

MultiSlot

Extension module
for communication
cards

**Installation and user
manual**

English

Français



English version 1

Version française ... 13

5102919700-8C

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APC[®]

by Schneider Electric

Safety guidelines

The **MultiSlot** module can be installed and operated by all persons following the instructions given in this manual. However, if you encounter a problem, we recommend that you contact our after-sales support service.



It is imperative that the instructions be followed strictly. Not adhering to these instructions may endanger personnel, result in damage and render the manufacturer's warranty void. All repair or maintenance operations must be carried out by our after-sales support personnel.

For more information on the **UPS**, please refer to its "installation and user manual".

Consignes de sécurité

L'installation et l'exploitation du module **MultiSlot** peuvent être réalisées par toute personne se conformant aux indications portées dans le présent manuel. Cependant, si vous rencontrez un problème, nous vous recommandons de consulter notre service après-vente.



Il est impératif de suivre les procédures décrites. Leur non respect peut entraîner des dangers pour les personnes, occasionner des dommages et annuler la garantie constructeur. Toute opération de dépannage ou de maintenance doit être effectuée par nos services.

Pour plus de détails concernant l'**ASI**, se référer au "manuel d'installation et d'utilisation" fourni avec l'appareil.

Sicherheitshinweise

Die Installation und die Nutzung des **MultiSlot**-kastens können von jeder Person vorgenommen werden, die sich an die Anweisungen des vorliegenden Handbuchs hält. Doch, sollte es Probleme geben, setzen Sie sich bitte mit dem APC by Schneider Electric Kundendienst in Verbindung.



Es ist wichtig, die Einzelschritte zu befolgen. Ein Nichtbeachten kann zu Gefährdung von Personen, Schäden an der Anlage, sowie dem Verlust der Herstellergarantie führen. Arbeiten, die das Öffnen der Geräte notwendig machen, dürfen nur von Elektro-Fachpersonal durchgeführt werden.

Für weitergehende Informationen zur **USV**-Anlage möchten wir auf die Bedienungs- und Installationsanleitung **USV** hinweisen.

Consegne di sicurezza

L'installazione e la gestione del modulo **MultiSlot** possono essere realizzate da qualsiasi operatore che si conformi alle indicazioni riportate nel presente manuale. Eppure, se incontrate difficoltà, noi vi raccomandiamo di consultare il nostro servizio assistenza dopo vendita.



E' imperativo seguire rigorosamente le procedure descritte. Se non si rispettano queste procedure puo' essere pericoloso per le persone, cagionare danni ed annullare la garanzia del costruttore. Tutte le operazioni di riparazione o di manutenzione devono essere effettuate dai nostri servizi.

Per maggiori dettagli concernente l'**UPS**, riferirsi al "libretto d'installazione e d'istruzioni" fornito con questo apparecchio.

Consignas de seguridad

Cualquier persona que se conforme a las indicaciones establecidas en el presente manual podrá realizar la instalación y la explotación del módulo **MultiSlot**. Si ocurre un problema al poner en práctica los procedimientos descritos en este manual, le recomendamos consultar nuestro servicio de postventa.



Es imperativo respetar rigurosamente los procedimientos descritos. No respetar estos procedimientos puede acarrear peligro para las vidas humanas, ocasionar perjuicios y anular la garantía del fabricante. Toda operación de reparación o mantenimiento debe ser efectuada por nuestros servicios.

Para mayores detalles sobre el **SAI**, consultar el "manual de instalación e instrucciones" suministrado con el aparato.

Regras de segurança

A instalação e a exoração da caixa **MultiSlot** podem ser realizadas por qualquer pessoa que cumpra as indicações mencionadas no presente manual. Caso algum problema se apresente, recomendamos consultar nosso serviço após venda.



É imperativo que os procedimentos descritos sejam seguidos rigorosamente. O desrespeito dos mesmos procedimentos pode ocasionar perigos para as pessoas, causar avarias no aparelho, e anular a garantia do fabricante. Toda operação de conserto ou de manutenção deve ser efetuada por nossos serviços.

Para mais detalhes concernentes ao aparelho, referir-se ao "manual de instalação e de utilização" fornecido com o aparelho.

Veiligheidsvoorschriften

De **MultiSlot**kast kan worden geïnstalleerd en bediend door elke persoon die de instructies in deze handleiding strikt opvolgt. Indien u een probleem, kunt u het beste contact opnemen met onze service afdeling.



Het is noodzakelijk dat u de instructies strikt opvolgt. Het niet opvolgen van deze instructies kan het personeel in gevaar brengen, resulteren in schade en de garantie komt te vervallen. Alle reparatie- en onderhoudswerkzaamheden moeten uitgevoerd worden door ons service personeel.

Voor meer informatie betreffende de **UPS**, zie de "installatie- en gebruikershandleiding".

Sikkerhedsforskrifter

MultiSlotboksen kan installeres og bruges af alle personer, der følger instruktionerne i denne manual. Pas på! Skulle De støde på problemer, til trods for at De har fulgt anvisningerne i vores instruktionsbog, bør De henvende Dem til vores kundeservice.



Det er absolut nødvendigt at følge anvisningerne i instruktionsbogen. Hvis De ikke overholder dem, risikerer De at udsætte Deres personal for fare, at apparatet bliver beskadiget, og at garantien i så fald bortfalder. Reparation og vedligeholdelse bør kun foretages af vore teknikere.

Ønsker De mere detaljerede oplysninger vedrørende apparatet, kan De finde dem i vores instruktionsbog, som bliver leveret sammen med apparatet.

Sikkerhedsforskrifter

MultiSlotboksen kan installeres og bruges av alle personer som følger instruksjonene i denne veiledningen. Dersom det oppstår problemer, bør du ta kontakt med vår serviceavdeling.



Det er ytterst viktig at du følger fremgangsmåten som er beskrevet i håndboken, til punkt og prikke. Operasjoner utført i strid med disse retningslinjene kan forårsake personskader eller skader på apparatet og annullere fabrikantens garanti. Alle reparasjons- og vedlikeholdsinngrep må utføres av vårt servicepersonale.

Trenger du flere opplysninger om apparatet, kan du slå opp i "Håndbok for installering og bruk" som følger med apparatet.

Säkerhetsföreskrifter

MultiSlotboxen kan installeras och användas av alla som följer de instruktioner som ges i den här manualen. Om Du stöter på problem, rekommenderar vi att Du kontaktar vår serviceverkstad.



Det är mycket viktigt att Du noggrant följer instruktionerna i denna bruksanvisning. Om instruktionerna inte följs kan materialet skadas och bli farlig att använda. Dessutom upphör tillverkarens garanti att gälla. Reparationer och underhåll får endast utföras av kvalificerad fackman.

Mer utförlig information om materialet hittar Du i bruksanvisningen för installation och användning.

Turvallisuusohjeet

MultiSlotyksikön voi asentaa ja sitä voivat käyttää kaikki henkilöt tämän käyttöohjeen ohjeiden mukaisesti. Jos törmäätte ongelmiin seurattessanne käsikirjassa kuvattuja toimintaohjeita, suosittellemme huoltopalvelumme puoleen kääntymistä.



On ehdottoman tärkeää seurata tarkkaan käsikirjassa kuvattuja toimintaohjeita. Laiminlyönti saattaa aiheuttaa henkilölle vaaratilanteen, laite voi vaurioitua ja rakentajan takuu peruuntua. Kaikki korjaus- ja huoltotoimet on suoritettava oman henkilökuntamme kautta.

Laite mukana tulevasta "asentamista ja käyttöä käsittlevästä käsikirjasta" löydätte lisätietoja laitteesta.

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Presentation

Contents of package

The **MultiSlot** optional module is made up of the following components (see figure 1):

- ▶ the **MultiSlot** module itself (not equipped with the optional cards);
- ▶ one power cord;
- ▶ one installation and user manual for the **MultiSlot** module (this document);
- ▶ four adhesive support pads;
- ▶ two M6 screws and two cage nuts;
- ▶ one spare fuse (500 mA, 250V, delayed).

Storage

If the module is stored prior to installation, it should remain in the original packing in a dry place. The storage temperature range is -40°C to $+70^{\circ}\text{C}$.

Recycling of packing materials

Packing materials must be disposed of in compliance with applicable laws and regulations.

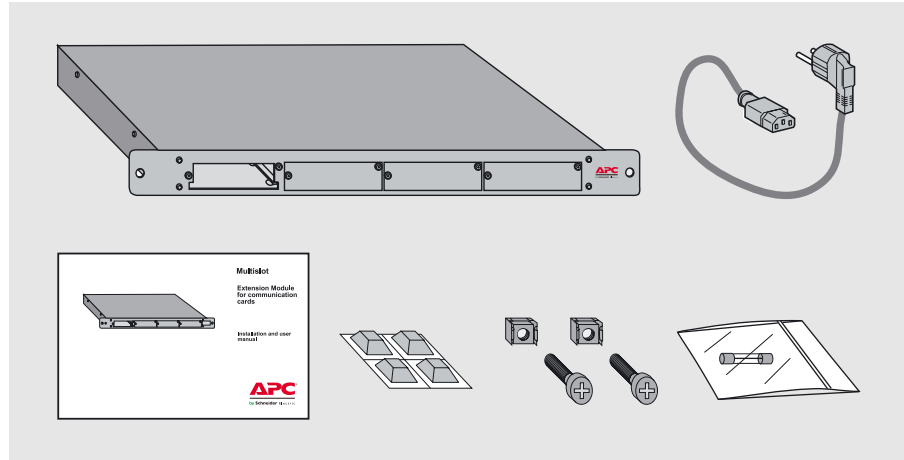


Fig. 1

Function

MultiSlot is an extension module for up to four communications cards.

The **MultiSlot** module may be connected to a UPS (Uninterruptible Power Supply) in either of two connection modes:

- ▶ direct connection to the UPS BUS port;
- ▶ connection via a U-Talk/Basic acquisition card.

Using one of the two connection modes, the **MultiSlot** module acquires measurements, status information and alarms from the UPS and transmits the information to the installed communications cards.

The communications cards provide the interface for user access to the information via a wide range of communications protocols.

The currently available protocols are:

- ▶ SNMP 10BaseT;
- ▶ JBus RS232 or RS485;
- ▶ U-Talk RS232 (ASCII-type protocol, property of APC by Schneider Electric);

MultiSlot-module characteristics:

- ▶ input voltage: 230 or 120V AC;
- ▶ input current: 150 or 300 mA;
- ▶ fuse protection: 500 mA, 250V AC, delayed;
- ▶ maximum operating temperature: 35°C;
- ▶ dimensions: 1 U x 19" (44.45 x 482.6 mm);
- ▶ weight: 2.8 kg.

Overall view

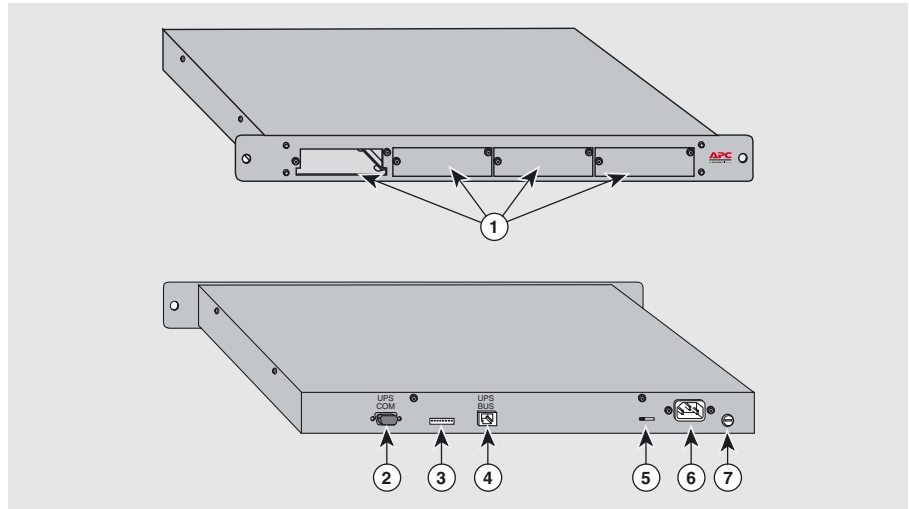


Fig. 2: Front and back of the MultiSlot module.

Key

- ① slots for communications cards (4 slots including 3 protected by a plate),
- ② UPS COM (DB9 connector),
- ③ selector for module number,
- ④ UPS BUS (RJ45 connector),
- ⑤ input voltage selector,
- ⑥ socket for connection to AC power,
- ⑦ module protection fuse.

Installation

Input voltage settings

Before making any connections, check that the AC power used to supply the **MultiSlot** module is compatible with module characteristics (230V 150 mA 50Hz or 120V 300 mA 60 Hz).

Set the appropriate voltage (230V or 120V) using the selector **⑤** (see figure 3). A 500 mA 250V delayed fuse protects the module against electrical faults.



The MultiSlot module must be deenergized (cord removed from the socket **⑥) before changing settings on the selector **⑤**.**

Once the voltage has been correctly set, insert the cord in the socket **⑥** at the back of the **MultiSlot** module (see figure 4). The cord is made up of two active wires and an earth wire which must be connected to the installation earthing terminal.

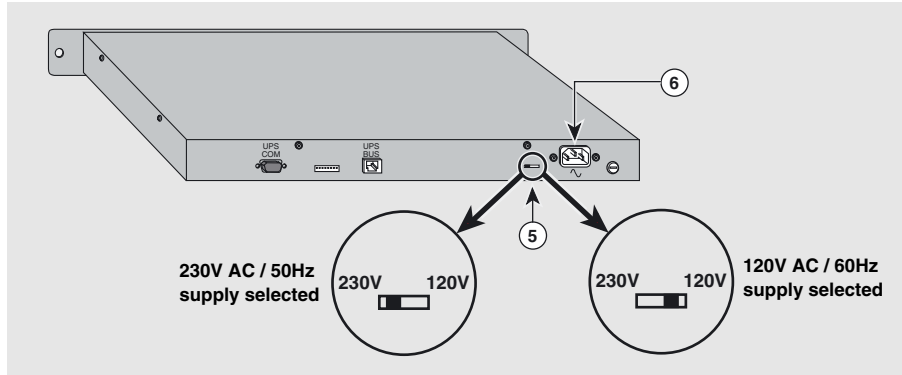


Fig. 3

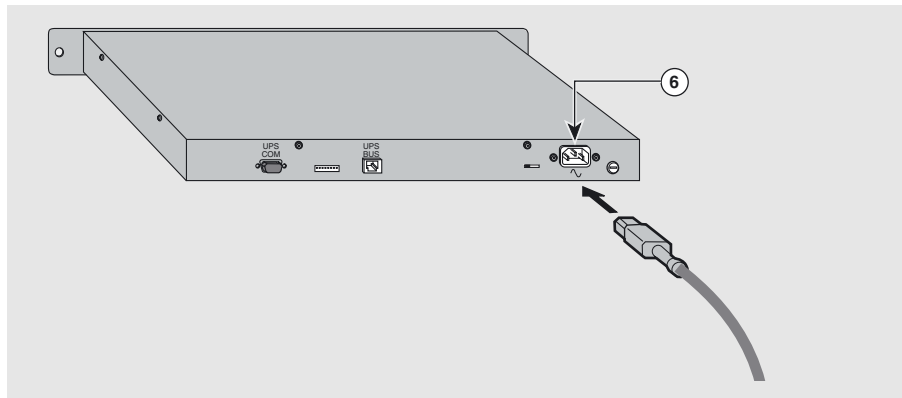


Fig. 4

Rack mounting

Figure 5 shows how to install the **MultiSlot** module in a 19" rack using the two M6 screws and the two cage nuts positioned at the desired height on the frame uprights. The module is not as wide as the rack and consequently does not block the circulation of air.



If the temperature inside the cabinet exceeds 35°C, ventilation is required or the MultiSlot module must be installed outside the cabinet.

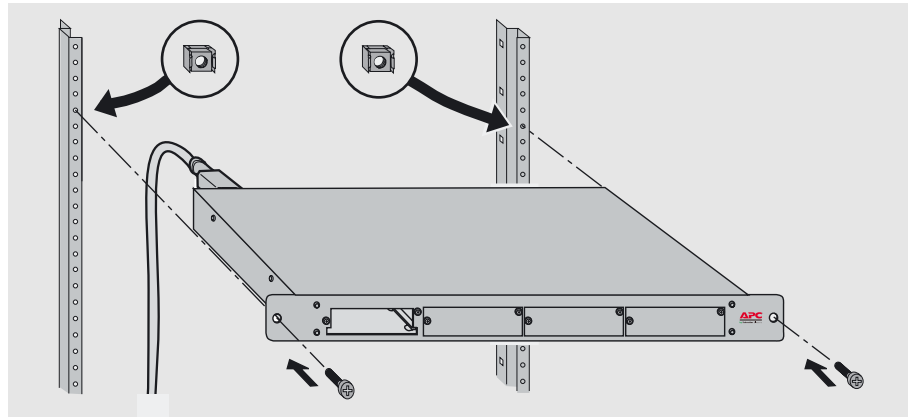


Fig. 5

Adhesive support pads

Figure 6 shows how to attach the four adhesive support pads under the **MultiSlot** module to keep it from slipping on a flat surface.

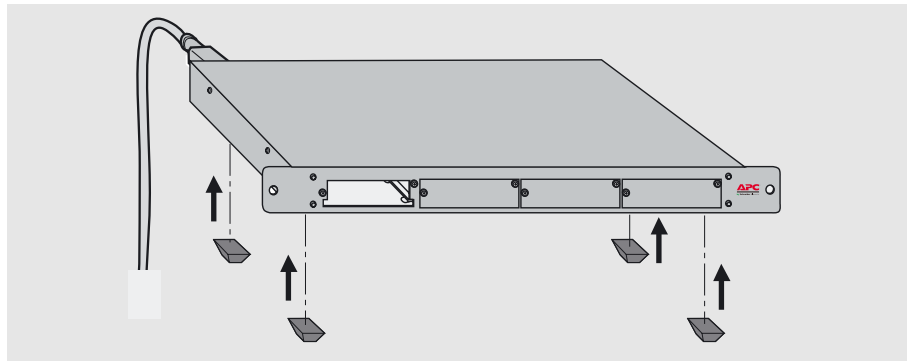


Fig. 6

Installation

Connection to the UPS

Figure 7 shows connection of the **MultiSlot** module to a UPS using an acquisition card intended for a U-Talk/Basic communications port. Consult the user manual of the card concerning configuration in the U-Talk or Basic modes. The cable for connection to the UPS is supplied with the acquisition card.

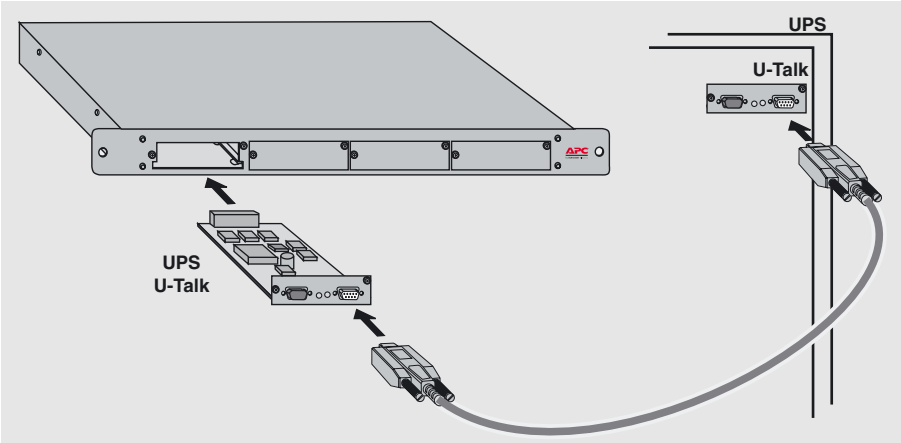


Fig. 7

Operation

The communications cards may be installed in any of the four slots. No particular order is required. Figure 9 shows one possible order. Before a card may be installed, the protection plate must be removed. The screws holding the plate are used to secure the card in the module. The plates for unused slots must be left in place.



Consult the installation and user manuals of the cards prior to their installation in the MultiSlot module.

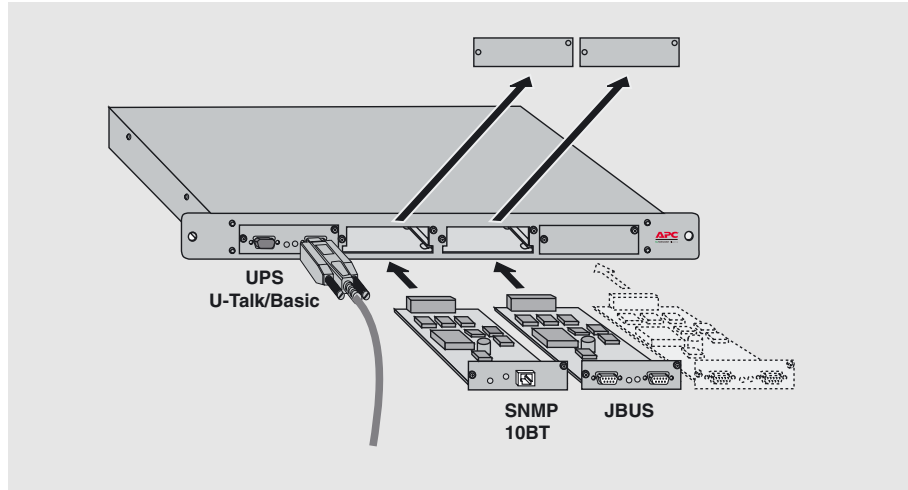


Fig. 8

Special settings

Installation of a second module

Depending on the surveillance needs for the installation, it may be useful to increase the number of connection points by installing a second **MultiSlot** module.

Figure 10 shows the parameter settings for each of the two modules.

Installation of a second **MultiSlot** module is possible only for UPSs equipped with a U-Talk or Basic communications port.

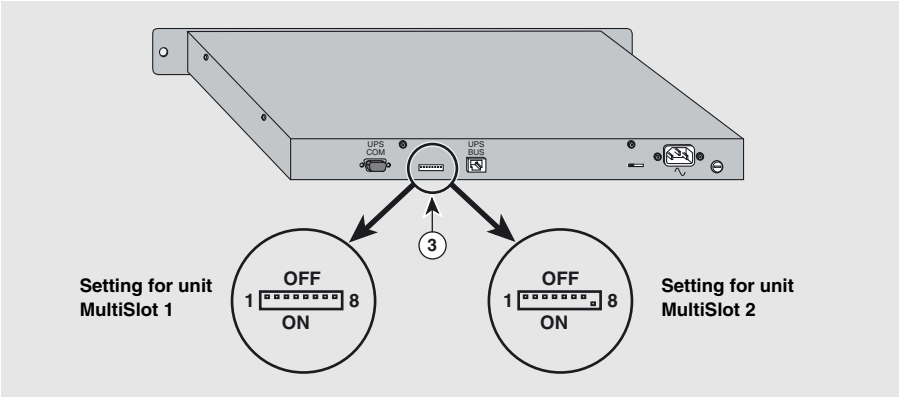


Fig. 9

Special settings

Figure 11 shows how to connect the two **MultiSlot** modules to the UPS.
Only one acquisition card should be used for the set of two modules.
The two modules are interconnected via the UPS BUS ports ④.

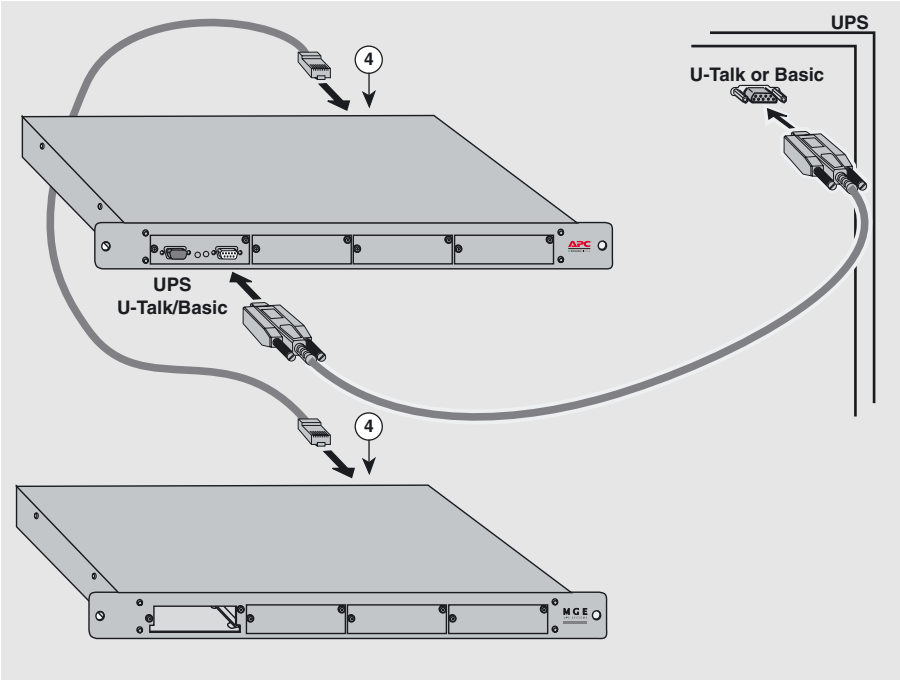


Fig. 10

Special settings

Figure 12 shows the wiring diagram for the RJ45 cable used to interconnect the two **MultiSlot** modules or to connect one of the **MultiSlot** modules to the UPS BUS port on the UPS. The cable is not supplied.

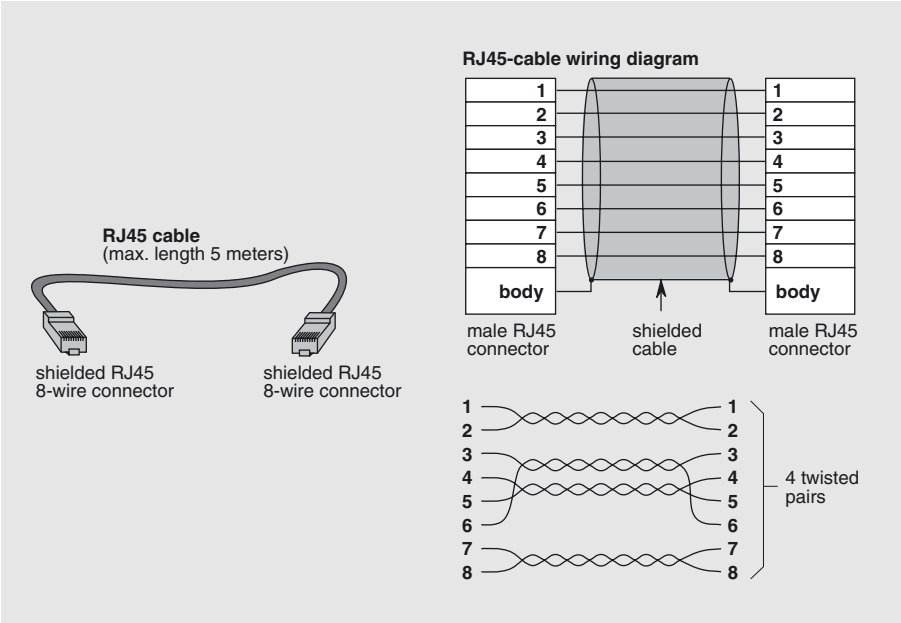


Fig. 11

UPS COM port

This port is reserved for future applications of the **MultiSlot** module and should not be used.

Troubleshooting

Operating anomalies

AC-power problem

The green lights on the communications cards and the acquisition card are all off:

- ▶ check the position of the input voltage selector (see figure 3),
- ▶ check that the power cable is properly connected (see figure 4),
- ▶ check the fuse and replace it if necessary (see below "fuse replacement").

Communications problem

The green lights on the communications cards flash regularly every second for more than one minute:

- ▶ check the connection between the **MultiSlot** module and the UPS (see figures 7, 8 and 11),
- ▶ check that the cards are correctly installed in the **MultiSlot** module,
- ▶ press the reset button on each card installed in the **MultiSlot** module,
- ▶ if necessary, deenergize and reenergize the **MultiSlot** module.

Card start-up problem

The green light on a communications card remains on or off:

- ▶ check that the card is correctly installed in the **MultiSlot** module,
- ▶ press the reset button of the faulty card.

Invalid installation configurations

The following installation configurations are invalid:

- ▶ **MultiSlot** module not connected to a UPS (no U-Talk/Basic acquisition card or no direct connection via the UPS BUS port),
- ▶ **MultiSlot** module equipped with two U-Talk/Basic acquisition cards,
- ▶ installation in duo mode (two modules) with an acquisition card in each **MultiSlot** module,
- ▶ **MultiSlot** module equipped with both a U-Talk/Basic acquisition card and a connection to a UPS via the UPS BUS port.

Fuse replacement

The **MultiSlot** module is protected by a fuse. If the fuse blows, it must be replaced, as shown in figure 13.

The replacement fuse must imperatively have the same characteristics as the original fuse (500 mA, 250V, delayed). A replacement fuse is supplied with the **MultiSlot** module.

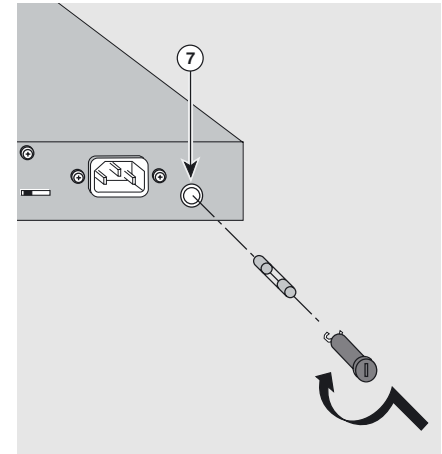


Fig. 12

If the problem continues, contact our after-sales support department.

Appendices

Glossary

Basic: information exchange protocol using dry contacts,

I2C: multi-point and multi-master communications protocol and bus,


JBus: master-slave communications protocol using a point-to-point (RS232) or multi-point (RS485) serial link,

SNMP: Ethernet communications protocol,

UPS: Uninterruptible Power Supply,

U-Talk: point-to-point ASCII communications protocol using an RS232 serial link. U-Talk is the APC by Schneider Electric proprietary protocol.

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