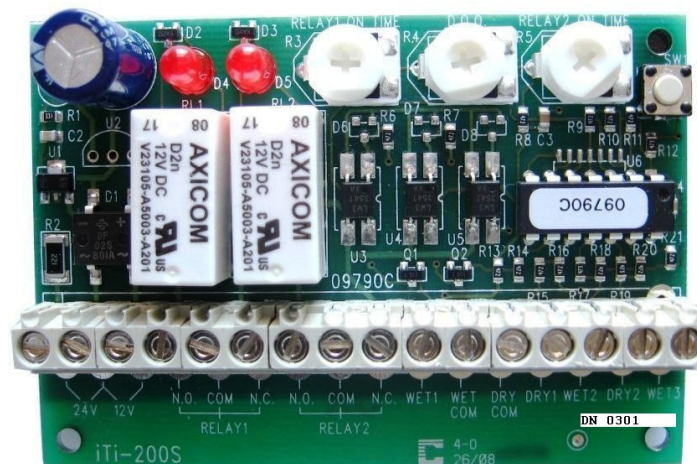


Nabco Multi-Module

Multifunction Module for the Control of Swing, Slide, and Fold Doors



WARNING

Do not install or service this product unless you have read and understood the Safety Practices, Warnings, Installation and Operating Instructions contained in this manual.

Failure to do so may result in property damage or bodily injury.

Visit our Website at:

www.NabcoEntrances.com

for links to:

Interactive Parts Diagrams,
Installation Manuals,
Service Bulletins,
AutoCAD Drawings,
Specifications,
Sales Literature,
Unit Pricing,
Online Ordering,
News Releases,
Promotional Materials,

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Just log in with your distributor account number
and password to access all of the above or call 1-877-622-2694 for
more information.

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INTRODUCTION

To The Installer

The purpose of this manual is to familiarize the installer with the proper installation and operation of this module. It is essential that this equipment be properly installed and operational before the door is used by the public. It is the installer's responsibility to inspect the operation of the entrance system to be sure it complies with any applicable standards. In the United States, ANSI Standard 156.10 may be applicable for this type of door. Other local standards or codes may apply.

Overview

The Multi-Module is a programmable relay module that can be used for many applications. Very user friendly, the module provides a single mode select push button to select the different modes of operation. (No dip switches)

Modes of Operation

Mode 1 - Electric Strike Sequencer

Typical momentary timed operation. Used for interfacing electric locks with automatic door operators. Refer to diagram labeled "Mode 1 - Electric Strike Sequence Diagram" on page 7 & 8.

In this mode, the Multi-Module can also be used as a fully functional bi-directional door sequencer, no need to use a second relay. Refer to diagram labeled "Mode 1 - Bi-directional Door Sequencer Diagram" on page 9 & 10.

Mode 2 - Apartment or access control

Used to interface automatic door operators directly to apartment interphone panels. Isolates interphone panel voltages from automatic door operator. Also can be used to interface with access control systems that have timed lock functions Refer to diagram labeled: "Mode 2 - Apartment or Access Control Diagram" on page 11 & 12.

Mode 3 - Ratchet or latching operation

Push button activates strike relay for the timed period then latches operator relay 2 indefinitely, until switch is activated a second time. Refer to diagram labeled: "Mode 3 - Ratchet or Latching Operation Diagram" on page 13.

Mode 4 - Smoke Evacuation

For wiring a door operator to a fire alarm panel for smoke evacuation purposes. In this mode the strike relay will energize momentarily, the operator relay will stay energized for as long as the input is maintained. Refer to diagram labeled: "Mode 4 - Smoke Evacuation Diagram" on page 14 & 15.

Mode 5 - Acugard Lock-out relay

Sensor inhibit, inhibiting of a door mounted sensor preventing sensor from acting like a motion sensor. Sensor only active once push button has been activated Refer to diagram labeled: "Mode 5 - Acugard Lock-out Relay Diagram" on page 16 & 17.

Mode 6 - Washroom control relay

Single occupant barrier free washroom control. Allows the door to be electronically locked from the inside while removing the exterior button from the circuit. Door position switch or interior push button resets system. Installer should recommend that a "store room" function passage set be used. Handle always locked from the exterior, and free on the interior. Refer to diagram labeled: "Mode 6 - Washroom Control Relay Diagram" on page 18 & 19.

SPECIFICATIONS

Size	3 1/4" x 2 1/4" x 3/4"
Mounting	Double sided foam tape
Operating voltage	12/24 volts Ac or Dc
Current Draw	18 mA Standby, 40 mA Max.
Inputs	2 - dry contacts 3 - wet inputs 12-24 VAC or DC, optically isolated, non-polarity sensitive
Outputs	2 - form C (SPDT)
Relay contact rating	4 amps @ 30VDC
Time delays	Relay 1 on time - 0.5-30 sec. Delay on operate Relay 2 - 1-30 sec Relay 2 on time - 0.5-30 sec.
<p>To protect the Multi-Module from voltage spikes, please use the provided transient voltage suppressor</p>	

ASSEMBLY CONTENTS

P/N 11-12242 Multi-Module Assembly		
QTY	PART NO.	DESCRIPTION
1	14-12240	Multi-Module & Voltage Suppressor
1	15-12241	Multi-Module Installation Manual
1	14-11313	Magnetic Switch Assembly
1	14-6284-03	Plastic Bag
1	14-2243	Label

**PROGRAMMING
INSTRUCTIONS**

Refer to the Figure 1 below:

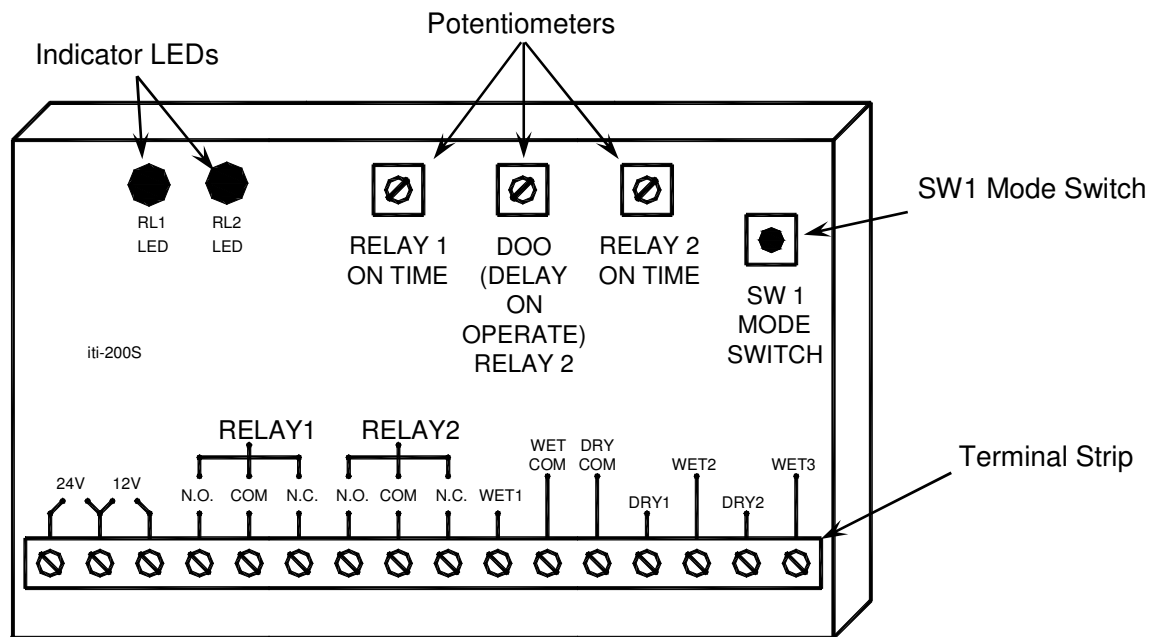
To enter the program mode, push and hold SW1 Mode Switch for 2 seconds. The mode that is presently selected will be “flashed”.

Example: if the Multi-Module is in mode 3, the relays will click and the Indicator LEDs will flash 3 times. The user now has 3 seconds to press the mode select button again to select the next mode. Pressing the button again within 3 seconds will advance programming to the next mode. This newly selected mode will be flashed by the relays and LEDs.

Example: the board is in mode 3 and the button is pressed for more than 2 seconds. The LEDs will flash 3 times. To advance to the next mode the switch is again pressed within 3 seconds. The relays and LEDs flash 4 times and mode 4 is now selected. Repeat this action until the desired mode is reached. When the desired mode is reached and the mode select button remains off for 3 seconds the last mode that was “flashed” will be the mode that is now selected. Power outages will not delete the selected mode.

The installer must ensure that all codes and standards are adhered to. Instruct the owner on door system operation and how to test it. Doors should be checked on a daily basis to ensure safe operation. Strongly recommend that system be inspected on a yearly basis by an AAADAM certified technician.

Figure 1 - Multi-Module

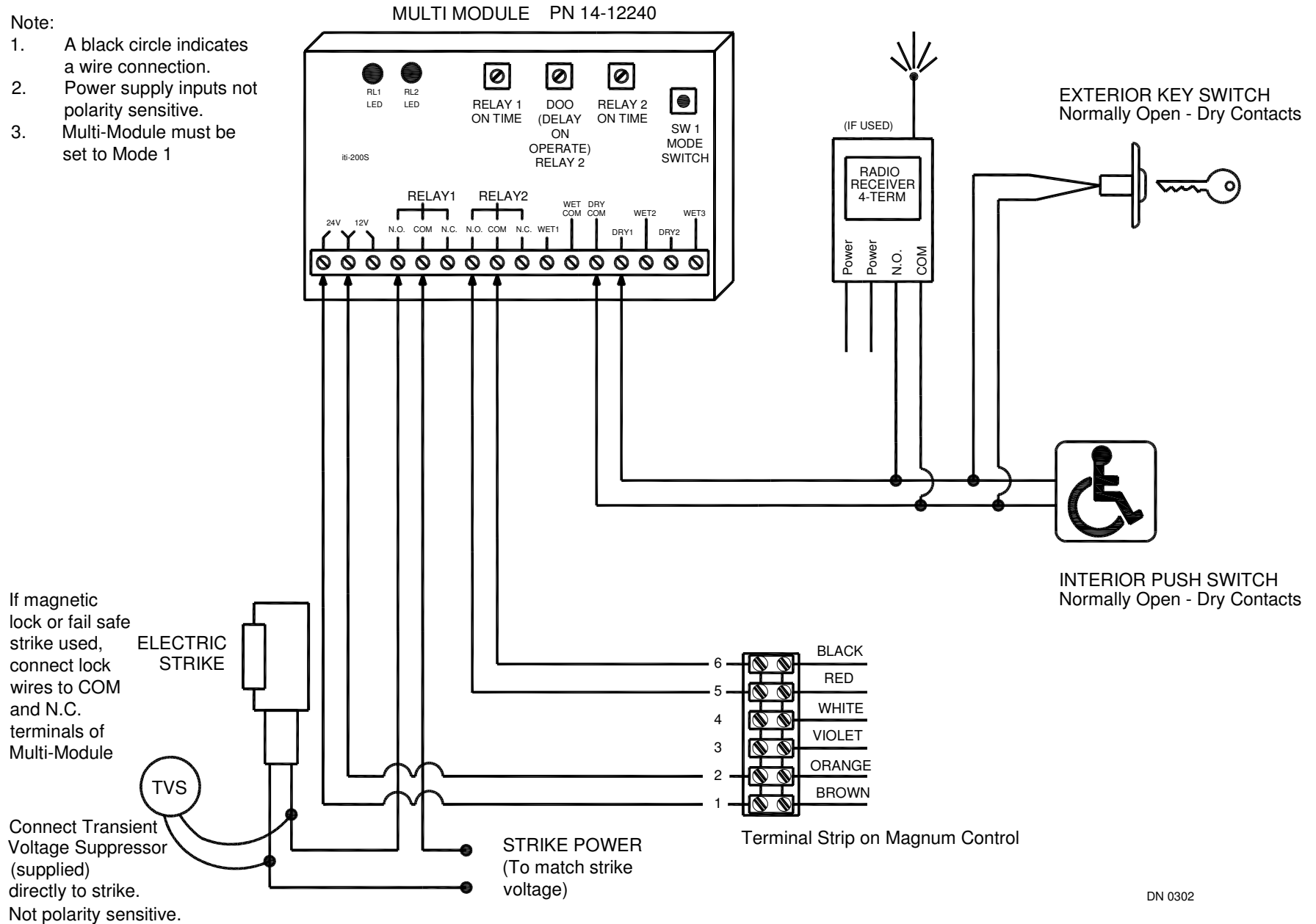


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MODE 1 - ELECTRIC STRIKE SEQUENCER DIAGRAM - MAGNUM 4 CONTROL

Note:

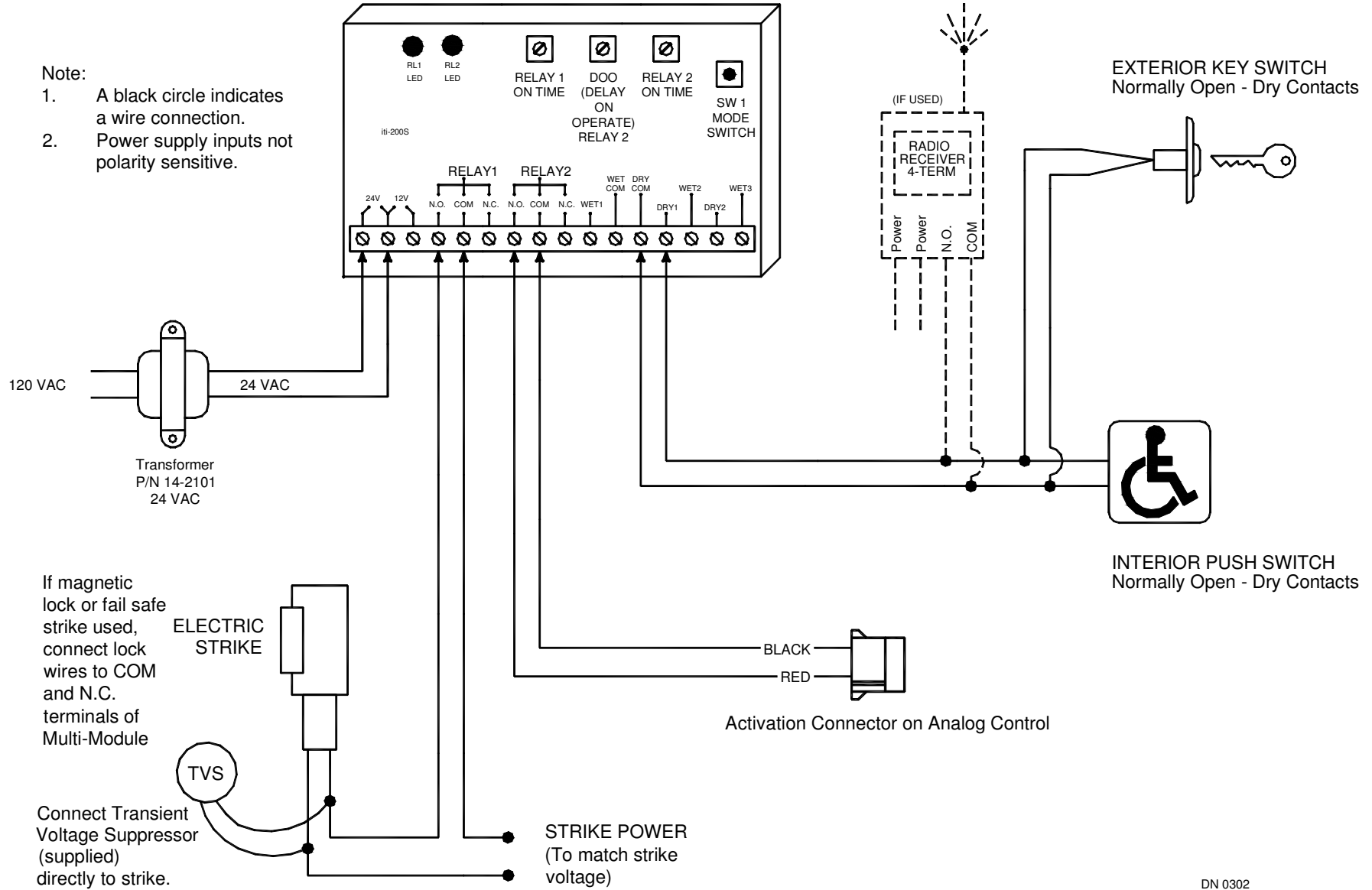
1. A black circle indicates a wire connection.
2. Power supply inputs not polarity sensitive.
3. Multi-Module must be set to Mode 1



MODE 1 - ELECTRIC STRIKE SEQUENCER DIAGRAM - ANALOG CONTROL

Note:

- 1. A black circle indicates a wire connection.
- 2. Power supply inputs not polarity sensitive.



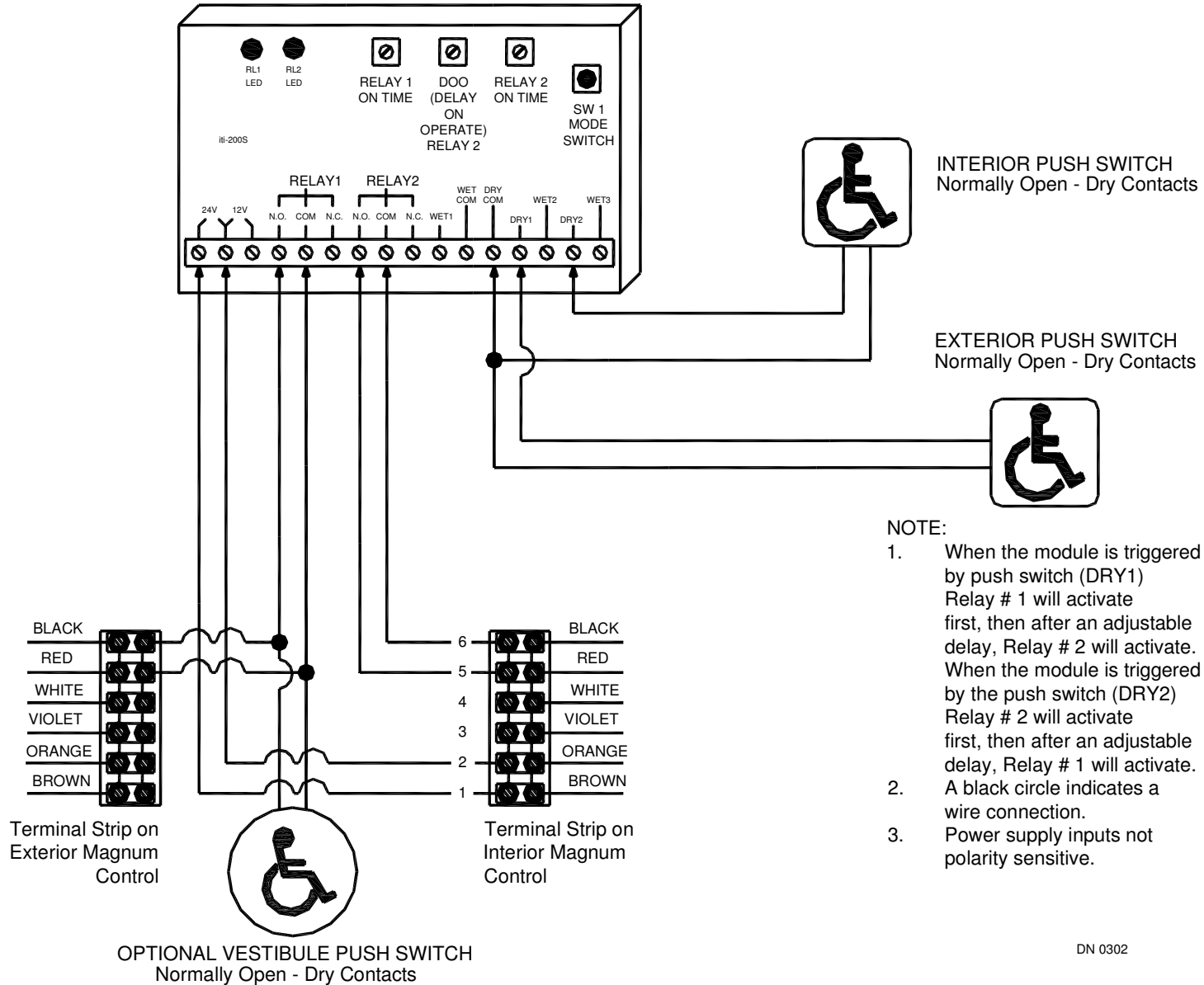
If magnetic lock or fail safe strike used, connect lock wires to COM and N.C. terminals of Multi-Module

Connect Transient Voltage Suppressor (supplied) directly to strike. Not polarity sensitive.

INTERIOR PUSH SWITCH
Normally Open - Dry Contacts

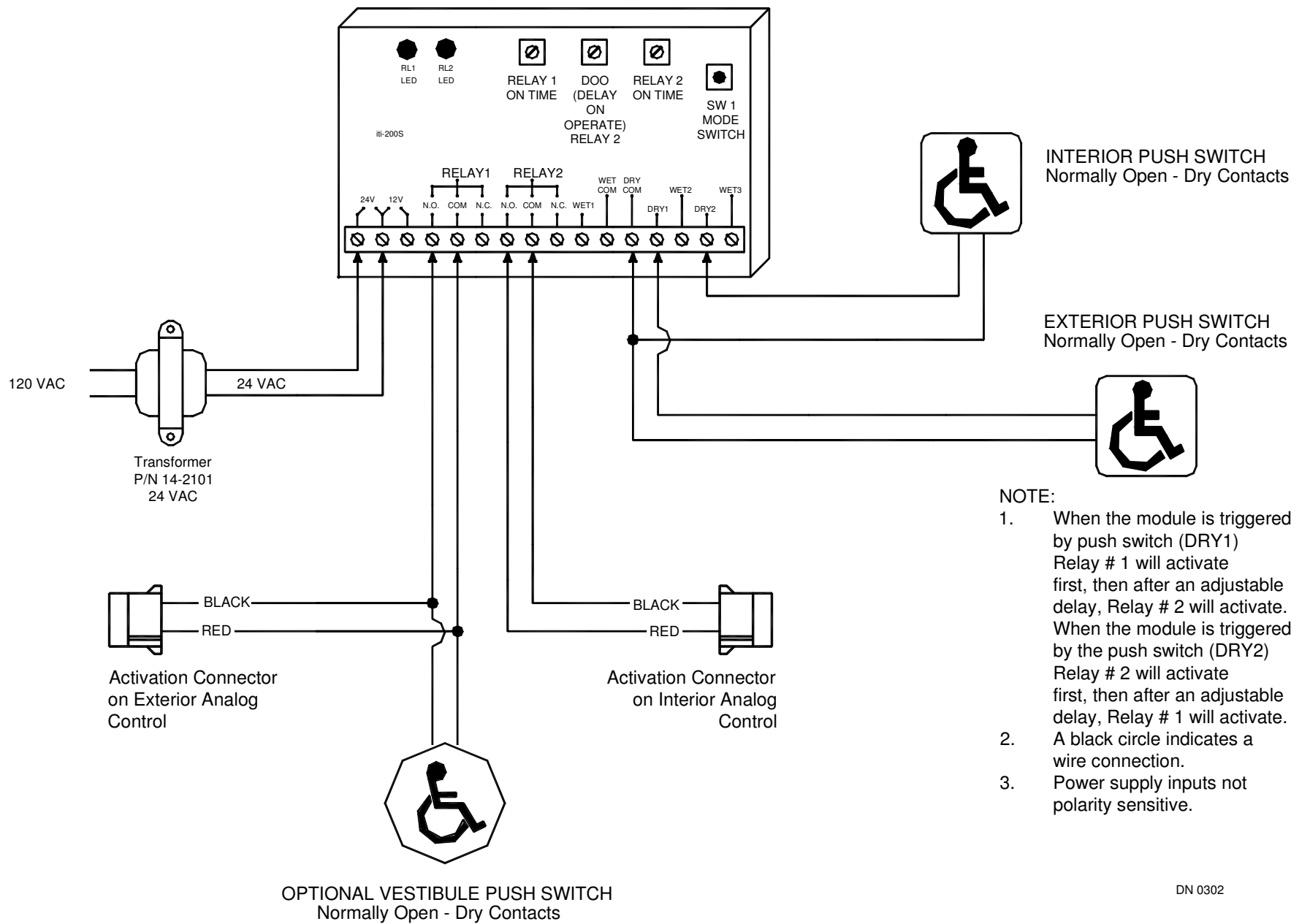
Activation Connector on Analog Control

MODE 1 - BI-DIRECTIONAL DOOR SEQUENCER DIAGRAM - MAGNUM 4 CONTROL

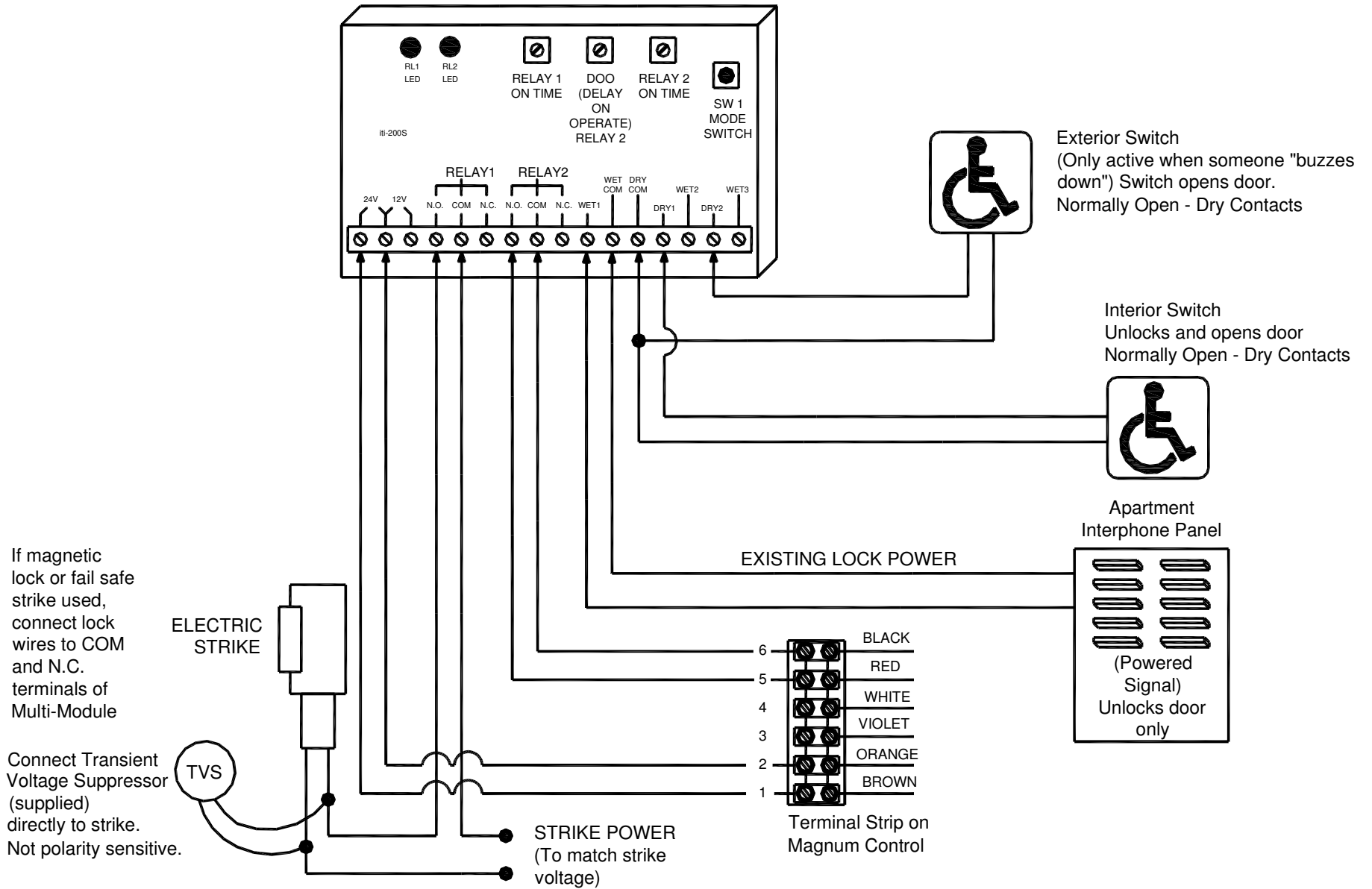


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MODE 1 - BI-DIRECTIONAL DOOR SEQUENCER DIAGRAM - ANALOG CONTROL



MODE 2 - APARTMENT OR ACCESS CONTROL DIAGRAM - MAGNUM 4 CONTROL



If magnetic lock or fail safe strike used, connect lock wires to COM and N.C. terminals of Multi-Module

Connect Transient Voltage Suppressor (supplied) directly to strike. Not polarity sensitive.

STRIKE POWER (To match strike voltage)

EXISTING LOCK POWER

6 BLACK
 5 RED
 4 WHITE
 3 VIOLET
 2 ORANGE
 1 BROWN

Terminal Strip on Magnum Control

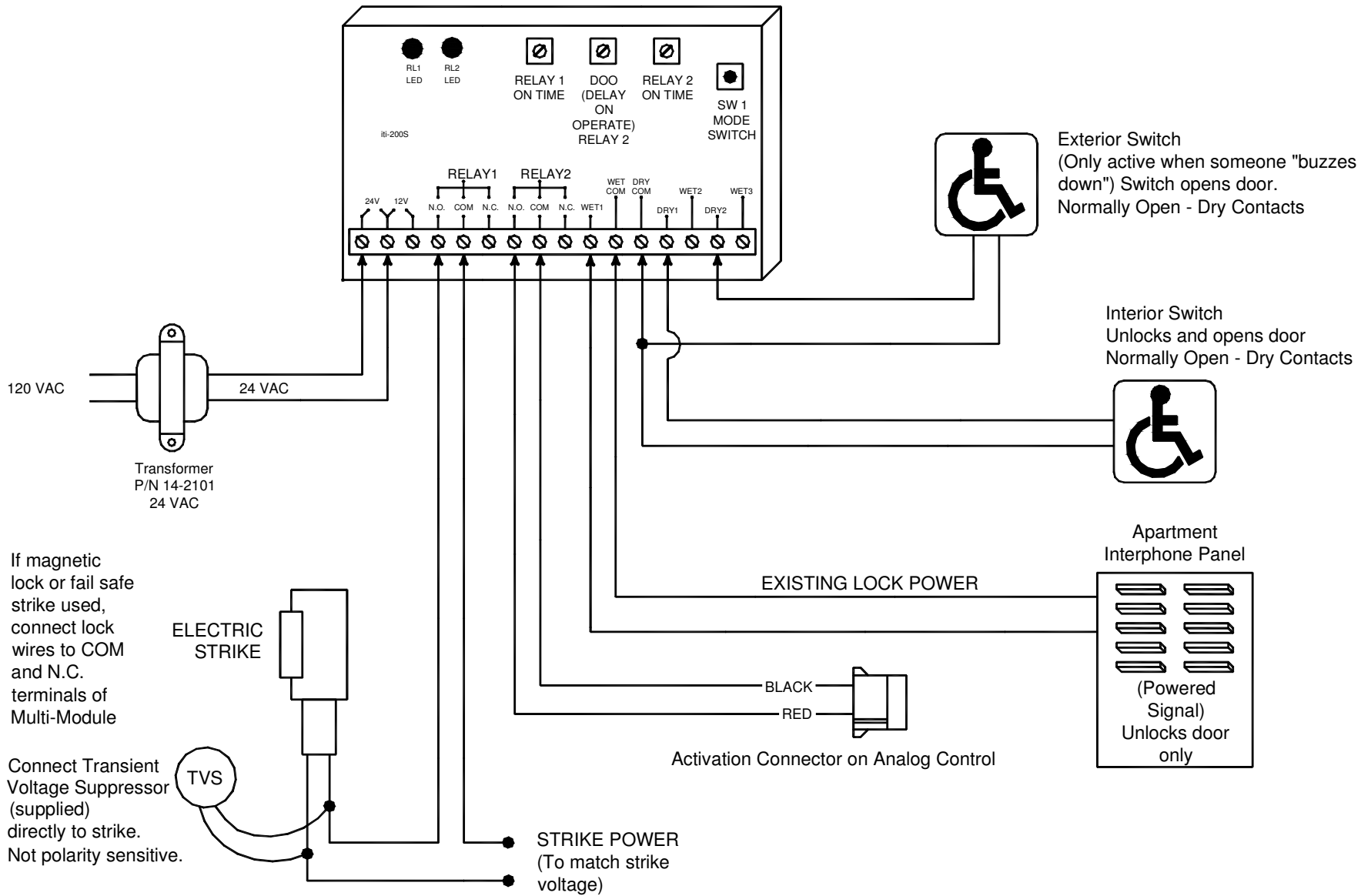
Exterior Switch (Only active when someone "buzzes down") Switch opens door. Normally Open - Dry Contacts

Interior Switch Unlocks and opens door Normally Open - Dry Contacts

Apartment Interphone Panel (Powered Signal) Unlocks door only

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MODE 2 - APARTMENT OR ACCESS CONTROL DIAGRAM - ANALOG CONTROL

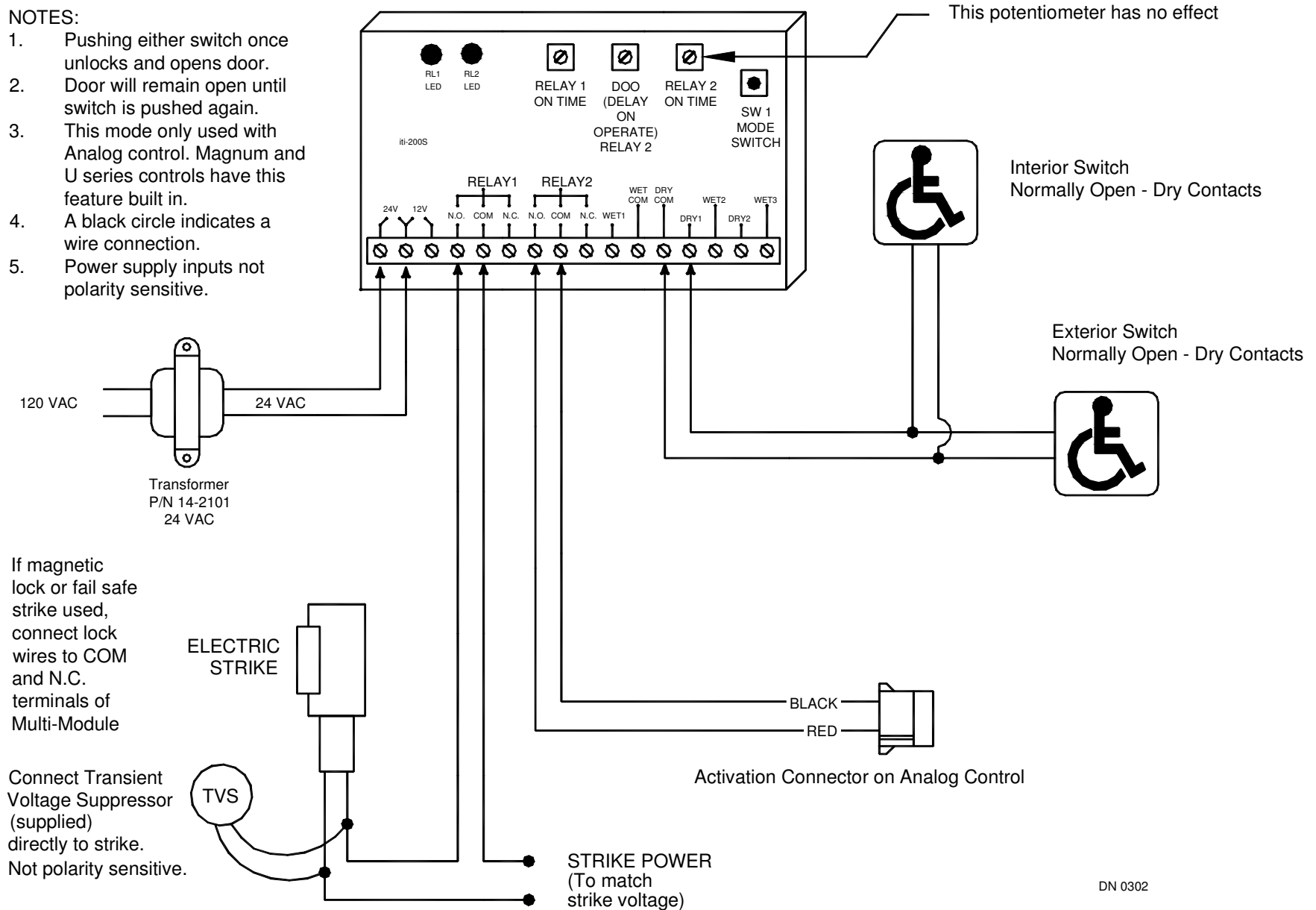


MODE 3 - RATCHET OR LATCHING OPERATION DIAGRAM - ANALOG CONTROL

Mode 3 not required with Magnum control - Magnum control includes this feature

NOTES:

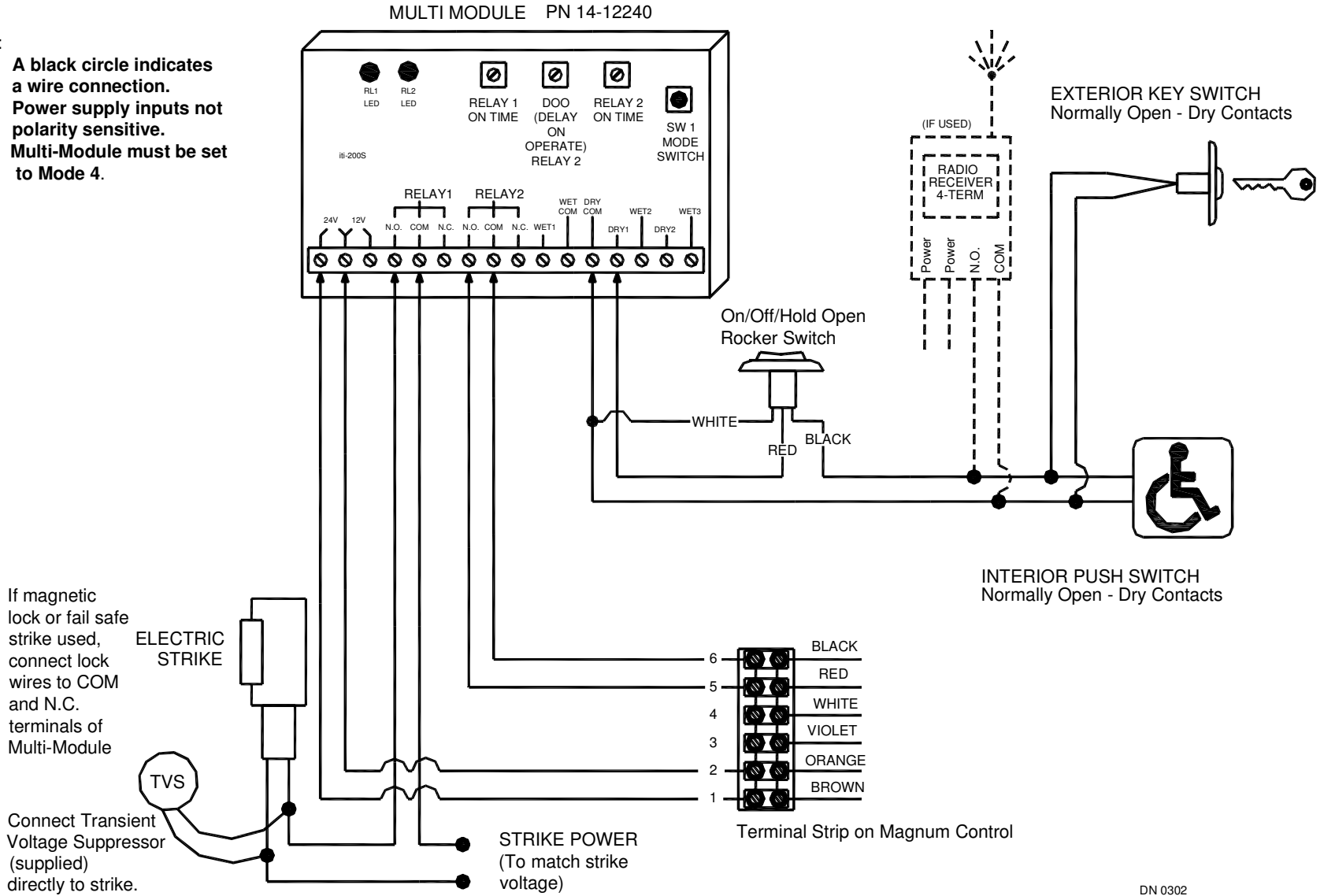
1. Pushing either switch once unlocks and opens door.
2. Door will remain open until switch is pushed again.
3. This mode only used with Analog control. Magnum and U series controls have this feature built in.
4. A black circle indicates a wire connection.
5. Power supply inputs not polarity sensitive.



MODE 4 - ELECTRIC STRIKE DIAGRAM WITH HOLD OPEN SWITCH - MAGNUM 4 CONTROL

Note:

1. **A black circle indicates a wire connection.**
2. **Power supply inputs not polarity sensitive.**
3. **Multi-Module must be set to Mode 4.**



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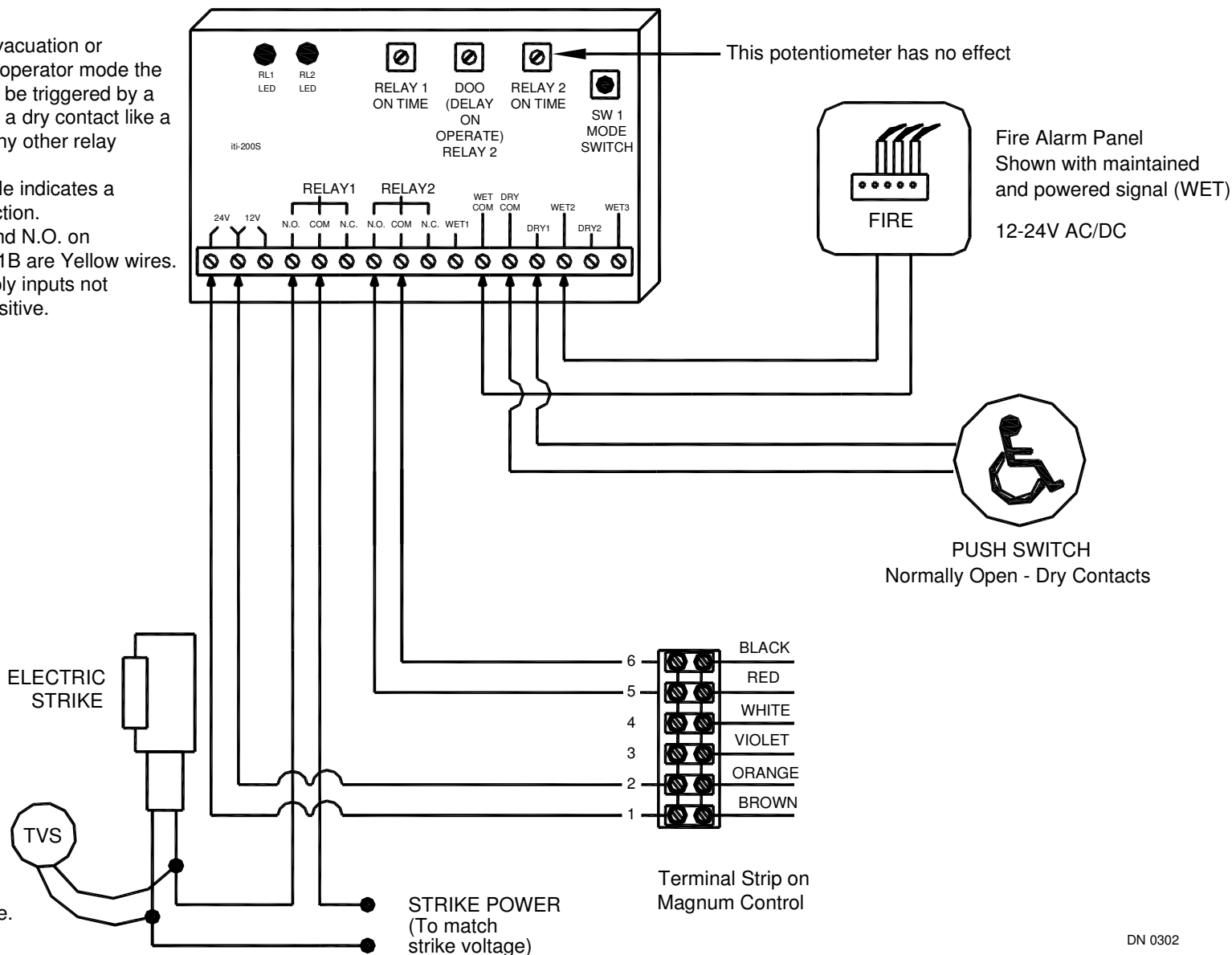
MODE 4 - SMOKE EVACUATION DIAGRAM - MAGNUM 4 CONTROL

NOTES:

1. In smoke evacuation or maintained operator mode the module can be triggered by a wet input or a dry contact like a sensor or any other relay contact.
2. A black circle indicates a wire connection.
3. Common and N.O. on Acusensor 1B are Yellow wires.
4. Power supply inputs not polarity sensitive.

If magnetic lock or fail safe strike used, connect lock wires to COM and N.C. terminals of Multi-Module

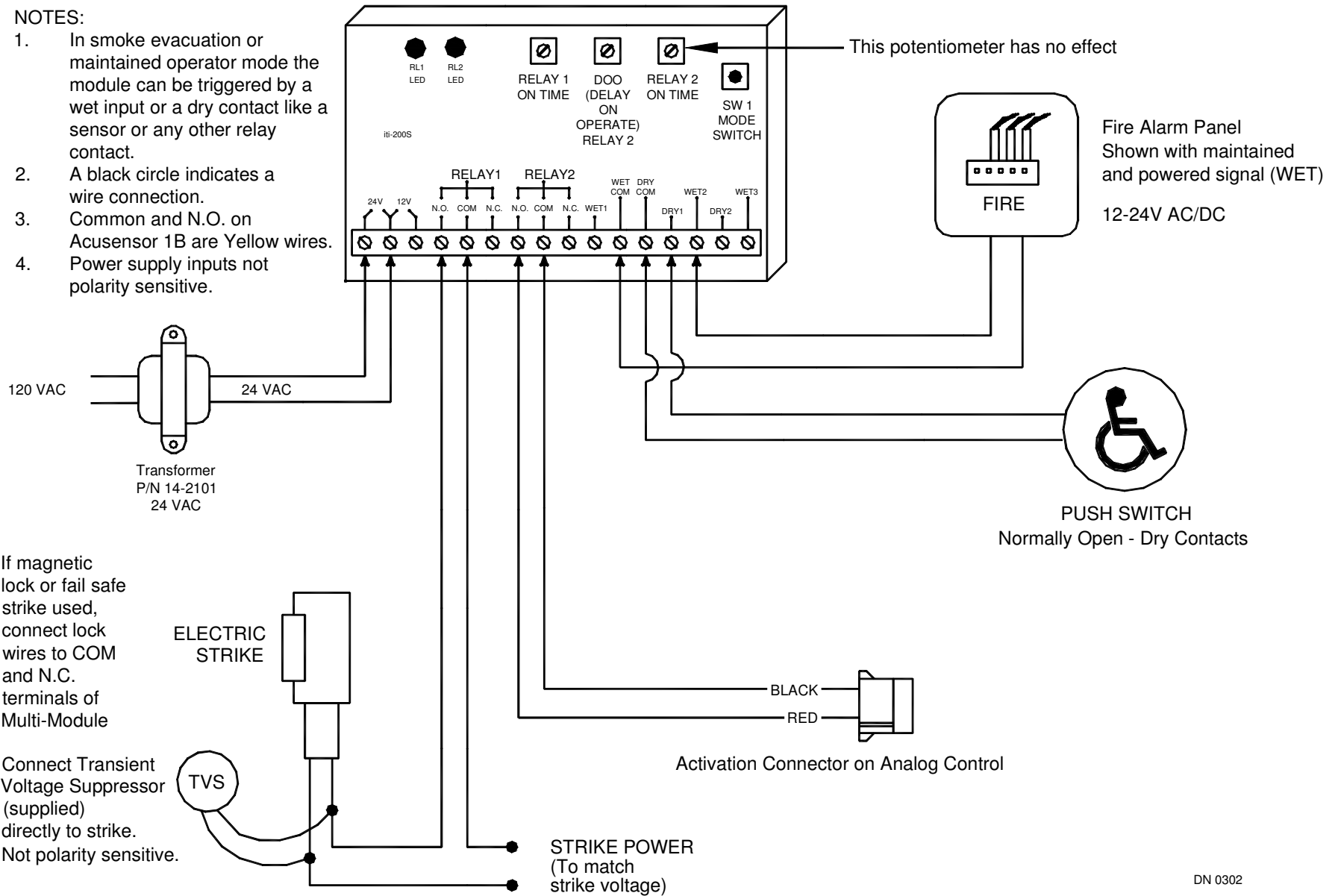
Connect Transient Voltage Suppressor (supplied) directly to strike. Not polarity sensitive.



MODE 4 - SMOKE EVACUATION DIAGRAM - ANALOG CONTROL

NOTES:

- 1. In smoke evacuation or maintained operator mode the module can be triggered by a wet input or a dry contact like a sensor or any other relay contact.
- 2. A black circle indicates a wire connection.
- 3. Common and N.O. on Acusensor 1B are Yellow wires.
- 4. Power supply inputs not polarity sensitive.



If magnetic lock or fail safe strike used, connect lock wires to COM and N.C. terminals of Multi-Module

Connect Transient Voltage Suppressor (supplied) directly to strike. Not polarity sensitive.

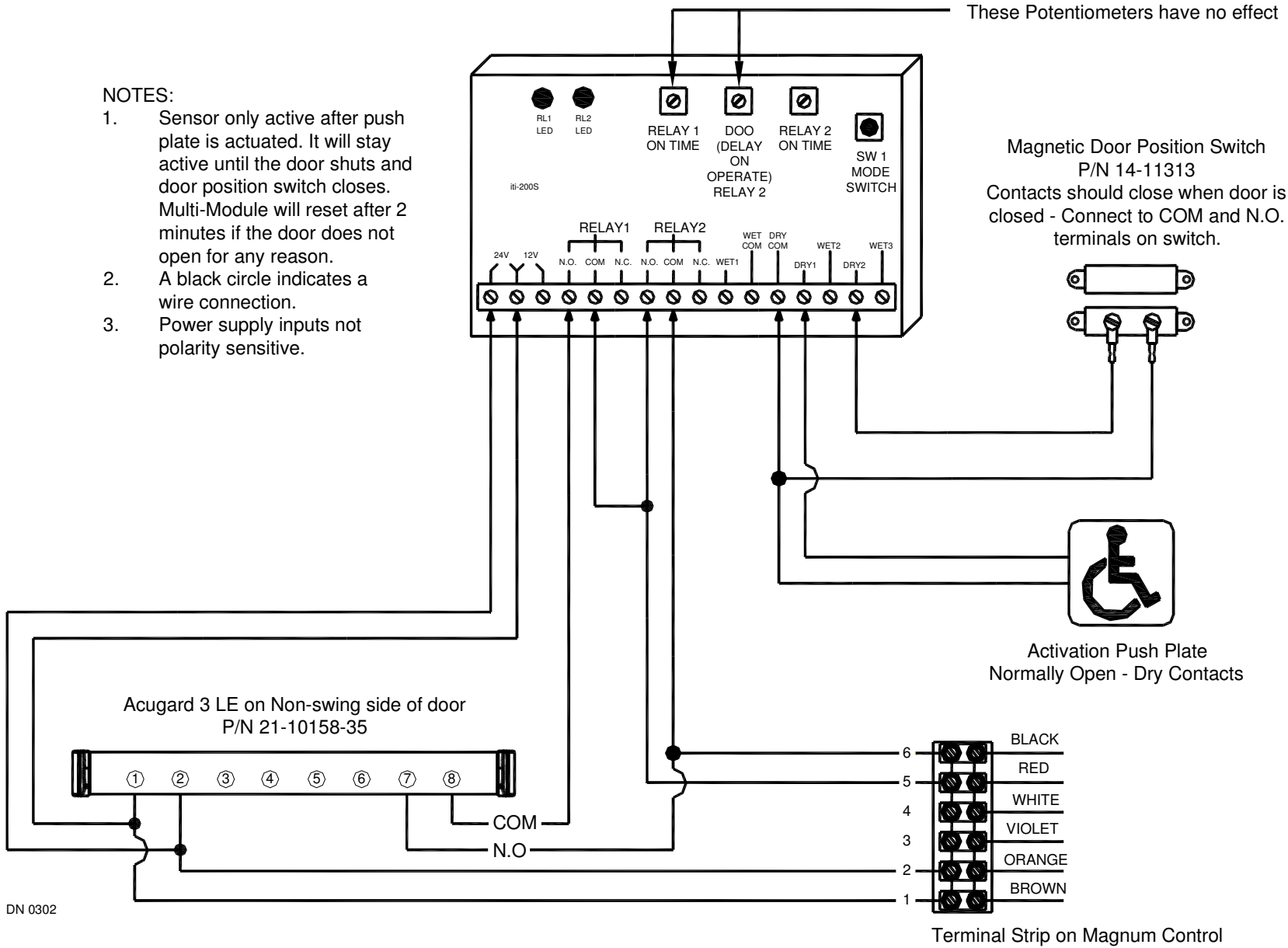
STRIKE POWER (To match strike voltage)

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MODE 5 - ACUGARD LOCK OUT RELAY DIAGRAM - MAGNUM 4 CONTROL

NOTES:

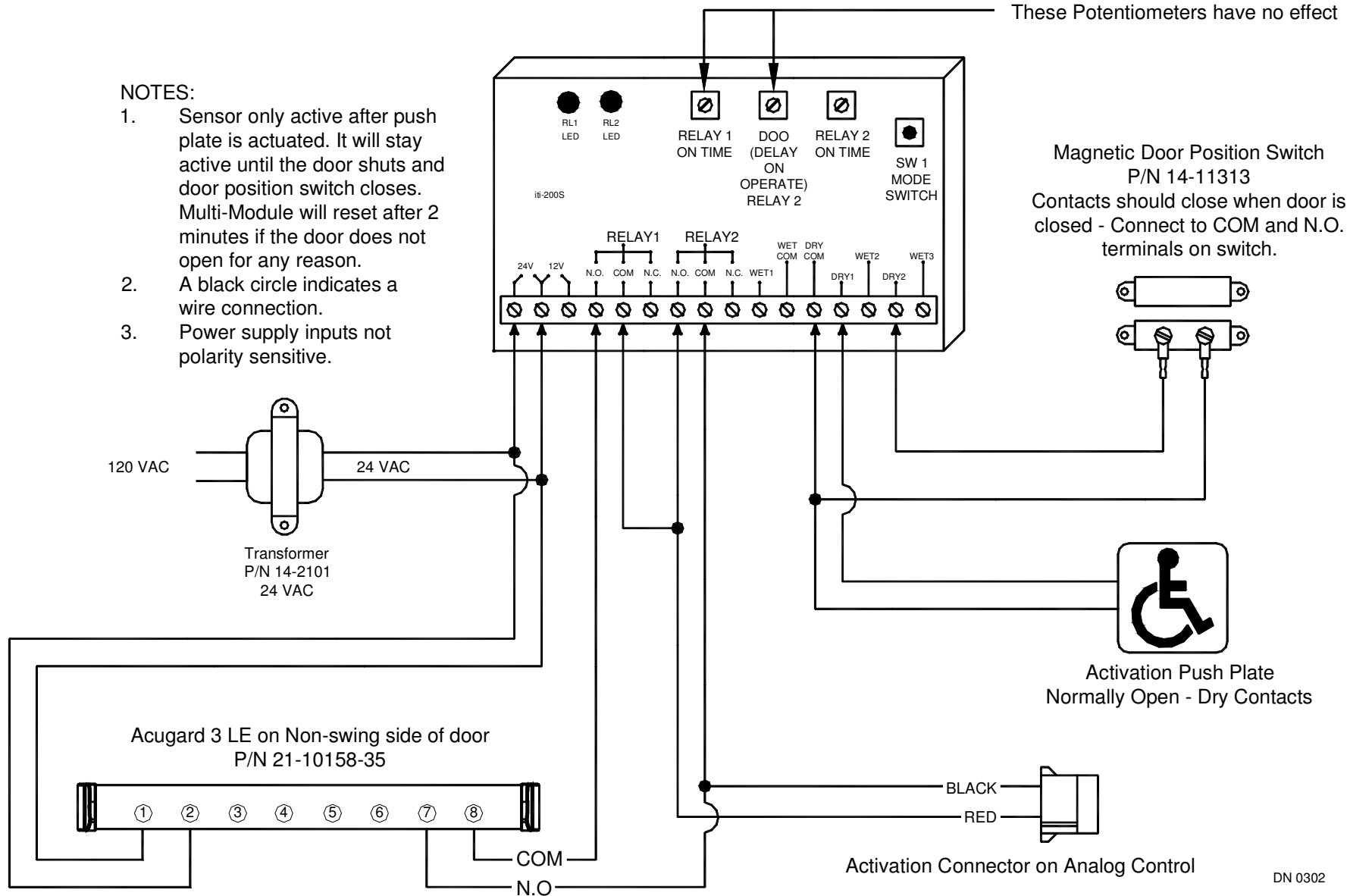
1. Sensor only active after push plate is actuated. It will stay active until the door shuts and door position switch closes. Multi-Module will reset after 2 minutes if the door does not open for any reason.
2. A black circle indicates a wire connection.
3. Power supply inputs not polarity sensitive.



MODE 5 - ACUGARD LOCK OUT RELAY DIAGRAM - ANALOG CONTROL

NOTES:

1. Sensor only active after push plate is actuated. It will stay active until the door shuts and door position switch closes. Multi-Module will reset after 2 minutes if the door does not open for any reason.
2. A black circle indicates a wire connection.
3. Power supply inputs not polarity sensitive.

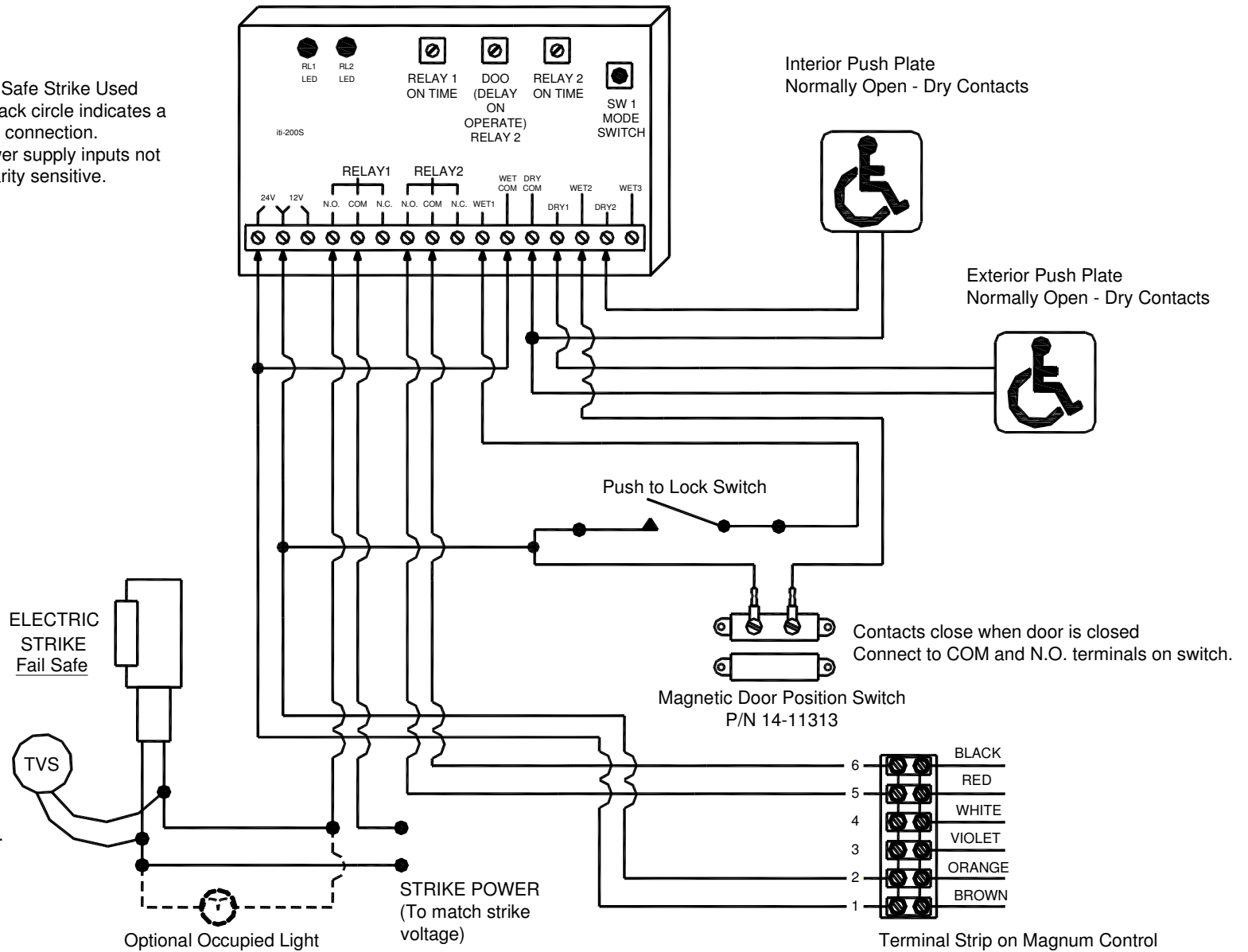


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MODE 6 - WASHROOM CONTROL RELAY DIAGRAM - MAGNUM 4 CONTROL

NOTES:

- 1. Fail Safe Strike Used
- 2. A black circle indicates a wire connection.
- 3. Power supply inputs not polarity sensitive.



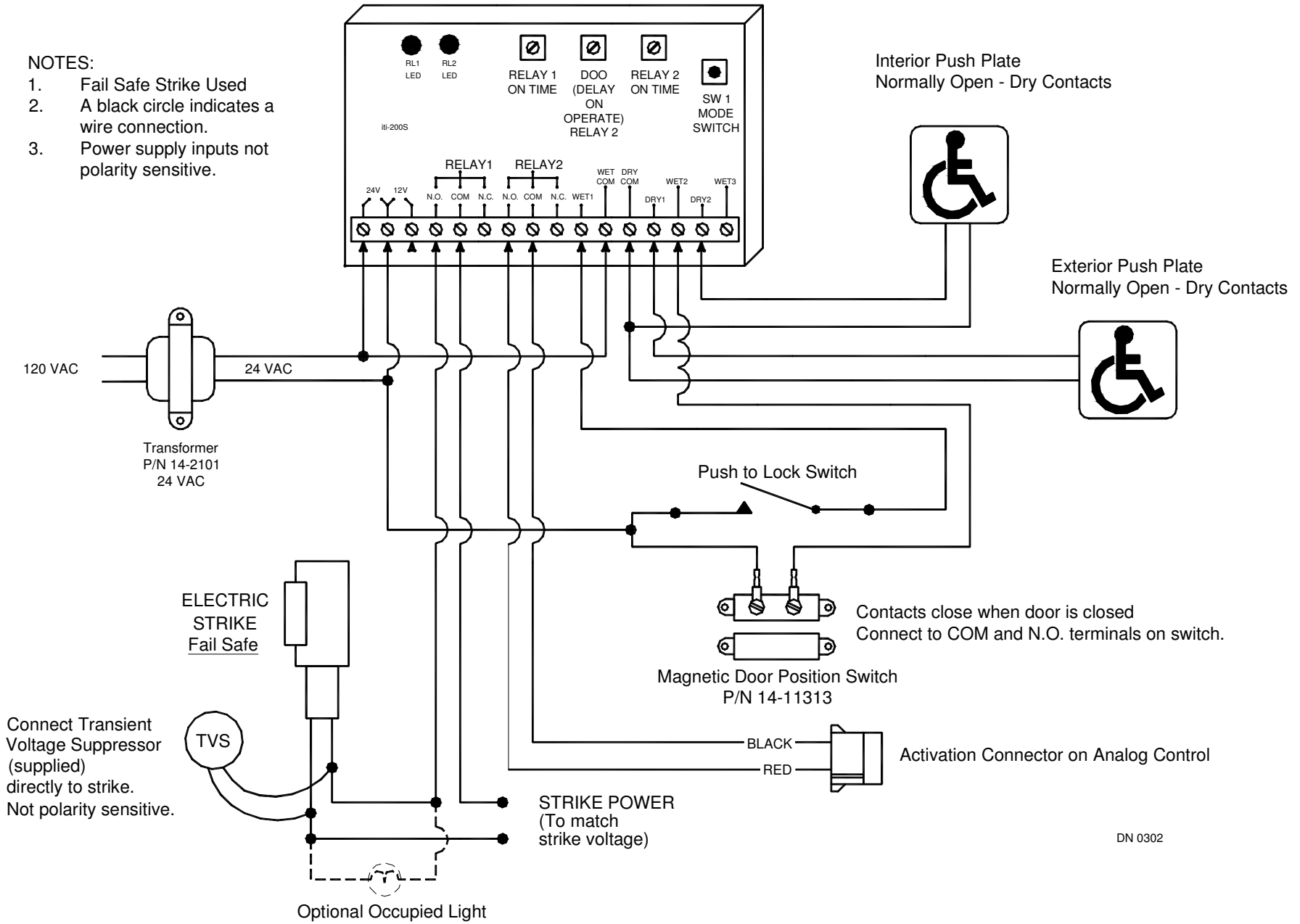
Connect Transient Voltage Suppressor (supplied) directly to strike. Not polarity sensitive.

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MODE 6 - WASHROOM CONTROL RELAY DIAGRAM - ANALOG CONTROL

NOTES:

- 1. Fail Safe Strike Used
- 2. A black circle indicates a wire connection.
- 3. Power supply inputs not polarity sensitive.



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NABCO Entrances Return Policy - Limited Warranty

NABCO ENTRANCES INC. for its Gyro Tech product line, provides to its distributor a limited warranty, on Gyro Tech products. This warranty is:

NABCO ENTRANCES INC. will exchange or repair, F.O.B. the plant, any component found defective in workmanship and/or material, subject to Nabco's inspection, for a period of one (1) year after installation or 18 months after manufacture, whichever comes first. Warranty does not include field service labor. The installing contractor/distributor will be responsible for installation and field service. This is NABCO ENTRANCES Inc.'s sole warranty.

This warranty does not cover loss or damages resulting from causes beyond the manufacturer's control, misuse, neglect, accidents, windstorms, or other acts of God, or acts of terrorism. Warranty is for normal use and service. The warranty does not apply to equipment that has been repaired or altered so as to adversely affect conditions of operation. Warranty will not obligate NABCO for damages resulting from such alterations, misuse, or acts of God, or acts of terrorism.

Extended Warranties - New Parts and Equipment Only

Two-year warranties on all Gyro Tech entrance systems are available. The two (2) year warranty is the same as the one (1) year warranty except for a period of two (2) years after installation or 30 months after manufacture whichever comes first. All orders requesting a multi year warranty must be included on the purchase order at the time of the original order to establish proper records. Any other extended warranty must be specifically approved and priced by NABCO Management.

Warranty Seal on Operators

All operators will contain a warranty seal placed over the cover and housing. The warranty will become invalid if any operator is returned with the seal broken.

Return of Warranty Parts

NABCO must be promptly notified (within 2 weeks of failure) of all warranty claims. All parts for warranty claims must be returned to NABCO within the following two (2) weeks for US locations and six (6) weeks for all other locations. All parts must be returned freight prepaid and include a Return Material Authorization Tag/Number which is available by contacting the Customer Service Department. All items returned are subject to inspection and testing to determine the cause of failure. If in NABCO's determination:

A. For all items, when the part returned is defective and within the terms of the warranty, it will be repaired or replaced. Any repaired item would carry the full warranty from original installation date. If the piece has been replaced, a credit memo will be issued against the replacement invoice. Warranty parts are shipped prepaid via ground transportation by Nabco. Expedited delivery costs are paid by the distributor.

B. For all items, if it is determined the part returned is not defective and within the terms of the warranty the part will remain the property of the Distributor at the time of this determination. The disposition of the item will be agreed upon with the distributor. The only options considered will be:

1. To return the item at the distributor cost.
2. To return it to stock less inspection and testing costs if the piece has not been used and remains saleable as a new part. A 20% restocking charge will apply and be paid by the distributor.
3. Discarded by NABCO.

Non-warranty Returns

Applications for the return and credit of any parts item must be made in writing to Nabco Customer Service within 60 days of the date of our shipment. Only items listed on attached Nabco RMT tags will be considered.

Parts that have been ordered incorrectly can be exchanged for the correct items provided Nabco Customer Service is notified in writing within 60 days of the date of our shipment and subsequent return authorization has been given. Credit for parts that have been ordered by the distributor and are no longer needed for repair in the field will be subject to the discretion of Nabco. A 20% stocking fee will apply.