menu to access the Control Functions screens.

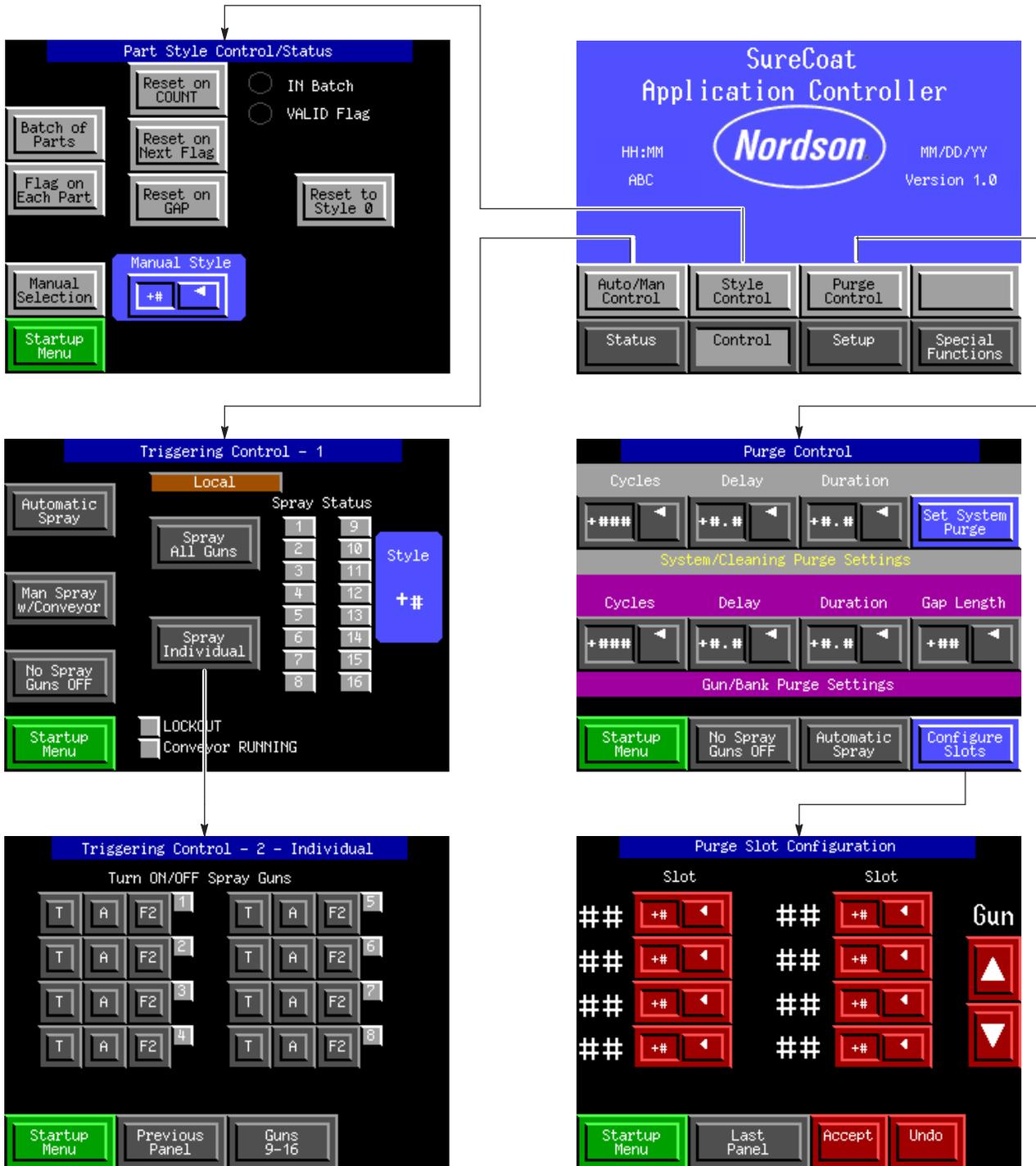


Figure 2 Control Functions Screens

Control Functions *(contd)*

Automatic and Manual Triggering Control

The application controller allows either manual or automatic gun triggering, part style selection, and gun purging.

Triggering Control - 1

Touch the **Auto/Man Control** button to access the **Triggering Control - 1** screen.

Item	Description
Automatic Spray	Puts system in automatic mode; guns trigger and styles are selected based on photo eye detection; refer to <i>Part Style Control/Status</i>
Man Spray w/Conveyor	Allows operator to trigger guns manually while the conveyor is active; zone and flag photo eyes are not active (if the conveyor stops, the guns do not trigger) NOTE: The Spray ALL Guns and Spray Individual buttons appear when you touch this button.
Spray All Guns	Triggers all guns at the same time
Spray Individual	Allows operator to manually control individual guns (trigger, AFC, F1/F2 are manually selected by operator); refer to <i>Triggering Control - 2 - Individual</i>
No Spray Guns OFF	Stops all guns from triggering; guns stay off until you select a new control mode
Local/Remote	Remote (Blue): System is controlled through the application controller Local (Flashing Red): System is controlled through the central control unit NOTE: Switching between Local and Remote does not turn on and off the guns.
Spray Status	Gray: Gun is not triggered Blue: Gun is triggered; flow rate 1 air pressure is active Pink: Gun is triggered; flow rate 2 air pressure is active Red: Gun is triggered; fault is detected
Style	Automatic Spray Only: Indicates which style is currently active (for gun 1)
LOCKOUT	Gray: Conveyor is operating Red: Main cabinet keyswitch is in the LOCKOUT position
Conveyor RUNNING	Gray: Conveyor is off Green: Conveyor is operating or main cabinet keyswitch is in the CONVEYOR BYPASS position

Triggering Control - 2 - Individual

Touch the **Spray Individual** button to access the **Triggering Control - 2 - Individual** screen.

Item	Description
T	Triggers on or off the corresponding gun
A	Turns on or off AFC of the corresponding gun
F2	Switches the corresponding gun to flow rate 2 air pressure (if applicable)
1- 8 indicators	Gray: Gun is not triggered Blue: Gun is triggered; flow rate 1 air pressure is active Pink: Gun is triggered; flow rate 2 air pressure is active Red: Gun is triggered; fault is detected
Guns 9-16	Displays manual triggering controls for guns 9-16

Control Functions *(contd)*

Part Style Control/Status

Part styles may be selected either automatically or manually. Touch the **Style Control** button to access the **Part Style Control/Status** screen.

NOTE: When you manually select a style, parts that have already been detected will not be affected by the change. Parts between the photo eyes and the guns will be sprayed using the previously active style.

Item	Description
Batch of Parts	Tells the application controller that the current group of parts is a batch; will coat parts using current style until one of the following events occurs: <ul style="list-style-type: none"> • batch count expires • new style flag is detected • gap between parts is detected • operator manually resets style
Flag on Each Part	Tells the application controller that each part on the conveyor has a style flag; application controller resets to default style if no flag is detected
Manual Selection	Allows operator to manually select styles as appropriate
Reset on COUNT	Resets system to default style when encoder count reaches specified number
Reset on Next Flag	Resets system to default style when identical flag is detected
Reset on GAP	Resets system to default style when specified gap is detected
Reset to Style 0	Allows operator to manually reset the system to default style
Manual Style	Allows operator to manually select a style
IN Batch	Indicates that system is in batch mode
VALID Flag	Indicates that a valid style flag is being detected

Purge Control

NOTE: Your system may not have the gun purge option.

Touch the **Purge Control** button to access the **Purge Control** screen.

System/Cleaning Purge Settings	
System/cleaning purge settings are not used on this system.	
Gun/Bank Purge Settings	
Cycles	Number of purge pulses that determine the overall gun purge cycle (0-255 cycles)
Delay	Number of seconds between pulses (0-1.5 seconds)
Duration	Number of seconds for each pulse (0-1.5 seconds)
Gap Length	Amount of space in between parts (1-32 encoder counts)
Buttons	
Startup Menu	Returns you to the Startup Menu
No Spray Guns OFF	Turns off all guns before beginning a manual system purge cycle
Automatic Spray	Allows the system to trigger the guns and purge the system automatically
Configure Slots	Accesses the Purge Slot Configuration screen (allows the user to assign individual guns to slots in the booth; all guns must be assigned to slot 1)

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Notes

