DN Series™ ActivEdge
Secure Card Reader

Operator Manual

01750332042 A

Contents

Figures

1 General safety instructions for the component

	⚠ **NOTE**
	Read this entire manual carefully in order to obtain a thorough knowledge with respect to the system and the components, in addition to their operation and maintenance.
	Operate the system and the components correctly in accordance with this manual in order to avoid injuries and damage to the plant.
	Keep this manual available and consult it for guidance when you are unsure about how to carry out one or another of the procedures.

	⚠ **DANGER**
	Electrical voltage
	Risk of fatal injury through contact with parts carrying electrical voltage! Switch the system off before performing any cleaning or maintenance tasks.
	• Switch off the power switch for the power distributor.
	• Switch off the UPS, if installed.
	• Disconnect the mains connection, if installed, between the UPS (Uninterruptible Power Supply) and the system itself (see section "General power interruption" in the operating manual).
	• Disconnect the connector of the power supply cable from the electrical socket installed by the building contractor.

Repairs

	⚠ **DANGER**
	Repair work on the system or on the components may be carried out only by authorized specialist staff. Unauthorized opening of the system or repair work carried out improperly could result in considerable danger to the user. In case of noncompliance, excludes all liability.

2   Signs, Labels and Symbols

The following labels can be used in these instructions, on the system or on the component.

Table 2-1: Warning signs used

Warning signs			
General warning sign	Warning of electric voltage	Warning of hot surfaces	Warning of hand injuries
Warning of feed risk	Warning of cut injuries	Warning of laser beam	Warning of obstacles in the head area
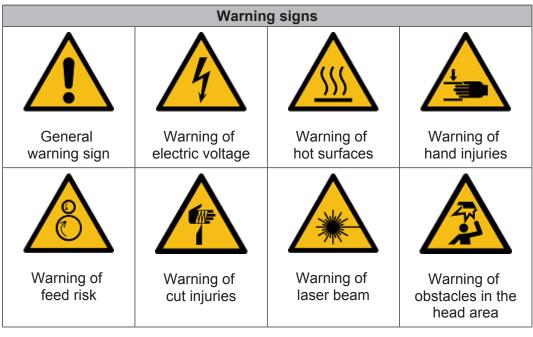
Table 2-2: Used mandatory signs

Mandatory signs			
Use hearing protection	Use protection eyewear	Use safety footwear	Use protective gloves
Pull main plug	Read manual		

3 Introduction

3.1 General Information

This document describes the features, basic operation and basic maintenance for the DN™ Series ActivEdge secure card reader.

The operator should know how to perform the following tasks before beginning other procedures in this manual:

- Placing the system in maintenance mode.
- Returning the system to full operation.

Refer to the software documentation for information about placing the system in maintenance mode and returning the system to full operation.

Refer to the operator manual for the system for more information about using the card reader.

3.2 Safety Precautions

General Safety Precautions

Strictly observe the following safety precautions during maintenance procedures on the module. By following these precautions, you can reduce the risk of severe personal injury, death, or damage to the equipment.

⚠	⚠ **WARNING**
	Observe the following precautions when performing maintenance on the module to avoid risk of death, severe personal injury, or damage to the equipment:
	• Do not wear loose clothing or jewelry that can become caught in the equipment.
	• Prevent long hair getting caught in the equipment.
	• Never insert screwdrivers, pens, or other instruments into any system module or device. Severe bodily injury, death from electrical shock, or damage to equipment can result.
	• Always completely remove AC power to the system before removing or installing modules.

4   Product Description

4.1   Product Features

The ActivEdge card reader has the following features:

*   The ActivEdge secure card reader reads data from magnetic cards, IC cards, and smart chip cards when the card is inserted with the long edge first.

*   The LEDs on the bezel of the card reader flash red if the card is inserted incorrectly (with the short edge first).

*   The card reader is mounted to a tray for easier maintenance.

4.2   Product Operation

The following steps describe the basic operation of the ActivEdge card reader (*Figure 4-1*).

1.   The consumer inserts the card into the slot.
2.   The slot has a gate that allows the card to be partially inserted.
3.   The gate opens when the card is properly inserted (long edge first).
4.   The card is automatically drawn into the reader.
5.   The transaction begins when the card is inside the reader.
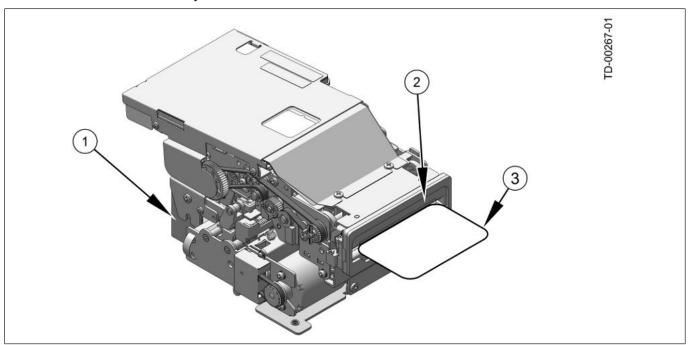6.   The card is automatically returned to the consumer at the end of the transaction.

Figure 4-1: Secure Card Reader

1	Secure card reader
2	LEDs on the bezel
3	Bank card inserted long edge first with magnetic stripe down

5 Maintenance Procedures

5.1 Beginning and Ending a Maintenance Session

The operator should know how to perform the following tasks before using the other procedures in this section.

- Opening the system to access the card reader.

- Placing the system in maintenance mode.

- Returning the system to full operation

Refer to the operator manual for the system for more information about these tasks.

5.2 Retrieving Jammed Cards

The card can sometimes get stuck in the transport mechanism.

Use the following steps to remove jammed cards.

1. Place the system in maintenance mode.
2. Open the system and gain access to the card reader.
3. Make sure the read head is in the home position (*Figure 5-1*).
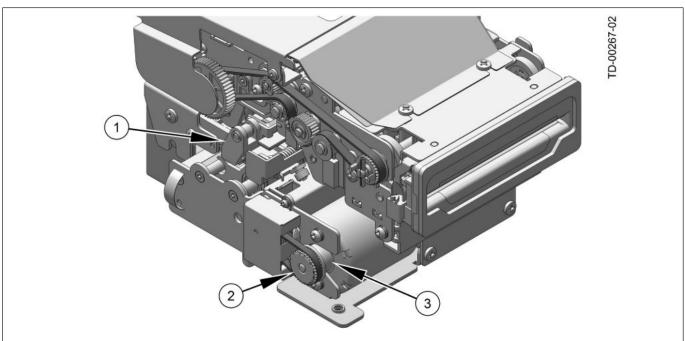
Figure 5-1: Read Head in Home Position

1	Read head in home position
2	Head-moving motor pulley
3	Head-moving motor

4. If the read head is not in the home position, rotate the pulley of the head-moving motor counter-clockwise until the head is in the home position.

5.   Push and hold the plunger of the shutter solenoid (*Figure 5-2*).

6.   Turn the blue knob counterclockwise.

7.   Retrieve the card at the card slot.
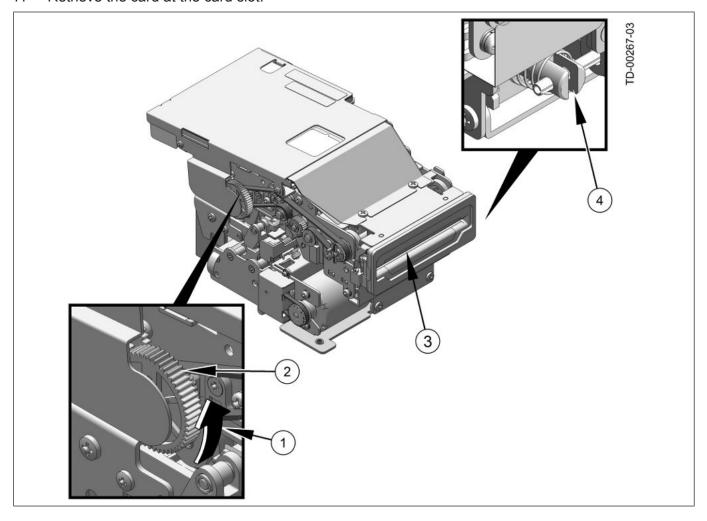

Figure 5-2: Transporting Jammed Cards to the Card Slot

1	Turn the blue knob counterclockwise to drive the card out the front of the reader
2	Blue knob
3	Card slot
4	Shutter solenoid plunger

5.3 Retrieving Retained or Captured Cards

1. Open the system and gain access to the captured card bin.
2. Remove the captured cards from the captured card bin.

5.4 Cleaning the Card Reader

5.4.1 Cleaning with Commands

Use a cleaning card to clean the card reader regularly, every six months under normal conditions.

⚠ **WARNING**
The cleaning card can jam if the thickness of the card varies from the standard size or if a non-rigid cleaning card is used. Check the card before beginning the cleaning process.

1. Place the system in maintenance mode.
2. Insert the head cleaning card long edge first into the card slot.
3. The card reader moves the card over the read head and tries to read the cleaning card.
4. It may be necessary to repeat the operation several times, until the card is finally ejected.
5. Return the system to the normal mode of operation.

5.4.2 Manually Cleaning with a Cleaning Card

Use a cleaning card to clean the card reader regularly, every six months under normal conditions.

1. Push the plunger of the shutter solenoid (*Figure 5-3*).
2. Insert the cleaning card with the white side up, and long edge first into the gate.
3. Turn the blue knob clockwise until the card no longer moves.
4. Turn the head-moving motor pulley clockwise five or six times to move the read head, then turn the pulley counterclockwise to return the head to the home position.
5. Verify the cleanliness of the read head while it is in the home position.
6. Repeat Step 1 through Step 4 if more cleaning is needed.
7. Push and hold the plunger of the shutter solenoid and turn the blue knob counterclockwise to eject the card toward the front gate.
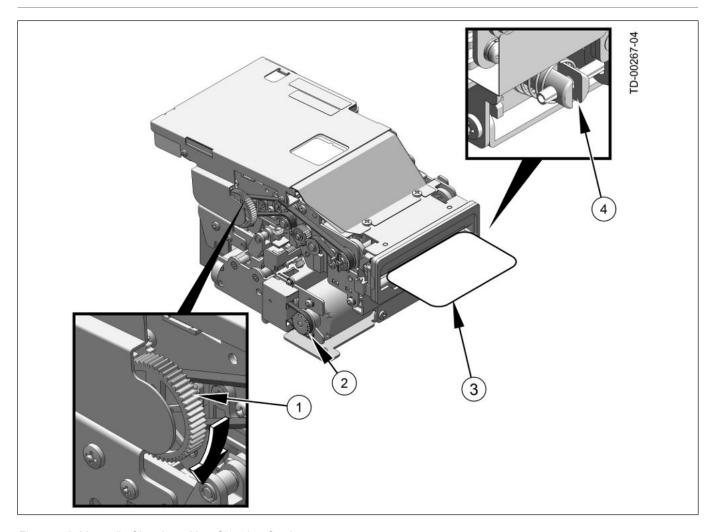8. Retrieve the card.

Figure 5-3: Manually Cleaning with a Cleaning Card

1	Turn blue knob clockwise
2	Head-moving motor pulley
3	Cleaning card long side first (white side up, magnetic stripe down)
4	Shutter solenoid plunger

5.4.3   Direct Head Cleaning

Perform the following steps to directly clean the head of the card reader.

1.   Rotate the pulley of the head-moving motor until the read head is in the home position (*Figure 5-4*).
2.   Press down on the arm of the read head in order to slightly open the read head.
3.   Use a dry cotton swap to lightly wipe the surface of the read head.
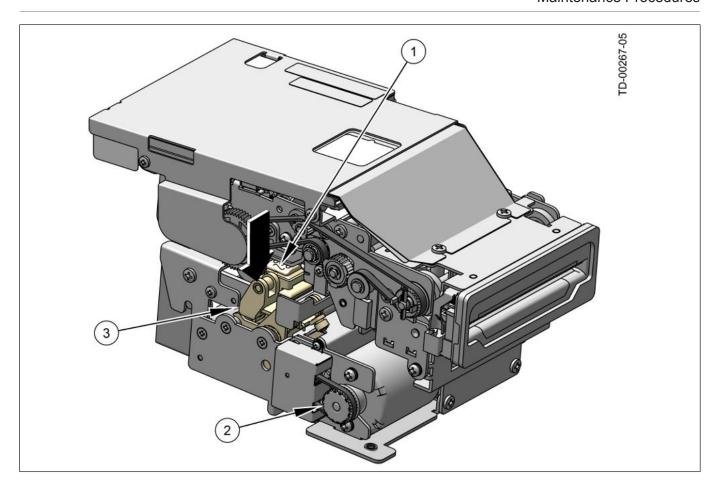4.   To avoid damaging the card reader, do not use excess force.

Figure 5-4: Direct Head Cleaning

1	Wipe head here with cotton swab
2	Pulley
3	Rear head arm

6 Supplies

Use the following supplies to service the ActivEdge secure card reader.

Supplies	Part Number
Head cleaning card, secure card reader	01750340744