

CASI-RUSCO...*Security Solutions for the 21st Century*

Model 10 Magnetic Stripe Reader Installation Guide



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The customer accepts full maintenance responsibility. (A full scope of software and hardware maintenance contracts are available to the customer.)

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WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take adequate measures.

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Introduction

This manual is an installation guide for the CASI-RUSCO Model 10 Magstripe Reader.

The Model 10 Reader is a strobed output mag-stripe reader used for interior areas of a facility. It can communicate with a Micro/5 by connecting to a 2RP or 2SRP board.

Product Features

The CASI-RUSCO Model 10 Reader offers:

- Housing for indoor use only
- Ability to read magnetic stripe badges
- Can be located up to 200 feet from the microcontroller.

Installation Overview

The following is the general sequence of steps to follow in installing the Model 10 Reader. Each step is explained in further detail in the sections that follow:

Recommended installation sequence:

1. Connect the reader. Refer to “Connecting the Reader” on page 2 .
2. Mount the reader. Refer to “Mounting the Reader” on page 5.
3. Test the reader. Refer to “Testing the Reader” on page 6.

Connecting the Reader

CE Compliance

As of January 1, 1996, all new European installations MUST be CE compliant.

To make the Model 10 Reader installation CE and FCC compliant, the following condition must be met:

- The cable connecting the Model 10 Reader to the Micro/5 must have its shield grounded at the Micro/5 according to Figure 1.

FIGURE 1: Typical Installation Using Shielded Cable/Drain Wire

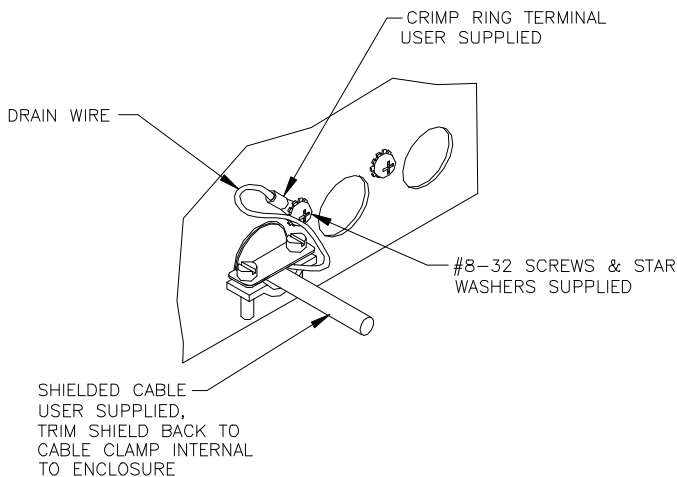


FIGURE: 1 OUTSIDE MICRO5 ENCLOSURE
INSTALLATION TYPICAL FOR
SHIELDED CABLE/DRAIN WIRE

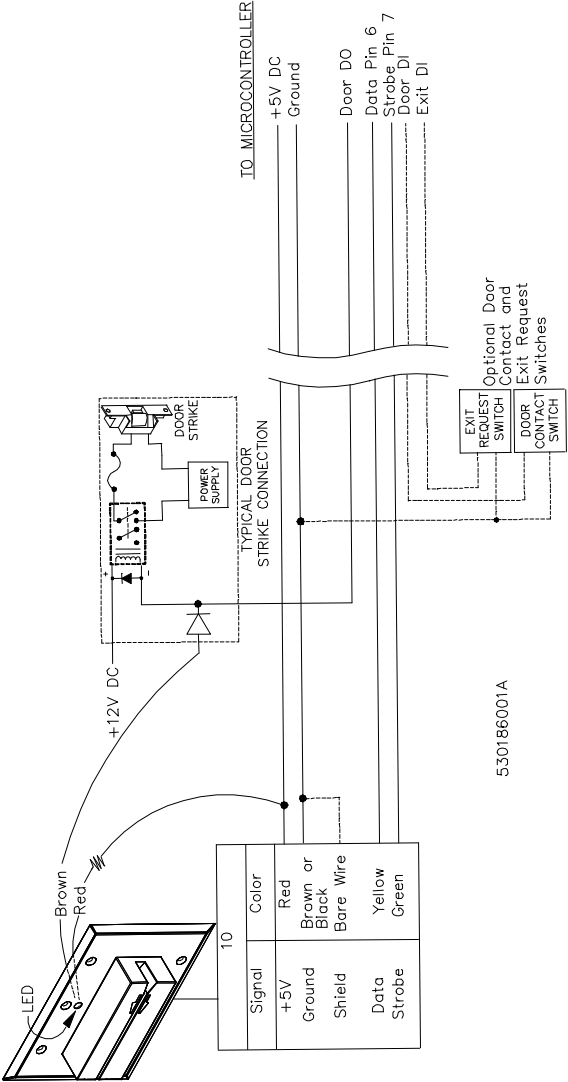
Reader Pinouts

The table below shows the pinouts for the Model 10 Reader. Refer to the appropriate micro installation guide for details on connecting to the microcontroller.

TABLE 1: Reader Pinouts

Signal	Wire Color
+5V	Red and LED Red
Ground	Brown or Black
Strobe	Green
Data	Yellow
Card Present	Orange (Not Used)
Door Open	LED Brown

FIGURE 2: Strobe Reader Model 10 Typical Wiring Diagram

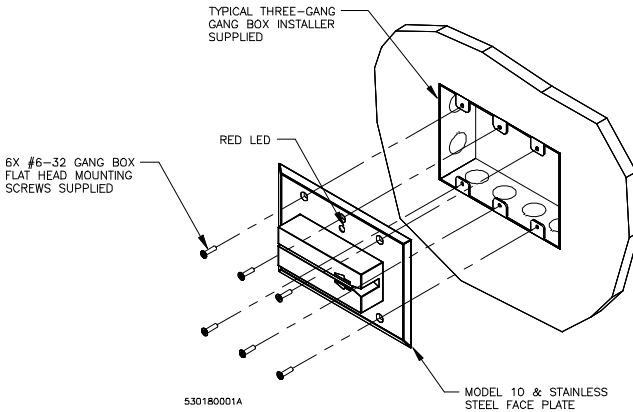


Mounting the Reader

The reader is surface mounted. It is pre-mounted at the factory on a 3-gang plate which can be mounted on any hollow wall.

Attach the reader backplate to the wall with six screws (supplied).

FIGURE 3: Mounting for the Model 10 Magnetic Stripe Reader



Testing the Reader

Follow the steps below to verify that the reader is working correctly.

1. Check all cabling and electrical connections from the reader to the microcontroller.
2. Verify that the microcontroller is properly configured. Refer to the appropriate CASI-RUSCO microcontroller manual.
3. Select two (2) test badges encoded with known badge identification numbers. Set the CASI-RUSCO system for one of the badges to be valid, and the second badge to be invalid (suspended, overdue, or lost).
4. Check that the door controlled by the reader is locked. Swipe the valid badge through the reader. The red LED will light immediately indicating a valid badge read and remain on as long as the door DO remains active (to indicate activated door strike).
5. Check that the door controlled by the reader is locked. Swipe the invalid badge through the reader. The system will not unlock the door.

Technical Specifications

Operating Temperature Range: -30° C to 70° C

Operating Humidity Range: 10% to 90% relative humidity

Physical Dimensions: 4.0 in (H) x 1.7 in (W) x 1.1 in (D), excluding the mounting plate

Power Requirements: 2.4 to 5.5 VDC at 1mA typical

Flammability: Meets UL 94V-0

Color: Durable Black Plastic

Badge Specifications: ANSI/ISO 7810, 7811-1 through 7811-6, 7812, 7813, and AAMVA

Cabling:

Maximum distance from the micro to the reader is 200 feet. One end of the cable shield must be grounded at the microcontroller, using grounding posts provided inside the cabinet. The other end must be floated at the reader. This method of grounding ensures a low impedance shunt path for any high frequency noise induced on the data or power lines to the reader.

Pigtail Length: 20 inches standard; 20 feet available upon request

Parts List:

- Model 10 Magnetic Stripe Reader
- Mounting hardware

Refer to the CASI-RUSCO Product Catalog for part numbers and ordering information.

Functional Specifications

Product Operation: When a valid badge is swiped successfully through the reader, the door strike is released. The red LED indicates door open.

Standard Features: The Model 10 Reader can read magstripe badges encoded on Track 2 at 75 bits per inch.

Compatibility: Micro/5 2RP or 2SRP boards

Output: Strobed data

Character String Length: 4 to 12 digits

Indicators: One red LED

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