

Bus Power Supply Unit

User Manual

EN 50131-1:2006+A3:2020
EN 50131-6:2007+A1:2021
EN 50131-3:2009
Security Grade 2
Environment Class II

User Manual Flow Chart

1 Appearance

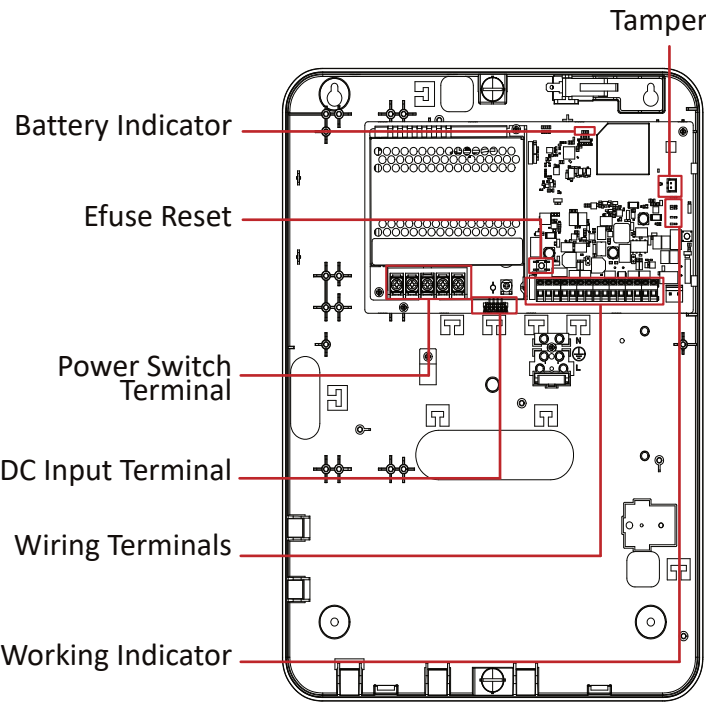
- 1.1 Unbox.
- 1.2 Check components and indication.



2 Installation and Wiring

- 2.1 Install the device to the wall.
- 2.2 Connect cables to terminals.

1 Appearance



More Languages

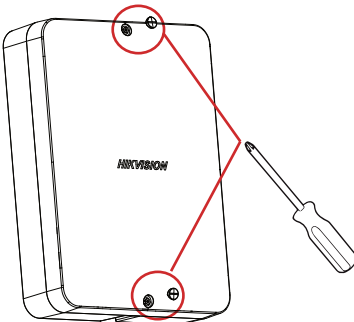


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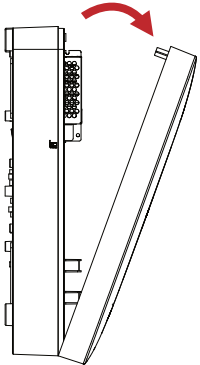
	Indicator Status	Device Status
Battery Indicator	4 Solid Green Lights	Battery power ranging from 75% to 100%
	3 Solid Green Lights	Battery power ranging from 50% to 75%
	2 Solid Green Lights	Battery power ranging from 25% to 50%
	Solid orange	Battery power ranging from 10% to 25%
	Flashing red	Battery is lower than 10%
AUX Indicator	All lights off	Corresponding battery disconnected
Fault Indicator	Solid green	Auxiliary power output (without load)
	Flashing green	Auxiliary power output works normally
Fault Indicator	Flashing orange	Operation with fault
	Flashing green	Find me mode
BUS Indicator	Green	BUS works normally
	Flashing Green	BUS data transfer
AC Power Indicator	Green	Power on

2 Installation and Wiring

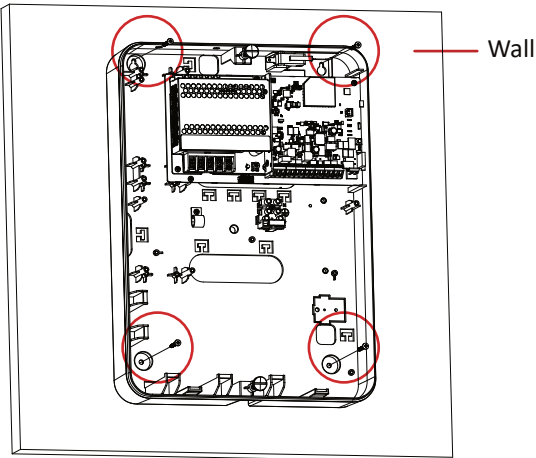
Step 1. Remove the 2 plugs and 2 screws.



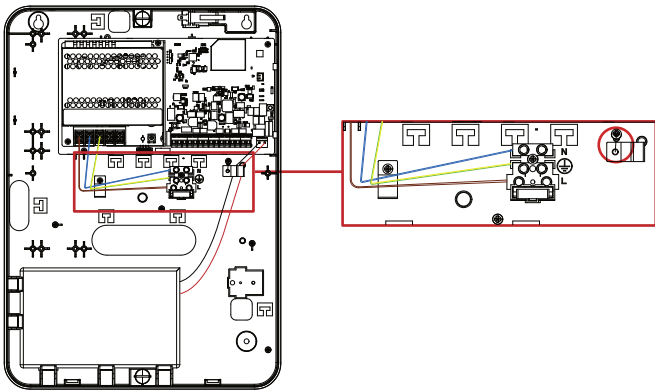
Step 2. Open the front cover from upside until all cover is removed.



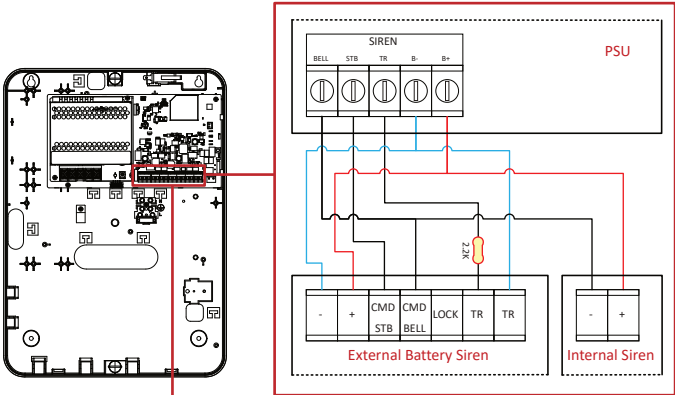
Step 3. Fix the rear cover with 4 screws.



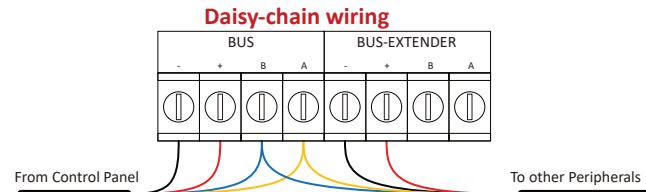
Step 4. Use 1 screw to secure the cable clip.
Note: Wire through the right cable clip when using lead acid battery.



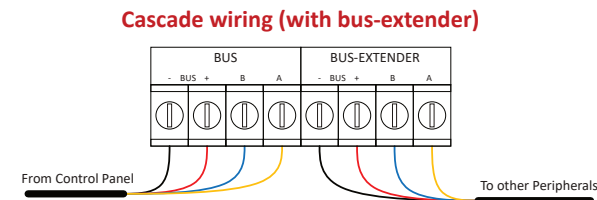
Step 5. Complete wiring terminal's wiring and buckle the cables in the cable clips.



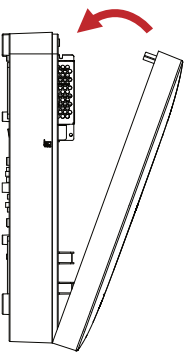
Wiring Method 1: Wiring normally.



Wiring Method 2: Wiring with Bus extender.



Step 6. Install the front cover.



Specification

Model	DS-PR531-3A
Outputs	
On-board Sounder Output	1
Auxiliary Power Output	1
Bus Interconnection	
Bus-extender	√
Bus Technology	Half-Duplex RS-485
Bus Wiring	4-Core Alarm Cable (at least 2x0.5mm ² +2x0.22mm ²)
Power Supply - General	
PS Type ^a	Type A
Quiescent current	75 mA @15VDC (when on battery without external load)
Power Supply - Primary Power Supply (Mains)	
Mains Input	~ 100-240V 50/60Hz, 1.4 A typ. @115 VAC, 0.85 A typ. @ 230 VAC
Power Supply Capacity	15 VDC 5 A (0.5 A dedicated to battery)
Power Supply - Auxiliary Power Supply (Battery)	
Battery Pack	Rechargeable sealed lead-acid (SLA) battery (not included by default)
Battery Capacity ^a	12VDC, up to 7Ah (≥ 5600 mAh in charged state)
Recommended	OUTDO QT7-12 (7 Ah), Yuasa NP7-12FR (7 Ah)
Battery Stand-by	Up to 12 ^h hrs
Recharge Period	24 hrs to 80% (5600 mAh)
Floating Voltage	13.8VDC
Low Energy Voltage	11.60±0.5 V (Restore when rise above 11.74±0.5 V)
Cut-off Voltage	11.0 VDC for deep-discharge protection
Power Supply - General Output	
Total Output Capacity	Nominal 14.5VDC 4 A, range 10.7-15 VDC with up to 120 mV ripple (V _{ripple})
Total Output Protection	4 A resettable eFuse
Power Supply - Auxiliary Power Output (AUX)	
Output Protection	3 A resettable eFuse
Power Supply - Bus Power Output	
Output Protection	(Shared AUX power output)
Power Supply - Sounder Power Output (SIREN)	
Output Protection	3 A resettable eFuse
Environmental	
Operating Temperature	-10°C to 50°C (14°F to 122°F), indoor use only
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Relative Humidity	10% ~ 90% non-condensing
Physical	
Dimension (W x H x D)	360 mm x 260 mm x 96.3 mm
Weight	1500 g
Installation Method	Wall mount
Compliance	
Electrical Conformity	CE, CB
EN 50131	Security Grade 2, Environmental Class II
a	As per requirements defined in EN 50131-1:2006+A3:2020
b	Nominal value. Actual capacity may vary slightly. The actual battery capacity for each individual device may be slightly above or below the nominal battery capacity. Removing the battery may cause damage to the device. To replace or repair the battery, please contact your installer.
c	Provided that all functions are operational and the load connected to the AUX-/AUX+ terminals does not exceed 500 mA.

NOTE EN50131 compliance labeling should be removed if non-compliant configurations are used.

If the BUS-EXTENDER (+/-) power output port of the device do not comply with Limited Power Source, the connected device powered by this port shall be equipped with a fire enclosure.

Si le port de la sortie d'alimentation de l'appareil BUS-EXTENDER (+/-) n'est pas conforme aux exigences de source d'alimentation limitée, l'appareil connecté alimenté par ce port doit être équipé d'une enceinte coupe-feu.

Entspricht der BUS-EXTENDER (+/-) Stromversorgungsanschluss des Geräts nicht den begrenzten Leistungsanforderungen, muss das angeschlossene Gerät, das über diesen Anschluss mit Strom versorgt wird, mit einem Brandschutzschild ausgestattet sein.

Si el puerto de salida de alimentación BUS-EXTENDER (+/-) del dispositivo no cumple con la fuente de alimentación limitada, el dispositivo conectado alimentado por este puerto debe estar equipado con una carcasa contra incendios.

Se il porto di uscita di alimentazione BUS-EXTENDER (+/-) del dispositivo non è conforme alla Fonte di Alimentazione Limitata, il dispositivo connesso alimentato da questa porta deve essere dotato di un involucro antincendio.

Se a porta de saída de potência BUS-EXTENDER (+/-) do dispositivo não cumprir com a Fonte de Alimentação Limitada, o dispositivo conectado alimentado por esta porta deve estar equipado com uma cobertura contra incêndio.

Als de BUS-EXTENDER (+/-) voedingsuitgangspoort van het apparaat niet voldoet aan de Limited Power Source, moet het aangesloten apparaat dat door deze poort wordt gevoed, worden uitgerust met een brandwerende behuizing.

Pokud výstupní port BUS-EXTENDER (+/-) napájení zařízení nesplňuje požadavky na omezený zdroj napájení (LPS), musí být připojené zařízení napájené z tohoto portu vybavené hasicí schránkou.

Hvis enhedens BUS-EXTENDER (+/-) strømudgangsport ikke overholder begrænset strømkilde, skal den tilsluttede enhed, der får strøm fra denne port, være udstyret med en brandkasse.

Ha az eszköz BUS-EXTENDER (+/-) tápellátási kimeneti portja nem felel meg a Korlátozott Teljesítményforrásnak, akkor a porton keresztül táplált csatlakoztatott eszközök tűzgátló köpenybe kell felszerelni.

Jeśli port wyjściowy zasilania BUS-EXTENDER (+/-) urządzenia nie spełnia wymagań ograniczonego źródła zasilania, podłączone urządzenie zasilane przez ten port powinno być wyposażone w obudowę przeciwpożarową.

Dacă portul de ieșire a puterii BUS-EXTENDER (+/-) al dispozitivului nu este conform cu sursa de alimentare limitată, dispozitivul conectat alimentat de acest port va fi echipat cu o carcasă de incendiu..

Ak výstupný port napájania BUS-EXTENDER (+/-) zariadenia nie je v súlade s obmedzeným zdrojom napájania, pripojené zariadenie napájané týmto portom musí byť vybavené protipožiarnym krytom.

Jika port output daya BUS-EXTENDER (+/-) perangkat tidak sesuai dengan Sumber Daya Terbatas, perangkat terhubung yang diberi daya melalui port ini harus dilengkapi dengan pelindung api.

ကိရိယာ၏ BUS-EXTENDER (+/-) ပါဝါအထွေထွေပေါက်သည် ကန့်သတ်ပါဝါရင်းနှီးမြှုပ်နှံမှု မကိုက်ပါက ထိုအထွေထွေပေါက်နှင့် ခံတွက်ကုလုံး ပါဝါလျှပ်သည် ကိရိယာကို မီးဒဏ်ခံ အကာအကွယ်ဖြင့် ထည့်သွင်းခြင်းထားရမည်။

Cihazın BUS-EXTENDER (+/-) güç çıkış portu Sınırlı Güç Kaynağı ile uyumlu değilse, bu porttan güç alan bağlı cihaz bir yangın muhafazası ile donatılacaktır.

Если выходной разъем питания BUS-EXTENDER (+/-) устройства не соответствует источнику питания с ограничением мощности, подключенное устройство, получающее питание через этот разъем, должно оснащаться противопожарным кожухом.

Якщо вихідний порт живлення BUS-EXTENDER (+/-) пристрою не відповідає обмеженому джерелу живлення, підключений пристрій, що живиться через цей порт, має бути обладнано протипожежним кожухом.

إذا كان منفذ إخراج الطاقة BUS-EXTENDER (+/-) الخاص بالجهاز لا يتوافق مع مصدر الطاقة المحدود، فيجب تجهيز الجهاز المتصل الذي يعمل بواسطة هذا المنفذ بغلاف مقاوم للحريق.