



WEBtec-4X Suprema Internet Access Control System with Proximity Card / Key Tag / Bracelet Entry

Product Overview & Installation Instructions



WEBtec-4X Suprema Internet
Access Control System



WEBtec-4X Suprema Internet Access Control System

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WEBtec-4X Suprema Internet Access Control System

Section: Product Overview

Product Overview

WEBtec-4X Suprema is a smart IP based access control unit providing high-level security to anywhere from small sized systems to larger enterprise-level systems. Featuring next generation IP access control system structure, the WEBtec-4X Suprema acts as a smart reader and controller with distributed intelligence concept. With its RS485 and Wiegand interfaces, it can also fit in your legacy systems. WEBtec-4X Suprema is fully compatible with Suprema's BioStar systems which offers extra flexibility of biometric IP access control systems to meet different needs and requirements.



WEBtec-4X Suprema

Features

- **TCP/IP & Network interfaces:** IP enabled distributed access control system by Ethernet (DHCP or static IP) and RS485 interfaces.
- **Enterprise-level access control capacity:** Controls up to 40,000 users, 128 time schedules, 128 access groups and 64 zones.
- **Power over Ethernet (POE):** Communication and power over a simple CAT5 or 6 cable/supplies up to 600mA of 12Vdc to locking devices.
- **IP65 weatherproof structure:** Rugged structure for outdoor installation, operates between -20 C to 50 C.
- **Easy installation & operation:** Direct lock relay and Wiegand connection/command card operation (add/delete users). Easy-to-use *Windows Based Software* for access control and time attendance.
- **Sleek & aesthetic design:** Slim and sleek size for narrow door frames and has multi-color LED & audible alerts for indication.
- **1-Year Warranty:** The WEBtec-4X Suprema comes with a 1-year replacement warranty and one year of free technical support.

Options

PC Software

PC Software is the IP based access control system software that combined with Suprema biometric devices, distributes biometric data from networks either from an individual unit or network of them. The software creates ease among Suprema products by providing the ability to control each device through the program instead of the biometric device, itself.





WEBtec-4X Suprema Internet Access Control System

Section: Product Overview

Secure I/O

The Secure I/O is a separate controller for door control and I/O expansion. With encrypted communication, it provides a secure and cost effective access control system. It is easy to install and can be used with Suprema Products, such as the BioStation, BioLite Net and the BioEntry Plus.



Secure I/O

Complete Door Hardware

One-Stop-Shop for complete door hardware solutions. Options range from Strikes to Magnets depending on the solution for your door access. Used in conjunction with Access Control products.



Door Hardware

Specifications

CPU	32 bit Micro-processor
Memory	8MB Flash + 16MB SDRAM
RF Support	13.56MHz MiFare (XPM)
User Capacity	40,000 users
Log Capacity	50,000 log records
Communication Interfaces	TCP/IP, RS485
Wiegand Interface	Input or Output (Switchable)
I/O	2 x TTL inputs, 1 x relay, 1 x tamper
User Interfaces	Multi-color LED
IP Rate	IP65
Operating Temperature	-20 to 50 C
Operating Voltage	2VDC
Size (W x H x D)	45 mm x 130 mm x 27 mm
Certificates	CE, FCC, KCC, ROHS

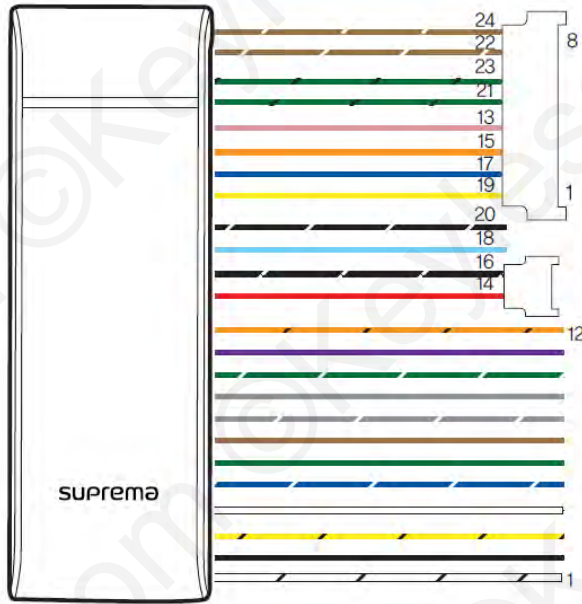


WEBtec-4X Suprema Internet Access Control System

Section: Quick Guide

Quick Guide

Cable Specifications

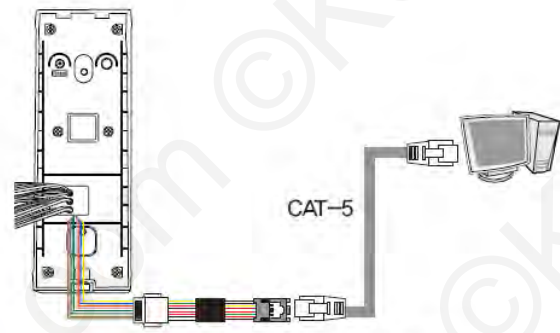
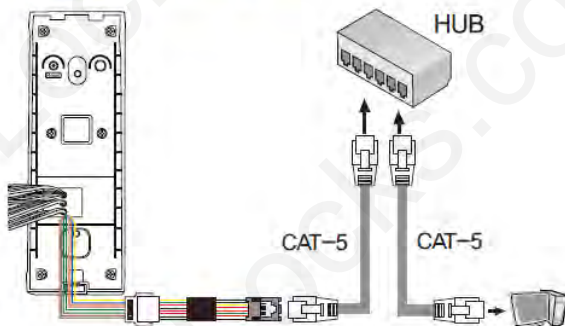


No	Pin Name	Full Name	Color
1	485 GND	485 GND	White(Black String)
2	WGD GND	Wiegand-GND	Black
3	485 -	485 -	Yellow(Black String)
4	WGD D1	Wiegand-1	White
5	485 +	485 +	Blue(White String)
6	WGD D0	Wiegand-0	Green
7	IN 1	Input-1	Brown
8	RLY NO	Relay Open	Gray(White String)
9	IN GND	Input-GND	Gray
10	RLY COM	Relay Com	Green(White String)
11	IN 0	Input-0	Purple
12	RLY NC	Relay Close	Orange(Black String)
13	TX+	TX+ (LAN)	Pink
14	PWR IN+	Power IN+	Red
15	TX-	TX- (LAN)	Orange
16	PWR IN-	Power IN-	Black(White String)
17	RX+	RX+ (LAN)	Blue
18	PWR OUT+	Power OUT+	Light Blue
19	RX-	RX- (LAN)	Yellow
20	PWR OUT-	Power OUT-	Black(White String)
21	VB1	VB1	Green(Black String)
22	VB2	VB2	Brown(White String)
23	VB1	VB1	Green(Black String)
24	VB2	VB2	Brown(White String)

A Cross Section of Cable



LAN Connection



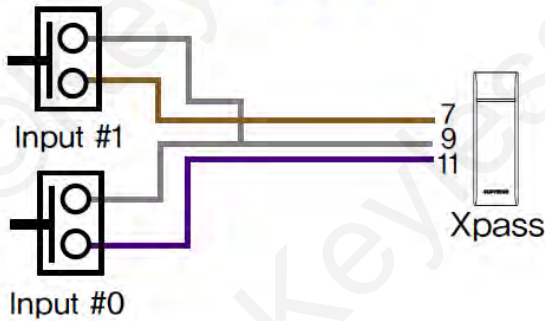
<Direct connection with PC>



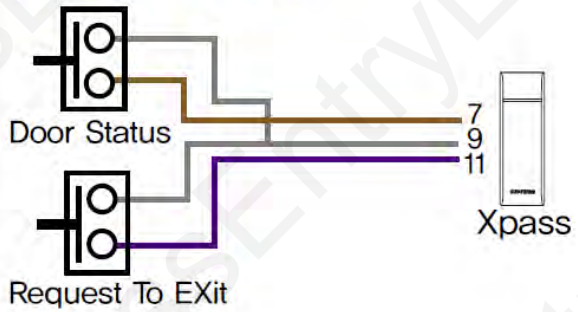
WEBtec-4X Suprema Internet Access Control System

Section: Quick Guide

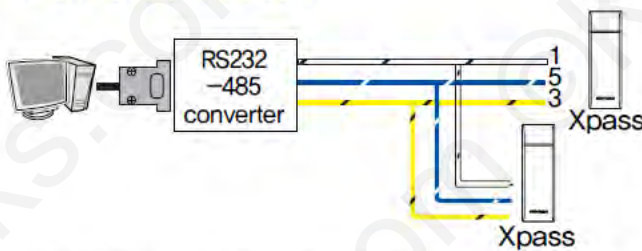
Digital Input Connection
(Alarm, Emergency S/W)



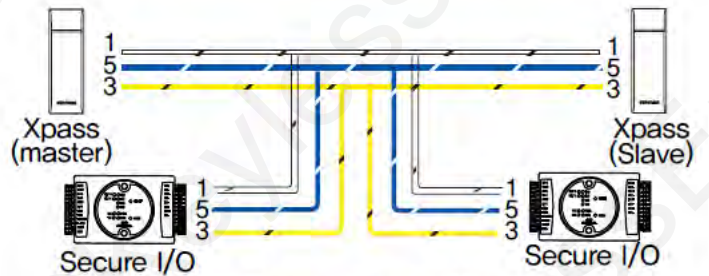
Digital Input Connection
(RTE, Door sensor)



RS485 Connection

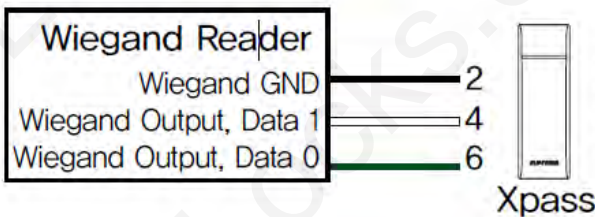


<RS485 Connection for Host Communication>

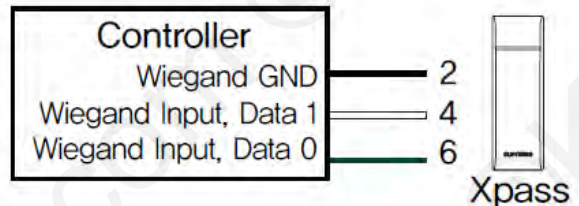


<RS485 Connection for Secure I/O>

Wiegand Connection



<Input>



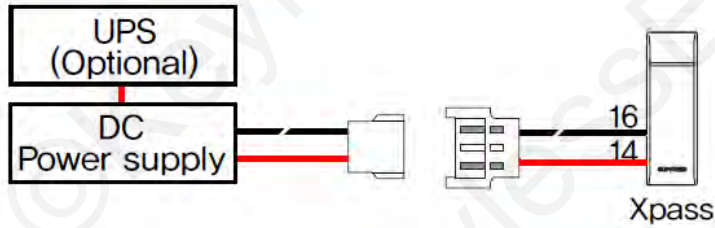
<Output>



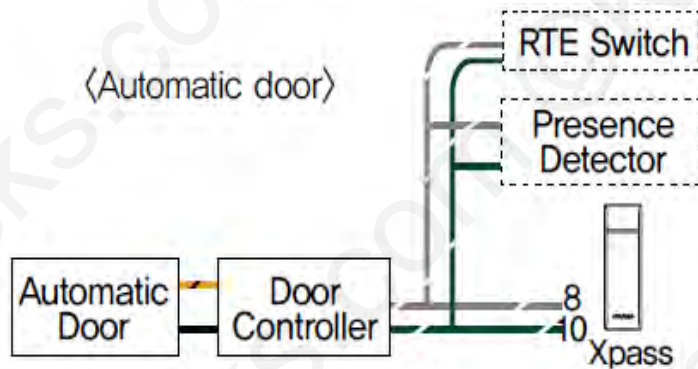
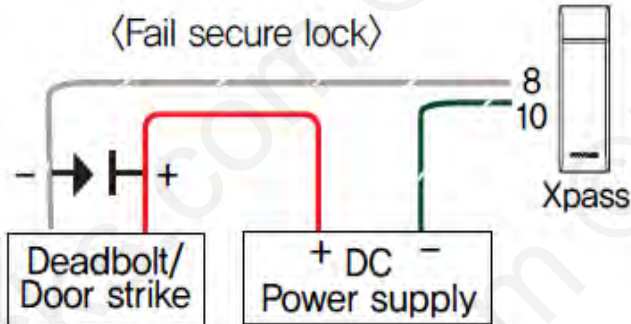
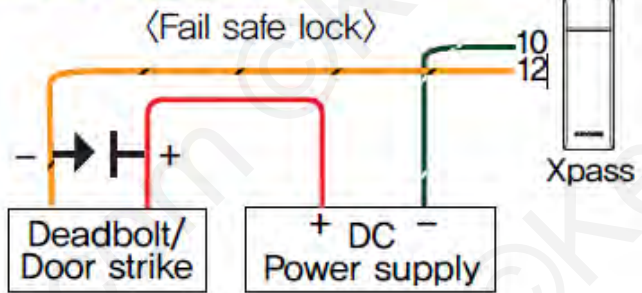
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Section: Quick Guide

Power Connection



Relay Connection





Discover the
Security & Comfort of
Keyless Locks

**30-DAY
100%
CUSTOMER
SATISFACTION
GUARANTEE**
Sales & Support
9-5pm Mon-Fri
Central Time



(630) 909-9504

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Section: Safety Precautions

Safety Precautions



Do not install the device in a place subject to direct sun light, humidity, dust or soot.



Do not place the device next to heating equipments.



Do not place a magnet near the product.



In cleaning, do not splash water on the device but wipe it out with smooth cloth or towel.



Be careful not to let liquid like water, drinks or chemicals leak inside the device.



Clean the device often to remove dust on it.



Do not drop the device.



Do not disassemble, repair or alter the device.
⚠ The warranty does not apply to any product damage cause by an arbitrary installation or repair.



Do not let children touch the device without supervision.



Do not use the device for any other purpose than specified.



Do not damage the device.



Contact your nearest dealer in case of a trouble or problem.

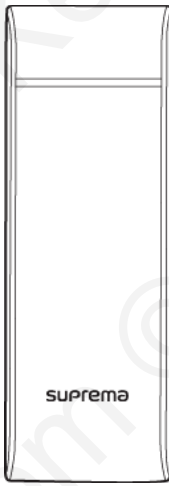


WEBtec-4X Suprema Internet Access Control System

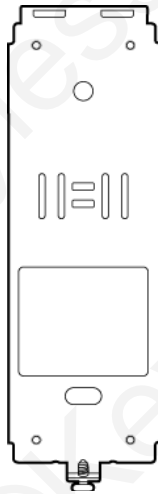
Section: Installation Instructions

Installation Instructions

Basic Components



Main Body



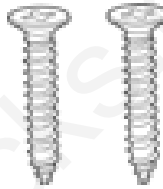
Bracket



Extended Ethernet Cable



Software CD



Wall Mounting Screws (2 each)



Knife Blocks (2 each)



Shrinkable Tubes



WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

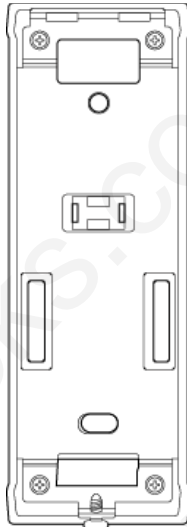
Optional Components



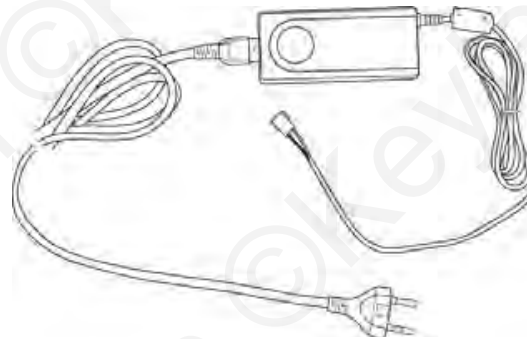
Secure I/O



Plastic Stand



Extended Bracket



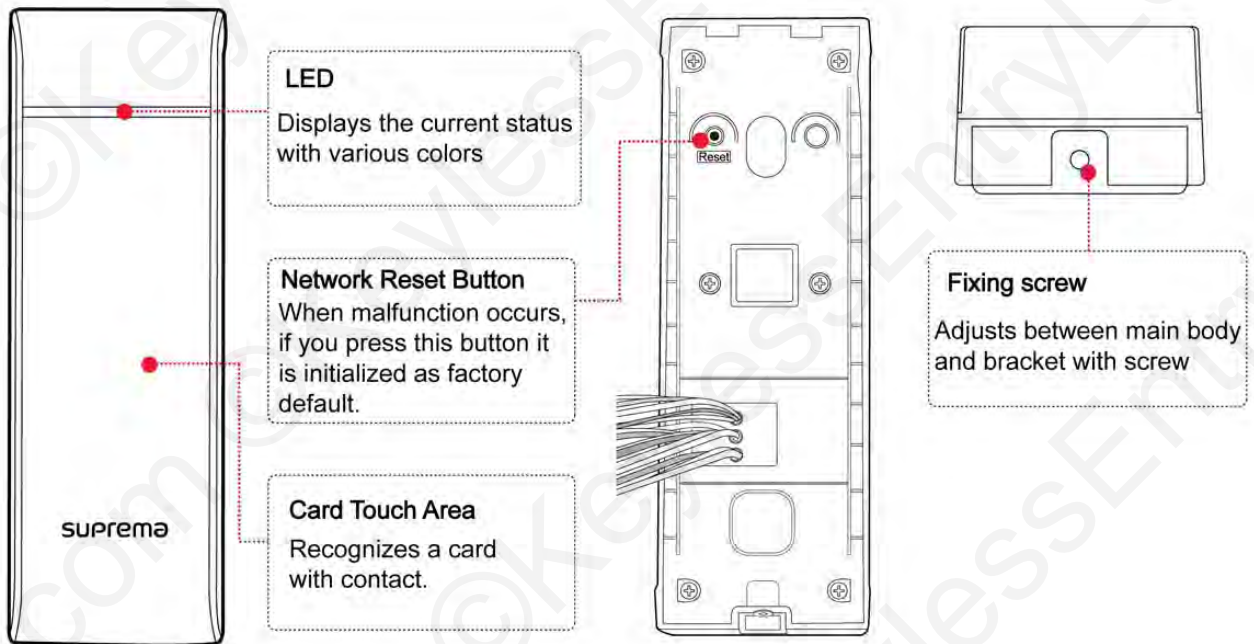
Adapter



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Section: Installation Instructions

Parts Name/Descriptions





WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions



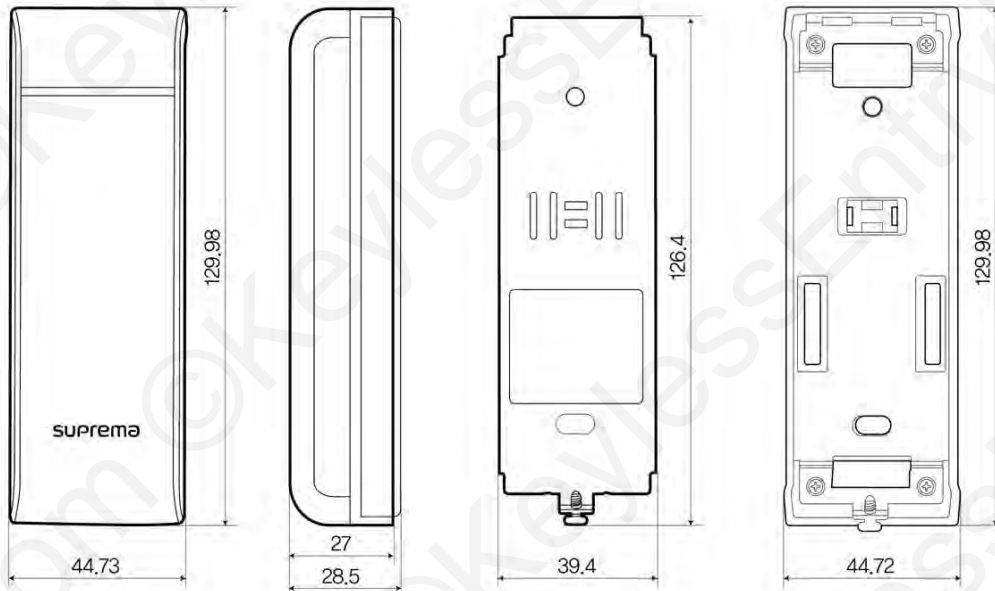
LED Status per Color		
Color	Sound	Description
Green	Beep Beep Beep	Authorization Success
Red	Be~ep	Authorization Fail
Pink	Beep!	On Processing
Flicker Blue/Sky-Blue Color per 2sec	No sound	Normal
Flicker Red/Pink Color per 2sec	No sound	Locked
Flicker Blue/Red Color per 2se	No sound	Initialized Time due to the Internal Battery Discharge
Flicker Blue /Yellow Color per 2sec	No sound	IP address is not assigned when terminal is set as 'Use' in the 'DHCP' of 'TCP/IP Setting'
For first operation, red LED is blinking by every 2 seconds.	No sound	Failed. Please contact to your distributor or Suprema
For normal operation, red LED is blinking by every 2 seconds.	No sound	Security status
Yellow LED is blinking shortly.	No sound	Terminal is send or received a packet to get IP address when terminal is set as 'Use' in the Idle status or 'TCP/IP Setting'



WEBtec-4X Suprema Internet Access Control System

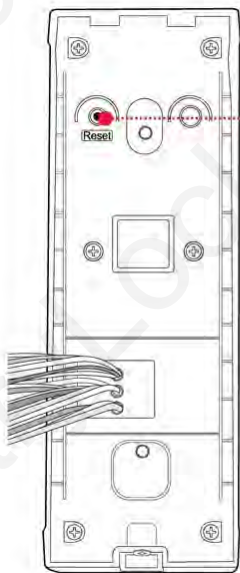
Section: Installation Instructions

Product Dimensions



Unit: mm (not to scale)

Initialization of Network Setting



When you install the Suprema or forget the network setting's value of Suprema in use, can initial the network setting's value (TCP/IP address, RS-485 setting) in the switch of Suprema's back side as follows:

1. Press the Reset button in the switch of Xpass' back side for 3 seconds or above.
2. Connect between Xpass and BioStar Client (Verison 1.25 or higher) by using TCP/IP or RS-485.

Network default setting value:

- TCP/IP Address (Fixed): 192.168.0.1. Not Checked: Use Server
- RS-485: PC Connection. 115200 bps

3. Enter the desired value of TCP/IP address or RS-485 to change setting value. And then, save setting value.
4. After you delete the Xpass among devices list, re-connect between Xpass and BioStar using the new TCP/IP address or RS-485 setting.

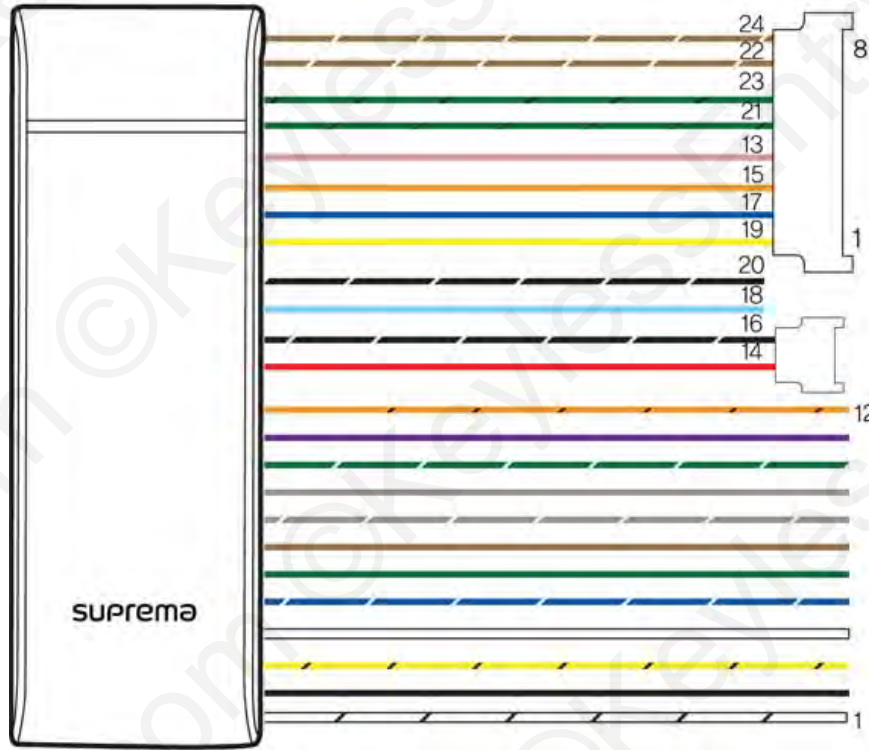


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Section: Installation Instructions

Cables & Connections

(See table on the next page)



A Cross Section of Cable





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Section: Installation Instructions

(See picture from the previous page)

No	Pin Name	Full Name	Color
1	485 GND	485 GND	White (black string)
2	WGD GND	Wiegand - GND	Black
3	485 -	485 -	Yellow (black string)
4	WGD D1	Wiegand-1	White
5	485 +	485 +	Blue (white string)
6	WGD D0	Wiegand-0	Green
7	IN 1	Input-1	Brown
8	RLY NO	Relay Open	Gray (white string)
9	IN GND	Input - GND	Gray
10	RLY COM	Relay Com	Green (white string)
11	IN 0	Input-0	Purple
12	RLY NC	Relay Close	Orange (black string)
13	TX+	TX+ (LAN)	Pink
14	PWR IN+	Power IN+	Red
15	TX-	TX- (LAN)	Orange
16	PWR IN-	Power IN-	Black (white string)
17	RX+	RX+ (LAN)	Blue
18	PWR OUT+	Power OUT+	Light Blue
19	RX-	RX- (LAN)	Yellow
20	PWR OUT-	Power OUT-	Black (white string)
21	VB1	VB1	Green (black string)
22	VB2	VB2	Brown (white string)
23	VB1	VB1	Green (black string)
24	24VB2	VB2	Brown (white string)

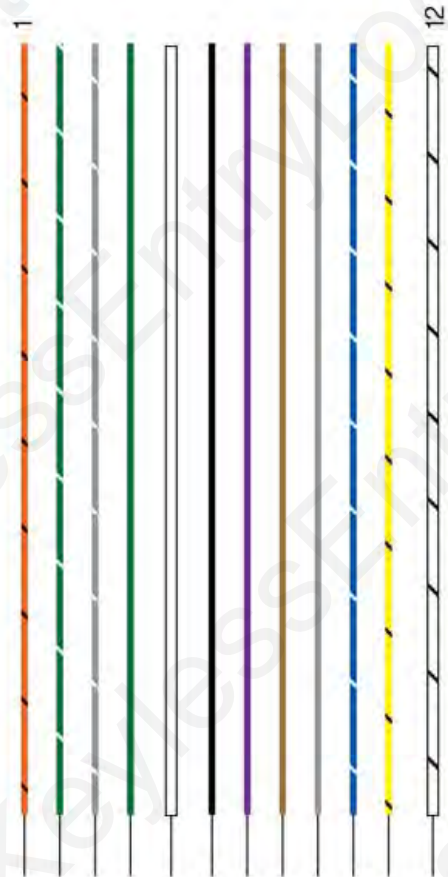


WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

Cable Specification

Cable	Pin Name	Color
1 2 3	RLY NC	Orange (black string)
	RLY COM	Green (white string)
	RLY NO	Gray (white string)
4 5 6	WGD D0	Green
	WGD D1	White
	WGD GND	Black
7 8 9	IN 0	Purple
	IN 1	Brown
	IN GND	Gray
10 11 12	485+	Blue (white string)
	485-	Yellow (black string)
	485 GND	White (black string)



Cable	Pin Name	Color
3 1	POWER OUT -	Black (white string)
	POWER OUT +	Light Blue
	POWER IN -	Black (white string)
	POWER IN +	Red





WEBtec-4X Suprema Internet Access Control System

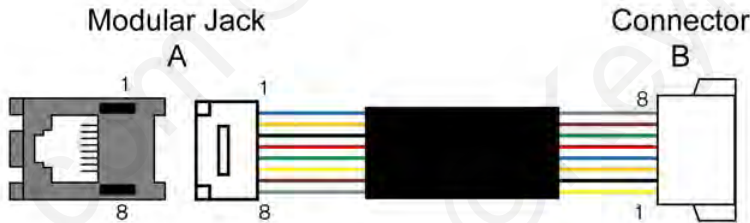
Section: Installation Instructions

LAN Cable



LAN Connector	Pin Name	Color
1	RX-	Yellow
2	RX+	Blue
3	TX-	Orange
4	TX+	Pink
5	VB1	Green (black string)
6	VB1	Green (black string)
7	VB2	Brown (white string)
8	VB2	Brown (white string)

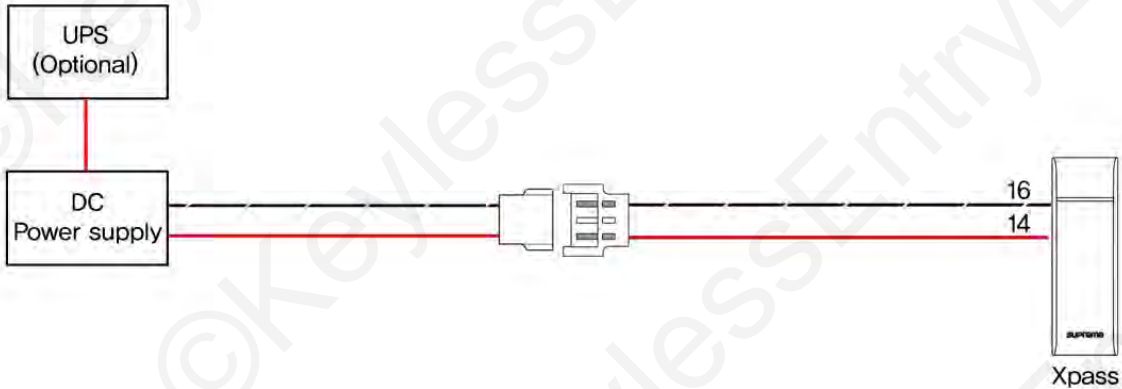
Ethernet Extension Cable



Modular Jack (A)	Connector (B)	Pin Name	Color
1	4	TX+	Blue
2	3	TX-	Orange
3	2	RX+	Black
6	1	RX-	Yellow
4	5	VB1	Red
5	6	VB1	Green
7	7	VB2	Brown
8	8	VB2	Gray



Power Connection 1



Pin	Pin Name	Color
14	PWR IN+	Red
16	PWR IN-	Black (white string)

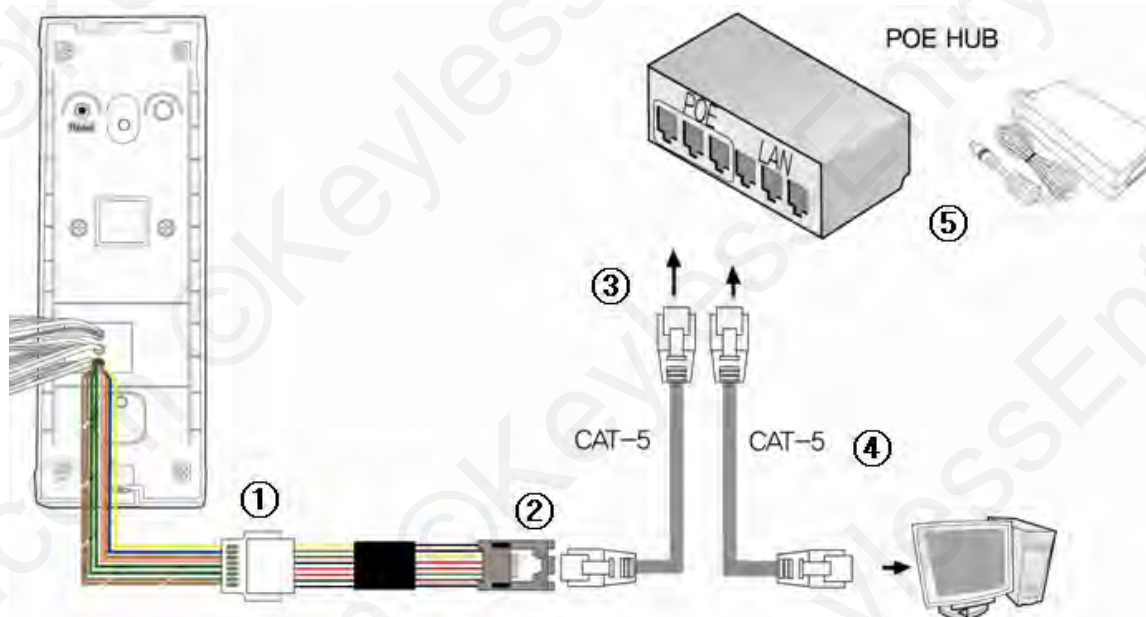
Recommended Power Supply:

12V ±10%, at least 1500mA.
 Comply with standard IEC/EN 60950-1.
 To share the power with other devices, use a power supply with higher current ratings.



Power Connection 2

Please read below *carefully* before you install this product. This is **essential** steps for stable operation. Please make sure to turn on the power of PSE only after connect all cables related to PoE.



1. Connect 8port Ethernet connect of Xpass body to Ethernet expansion cable in right direction
2. Connect RJ45 modular from Ethernet expansion cable to Ethernet cable with CAT-5
3. Connect the opposite side of Ethernet cable to PoE HUB port
4. Connect cable from PC to port from PoE HUB and connect the opposite side of cable to Ethernet port of PC
5. Connect power of PoE HUB

Recommended power supply:

Please use the distance of LAN cable within 100m in case of PoE power.

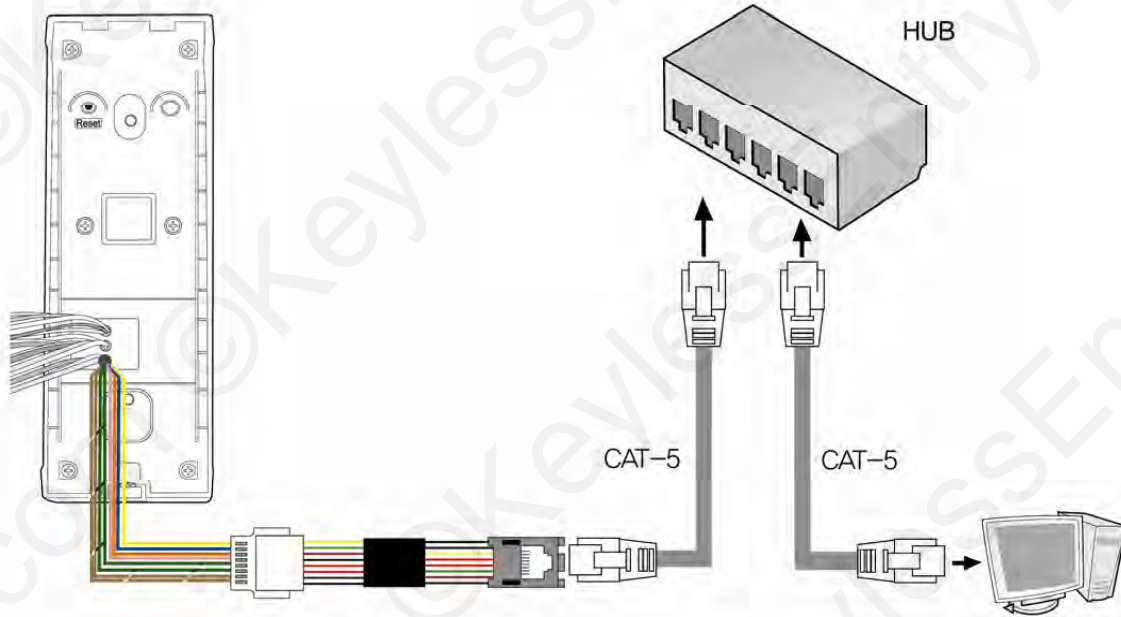
PoE (Power over Ethernet): Use PSE (Power Sourcing Equipment) that complies with IEEE802.3af standard only.



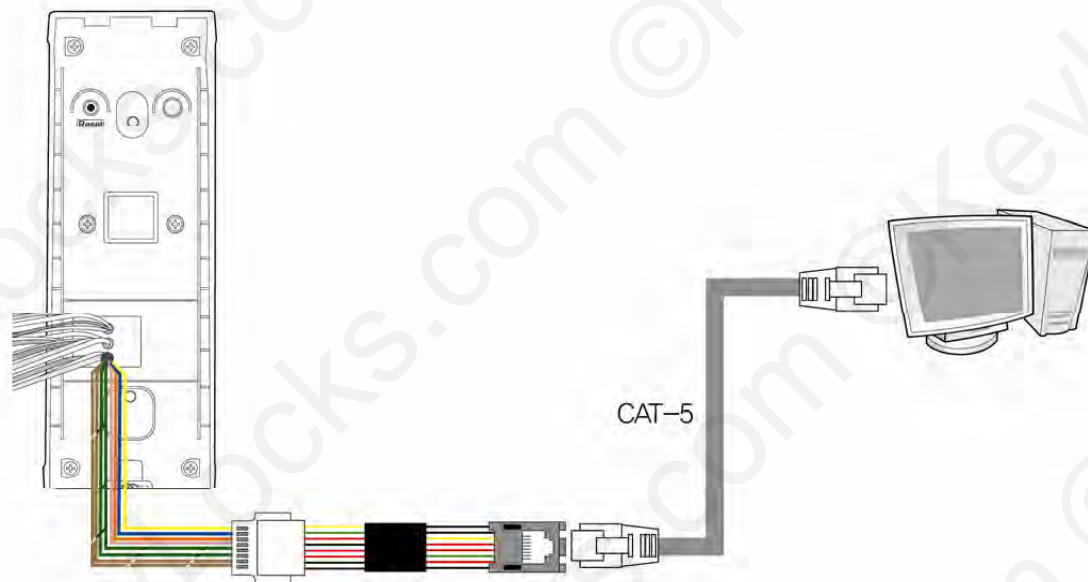
WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

LAN Connection



LAN Connection with PC

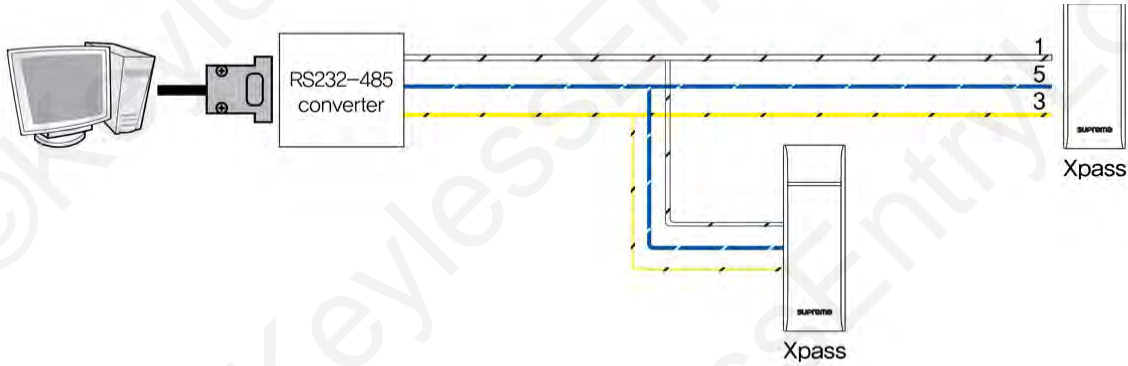




WEBtec-4X Suprema Internet Access Control System

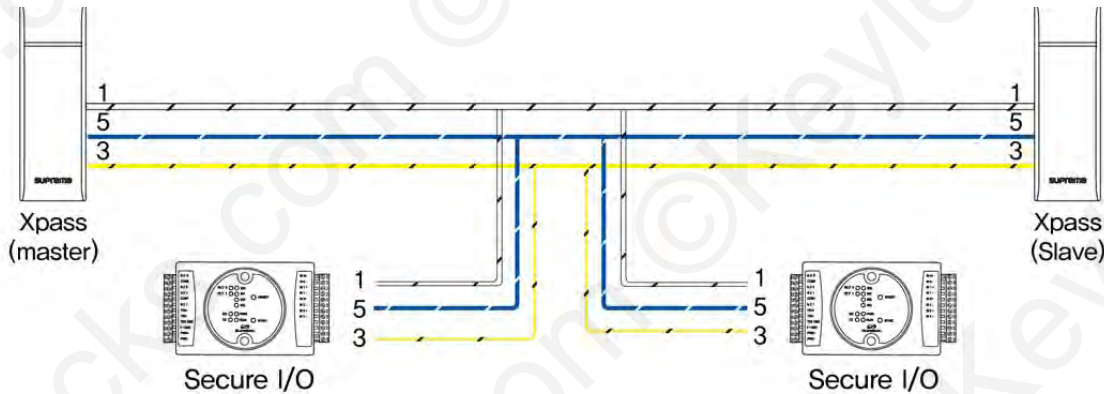
Section: Installation Instructions

RS485 Connection for Host Communication



Pin	Pin Name	Color
1	485 GND	White (black string)
3	485 -	Yellow (black string)
5	485 +	Blue (white string)

RS485 Connection for Host Communication (option 2)



Pin	Pin Name	Color
1	485 GND	White (black string)
3	485 -	Yellow (black string)
5	485 +	Blue (white string)

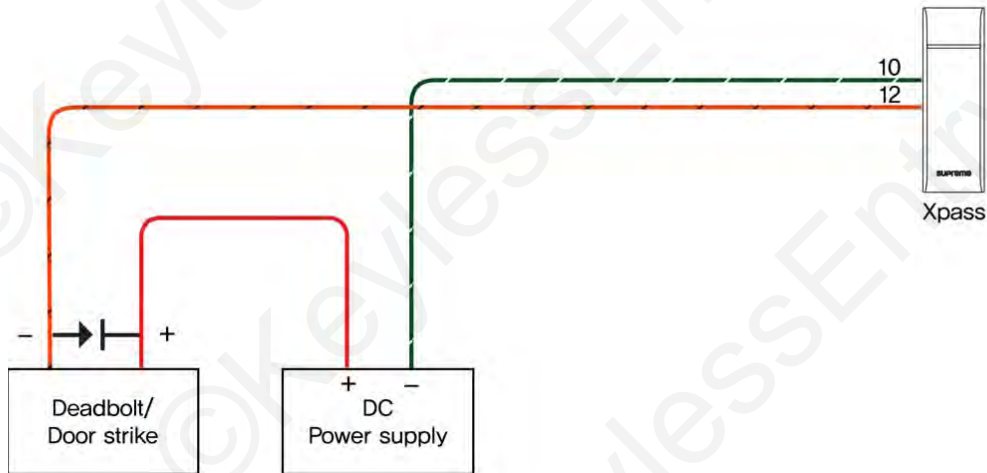
Max number of devices: maximum of 8 (including Master) interworks in an RS485 loop.



WEBtec-4X Suprema Internet Access Control System

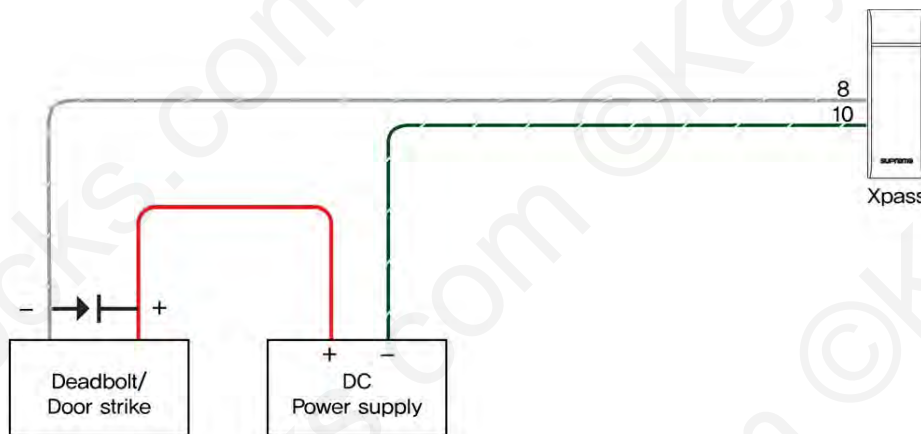
Section: Installation Instructions

Relay Connection – Fail Safe Lock



Pin	Pin Name	Color
10	RLY COM	Green (white string)
12	RLY NC	Orange (black string)

Relay Connection – Fail Secure Lock



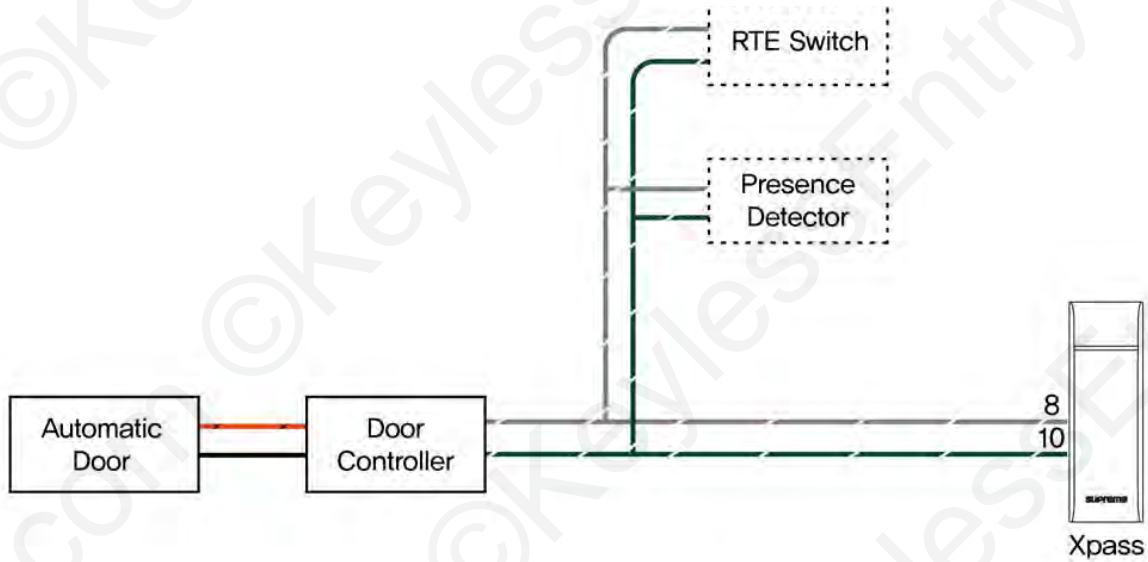
Pin	Pin Name	Color
8	RLY NO	Gray (white string)
10	RLY COM	Green (white string)



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Section: Installation Instructions

Relay Connection – Automatic Door



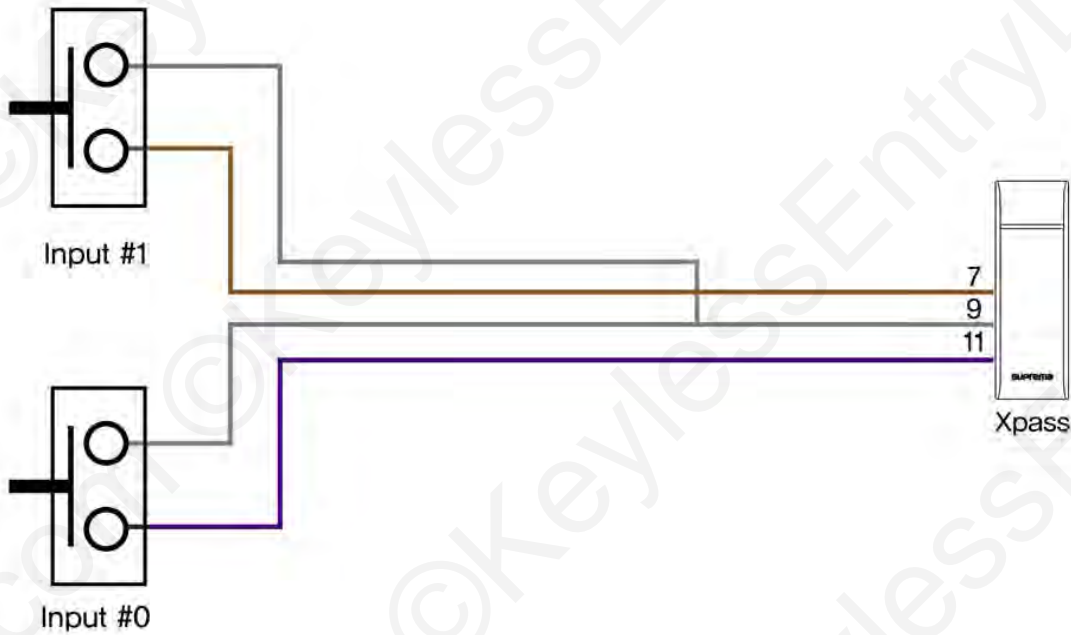
Pin	Pin Name	Color
8	RLY NO	Gray (white string)
10	RLY COM	Green (white string)



WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

Digital Input Connection (Alarm, Emergency S/W)



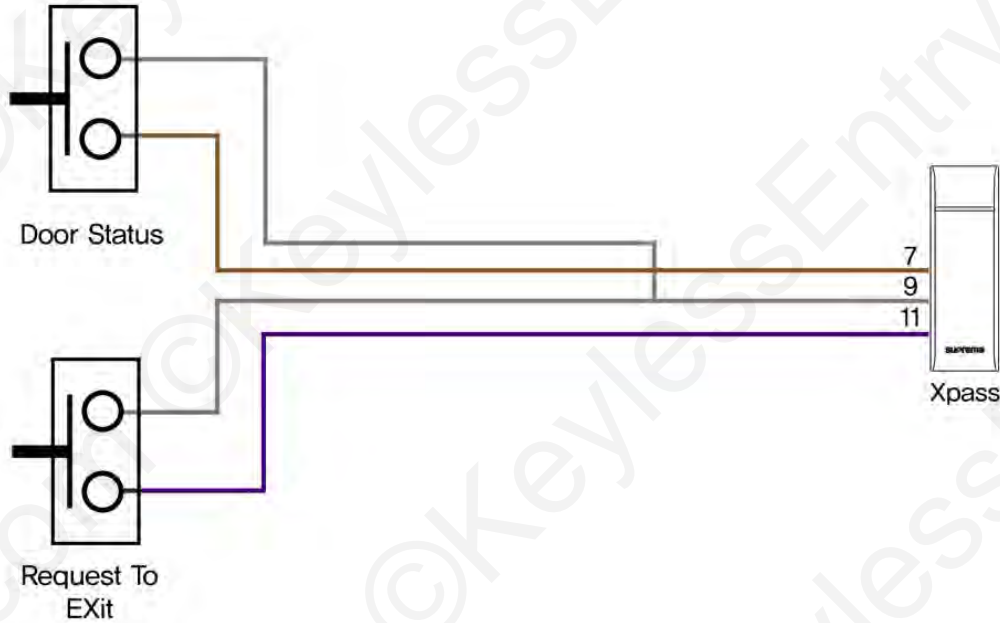
Pin	Pin Name	Color
7	IN 1	Brown
9	IN GND	Gray
11	IN 0	Purple



WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

Digital Input Connection (RTE, Door Sensor)



Pin	Pin Name	Color
7	IN 1	Brown
9	IN GND	Gray
11	IN 0	Purple



WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

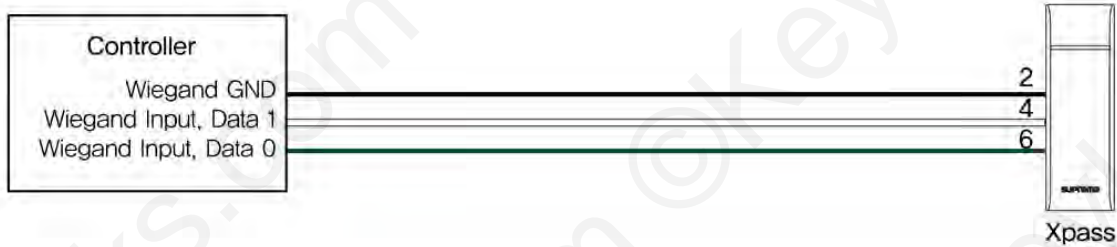
Weigand Input/Output

Weigand Input:



Pin	Pin Name	Color
2	WGD GND	Black
4	WGD D1	White
6	WGD D0	Green

Weigand Output:



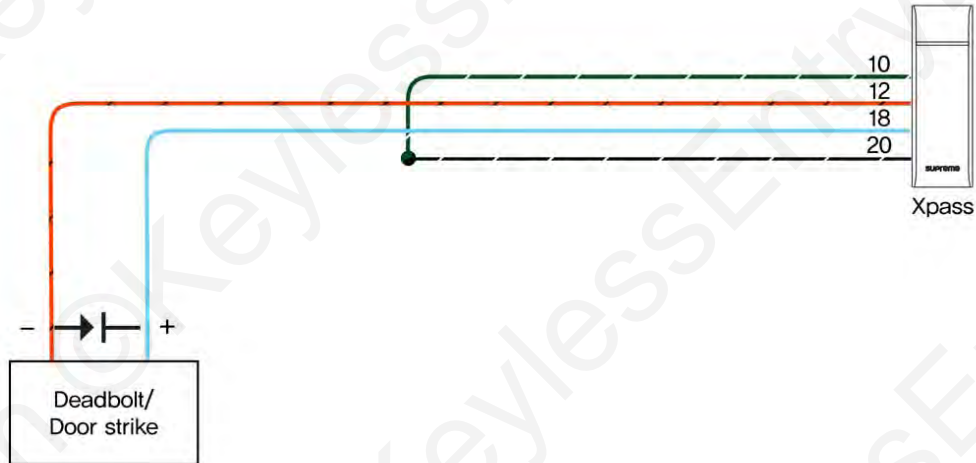
Pin	Pin Name	Color
2	WGD GND	Black
4	WGD D1	White
6	WGD D0	Green



WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

Output



Pin	Pin Name	Color
10	RLY COM	Green (white string)
12	RLY NC	Orange (black string)
18	PWR OUT +	Light Blue
20	PWR OUT -	Black (white string)

Caution: Max. 700mA is supplied using adapter for the external output.
Be careful to satisfy the power capacity in use.

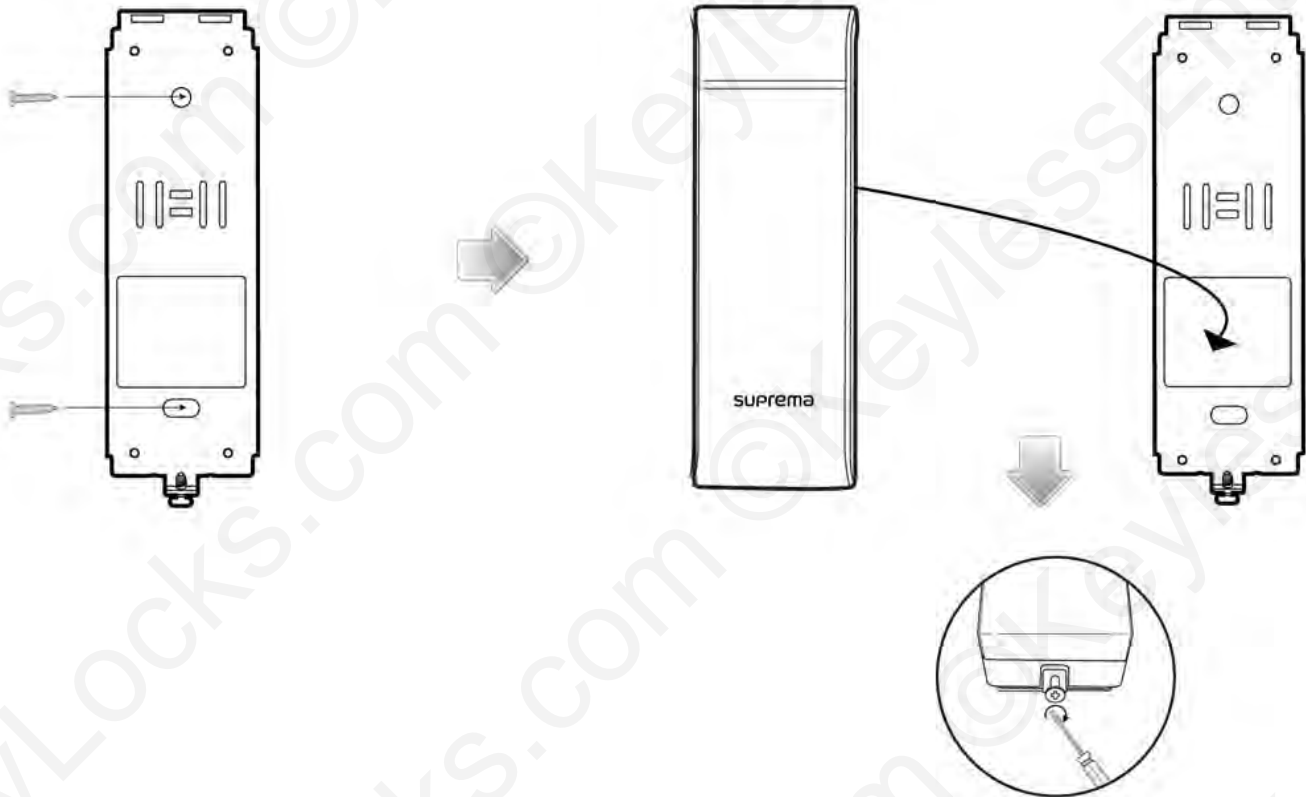


WEBtec-4X Suprema Internet Access Control System

Section: Installation Instructions

Wall Mount Bracket

1. Fix mount bracket on a wall using wall mounting screws.
2. Hook Suprema body on the wall mount bracket.
3. Fix Suprema body and wall mounting bracket using a wall mounting screw.



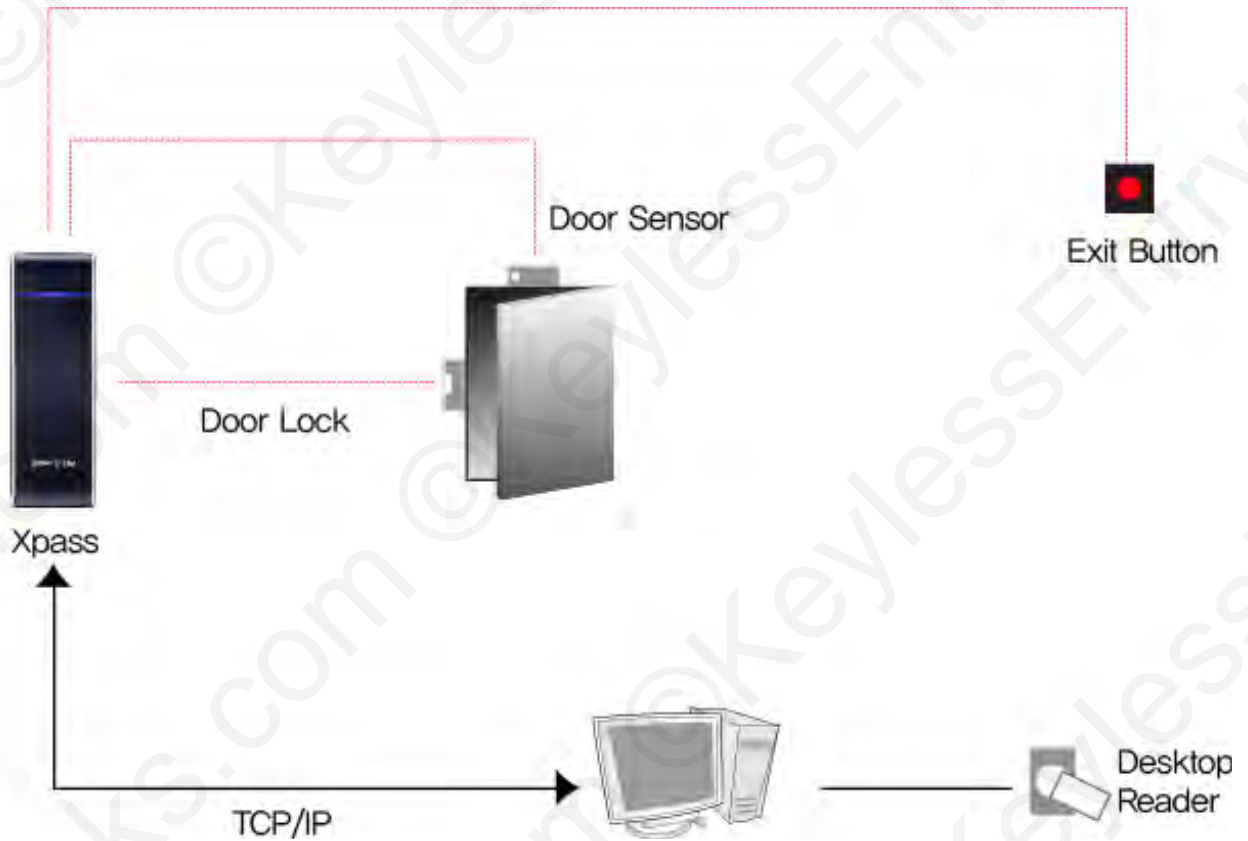


WEBtec-4X Suprema Internet Access Control System

Section: Installation Reference

Installation Reference

Stand Alone

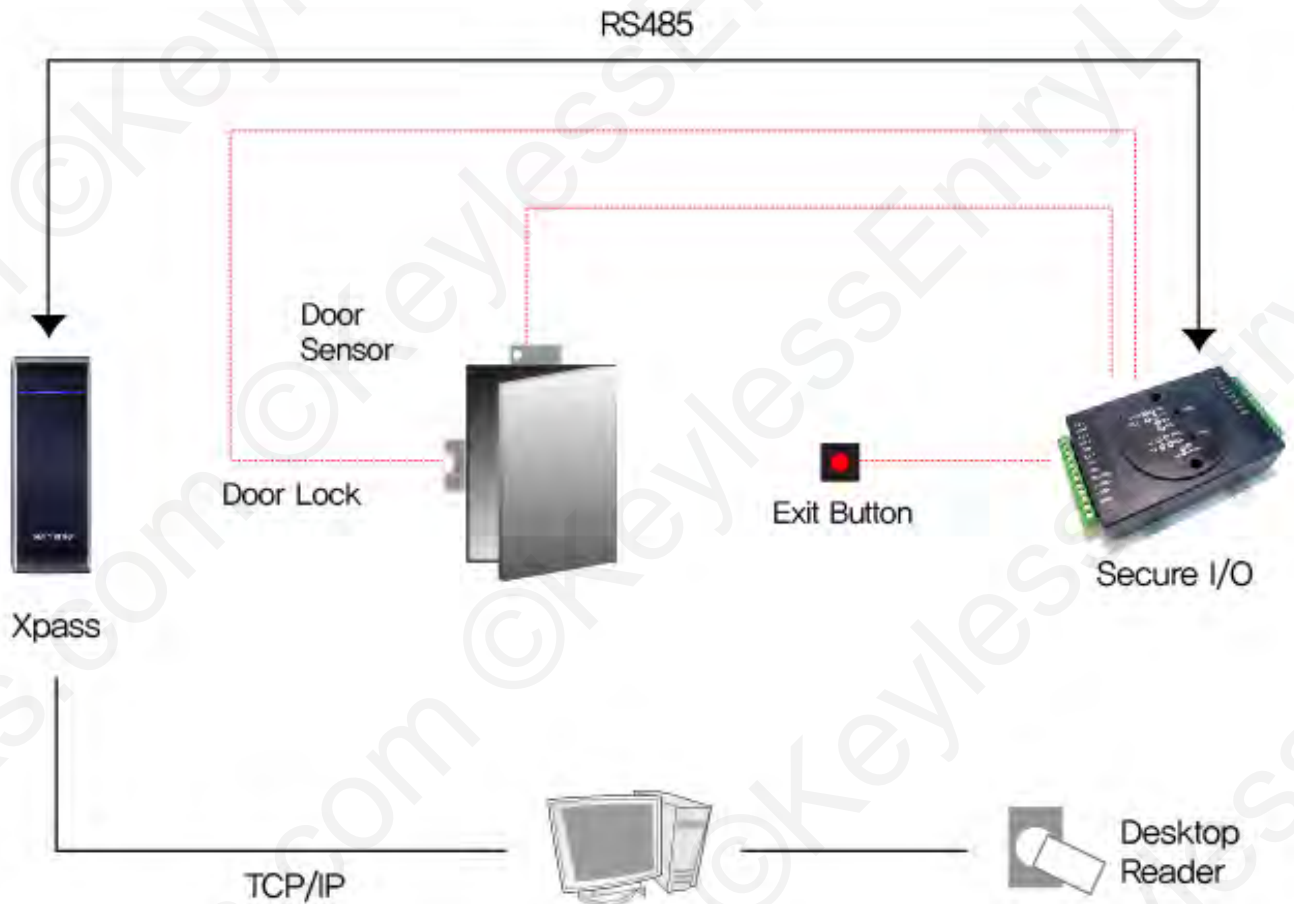




WEBtec-4X Suprema Internet Access Control System

Section: Installation Reference

Stand Alone (Secure)

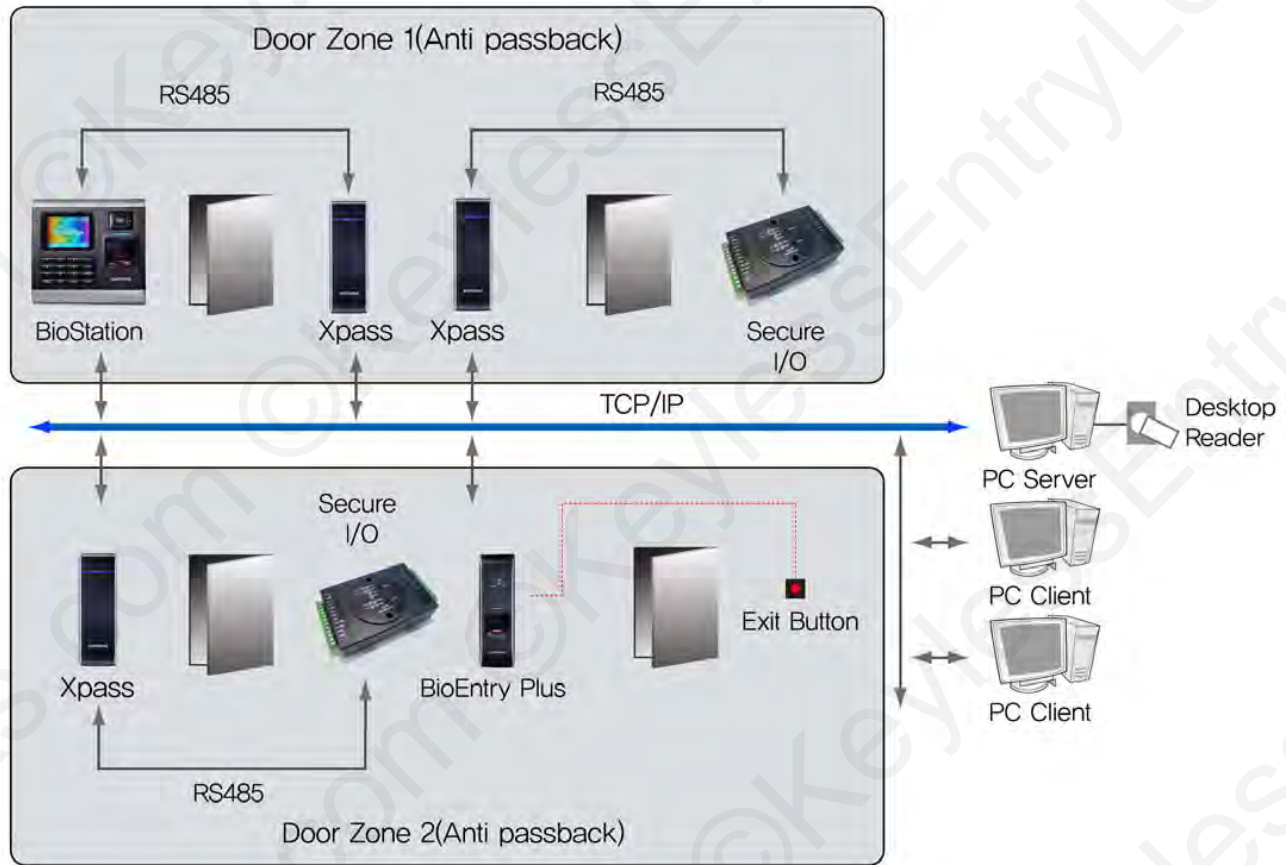




WEBtec-4X Suprema Internet Access Control System

Section: Installation Reference

Network





WEBtec-4X Suprema Internet Access Control System

Section: Electrical Specifications

Electrical Specifications

	Min.	Typ.	Max.	Notes
Power				
Voltage (V)	10.8	12	13.2	Use regulated DC power adapter only.
Current (mA)	-		200	
Switch Input				
VIH (V)	-	TBD	-	
VIL (V)	-	TBD		
Pull-up Resistance (Ω)	-	4.7k	-	The input ports are pulled up with 4.7k resistors.
TTL/Wiegand Output				
VOH (V)	-	5		
VOL (V)	-	0.8	-	
Pull-up Resistance (Ω)	-	4.7k	-	The outputs ports are open drain type, pulled up with 4.7k resistors internally.
Relay				
Switching Capacity (A)	-	-	1 0.3	30V DC 125V AC
Switching Power (resistive)	-	-	30W 37.5V A	DC AC
Switching Voltage (V)	-	-	110 125	DC AC



WEBtec-4X Suprema Internet Access Control System

Section: FCC Rules

FCC Rules

Caution

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interface, and (2) this device must accept any interface received, including interference that may cause undesired operation.

Information to the User

This equipment has been tested and found to comply with the limit of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, user and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation; if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help



WEBtec-4X Suprema Internet Access Control System

Section: Warranty Information

Warranty Information

ACTatek provides a one year warranty on most products, with extended warranty available for purchase (24 and 36 months) from ACTatek and authorized dealers.

An extended warranty is offered on hardware only or on both hardware and software. With the hardware and software warranty, customers have access to software updates and upgrades. ACTatek upgrades firmware, middleware and software on a bi-annual basis, providing selected new features that have been requested by customers.

Support for products no longer under warranty will be offered at a service cost.

Contact Information

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