suprema

FaceStation F2

설치 가이드

버전 1.02
한국어

KO 101.00.FSF2-ODB V1.02A

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안전을 위한 주의사항

제품을 올바르게 사용하여 위험이나 재산상의 피해를 미리 막기 위한 내용이므로 반드시 지켜주시기 바랍니다.

⚠경고

지시 사항을 위반하여 심각한 상해나 사망에 이를 수 있습니다.

설치 관련

장치를 직사 광선이나 자외선에 직접 노출된 장소에 설치하지 마십시오.

- 제품 손상, 오작동 및 변색, 변형의 원인이 됩니다.

직사 광선, 습기, 먼지나 그을음이 많은 곳에는 설치하지 마십시오.

- 화재 또는 감전의 원인이 됩니다.

전열기 등으로 인해 열이 발생하는 곳에는 설치하지 마십시오.

- 과열로 인한 화재 또는 감전의 원인이 됩니다.

물기가 없는 장소에 설치하십시오.

- 습기로 인한 제품 손상 및 감전의 원인이 됩니다.

전자파 장해가 없는 곳에 설치하십시오.

- 제품 손상 또는 감전의 원인이 됩니다.

사용자가 임의로 제품을 설치하거나 수리하지 마십시오.

- 화재, 감전, 부상의 원인이 됩니다.
- 사용자의 임의 설치나 수리로 인해 제품이 손상된 경우에는 무상 서비스를 받을 수 없습니다.

사용 관련

제품 내부에 물, 음료수, 약품 등의 액체가 들어가지 않도록 주의하십시오.

- 감전, 화재, 제품 손상의 원인이 됩니다.

⚠주의

지시 사항을 위반하여 경미한 상해나 제품 손상이 발생할 수 있습니다.

설치 관련

전원 케이블 등을 통행 장소에 방치하지 마십시오.

- 제품 파손 또는 신체 상해의 원인이 됩니다.

자석, TV, (특히 CRT) 모니터, 스피커 등 자성이 강한 물체 주변에 설치하지 마십시오.

- 고장의 원인이 됩니다.

직류 24V 또는 12V, 2.5 A 이상의 전원 어댑터만 사용하십시오.

- 적합한 전원을 사용하지 않을 때에는 장치가 정상적으로 작동하지 않습니다.

Secure I/O 2, 전기정(전기식 잠금장치), FaceStation F2는 반드시 개별 전원을 사용하십시오.

- 전원을 함께 연결하여 사용하면 장치가 오작동할 수 있습니다.

여러 대의 장치를 설치할 때 최소 이격 거리를 확인하십시오.

- 그렇지 않으면 다른 장치의 RF 성능에 영향을 주어 장치가 오작동할 수 있습니다.

사용 관련

제품을 떨어뜨리거나 충격을 주지 마십시오.

- 고장의 원인이 됩니다.

암호를 타인이 알지 못하도록 주의하여 관리하고, 주기적으로 변경하여 주십시오.

- 불법 침입의 원인이 됩니다.

제품의 버튼을 무리하게 누르거나 날카로운 도구를 사용해 누르지 마십시오.

- 고장의 원인이 됩니다.

제품 청소 시 물, 벤젠, 알코올 등이 아닌 부드러운 마른 천으로 닦아 주십시오.

- 제품 고장의 원인이 됩니다.

FaceStation F2는 정전식 화면을 사용합니다. 비 오는 날씨와 같이 습기가 많거나 제품 표면에 물이 많이 묻은 경우 마른 천으로 닦은 뒤 사용하십시오.

RTC 배터리

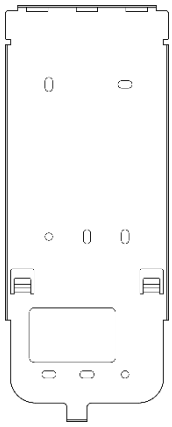
잘못된 종류의 배터리로 교체하면 폭발의 위험이 있습니다.

배터리는 거주 지역 또는 국제 폐기물 규정에 따라 폐기하십시오.

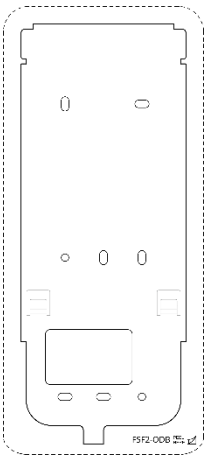
시작하기

구성품

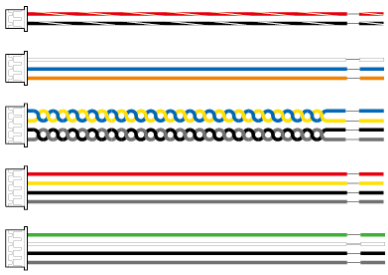
FaceStation F2



벽걸이용 브래킷



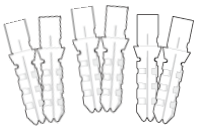
드릴링 템플릿



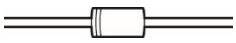
연결 케이블
(2핀 1개, 3핀 1개, 4핀 3개)

고정용 나사 x6

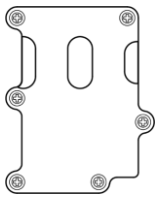
120Ω 저항



PVC 앵커 x6



다이오드



케이블 커버

브래킷 고정용 나사
(별 모양)

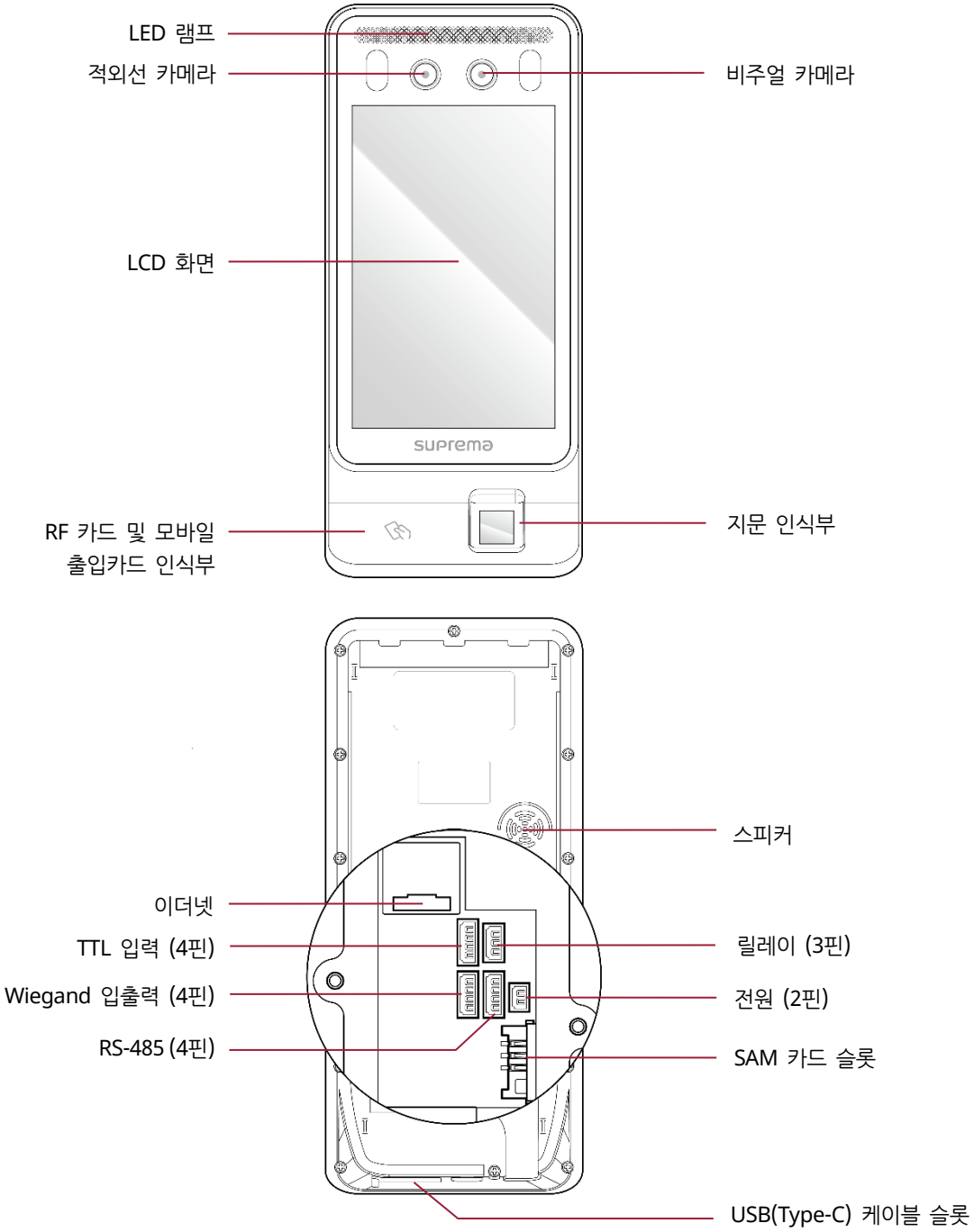
퀵 가이드

오픈소스라이선스 가이드

알아두기

- 구성품은 설치 환경에 따라 달라질 수 있습니다.
- 브래킷과 제품을 조립할 때 향상된 보안을 위해 제품 고정용 나사 대신 동봉된 브래킷 고정용 나사(별 모양)를 이용할 수 있습니다.

각 부분의 명칭 및 기능



명칭	기능 설명
LED 램프	어두운 곳에서 사용자를 감지하면 LED 램프가 켜집니다.
적외선 카메라	적외선 이미지를 촬영합니다.
비주얼 카메라	실제 이미지를 촬영합니다.
LCD 화면	동작을 위한 UI를 제공합니다.

RF 카드 및 모바일 출입카드인식부	출입을 위해 카드를 인식시키는 부분입니다.
지문 인식부	출입을 위해 지문을 인식시키는 부분입니다.
스피커	소리를 들을 수 있습니다.
이더넷	이더넷 케이블을 연결합니다.
TTL 입력 (4핀)	TTL 입력 케이블을 연결합니다.
릴레이 (3핀)	릴레이 케이블을 연결합니다.
Wiegand 입출력 (4핀)	Wiegand 입출력 케이블을 연결합니다.
전원 (2핀)	전원 케이블을 연결합니다.
RS-485 (4핀)	RS-485 케이블을 연결합니다.
SAM 카드 슬롯	SAM 카드를 사용할 수 있습니다.
USB(Type-C) 케이블 슬롯	USB 케이블을 연결합니다.

케이블 및 커넥터

전원

핀	명칭	색상
1	PWR +VDC	빨간색(흰띠)
2	PWR GND	검은색(흰띠)

릴레이

핀	명칭	색상
1	RLY NO	흰색
2	RLY COM	파란색
3	RLY NC	주황색

RS-485

핀	명칭	색상
1	485 TRXP	파란색
2	485 TRXN	노란색
3	485 GND	검은색
4	SH GND	회색

TTL 입력

핀	명칭	색상
1	TTL IN0	빨간색
2	TTL IN1	노란색
3	TTL GND	검은색
4	SH GND	회색

Wiegand 입출력

핀	명칭	색상
1	WG D0	초록색
2	WG D1	흰색
3	WG GND	검은색
4	SH GND	회색

올바른 얼굴 등록 및 인증 방법

얼굴 등록 시 주의 사항

- 얼굴을 등록할 때 장치와 얼굴의 거리를 60 ~ 100 cm로 유지하십시오.
- 표정이 변하지 않도록 주의하십시오.
- 마스크, 모자, 안대를 착용하지 마십시오.
- 고개를 들거나 숙이지 마십시오.
- 진한 화장을 하지 마십시오.
- 눈을 감지 마십시오.
- 두 명의 얼굴이 화면에 동시에 나타나지 않도록 주의하십시오. 한 번에 한 사람씩 등록하십시오.
- 화면의 지시에 따르지 않을 경우 얼굴 등록이 오래 걸리거나 실패할 수 있습니다.

얼굴 인증 시 주의 사항

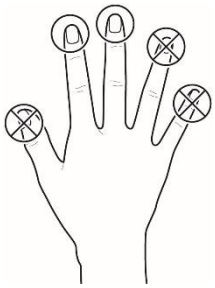
- 장치의 화면 중앙에 얼굴이 나타나도록 하십시오. 위치 가이드가 표시될 경우 화면의 안내에 따라 얼굴을 인증하십시오.
- 모자, 마스크, 선글라스, 안대 등으로 얼굴의 일부를 가릴 경우 인증에 실패할 수 있습니다. 눈썹과 얼굴을 모두 장치가 인식할 수 있도록 얼굴을 가리지 마십시오.

올바른 지문 입력 방법

지문 인식률을 높이기 위해 올바르게 지문을 등록하십시오. FaceStation F2는 사용자의 지문 입력 각도 및 위치가 바뀌더라도 지문을 인식할 수 있습니다. 지문을 등록할 때 다음 사항에 유의하여 등록하면 인식률을 높일 수 있습니다.

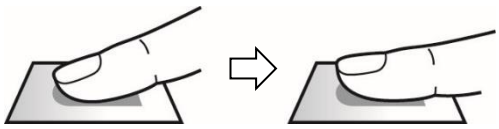
지문 입력을 위한 손가락 선택

- 한 손에 짐을 들거나 손가락에 상처가 나는 경우와 같이 특정 손가락의 지문을 사용하기 어려운 경우를 대비하여, 한 명의 사용자 당 최대 10 개의 지문을 등록할 수 있습니다.
- 지문이 잘 인식되지 않는 사용자의 경우 동일 손가락을 두 번 중복으로 등록하여 인식률을 높일 수 있습니다.
- 손가락에 상처가 있거나 지문이 흐릴 경우 다른 손가락의 지문을 입력하십시오.
- 지문 입력 시 검지 또는 중지를 사용할 것을 권장합니다. 다른 손가락은 지문 센서 중앙에 정확히 위치하기 어려워서 인식률이 떨어질 수 있습니다.



지문 등록 방법

1 지문을 등록할 때 LCD 화면에 “센서에 손가락을 대십시오.”라고 표시되면 등록할 손가락을 지문 인식부에 올리고, 살며시 눌러 지문이 잘 인식되도록 하십시오.



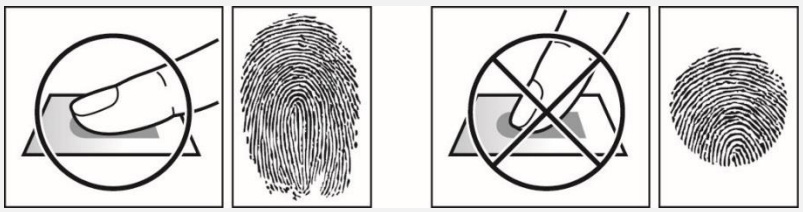
2 “삑” 소리가 난 뒤 재입력 화면이 나타나면, 등록한 손가락의 지문을 다시 스캔하십시오.
(등록할 손가락의 지문은 2번 입력합니다.)

알아두기

지문 등록 시 주의사항

지문 인식할 때 처음에 등록된 지문과 비교하기 때문에 지문 등록이 가장 중요합니다. 지문을 등록할 때 다음 사항에 유의하십시오.

- 손가락이 센서에 완전히 접촉되도록 깊이 위치시키십시오.
- 지문의 중심점 부분이 센서의 중심에 오도록 위치시키십시오.
- 손가락에 상처가 있거나 지문이 흐릴 경우 다른 손가락의 지문을 입력하십시오.
- 지문 인식 시 화면 안내에 따라 움직이지 말고 정확하게 입력하십시오.
- 손가락을 세워 센서와의 접촉 면적이 작아지거나 손가락 각도가 틀어진 경우에는 지문 인식이 되지 않을 수 있습니다.



지문 인식이 잘 되지 않는 경우

FaceStation F2는 계절의 변화나 손가락의 상태 변화에 관계없이 지문을 인식할 수 있습니다. 하지만, 외부 환경이나 지문 입력 방법에 따라 인식률의 차이가 있을 수 있습니다.

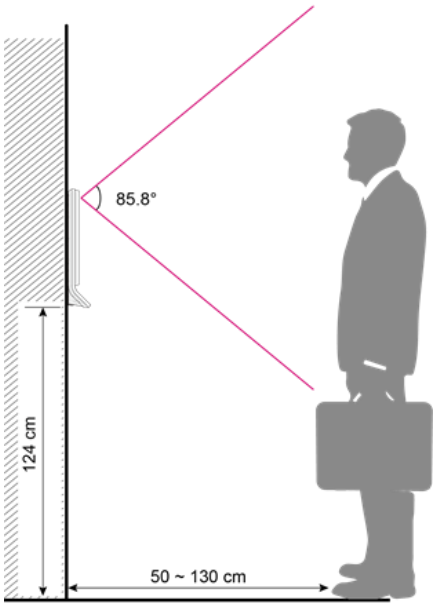
지문이 잘 인식되지 않는 경우 다음의 조치를 취할 것을 권장합니다.

- 손가락에 물이나 땀이 있을 경우 물기를 닦은 뒤 입력하십시오.
- 손가락이 너무 건조한 경우 손 끝에 입김을 가볍게 분 뒤 입력하십시오.
- 손가락에 상처가 생긴 경우 다른 손가락의 지문을 다시 등록하십시오.
- 처음 등록된 지문은 올바르게 입력되지 않은 경우가 많으므로 ‘**지문 등록 시 주의사항**’에 따라 지문을 다시 등록하십시오.

설치

브래킷 및 제품 고정

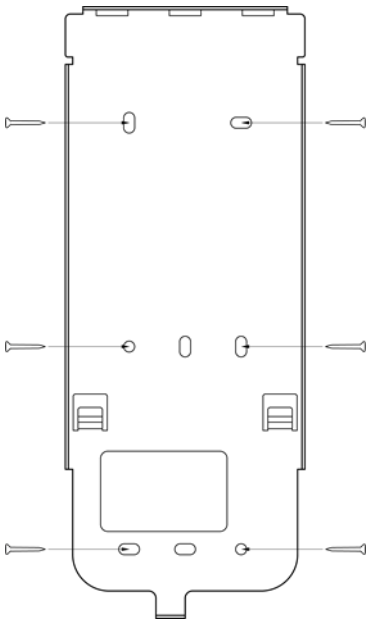
1 제공된 드릴링 템플릿을 이용하여 제품을 장착할 위치를 정하십시오.



알아두기

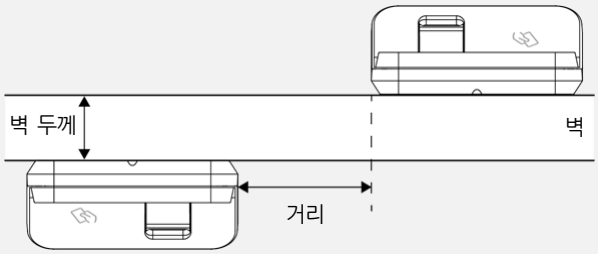
- 장치를 설치할 최적의 높이는 124 cm입니다.
- 장치를 직사 광선이나 자외선에 직접 노출된 장소에 설치하지 마십시오.
- 사용자가 얼굴을 인증할 때 얼굴에 직사광선이 닿지 않도록 설치 위치를 조정하십시오.

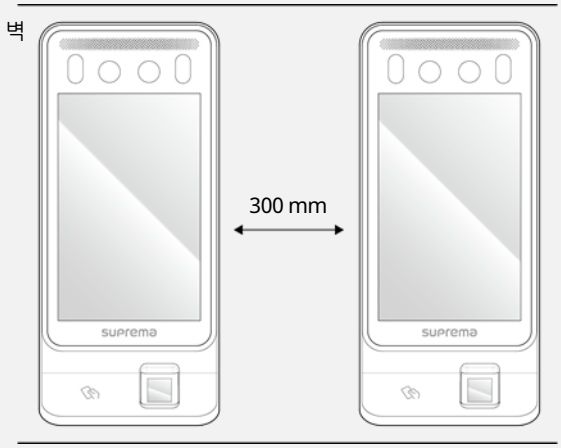
2 FaceStation F2를 장착할 위치에 브래킷 고정용 나사를 이용하여 브래킷을 단단히 고정하십시오.



알아두기

- FaceStation F2를 콘크리트 벽에 설치할 경우 드릴로 구멍을 뚫어 PVC 앵커를 끼운 뒤 고정용 나사로 고정하십시오.
- RF 신호 간섭을 피하기 위해 최소 이격 거리를 확인하여 설치하십시오.

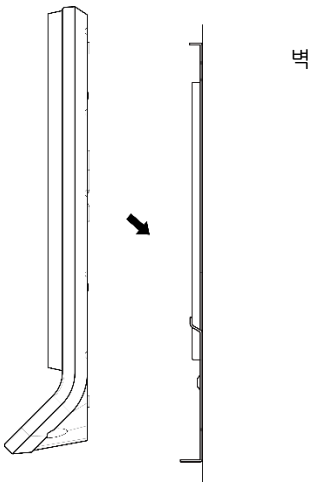




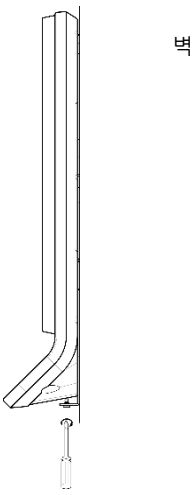
벽 두께	거리
100 mm	200 mm
120 mm	180 mm
150 mm	150 mm

- 모바일 출입카드를 사용할 경우 BLE 신호 간섭을 피하기 위해 장치 사이에 최소 1 m 이상의 거리를 두고 설치하십시오.

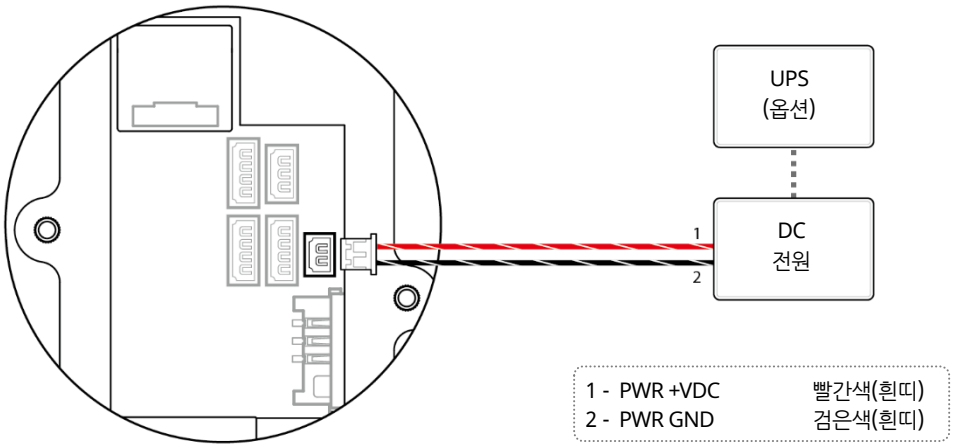
3 고정된 브래킷 위에 FaceStation F2를 장착하십시오.



4 FaceStation F2의 제품 고정용 나사를 돌려 FaceStation F2와 브래킷을 조립하십시오.



전원 연결



FaceStation F2

알아두기

- 전원 어댑터는 DC 24V 또는 DC 12V(± 10%), 최소 2,500mA 이상의 제품으로 IEC/EN 60950-1 승인을 받은 제품을 사용하십시오. 전원 어댑터에 다른 기기를 연결하여 사용하려면 단말기의 소모 전력과 다른 기기에 필요한 소모 전력을 합한 전류 용량 이상의 어댑터를 사용해야 합니다.
- Secure I/O 2, 전기정(전기식 잠금 장치), 제품은 반드시 개별 전원을 사용하십시오. 전원을 함께 연결하여 사용하면 장치가 오작동할 수 있습니다.
- 전원 연결 시 FaceStation F2와 전원 장치 간의 거리에 주의하십시오. 장치와 전원 장치는 최대한 가깝게 설치해야 합니다. 올바르게 연결하지 않을 경우 장치가 오작동할 수 있으므로 주의하십시오. 장치와 전원 장치의 거리가 먼 경우 16 AWG 또는 18 AWG 케이블을 사용할 것을 권장합니다. 사용하는 케이블의 규격과 설치 환경에 따라 연결할 수 있는 거리가 다를 수 있습니다. FaceStation F2는 DC 24V와 DC 12V 전원을 모두 지원하므로, 각 케이블 규격에 따른 최대 연장 길이를 확인하여 전원을 올바르게 연결하십시오.

케이블 규격	최대 연장 길이	
	DC 24V	DC 12V
16 AWG	150 m	50 m
18 AWG	136 m	30 m
20 AWG	90 m	20 m

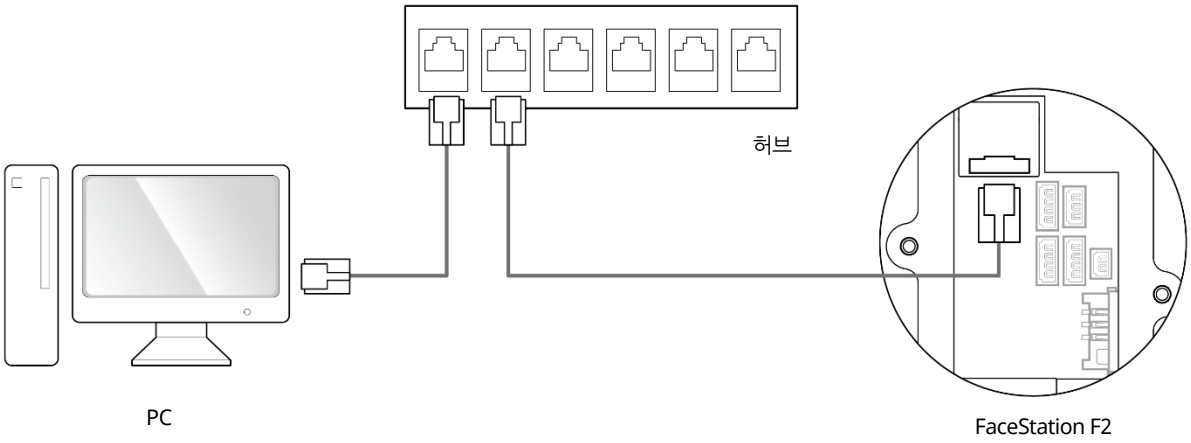
- 전원 어댑터 (DC 24V(± 10%), 2.5A)를 사용할 경우 전원 케이블의 길이를 임의로 연장하지 마십시오.
- CAT5 UTP 2-Wire 케이블을 전원 공급 용도로 사용하지 마십시오.

네트워크 연결

TCP/IP

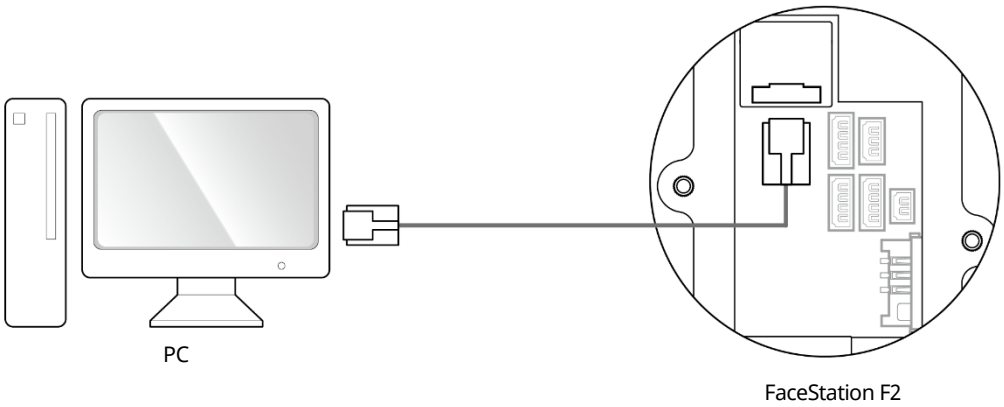
LAN 연결 (허브와 연결)

일반 타입의 CAT-5e 케이블을 사용하여 허브와 연결할 수 있습니다.



LAN 연결 (PC와 직접 연결)

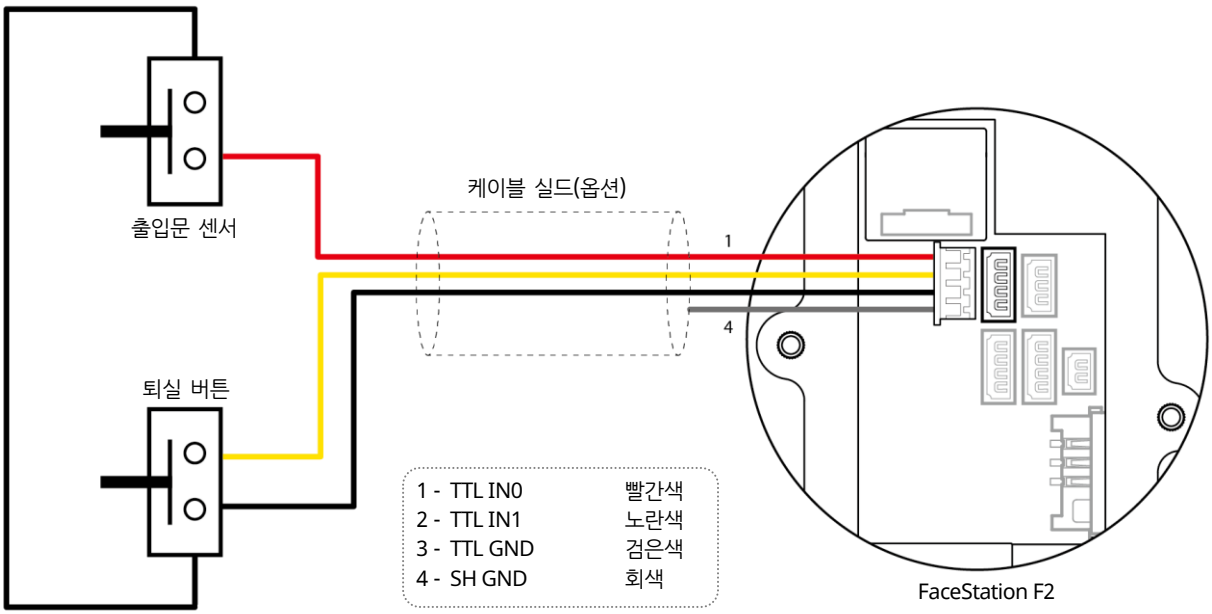
FaceStation F2는 자동 MDI/MDIX 기능을 가지고 있으므로 크로스 케이블이나 일반 스트레이트 타입의 CAT-5e 케이블로 PC와 직접 연결할 수 있습니다.



알아두기

- 기가 비트 이더넷 스위치를 사용할 때 아래 정보를 확인하십시오.
  - CAT-5e 비차폐 꼬임선(UTP)을 사용하십시오.
  - 4 쌍(8 선)을 모두 네트워크 연결로 사용하십시오.
  - 네트워크 케이블의 일부 쌍이나 선을 다른 용도로 사용하지 마십시오.

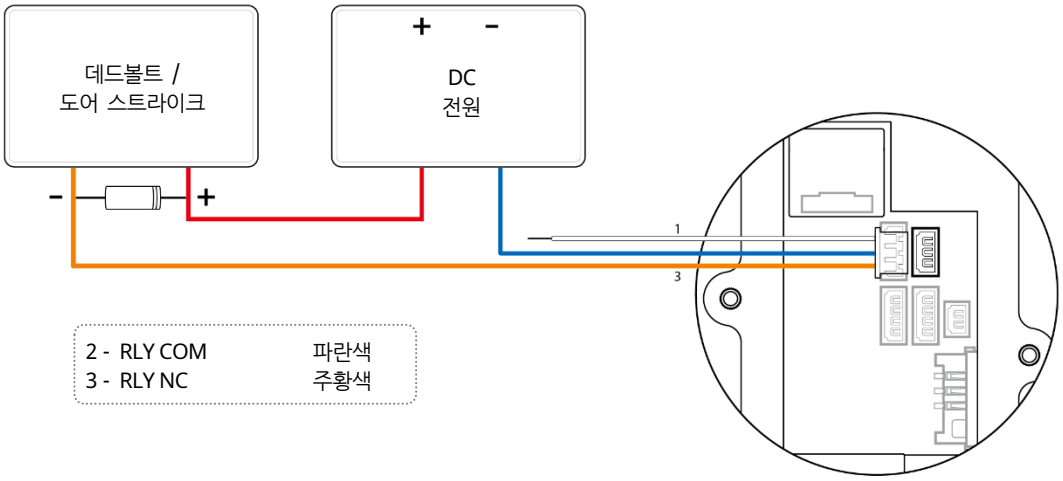
TTL 입력 연결


출입문 센서
퇴실 버튼
케이블 실드(옵션)
1
4
1 - TTL IN0 빨간색
2 - TTL IN1 노란색
3 - TTL GND 검은색
4 - SH GND 회색
FaceStation F2

릴레이 연결

Fail Safe Lock

Fail Safe Lock을 사용하려면 아래 그림과 같이 N/C 릴레이를 연결하십시오. Fail Safe Lock은 평상 시 릴레이 회로에 전류가 흐르며, 릴레이가 동작하여 전류를 일시적으로 차단하면 출입문이 열립니다. 정전이 되거나 외부 요인으로 장치의 전원이 끊길 경우 출입문이 열립니다.



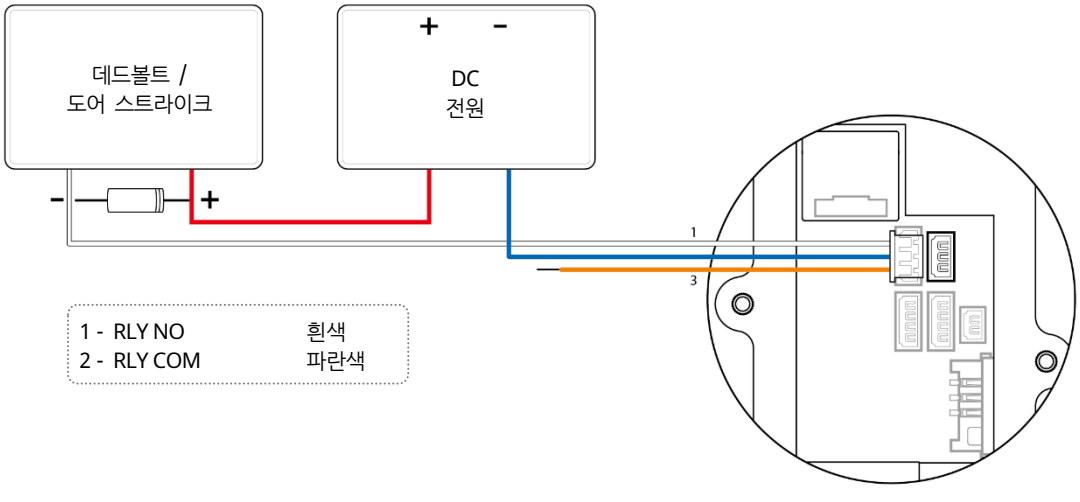
FaceStation F2

알아두기

- 출입문 잠금 장치가 작동할 때 발생하는 역전류로부터 릴레이를 보호하기 위해 그림과 같이 출입문 잠금 장치 배선 양쪽에 다이오드를 설치하십시오.
- 다이오드의 설치 방향에 주의하십시오. 다이오드는 출입문 잠금 장치와 가깝게 설치하십시오.
- FaceStation F2와 출입문 잠금 장치는 별도의 전원을 사용하십시오.
- 슈프리마의 지능형 장치에는 편의를 제공하기 위해 별도의 컨트롤러 없이 독립형으로 연결하여 출입문을 직접 열거나 잠글 수 있도록 하는 릴레이가 내장되어 있습니다. 그러나 향상된 보안이 요구되는 출입통제 애플리케이션의 경우 잠재적으로 출입문 잠금 해제를 유발할 수 있는 변조 공격을 방지하기 위해 장치에 내장된 릴레이를 사용하지 않는 것이 좋습니다. 이러한 애플리케이션의 경우 잠금 제어를 위해 출입문 내부의 안전한 위치에 설치된 슈프리마의 Secure I/O 2, DM-20, CoreStation과 같은 별도의 릴레이 장치를 사용할 것을 권장합니다.

Fail Secure Lock

Fail Secure Lock을 사용하려면 아래 그림과 같이 N/O 릴레이를 연결하십시오. Fail Secure Lock은 평상 시 릴레이 회로에 전류가 흐르지 않으며, 릴레이가 동작하여 전류가 흐르면 출입문이 열립니다. 정전이 되거나 외부 요인으로 장치의 전원이 끊길 경우 출입문이 잠깁니다.

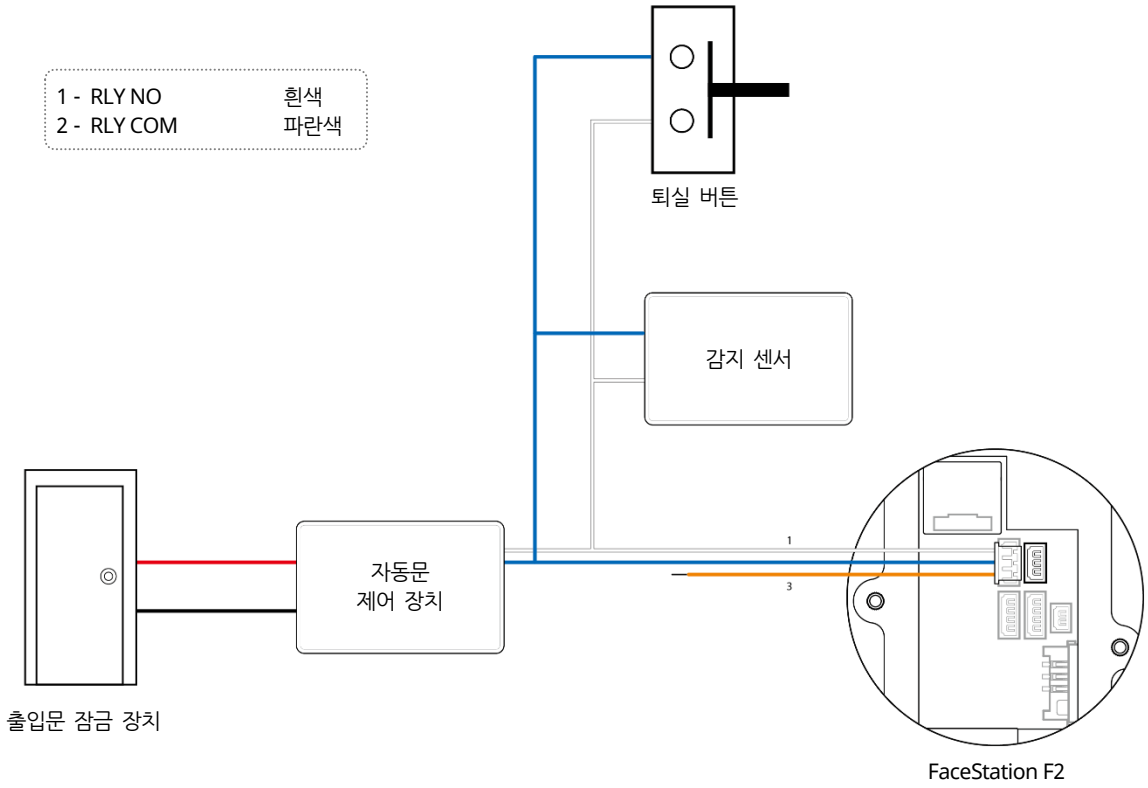


FaceStation F2

알아두기

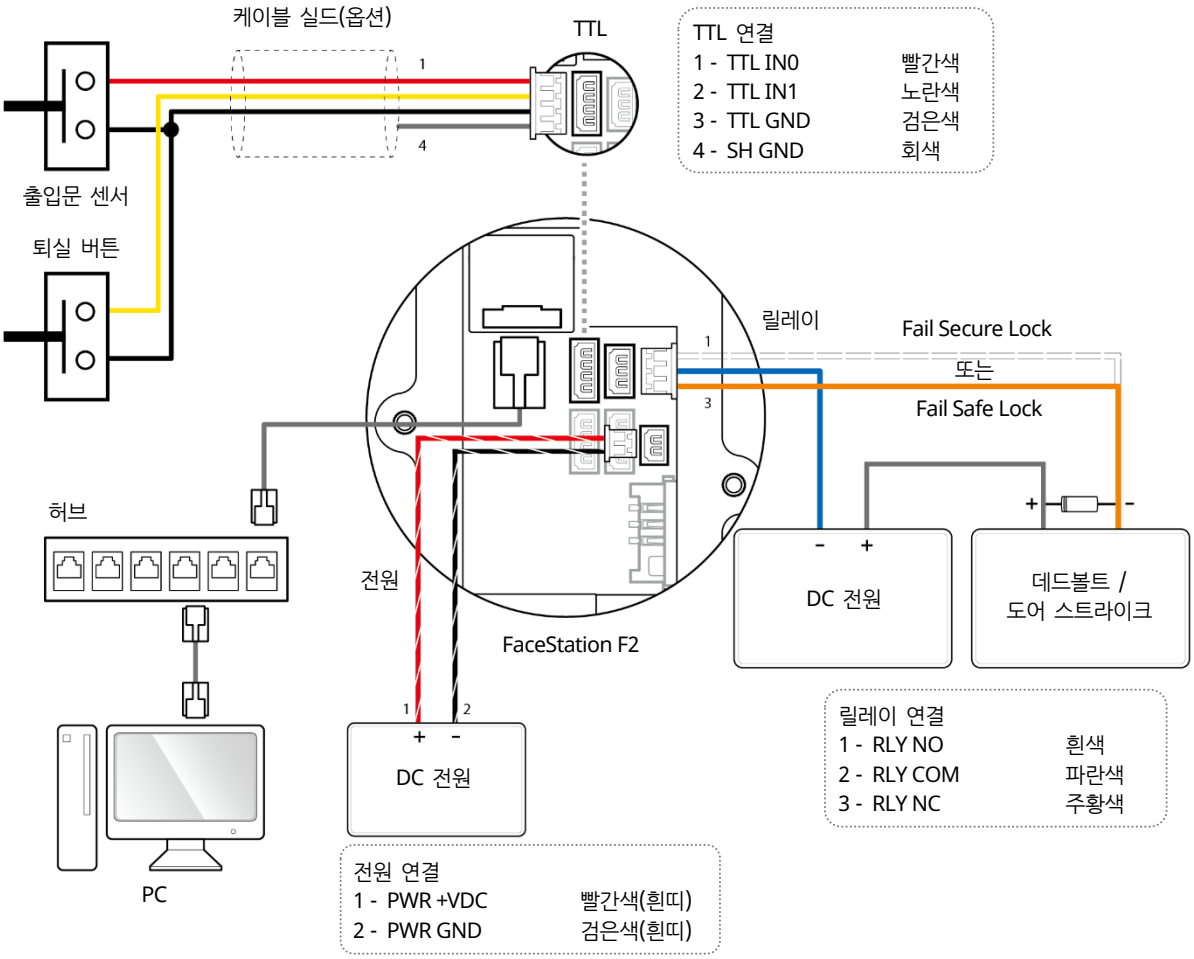
- 출입문 잠금 장치가 작동할 때 발생하는 역전류로부터 릴레이를 보호하기 위해 그림과 같이 출입문 잠금 장치 배선 양쪽에 다이오드를 설치하십시오.
- 다이오드의 설치 방향에 주의하십시오. 다이오드는 출입문 잠금 장치와 가깝게 설치하십시오.
- FaceStation F2와 출입문 잠금 장치는 별도의 전원을 사용하십시오.
- 슈프리마의 지능형 장치에는 편의를 제공하기 위해 별도의 컨트롤러 없이 독립형으로 연결하여 출입문을 직접 열거나 잠글 수 있도록 하는 릴레이가 내장되어 있습니다. 그러나 향상된 보안이 요구되는 출입통제 애플리케이션의 경우 잠재적으로 출입문 잠금 해제를 유발할 수 있는 변조 공격을 방지하기 위해 장치에 내장된 릴레이를 사용하지 않는 것이 좋습니다. 이러한 애플리케이션의 경우 잠금 제어를 위해 출입문 내부의 안전한 위치에 설치된 슈프리마의 Secure I/O 2, DM-20, CoreStation과 같은 별도의 릴레이 장치를 사용할 것을 권장합니다.

자동문 연결



독립형 연결

별도의 I/O 장치를 연결하지 않고 FaceStation F2를 직접 출입문 잠금 장치, 퇴실 버튼, 출입문 센서 등에 연결할 수 있습니다.



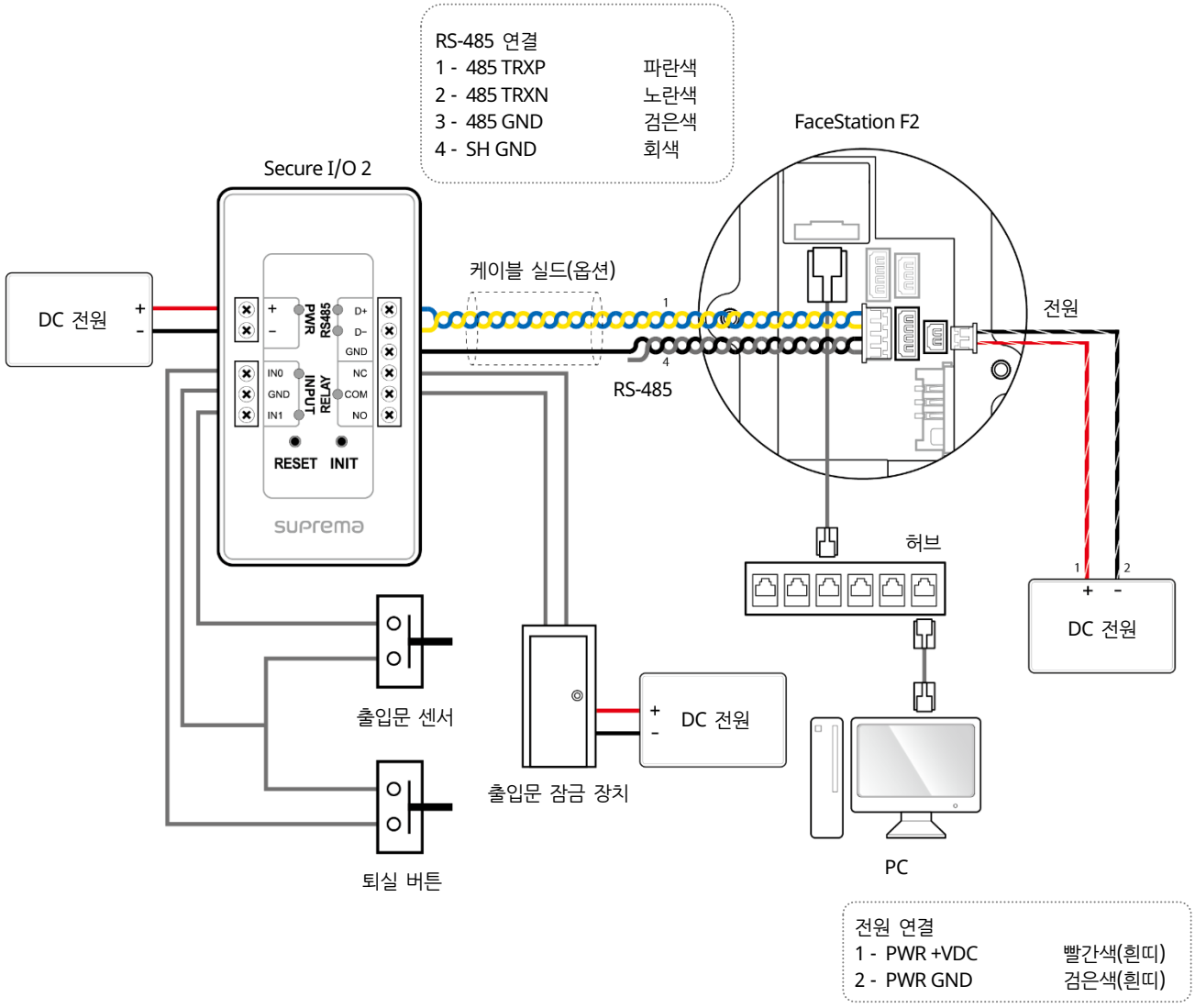
알아두기

- RS-485 케이블로 슬레이브 장치를 연결하여 FaceStation F2를 다중 출입문 제어 장치로 사용할 수 있습니다. 슬레이브 장치는 더미 리더로 사용되며 인증은 마스터 장치에서 수행합니다.
- 지문 인식 장치가 FaceStation F2의 슬레이브 장치로 구성된 경우 다른 FaceStation F2를 슬레이브 장치로 추가할 수 없습니다.
- 지문 인식 장치가 마스터 장치일 때 FaceStation F2를 슬레이브 장치로 추가할 수 없습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 1대의 FaceStation F2만 슬레이브 장치로 추가할 수 있습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 Secure I/O 2와 DM-20을 각각 1대씩 추가로 연결할 수 있습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 OM-120을 추가로 연결할 수 없습니다.
- 연결할 수 있는 최대 슬레이브 장치 수는 인증 방법, 사용자 수, 장치 수에 따라 달라지며 슬레이브 장치 수는 인증 속도에 영향을 줍니다.
- 마스터 장치는 31개의 슬레이브 장치를 제어할 수 있습니다. RS-485 대역폭으로 인해 최대 7대의 지문 인식 장치를 연결할 수 있습니다.
- 슈프리마의 지능형 장치에는 편의를 제공하기 위해 별도의 컨트롤러 없이 독립형으로 연결하여 출입문을 직접 열거나 잠글 수 있도록 하는 릴레이가 내장되어 있습니다. 그러나 향상된 보안이 요구되는 출입통제 애플리케이션의 경우 잠재적으로 출입문 잠금 해제를 유발할 수 있는 변조 공격을 방지하기 위해 장치에 내장된 릴레이를 사용하지 않는 것이 좋습니다. 이러한 애플리케이션의 경우 잠금 제어를 위해 출입문 내부의 안전한 위치에 설치된 슈프리마의 Secure I/O 2, DM-20, CoreStation과 같은 별도의 릴레이 장치를 사용할 것을 권장합니다.
- 더 자세한 내용은 슈프리마 기술 지원팀(CS@suprema.co.kr)에 문의하십시오.

Secure I/O 2 연결

FaceStation F2에 I/O 장치인 Secure I/O 2를 RS-485로 연결할 수 있습니다. FaceStation F2와 Secure I/O 2의 연결이 끊기거나 외부 요인에 의해 FaceStation F2의 전원이 차단되더라도 보안을 유지할 수 있습니다.

- RS-485 케이블은 AWG24, 꼬임선(Twisted Pair), 최대 길이 1.2 km를 사용하십시오.
- RS-485 데이지 체인으로 연결할 경우 종단 저항(120Ω)을 데이지 체인 연결의 양 끝에 연결하십시오. 중간 선로에 연결할 경우 신호 레벨이 작아져 통신 성능이 떨어지므로 반드시 데이지 체인 연결의 양 끝에 연결하십시오.

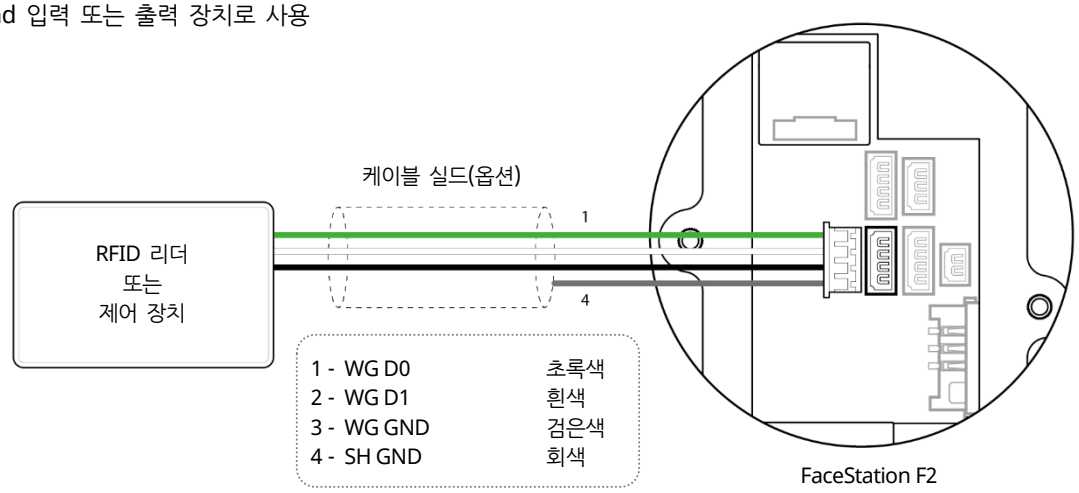


알아두기

- RS-485 케이블로 슬레이브 장치를 연결하여 FaceStation F2를 다중 출입문 제어 장치로 사용할 수 있습니다. 슬레이브 장치는 더미 리더로 사용되며 인증은 마스터 장치에서 수행합니다.
- 지문 인식 장치가 FaceStation F2의 슬레이브 장치로 구성된 경우 다른 FaceStation F2를 슬레이브 장치로 추가할 수 없습니다.
- 지문 인식 장치가 마스터 장치일 때 FaceStation F2를 슬레이브 장치로 추가할 수 없습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 1대의 FaceStation F2만 슬레이브 장치로 추가할 수 있습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 Secure I/O 2와 DM-20을 각각 1대씩 추가로 연결할 수 있습니다.
- FaceStation F2가 마스터 장치이고 FaceStation F2를 슬레이브 장치로 연결할 때 OM-120을 추가로 연결할 수 없습니다.
- 연결할 수 있는 최대 슬레이브 장치 수는 인증 방법, 사용자 수, 장치 수에 따라 달라지며 슬레이브 장치 수는 인증 속도에 영향을 줍니다.
- 마스터 장치는 31개의 슬레이브 장치를 제어할 수 있습니다. RS-485 대역폭으로 인해 최대 7대의 지문 인식 장치를 연결할 수 있습니다.
- 더 자세한 내용은 슈프리마 기술 지원팀(CS@suprema.co.kr)에 문의하십시오.

Wiegand 연결

Wiegand 입력 또는 출력 장치로 사용



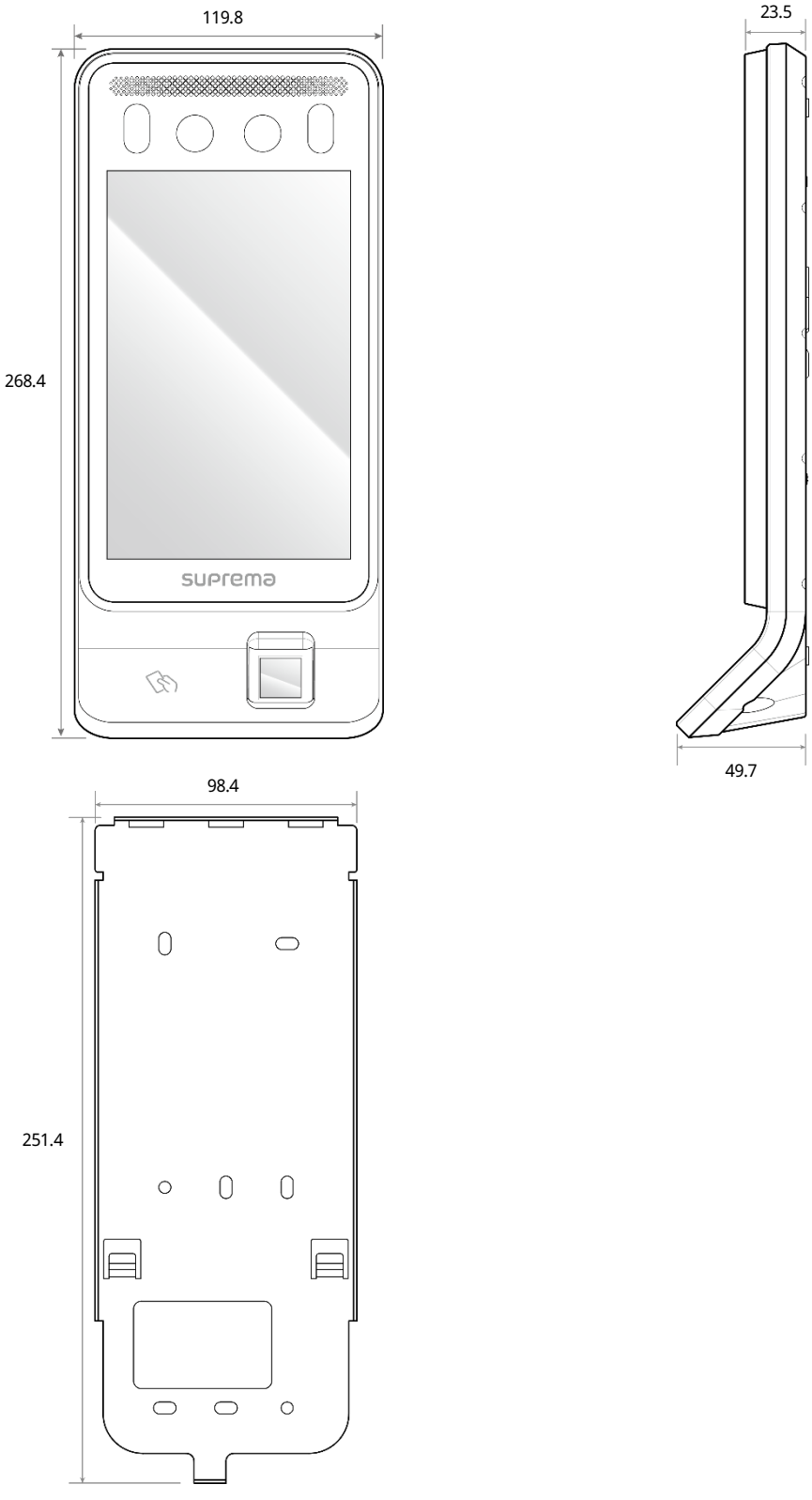
제품 사양

구분	항목	규격
크리덴셜	바이오인식	얼굴, 지문
	RF 카드	125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire EV1/EV2*, FeliCa
	RF 인식 거리*	EM/MIFARE/DESFire : 50 mm, FeliCa: 30 mm
	모바일	NFC, BLE
일반	CPU	1.8 GHz Dual Core + 1.4 GHz Quad Core
	메모리	16GB Flash + 2GB RAM
	LCD 종류	7" IPS 컬러 LCD
	LCD 해상도	800 x 1280 픽셀
	소리	16bit
	동작 온도	-20°C ~ 50°C
	보관 온도	-40°C ~ 70°C
	동작 습도	0% ~ 80%, 비응축
	보관 습도	0% ~ 90%, 비응축
	카메라	2MP 2EA
	치수 (W x H x D)	119.8 x 268.4 x 49.7 (mm)
	무게	장치: 670g
		브래킷 (와셔 및 볼트 포함): 205g
	IP 등급	IP65
	인증	CE, FCC, KC, RoHS, REACH, WEEE
얼굴	인증 거리	0.5 ~ 1.3m
	인증 높이	1.4 ~ 1.9m
	매칭 속도	0.5초 이내
	위조 얼굴 검출	지원
지문	이미지 크기	300 x 400 픽셀
	해상도	500 dpi
	템플릿	SUPREMA / ISO19794-2, ANSI-378
	추출 / 매치	MINEX 인증 및 호환
	위조 지문 검출	지원 (SW 기반)
저장 용량	최대 사용자 수 (1:1) *사용자당 1개의 얼굴 또는 지문이 등록된 경우	100,000
	최대 사용자 수 (1:N) *사용자당 1개의 얼굴 또는 지문이 등록된 경우	• 얼굴: 50,000 • 지문, 카드: 100,000
	최대 로그 수	5,000,000
	최대 이미지 로그 수	50,000
인터페이스	이더넷	10/100 Mbps, 자동 MDI/MDIX
	RS-485	1채널 마스터/슬레이브 (선택 가능)
	Wiegand	1채널 입력/출력 (선택 가능)
	TTL 입력	입력 2채널
	릴레이	1개
	USB	USB 2.0 (Host)
	탬퍼	지원
전기 규격	전원	전압: DC 12V ~ DC 24V 전류: 최대 2.5 A
	스위치 입력 VIH	최소: 3 V 최대: 5 V
	스위치 입력 VIL	최대: 1 V
	스위치 풀업 저항	4.7 kΩ (입력 단자는 4.7 kΩ으로 풀업되어 있습니다.)
	Wiegand 출력 VOH	4.8 V 이상
	Wiegand 출력 VOL	0.2 V 이하
	Wiegnad 출력 풀업 저항	1 kΩ으로 내부 풀업
	릴레이	전압: 최대 30 VDC 전류: 1 A, 최대 2 A

* RF 인식 거리는 설치 환경에 따라 다를 수 있습니다.
* DESFire EV2 카드는 DESFire EV1 카드와 하위 호환되므로, DESFire EV1 카드의 기능을 포함하여 CSN 및 스마트 카드 기능이 지원됩니다.

제품 치수

(단위: mm)



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(2) 이 기기는 원치 않는 작동을 일으키는 전파 방해를 포함한 어떠한 전파 방해도 수용합니다.

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- 장비와 수신기 사이의 간격을 늘립니다.
- 장비를 수신기가 연결된 회로와 다른 회로의 콘센트에 연결합니다.
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- Bluetooth 송신 전력: -0.1 dBm
- Bluetooth 주파수: 2402~2480 MHz
- NFC 주파수: 13.56 MHz
- RFID 주파수: 13.56 MHz + 125 kHz

더 자세한 내용은 아래 연락처로 연락하십시오.
㈜슈프리마
웹 사이트: https://www.supremainc.com
주소: 경기도 성남시 분당구 정자일로 248 (정자동 6) 파크뷰타워 17층
전화: 031-783-4510 / 팩스: 031-783-4517

부록

면책 조항

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Version 3, 29 June 2007
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Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.
The precise terms and conditions for copying, distribution and modification follow.

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1. Source Code.
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