



Site Preparation,  
Installation and Operator's Manual  
for  
Extended Battery Module  
for use with Series 1  
Uninterruptible Power Systems

Select Code 167-405-036  
Issue 3

Copyright 2001 Avaya Inc.  
All Rights Reserved



# CHAPTER 1

## INTRODUCTION

The Extended Battery Module (EBM) can be added to the Avaya Series 1 to extend the available UPS battery time (see Table 1). Up to four EBMs can be installed with the Avaya Series 1.

**Table 1. Battery Run Times (in Minutes)**

700 VA–1000 VA Models					
Load	UPS Internal Batteries	1 EBM	2 EBMs	3 EBMs	4 EBMs
200 VA/140W	37	271	546		
400 VA/280W	19	142	278		
700 VA/490W	9	72	156		
850 VA/595W*	6	59	124		
1000 VA/700W*	5	48	104		

\*Run times do not apply for 700 VA models.

1500 VA–2000 VA Models					
Load	UPS Internal Batteries	1 EBM	2 EBMs	3 EBMs	4 EBMs
400 VA/280W	46	177	331	501	682
700 VA/490W	25	96	180	272	370
850 VA/595W	21	76	142	214	292
1000 VA/700W	16	61	115	174	237
1250 VA/875W	11	46	87	131	179
1500 VA/1050W	8	37	70	106	144
1800 VA/1260W**	6	30	57	85	116
2000 VA/1400W**	5	26	49	74	100

\*\*Run times do not apply for 1500 VA models.

**NOTE** Battery times are approximate and vary depending on the load configuration and battery charge.

## Safety Warnings

Read the following precautions before you install the EBM.

### IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS. This manual contains important instructions that you should follow during installation and maintenance of the EBM. Please read all instructions before operating the equipment and save this manual for future reference.

---

### CAUTION



- Batteries can present a risk of electrical shock or burn from high short circuit current. Observe proper precautions. Servicing should be performed by qualified service personnel knowledgeable of batteries and required precautions. Keep unauthorized personnel away from batteries.
  - Proper disposal of batteries is required. Refer to your local codes for disposal requirements.
  - This UPS contains its own energy source (batteries). The UPS output receptacles may carry live voltage even when the UPS is not connected to an AC supply.
  - Never dispose of batteries in a fire. Batteries may explode when exposed to flame.
- 

## Sikkerhedsanvisninger



### ADVARSEL

- Batterier kan udgøre en fare for elektrisk stød eller forbrændinger forårsaget af høj kortslutningsspænding. De korrekte forholdsregler bør overholdes.
  - Korrekt bortskaffelse af batterier er påkrævet. Overhold gældende lokale regler for bortskaffelsesprocedurer.
  - Denne UPS indeholder egen energiforsyning (batterier). Udgangsnetstikkene kan lede strøm, selv når UPS'en ikke er tilsat en AC-energikilde.
  - Skaf dig aldrig af med batterierne ved at brænde dem. Batterierne kan eksplodere ved åben ild.
-

## Belangrijke Veiligheidsinstructies



### OPGELET

- Batterijen kunnen gevaar voor elektrische schok of brandwonden veroorzaken als gevolg van un hoge kortsluitstroom. Volg de desbetreffende aanwijzingen op.
  - De batterijen moeten op de juiste wijze worden opgeruimd. Raadpleeg hiervoor uw plaatselijke voorschriften.
  - Deze UPS bevat zijn eigen energiebron (batterijen). De uitgangsaansluitingen kunnen onder spanning staan wanneer de UPS niet op een wisselstroom voeding is aangesloten.
  - Nooit batterijen in het vuur gooien. De batterijen kunnen ontploffen.
- 

## Tarkeita Turvaohjeita



### VARO

- Akusto saattaa aiheuttaa sähköiskun tai syttyä tuleen, jos akusto kytketään oikosulkuun. Noudata asianmukaisia ohjeita.
  - Akusto täytyy hävittää säädösten mukaisella tavalla. Noudata paikallisia määräyksiä.
  - Tämä UPS sisältää oman energialähteen (akuston). Ulostuloliittimissä voi olla jännite, kun UPS ei ole liitettynä verkkojännitteeseen.
  - Älä koskaan heitä akkuja tuleen. Ne voivat räjähtää.
-

## Consignes de sécurité



### ATTENTION!

- Les batteries peuvent présenter un risque de décharge électrique ou de brûlure par des courts-circuits de haute intensité. Prendre les précautions nécessaires.
  - Une mise au rebut réglementaire des batteries est obligatoire. Consulter les règlements en vigueur dans votre localité.
  - Cet onduleur renferme sa propre source d'énergie (batteries). Les prises de sortie peuvent être sous tension même lorsque l'onduleur n'est pas branché sur le secteur.
  - Ne jamais jeter les batteries au feu. L'exposition aux flammes risque de les faire exploser.
- 

## Sicherheitswarnungen



### VORSICHT!

- Batterien können aufgrund des hohen Kurzschlußstroms Elektroschocks oder Verbrennungen verursachen. Die entsprechenden Vorsichtsmaßnahmen sind unbedingt zu beachten.
  - Die Batterien müssen ordnungsgemäß entsorgt werden. Hierbei sind die örtlichen Bestimmungen zu beachten.
  - Diese USV ist mit einer eigenen Energiequelle (Batterie) ausgestattet. An den Ausgangssteckdosen kann auch dann Spannung anliegen, wenn die USV nicht an einer Wechselspannungsquelle angeschlossen ist.
  - Batterien niemals verbrennen, da sie explodieren können.
-

## Προειδοποιήσεις Ασφάλειας



### ΠΡΟΣΟΧΗ

- Οι συσσωρευτές μπορεί να προκαλέσουν ηλεκτροπληξία ή έγκαυμα από υψηλό ρεύμα βραχυκυκλώματος. Λαμβάνετε τις κατάλληλες προφυλάξεις.
  - Απαιτείται σωστή διάθεση των συσσωρευτών. Δείτε τους τοπικούς κανονισμούς που αφορούν τις απαιτήσεις διάθεσής τους.
  - Το συγκεκριμένο UPS περιέχει τη δική του πηγή ενέργειας (συσσωρευτές). Οι ρευματοδότες εξόδου μπορεί να έχουν ενεργό τάση ακόμη και όταν το UPS δεν είναι συνδεδεμένο σε πηγή εναλλασσόμενου ρεύματος (AC).
  - Ποτέ μην πετάτε τους συσσωρευτές στη φωτιά, γιατί μπορεί να εκραγούν.
- 

## Avvisi di sicurezza



### ATTENZIONE

- Le batterie possono presentare rischio di scossa elettrica o di ustioni provocate da alta corrente dovuta a corto circuito. Osservare le apposite istruzioni.
  - Le batterie devono essere smaltite in modo corretto. Per i requisiti di smaltimento fare riferimento alle disposizioni locali.
  - Questo gruppo statico di continuità contiene una fonte di energia autonoma (le batterie). Le prese di uscita possono condurre tensione energizzata quando il gruppo statico di continuità non è collegato con una fonte di alimentazione a corrente alternata.
  - Non gettare mai le batterie nel fuoco poichè potrebbero esplodere se esposte alle fiamme.
-

## Viktig Sikkerhetsinformasjon



### FORSIKTIG

- Batterier kan forårsake elektriske støt eller forbrenning på grunn av høy kortslutningsstrøm. Følg instruksene.
  - Batterier må fjernes på korrekt måte. Se lokale forskrifter vedrørende krav om fjerning av batterier.
  - Denne UPS'en har en egen energikilde (batterier). Stikkontaktene kan være strømførende selv om UPS'en ikke er tilsluttet en vekselstrømforsyning.
  - Kast aldri batterier i flammer, da de kan eksplodere, hvis de utsettes for åpen ild.
- 

## Regulamentos de Segurança



### PERIGO

- As baterias podem apresentar o risco de choque elétrico, ou queimaduras provenientes de alta corrente de curto-circuito. Observe as instruções adequadas.
  - Siga as instruções apropriadas ao desfazer-se das baterias. Consulte os códigos do local para maiores informações sobre os regulamentos de descarte de produtos.
  - Esta UPS contém sua própria fonte de energia (baterias). Os receptáculos de saída podem conter voltagem ativa quando a UPS não se encontra conectada a uma fonte de alimentação de corrente alternada.
  - Nunca jogue as baterias no fogo, porque há risco de explosão.
-

## Предупреждения по мерам безопасности



### ОСТОРОЖНО

- Аккумуляторы могут вызвать опасность поражения электрическим током или ожога от тока короткого замыкания. Соблюдайте соответствующие меры предосторожности.
  - Необходимо соблюдать правила утилизации аккумуляторов. Обратитесь к местным нормативным актам за информацией о требованиях к утилизации.
  - Данный ИБП содержит собственные источники энергии (аккумуляторы). На выходных розетках может иметься напряжение, даже когда ИБП не подключен к сети переменного тока.
  - Никогда не бросайте аккумуляторы в огонь. Аккумуляторы могут взорваться под воздействием огня.
- 

## Advertencias de Seguridad



### PRECAUCIÓN

- Las baterías pueden presentar un riesgo de descargas eléctricas o de quemaduras debido a la alta corriente de cortocircuito. Preste atención a las instrucciones correspondientes.
  - Es necesario desechar las baterías de un modo adecuado. Consulte las normas locales para conocer los requisitos pertinentes.
  - Este SIE contiene su propia fuente de energía (las baterías). Los receptáculos de salida pueden transmitir corriente eléctrica aun cuando el SIE no esté conectado a un suministro de corriente alterna (c.a.).
  - Nunca deseche las baterías en el fuego. Las baterías pueden explotar si se las expone a la llama.
-

## Säkerhetsföreskrifter



### VIKTIGT

- Batterierna kan ge elektriska stötar eller brännskador från hög kortslutningsström. Följ tillämpliga anvisningar.
  - Batterierna måste avyttras enligt anvisningarna i lokal lagstiftning.
  - Denna UPS-enhet har en egen energikälla (batterier). De utgående kontakterna kan vara strömförande när UPS-enheten inte är ansluten till en växelströmkälla.
  - Använda batterier får aldrig brännas upp. De kan explodera.
-

# CHAPTER 2

## INSTALLATION

This section explains:

- Equipment inspection
- UPS and Extended Battery Module setup
- EBM installation

### Inspecting the Equipment

If any equipment has been damaged during shipment, keep the shipping cartons and packing materials for the carrier or place of purchase and immediately notify your Avaya service representative.

### UPS and EBM Setup

The Avaya Series 1 UPS is designed for flexible configurations and can be installed in a rack or as a standalone cabinet.

If you are installing the UPS in a rack, continue to the following section “Rack-Mount Setup;” otherwise, continue to “Cabinet Setup” on page 13.

#### Rack-Mount Setup

The UPS can be installed in 19- or 23-inch racks and needs only 2U of valuable rack space.



---

**NOTE** Mounting rails are required for each cabinet. If rails are not already installed in your rack, contact your local distributor to order a rail kit.

---

Use the following procedure to install the UPS and EBMs in a rack:

1. Place the UPS on a flat, stable surface with the front of the UPS facing toward you.
2. Attach the mounting handles to the bracket with the screws provided in the accessory kit (see Figure 1).
3. Align the mounting brackets with the screw holes on the side of the UPS and secure with the supplied screws (see Figure 1).

4. Repeat Steps 1 through 3 for each EBM.

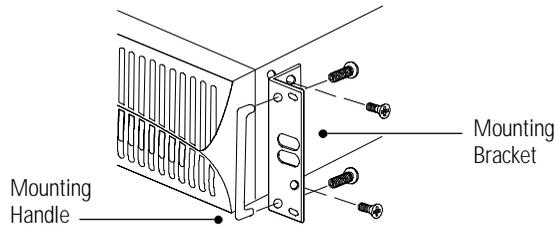


Figure 1. Installing the Mounting Brackets



**NOTE** The EBMs must be installed below the UPS as shown in Figure 2.

5. Slide the UPS and EBMs into the rack. Continue to “Installing the EBM” on page 14 to complete the installation.

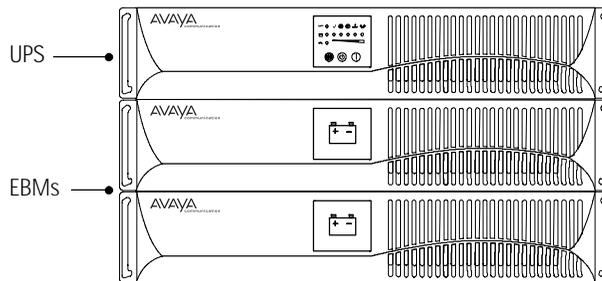


Figure 2. Rack-Mount UPS with EBMs

## Cabinet Setup

You can position the UPS cabinets horizontally or vertically. When positioning the cabinets horizontally, the EBMs must be placed below the UPS (see Figure 3).

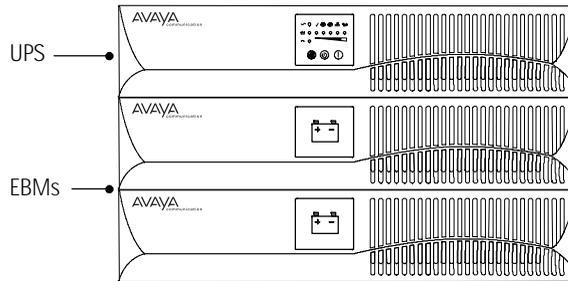


Figure 3. Horizontal Cabinet Setup



**NOTE** The air vents should be at the top of the unit when positioned vertically.

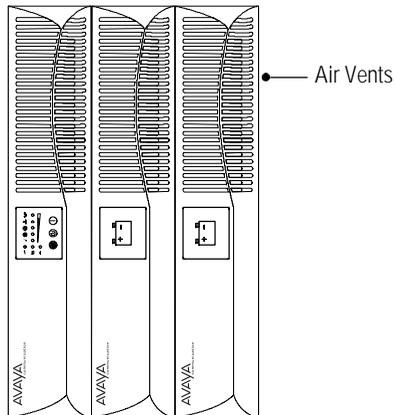


Figure 4. Vertical Cabinet Setup

## Installing the EBM

The following steps explain how to install the EBM. Figure 6 shows a typical installation only.



### CAUTION

A small amount of arcing may occur when connecting an Extended Battery Module to the UPS. This is normal and will not harm personnel. Insert the EBM cable into the UPS battery connector quickly and firmly.

1. If you are installing the UPS in a rack, skip to Step 5.
2. Remove the adjacent corner screws from the rear panels as shown in Figure 5 to install the EBM brackets. Discard the screws.
3. Align each EBM bracket with the screw holes and secure with the screws provided in the accessory kit.
4. If installing additional EBMs, repeat Steps 2 and 3 for each cabinet.

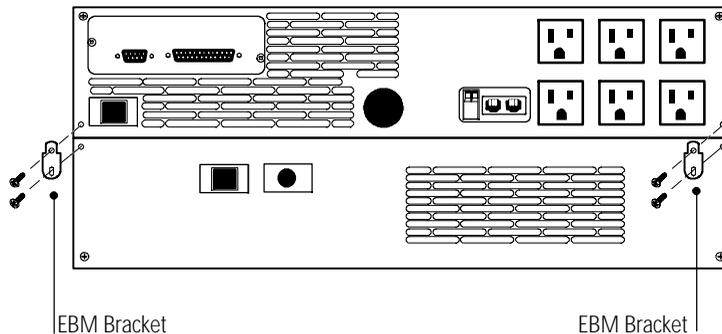
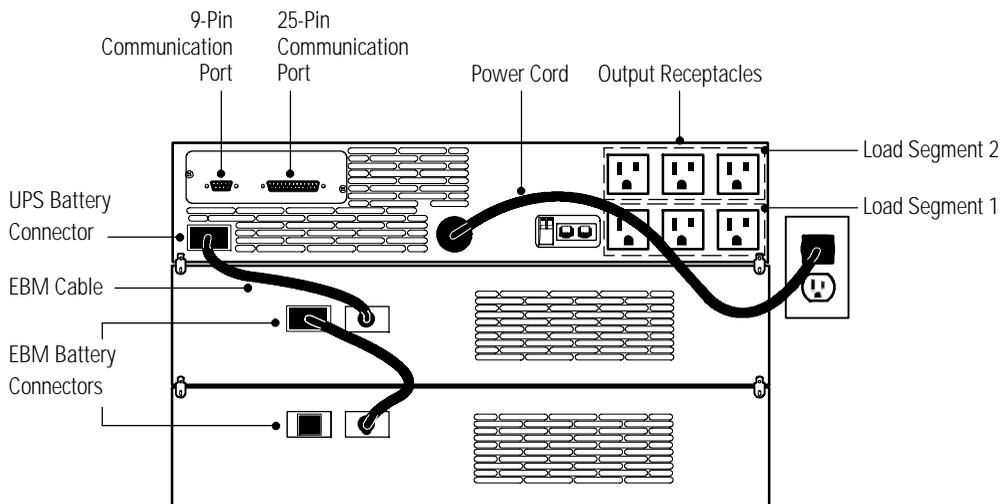


Figure 5. Installing the EBM Brackets

5. Plug the EBM cable into the battery connector on the UPS rear panel (see Figure 6).
6. If additional EBMs are to be installed, plug the EBM cable of the second cabinet into the battery connector on the first EBM. Repeat for each additional EBM. Up to four EBMs may be connected to the UPS.



**Figure 6. Typical UPS Installation**

7. Follow the installation instructions in the *Avaya Series 1 Operator's Manual* for installing the UPS.



**NOTE** The batteries charge to 80% capacity in approximately 2 hours. However, it is recommended that the batteries charge for 24 hours after installation or long-term storage.



05147388 A