ASSA ABLOY

WT2 Wiegand Test Unit : Wiring and Use Instructions

CONTENTS

▪ WT2, plastic, 6.25" x 3.5" x 2.375"
  ▪ AC / DC adapter
  ▪ ElectroLynx cable with Molex connectors for Integrated Wiegand products
  ▪ ElectroLynx cable with Molex connector for NAC function EcoFlex electrified mortise locks

As part of their promise to provide innovative, fast and effective, and higher security solutions to their customers, ASSA ABLOY Group companies offer ElectroLynx, a universal quick-connect system that simplifies the electrification of the door opening. ElectroLynx™ is a trademark of ASSA ABLOY, Inc.

TEST BOX PRODUCT DESCRIPTION

Designed for compatibility with ASSA ABLOY Integrated Wiegand products and NAC Function EcoFlex mortise locks, the ASSA ABLOY WT2 Wiegand Test Unit is a user-friendly tool that demonstrates products features and capabilities.

The WT2 also enables field trouble shooting by verifying proper wiring, card reader data integrity, lock functionality including: lock/unlock, door position status, deadbolt status and REX (request-to-exit) status.

If end-of-line resistors are integrated into the product or wired into the system, the WT2 will display these values.
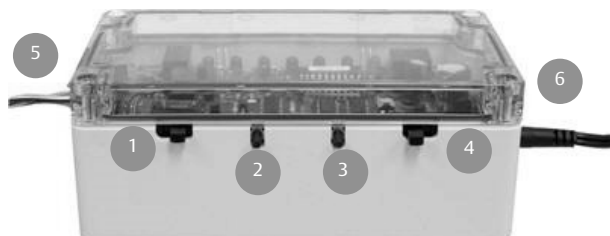
If the WT2 detects line resistance above 100-Ohm on the REX or door position sensing inputs, the unit will also display these resistance values.

Connect the WT2 directly to the lock or hinge using the provided ElectroLynx cable.

End View

Adapter

Selectors, Switches and Visual Monitoring Indicators

1 Fail Safe /Fail Secure Selector
2 Open Override
3 Learn Button
4 12VDC / 24VDC Selector
5 To Lock
6 To Power Adapter

7 LEDs refer to the following product features:

DPS	Door position monitoring
RX	Request to exit monitoring
TMPR	Tamper
PWR ON	Indicates unit powered
DX	Deadbolt monitoring

IMPORTANT

1. Disconnect the product to be tested from access control system before servicing.

2. Installer must be a trained, experienced service person.

3. Wiring must comply with applicable local electrical codes, ordinances and regulations.

4. Unit is grounded to Common (-) for   Electrostatic Discharge (ESD) protection. Use appropriate ESD practices when handling the unit, (i.e. standard grounding precautions). Common (-) must be grounded to earth (EG)   at the power supply.

5. Ensure that no wires are pinched or damaged during installation.

INSTALLATION INSTRUCTIONS

Install product on door according to manufacturer's instructions, which can be found at *www.intelligentopenings.com* or the following:

  ▪ SARGENT: *www.sargentlock.com*
  ▪ Securitron: *www.securitron.com*
  ▪ Corbin Russwin: *www.corbinrusswin.com*
  ▪ Yale: *www.yalecommercial.com*
  ▪ HES: *www.hesinnovations.com*

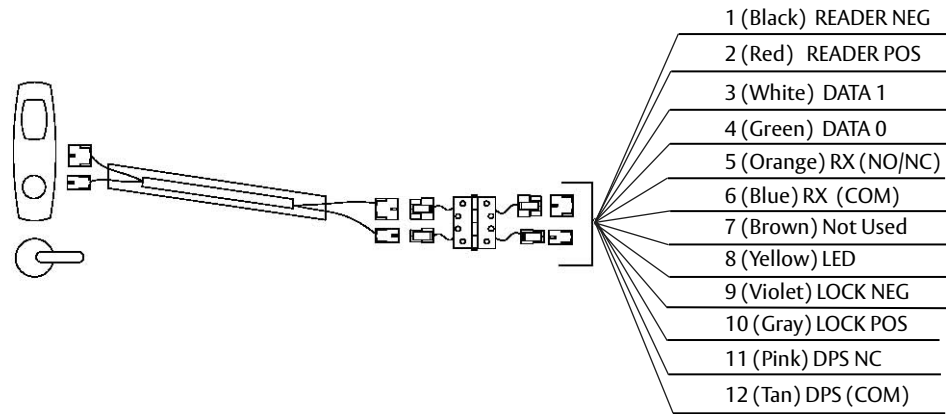# WT2 Wiegand Test Unit : Wiring and Use Instructions

CONNECT THE WT2 The WT2 is provided with two cables:

- The cable labeled "Integrated Wiegand Locks Only" must be used with Integrated Wiegand locks.
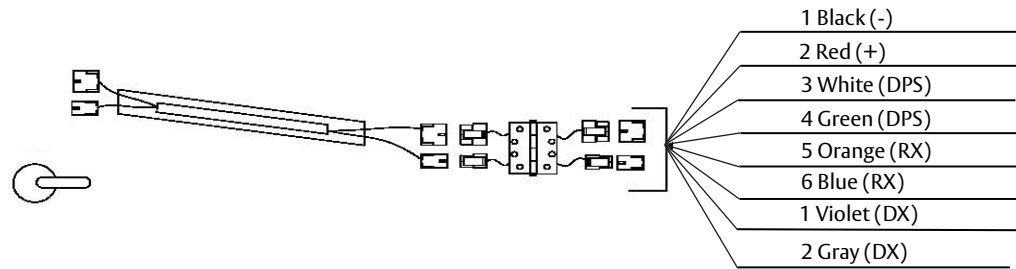- The cable labeled " NAC Locks Only" must be used with NAC locks.

Lock to WT2 Connections

Lock	ElectroLynx Cable	Hinge with ElectroLynx Cable	Pin Connections to WT2

INTEGRATED WIEGAND

1 (Black) READER NEG
2 (Red)   READER POS
3 (White) DATA 1
4 (Green) DATA 0
5 (Orange) RX (NO/NC)
6 (Blue) RX (COM)
7 (Brown) Not Used
8 (Yellow) LED
9 (Violet) LOCK NEG
10 (Gray) LOCK POS
11 (Pink) DPS NC
12 (Tan) DPS (COM)

NAC FUNCTION

1 Black (-)
2 Red (+)
3 White (DPS)
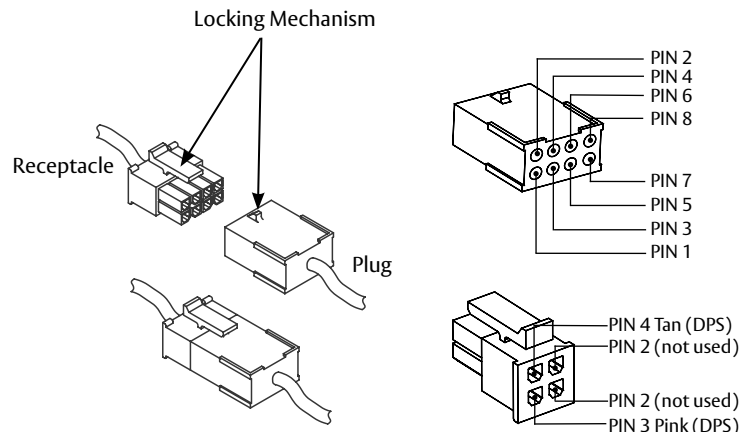4 Green (DPS)
5 Orange (RX)
6 Blue (RX)
1 Violet (DX)
2 Gray (DX)

Important

ElectroLynx connectors plug and lock together in only one way, as shown. Do NOT force connectors together.

Reference ElectroLynx Catalog A7738.

Locking Mechanism

Receptacle

Plug

PIN 2
PIN 4
PIN 6
PIN 8
PIN 7
PIN 5
PIN 3
PIN 1

PIN 4 Tan (DPS)
PIN 2 (not used)
PIN 2 (not used)
PIN 3 Pink (DPS)

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Power Input   AC 100 – 240V 600mA 50Hz/60Hz

Power Output   The WT2 is capable of supplying a total of 900 MA output to the unit under test. The 900 MA is the total output for both reader interface and the lock.

OPERATING
INSTRUCTIONS
FOR ALL CARDS

To initialize the test box for all cards:

1. Connect all wires to the WT2 first.

2. Select Fail Safe or Fail Secure according to sample.

3. Select the appropriate solenoid lock voltage (12 or 24 VDC).

4. Apply power to the WT2.

5. Once the door device completes its visual and audio signaling, it will unlock when ANY Wiegand card is presented.

OPERATING
INSTRUCTIONS
FOR LIMITED
NUMBER OF CARDS

To initialize the test box for a limited number of specific cards:

1. Connect all wires to the WT2 first.

2. Select Fail Safe or Fail Secure according to sample.

3. Select the appropriate solenoid lock voltage (12 or 24 VDC).

4. Apply power to the WT2.

5. Press and hold the Learn button.

6. Present a card to the lock.

7. That card is recognized and added to the list of cards that will unlock the lock. Other cards will not work until each is presented while holding down the learn button.

Notes

- Failure to connect the WT2 to the lock before applying power results in false reads.

  - The WT2 will accept any data from a Wiegand output and any bit structure such as the press of a key on a keypad to trigger the lock relay.

  - The WT2 is capable of remembering up to the last 6 learned (programmed) cards, whether they are the same or different.

  - Once single card/cards are recognized, the door device will no longer operate by the presentation of any random card until it has been reset.

  - To reset the device, cycle the power while holding the learn button until it flashes three times. Any card will then activate the lock.

  - The system is designed to be installation-friendly with ElectroLynx® quick connectors.
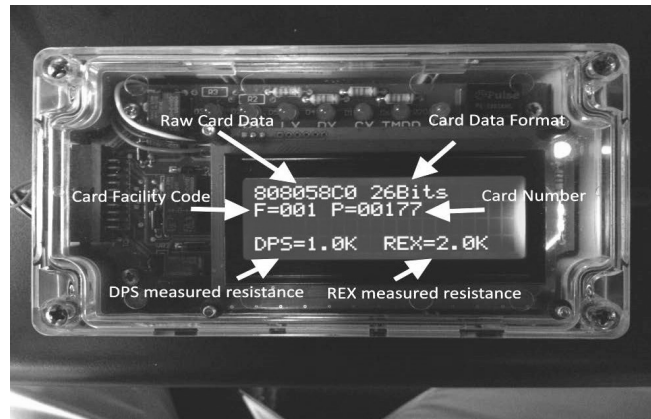
WT2 CREDENTIAL INFORMATION DISPLAY

The LCD display on the WT2 provides the following information:
- Measured DPS Output Resistance (if > 100-Ohm)
- Measured REX Output Resistance (if > 100-Ohm)
- Wiegand Bits Received
- Wiegand Data Received (Hexadecimal Format)
- Card Facility Code (for known HID formats)
- Card Number (for known HID formats)

APPENDIX

PIN #	DESCRIPTION	WIRE COLOR	WIRE HARNESS (Wiring diagram on following page)	ELYNX CABLE (Wiring diagram on	MISCELLANEOUS COMMENTS
1	Reader Power -	Black	Interface TS1	8 PIN -1	Ground
2	Reader Power +	Red	Not Used	8 PIN -2	+12 VDC always
3	Wiegand Data 1	White	Interface TS4	8 PIN -3	+5 goes to ground for data 1 bit
4	Wiegand Data 0	Green	InterfaceTS4	8 PIN -4	+5 goes to ground for data 0 bit LED on when
5	REX Switch NC/NO (Keeper Switch on Strike)	Orange	Interface TS4	8 PIN -5	REX used or when Keeper closed
6	REX Switch COM (Keeper Switch on Strike)	Blue	Interface TS4	8 PIN -6	LED on when REX used or when Keeper closed
7	Beeper Control - Cylinder Switch	Brown	Not Used	Not Used	
8	LED Control	Yellow	Not Used	8 PIN -8	+5 goes to ground to turn LED Green
9	Lock Power	Violet	Not Used	4 PIN -1	Ground
10	Lock Relay Out	Grey	Not Used	4 PIN -2	* Lock Power+
11	DPS Switch NC/NO	Pink	InterfaceTS4	4 PIN -3	LED on when switch closed
12	DPS Switch COM	Tan	Interface TS4	4 PIN -4	LED on when switch closed
13	Beeper Control	Brown	InterfaceTS4	Not Used	+5 to turn Beeper on
14	LED Control	Yellow	Interface TS4	Not Used	+5 to turn LED Green LED on when secure
15	Dead Bolt Switch NC/NO	White/Orange	AUX Board TS1 AUX-2	Not Used	(Dead Bolt extended)
16	Latch Bolt Switch NC/NO	White/Red	AUX Board TS1 AUX-1	Not Used	** LED on when secure (Latch Bolt extended)
17	Cylinder Switch NC/NO - Spare	White/Black	Not Used	Not Used	LED on when Key in use (future)
18	Tamper Relay NC/NO	White/Blue	Interface TS1	Not Used	LED on when Tamper true
19	Lock Power + / Controller Power	Red	Interface TS1	Not Used	Switch selected 12VDC or 24VDC
20	Lock Relay IN	Violet	Lock Relay TS4	Not Used	* Lock Control

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