THE BRIDGE MANUAL

WHAT’S INCLUDED

There are two pieces that complete the Bridge system.

THE CENTRAL UNIT is wired to any access control panel - regardless of the systems Wiegand protocol - and communicates wirelessly with THE REMOTE UNIT which is placed near any peripheral Wiegand device (card reader / keypad / receiver / etc.)

The Remote and Central units are able to communicate wirelessly up to 1/3 of a mile* through obstructions. This communication is made possible through our patented technology called Sure-Fi.

HOW IT WORKS...

Each Bridge system comes equipped with 2 Wiegand inputs, 2 relay outputs, and has the ability to power and wirelessly operate a mag lock, electric door strike, door position sensor, request to exit button, gate operator or any other device controlled through a relay.

The Bridge system comes pre-programmed and paired from the factory so there is no set-up or configuration required - simply wire the devices as shown in the wiring steps and power the units on for immediate functionality. With the paired communication pre-set between remote and central units, it is possible to use up to 50 Bridge systems simultaneously in one location with no interference issues.

The Bridge is a revolutionary product that will make any Wiegand device instantly wireless with no programming or configuration whatsoever - it literally is a plug and play device.
SPECIFICATIONS

Operating Power: 12/24V AC/DC
- 12V: 50mA (idle)
- 1A (transmit)
- 24V: 25mA (idle)
- 500mA (transmit)

Range: 1/3 Mile (through obstructions)

Relays:
- 2 amp 250v AC
- 2 amp 220v DC

Maximum Temperature: 185°F (85°C)

Security Encryption: AES

Dimensions: 3.5 (w) x 4 (h) x 1.5 (d) inches

CAUTION!

Remove the product control board from both the Remote and Central units prior to removing knockout holes.
1. PROVIDE PROPER POWER TO REMOTE AND CENTRAL UNITS

Each side of The Bridge (Remote and Central) need 1 amp of current draw to transmit at full power. If you intend to power a maglock, strike or other device through the wet relay on the product control board (see steps 4 & 5 for wet relay configuration), you will need to take into consideration the current draw for these additional devices and increase the rating of your power supply to accommodate the added power consumption.

It is important to note for those devices you intend to power through the wet relay contact, that voltage supplied through the main power input terminal will output the same voltage through the wet relay contacts on the product control board.

Take careful consideration that appropriate voltage is supplied to devices powered through the wet relay contact.
**REMOTE**

Wiegand 1 terminals are used to connect any Wiegand peripheral device (keypad, card reader, receiver, etc.).

Wiegand 1 on the Remote unit corresponds directly with Wiegand 1 on the Central unit.

The D1 and D0 from the Wiegand device are connected to the D1 and D0 terminals on the Remote unit. To power the Wiegand device connect + to + and – to GND.

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**CENTRAL**

Wiegand 1 device on the Central unit is wired back to the access panel with D1, D0 and GND wires only.

Note: + power and LED are not needed on the Central side.
**REMOTE**

Wiegand 2 terminals are used to connect any Wiegand peripheral device (keypad, card reader, receiver, etc.).

Wiegand 2 on the Remote unit corresponds directly with Wiegand 2 on the Central unit.

The D1 and D0 from the Wiegand device are connected to the D1 and D0 terminals on the Remote unit. To power the Wiegand device connect + to + and – to GND.

**CENTRAL**

Wiegand 2 device on the Central unit is wired back to the access panel with D1, D0 and GND wires only.

Note: + power and LED are not needed on the Central side.
4. R1 OUT ON REMOTE UNIT / R1 IN ON CENTRAL UNIT

**R1 OUT**

Relay 1 output on the Remote unit corresponds directly with R1 IN on the Central unit. This device can be a maglock, electrical strike, gate operator, or other device used to control access. The device can be powered directly from the Remote unit by changing Jumper 1 to a wet relay contact as shown on the Remote unit wiring diagram.

**If Using External Power Supply**

R1 OUT

Relay contact.

+ -

NC
COM
NO

R1 is off. R1 is dry
Relay contact.

R1 OUT

NC
COM
NO

+ -

**R1 IN**

Relay 1 input on the Central unit corresponds directly with R1 OUT on the Remote unit. This input is used to control a maglock, electrical strike, gate operator, or other device to control access. Use terminals R1 and GND to wire the device input from the appropriate terminal on your access control panel.

**If Using External Power Supply**

R1 is on. R1 is wet
Relay contact.

+ -

D0
D1

DM
DM

+ -

D0
D1

+ -

Your
Access
Control
Panel

Relay Output for Maglock, strike, etc.
5. R2 OUT ON REMOTE UNIT / R2 IN ON CENTRAL UNIT

R2 OUT

Relay 2 output on the Remote unit corresponds directly with R2 IN on the Central unit. This device can be a maglock, electrical strike, gate operator, or other device used to control access. The device can be powered directly from the Remote unit by changing Jumper 2 to a wet relay contact as shown on the Remote unit wiring diagram.

R2 IN

Relay 2 input on the Central unit corresponds directly with R2 OUT on the Remote unit. This input is used to control a maglock, electrical strike, gate operator, or other device to control access. Use terminals R2 and GND to wire the device input from the appropriate terminal on your access control panel.
6. R1 IN ON REMOTE UNIT / R1 OUT ON CENTRAL UNIT

**R1 IN / GND**

R1 IN on the Remote unit corresponds directly with R1 OUT on the Central unit. This terminal can be used for a door monitor/door position sensor, request to exit or other device needing a relay output. Use terminal R1 IN and .GND to wire the desired device on the Remote unit.

**R1 OUT**

Relay 1 OUT on the Central unit corresponds directly with the device connected to R1 IN on the Remote unit. This could be a request to exit, door position sensor or other device needing a relay output. R1 OUT on the Central unit is wired to the appropriate input on your access control panel (door monitor, request to exit, etc.)
7. R2 IN ON REMOTE UNIT / R2 OUT ON CENTRAL UNIT

R2 IN / GND

R2 IN on the Remote unit corresponds directly with R2 OUT on the Central unit. This terminal can be used for a door monitor/door position sensor, request to exit or other device needing a relay output. Use terminal R2 and GND to wire the desired device on the Remote unit.

R2 OUT

Relay 2 OUT on the Central unit corresponds directly with the device connected to R2 IN on the Remote unit. This could be a request to exit, door position sensor or other device needing a relay output. R2 OUT on the Central unit is wired to the appropriate input on your access control panel (door monitor, request to exit, etc.)
Central Unit plugs into Access Panel

*This wiring example is specifically for Prima Access Control Systems.

**IMPORTANT:** The Bridge will work with **ALL** Wiegand access control systems regardless of the Wiegand protocol.
TROUBLESHOOTING

If Remote & Central are not communicating:

After presenting a credential to the Wiegand device -

Look on the board of the remote or central unit to ensure that the following happens:
1 - The transmit LED is active
And shortly after
2 - The receive LED is active

If you do not see the transmit and receive LED lights activate:
1 - Power cycle both the remote and central units.
2 - Move the remote and central unit to a higher location and avoid mounting on/in metal objects.

If you are not getting the desired range between Remote & Central units:
1 - Ensure that the both devices are powered by their own dedicated power supply
2 - Ensure that 1 amp of power draw is available to each device during transmission
3 - Move the remote and central units to a higher location - and avoiding mounting in/on metal objects

WARRANTY

The warranty period of this product is 24 months, beginning from the manufacturing date. During this period, if the product does not operate correctly, due to a defective component, the product will be repaired or replaced at the sole discretion of Transmitter Solutions. This warranty does not extend to the product casing which can be damaged by conditions outside of the control of Transmitter Solutions.

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