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POWERWARE® 9125

User's Guide

700 VA–2000 VA

www.powerware.com

Requesting a Declaration of Conformity

Units that are labeled with a CE mark comply with the following harmonic standards and EU directives:

- Harmonic Standards: EN 50091-1-1 and EN 50091-2
- EU Directives: 73/23/EEC, Council Directive on equipment designed for use within certain voltage limits
  93/68/EEC, Amending Directive 73/23/EEC
  89/336/EEC, Council Directive relating to electromagnetic compatibility
  92/31/EEC, Amending Directive 89/336/EEC relating to EMC

The EC Declaration of Conformity is available upon request for products with a CE mark. For copies of the EC Declaration of Conformity, contact:

Powerware Corporation
Koskelontie 13
FIN-02920 Espoo
Finland
Phone: +358-9-452 661
Fax: +358-9-452 665 68

Class B EMC Statements

FCC Part 15

NOTE This equipment has been tested and found to comply with the limits for 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, uses 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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ICES-003

This Class B Interference Causing Equipment meets all requirements of the Canadian Interference Causing Equipment Regulations ICES-003.

Cet appareil numérique de la classe B respecte toutes les exigences du Reglement sur le matériel brouilleur du Canada.

VCCI Notice for Class B Equipment

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Special Symbols

The following are examples of symbols used on the UPS to alert you to important information:

RISK OF ELECTRIC SHOCK - Indicates that a risk of electric shock is present and the associated warning should be observed.

CAUTION: REFER TO OPERATOR'S MANUAL - Refer to your operator's manual for additional information, such as important operating and maintenance instructions.

This symbol indicates that you should not discard the UPS or the UPS batteries in the trash. The UPS may contain sealed, lead-acid batteries. Batteries must be recycled.

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CHAPTER 1

POWERWARE 9125 – THE ULTIMATE ONLINE UPS!

The Powerware® 9125 uninterruptible power system (UPS) protects your sensitive electronic equipment from the most common power problems including power failures, power sags, power surges, brownouts, line noise, high voltage spikes, frequency variations, switching transients, and harmonic distortion.

Power outages can occur when you least expect it and power quality can be erratic. These power problems have the potential to corrupt critical data, destroy unsaved work sessions, and damage hardware — causing hours of lost productivity and expensive repairs.

With the Powerware 9125, you can safely eliminate the effects of power disturbances and guard the integrity of your equipment. Figure 1 shows the Powerware 9125 UPS with an optional Extended Battery Module (EBM).

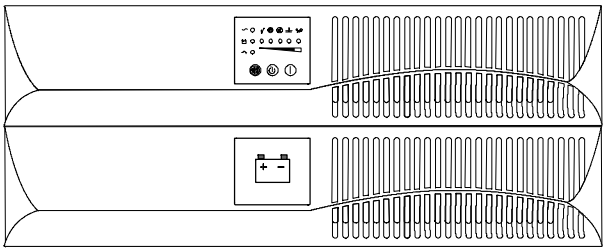


Figure 1. The Powerware 9125

Because an integral part of power protection is power management software, the Powerware 9125 comes fully equipped with a communication port, serial cable, and a CD containing both LanSafe III for networked systems and FailSafe III for standalone systems.

Providing outstanding performance and reliability, the Powerware 9125's unique benefits include the following:

- Fourth-Generation Online™ design with pure sine wave output. The UPS filters and regulates incoming AC power and provides consistent power to your equipment without draining the battery.
- 2U rack height conserves valuable rack space.
- Advanced Battery Management Plus (ABM Plus™) doubles battery service life, optimizes recharge time, and provides a warning up to 60 days before the end of useful battery life.
- With the two-in-one form factor, you can use the UPS in a rack-mount configuration or as a standalone cabinet.
- Hours of extended run time with up to four EBMs.
- Sequential shutdown and load management through separate receptacle groups, called load segments.
- Network Transient Protector guards your network communications equipment from surges. Low voltage models can also guard modems, fax machines, or other telecommunications equipment.
- Hot-swappable batteries simplify maintenance by allowing you to replace batteries safely without powering down the critical load.
- Emergency shutdown control through the Remote Emergency Power-Off (REPO) port.
- Start-on-battery capability allows you to power up the UPS even if utility power is not available.
- Optional X-Slot™ modules provide enhanced communication capabilities for increased power protection and control.
- The Powerware 9125 is backed by worldwide agency approvals.

CHAPTER 2

SAFETY WARNINGS

Read the following precautions before you install the UPS.

IMPORTANT SAFETY INSTRUCTIONS

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

DANGER

This UPS contains **LETHAL VOLTAGES**. All repairs and service should be performed by **AUTHORIZED SERVICE PERSONNEL ONLY**. There are **NO USER SERVICEABLE PARTS** inside the UPS.

WARNING

- This UPS contains its own energy source (batteries). The output receptacles may carry live voltage even when the UPS is not connected to an AC supply.
- Do not remove or unplug the input cord when the UPS is turned on. This removes the safety ground from the UPS and the equipment connected to the UPS.
- To reduce the risk of fire or electric shock, install this UPS in a temperature and humidity controlled, indoor environment, free of conductive contaminants. Ambient temperature must not exceed 40°C (104°F). Do not operate near water or excessive humidity (95% max).
- To comply with international standards and wiring regulations, the total equipment connected to the output of this UPS must not have an earth leakage current greater than 1.5 milliamperes.

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.
- Never dispose of batteries in a fire. Batteries may explode when exposed to flame.

Sikkerhedsanvisninger

VIGTIGE SIKKERHEDSANVISNINGER
GEM DISSE ANVISNINGER
DENNE BRUGERVEJLEDNING INDEHOLDER VIGTIGE SIKKERHEDSANVISNINGER

FARE

Denne UPS indeholder LIVSFARLIG HØJSPÆNDING. Alle reparationer og vedligeholdelse bør kun udføres af en AUTORISERET SERVICETEKNIKER. Ingen af UPS'ens indvendige dele kan repareres af brugeren.

ADVARSEL!

- Denne UPS indeholder egen energiforsyning (batterier). Udgangsnetstikkene kan lede strøm, selv når UPS'en ikke er tilsat en AC-energikilde.
- Netledningen må ikke fjernes og stikket må ikke trækkes ud, mens UPS'en er tændt. Dette fjerner sikkerhedsjorden fra UPS'en og fra det udstyr, der er sat til.
- Installér denne UPS i et temperatur- og fugtighedskontrolleret indendørsmiljø, frit for ledende forureningsstoffer for at formindske risikoen for brand og elektrisk stød. Rumtemperaturen må ikke overstige 40°C. UPS'en bør ikke betjenes nær vand eller høj fugtighed (maksimalt 95%).
- I overensstemmelse med internationale normer og bestemmelser for el-installation må det udstyr, der er forbundet til udgangen af denne UPS, tilsammen ikke overskride en jordafdelingsspænding på mere end 1,5 milliampere.

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.
- Skaf dig aldrig af med batterierne ved at brænde dem. Batterierne kan eksplodere ved åben ild.

Belangrijke Veiligheidsinstructies

BELANGRIJKE VEILIGHEIDSINSTRUCTIES
BEWAAR DEZE INSTRUCTIES
DEZE HANDLEIDING BEVAT BELANGRIJKE VEILIGHEIDSINSTRUCTIES

GEVAAR

Deze UPS bevat LEVENSGEVAARLIJKE ELEKTRISCHE SPANNING. Alle reparaties en onderhoud dienen UITSLUITEND DOOR ERKEND SERVICEPERSONEEL te worden uitgevoerd. Er bevinden zich GEEN ONDERDELEN in de UPS die DOOR DE GEBRUIKER kunnen worden GEREPAREERD.

WAARSCHUWING

- Deze UPS bevat zijn eigen energiebron (batterijen). De uitgangsaansluitingen kunnen onder spanning staan wanneer de UPS niet op een wisselstroom voeding is aangesloten.
- Verwijder de ingangsnoer niet of haal de stekker van de ingangsnoer er niet uit terwijl de UPS aan staat. Hierdoor zou de UPS en uw aangesloten apparatuur geen aardebeveiliging meer hebben.
- Teneinde de kans op brand of elektrische schok te verminderen dient deze UPS in een gebouw met temperatuur- en vochtigheidregeling te worden geïnstalleerd, waar geen geleidende verontreinigingen aanwezig zijn. De omgevingstemperatuur mag 40°C niet overschrijden. Niet gebruiken in de buurt van water of bij zeer hoge vochtigheid (max. 95%).
- Om aan de internationale normen en bedradingsvoorschriften te voldoen mag de gehele apparatuur die op de uitgang van deze UPS is aangesloten, geen aardlekstroom van meer dan 1,5 milliampère hebben.

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.
- Nooit batterijen in het vuur gooien. De batterijen kunnen ontploffen.

Tarkeita Turvaohjeita

TÄRKEITÄ TURVAOHJEITA - SUOMI
SÄILYTÄ NÄMÄ OHJEET
TÄMÄ OPAS SISÄLTÄÄ TÄRKEITÄ TURVAOHJEITA

VAARA

Tämä UPS sisältää HENGENVAARALLISIA JÄNNITTEITÄ. Kaikki korjaukset ja huollot on jätettävä VAIN VALTUUTETUN HUOLTOHENKILÖN TOIMEKSI. UPS ei sisällä MITÄÄN KÄYTTÄJÄN HUOLLETTAVIA OSIA.

VAROITUS

- Tämä UPS sisältää oman energialähteen (akuston). Ulostuloliittimissä voi olla jännite, kun UPS ei ole liitettynä verkkojännitteeseen.
- Älä poista tai irrota sisääntulojohtoa, kun UPS on kytkettynä. Tämä poistaa turvamaadoituksen UPS-laitteesta ja siihen liitetystä laitteistosta.
- Vähentääksesi tulipalon ja sähköiskun vaaraa asenna tämä UPS sisätiloihin, joissa lämpötila ja kosteus on säädettävissä ja joissa ei ole virtaa johtavia epäpuhtauksia. Ympäristön lämpötila ei saa ylittää 40 °C. Älä käytä lähellä vettä ja vältä kosteita tiloja (95 % maksimi).
- Kansainväliset normit ja johdotusmääräykset vaativat, että kaikkien tämän UPS-laitteen ulostulokytkentöjen yhteinen maavuotovirta ei ylitä 1,5 milliampeeria (mA).

VARO

- Akusto saattaa aiheuttaa sähköiskun tai syttyä tuleen, jos akusto kytketään oikosulkuun. Noudata asianmukaisia ohjeita.
- Akusto täytyy hävittää säädösten mukaisella tavalla. Noudata paikallisia määräyksiä.
- Älä koskaan heitä akkuja tuleen. Ne voivat räjähtää.

Consignes de sécurité

CONSIGNES DE SÉCURITÉ IMPORTANTES
CONSERVER CES INSTRUCTIONS
CE MANUEL CONTIENT DES CONSIGNES DE SÉCURITÉ IMPORTANTES

DANGER!

Cet onduleur contient des TENSIONS MORTELLES. Toute opération d'entretien et de réparation doit être EXCLUSIVEMENT CONFIÉE A UN PERSONNEL QUALIFIÉ AGRÉÉ. AUCUNE PIÈCE RÉPARABLE PAR L'UTILISATEUR ne se trouve dans l'onduleur.

AVERTISSEMENT!

- 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 pas retirer le cordon d'alimentation lorsque l'onduleur est sous tension sous peine de supprimer la mise à la terre de l'onduleur et du matériel connecté.
- Pour réduire les risques d'incendie et de décharge électrique, installer l'onduleur uniquement à l'intérieur, dans un lieu dépourvu de matériaux conducteurs, où la température et l'humidité ambiantes sont contrôlées. La température ambiante ne doit pas dépasser 40 °C. Ne pas utiliser à proximité d'eau ou dans une atmosphère excessivement humide (95 % maximum).
- Afin d'être conforme aux normes et règlements internationaux de câblage, le courant de fuite à la terre de la totalité du matériel branché sur la sortie de l'onduleur ne doit pas dépasser 1,5 mA.

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.
- Ne jamais jeter les batteries au feu. L'exposition aux flammes risque de les faire exploser.

Sicherheitswarnungen

WICHTIGE SICHERHEITSANWEISUNGENANLEITUNGEN AUFBEWAHREN.DIESES HANDBUCH ENTHÄLT WICHTIGE SICHERHEITSANWEISUNGEN.

WARNUNG

Die USV führt lebensgefährliche Spannungen. Alle Reparatur- und Wartungsarbeiten sollten nur von Kundendienstfachleuten durchgeführt werden. Die USV enthält keine vom Benutzer zu wartenden Komponente

ACHTUNG

- 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.
- Das Eingangskabel nicht entfernen oder abziehen, während die USV eingeschaltet ist, weil hierdurch die Sicherheitserdung von der USV und den daran angeschlossenen Geräten entfernt wird.
- Um die Brand- oder Elektroschockgefahr zu verringern, diese USV nur in Gebäuden mit kontrollierter Temperatur und Luftfeuchtigkeit installieren, in denen keine leitenden Schmutzstoffen vorhanden sind. Die Umgebungstemperatur darf 40°C nicht übersteigen. Die USV nicht in der Nähe von Wasser oder in extrem hoher Luftfeuchtigkeit (max. 95 %) betreiben.
- Um internationale Normen und Verdrahtungsvorschriften zu erfüllen, dürfen die an den Ausgang dieser USV angeschlossenen Geräte zusammen einen Erdschlußstrom von insgesamt 1,5 Milliampere nicht überschreiten.

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.
- Batterien niemals verbrennen, da sie explodieren können.

Προειδοποιήσεις Ασφάλειας

ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ ΤΟ ΠΑΡΟΝ ΕΓΧΕΙΡΙΔΙΟ ΠΕΡΙΕΧΕΙ ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

ΚΙΝΔΥΝΟΣ

Αυτό το UPS περιέχει ΘΑΝΑΤΗΦΟΡΑ ΤΑΣΗ. Όλες οι επισκευές και οι συντηρήσεις πρέπει να γίνονται ΜΟΝΟ ΑΠΟ ΕΞΟΥΣΙΟΔΟΤΗΜΕΝΟ ΓΙΑ ΤΗ ΣΥΝΤΗΡΗΣΗ ΠΡΟΣΩΠΙΚΟ. Το UPS ΔΕΝ ΠΕΡΙΕΧΕΙ ΚΑΝΕΝΑ ΕΞΑΡΤΗΜΑ ΠΟΥ ΝΑ ΜΠΟΡΕΙ ΝΑ ΕΠΙΣΚΕΥΑΣΤΕΙ ΑΠΟ ΤΟ ΧΡΗΣΤΗ.

ΠΡΟΕΙΔΟΠΟΙΗΣΗΚ

- 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).
- Μην βγάζετε από την πρίζα το καλώδιο τροφοδοσίας όταν το UPS είναι ανοιχτό. Μ' αυτό τον τρόπο αφαιρείτε τη γείωση ασφαλείας από το UPS και από τον εξοπλισμό που είναι συνδεδεμένος με το UPS.
- Για να μειώσετε τον κίνδυνο πυρκαγιάς ή ηλεκτροπληξίας, εγκαταστήστε το συγκεκριμένο UPS σε εσωτερικό χώρο με ελεγχόμενη θερμοκρασία και υγρασία, ο οποίος να μην περιέχει αγώγιμα υλικά. Η θερμοκρασία περιβάλλοντος δεν πρέπει να ξεπερνάει τους 40° C. Μη χρησιμοποιείτε το UPS κοντά σε νερό ή υπερβολική υγρασία (μέγιστη τιμή: 95%).

- Για να συμφωνεί με τα διεθνή πρότυπα και τους κανονισμούς καλωδίωσης, το ρεύμα διαρροής προς τη γη ολόκληρου του εξοπλισμού, που είναι συνδεδεμένος με την έξοδο του συγκεκριμένου UPS, δεν πρέπει να είναι μεγαλύτερο από 1,5 mA.

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.
- Ποτέ μην πετάτε τους συσσωρευτές στη φωτιά, γιατί μπορεί να εκραγούν.

Avvisi di sicurezza

IMPORTANTI ISTRUZIONI DI SICUREZZA
CONSERVARE QUESTE ISTRUZIONI
QUESTO MANUALE CONTIENE IMPORTANTI ISTRUZIONI DI SICUREZZA

PERICOLO

la TENSIONE contenuta in questo gruppo statico di continuità è LETALE. Tutte le operazioni di riparazione e di manutenzione devono essere effettuate ESCLUSIVAMENTE DA PERSONALE TECNICO AUTORIZZATO. All'interno del gruppo statico di continuità NON vi sono PARTI RIPARABILI DALL'UTENTE.

AVVERTENZA

- 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 rimuovere nè scollegare il cavo di ingresso quando il gruppo statico di continuità è acceso poichè in tal modo si disattiverebbe il collegamento a terra di sicurezza del gruppo statico di continuità e dell'apparecchiatura ad esso collegata.

- Per ridurre il rischio di incendio o di scossa elettrica, installare il gruppo statico di continuità in un ambiente interno a temperatura ed umidità controllata, privo di agenti contaminanti conduttivi. La temperatura ambiente non deve superare i 40°C. Non utilizzare l'unità in prossimità di acqua o in presenza di umidità eccessiva (95% max).
- Per conformità con gli standard internazionali e con le norme in merito al cablaggio, tutta l'apparecchiatura collegata con l'uscita del gruppo statico di continuità non deve avere una corrente di dispersione di terra superiore a 1,5 milliampere.

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.
- Non gettare mai le batterie nel fuoco poichè potrebbero esplodere se esposte alle fiamme.

Viktig Sikkerhetsinformasion

FARLIG

Denne UPS'en inneholder LIVSFARLIGE SPENNINGER. All reparasjon og service må kun utføres av AUTORISERT SERVICEPERSONALE. BRUKERE KAN IKKE UTFØRE SERVICE PÅ NOEN AV DELENE i UPS'en.

FARLIG

- Denne UPS'en har en egen energikilde (batterier). Stikkontaktene kan være strømførende selv om UPS'en ikke er tilsluttet en vekselstrømforsyning.
- Strømforsyningskabelen må ikke fjernes eller trekkes ut når UPS'en er på, slik at ikke sikkerhetsjordingen fjernes fra UPS'en og det utstyret som er forbundet med den.
- For å redusere fare for brann eller elektriske støt, bør denne UPS'en installeres i et innendørs miljø med kontrollert temperatur og luftfuktighet som er fritt for ledende, forurensende stoffer. Romtemperaturen må ikke overskride 40°C. Den må ikke brukes i nærheten av vann eller ved meget høy luftfuktighet (95% maks.).

- Alt utstyr som er forbundet med utgangen av denne UPS'en må ikke ha en sterkere total lekkasjestrøm enn 1,5 milliampere for å være i overensstemmelse med internasjonale standarder og forkablingsbestemmelser.

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.
- Kast aldri batterier i flammer, da de kan eksplodere, hvis de utsettes for åpen ild.

Regulamentos de Segurança

INSTRUÇÕES DE SEGURANÇA IMPORTANTES
GUARDE ESTAS INSTRUÇÕES
ESTE MANUAL CONTÉM INSTRUÇÕES DE SEGURANÇA IMPORTANTES

CUIDADO

A UPS contém VOLTAGEM MORTAL. Todos os reparos e assistência técnica devem ser executados SOMENTE POR PESSOAL DA ASSISTÊNCIA TÉCNICA AUTORIZADO. Não há nenhuma PEÇA QUE POSSA SER REPARADA PELO USUÁRIO dentro da UPS.

ADVERTÊNCIA

- 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.
- Não remova ou desconecte o cabo de entrada quando a UPS estiver ligada. Isto removerá o aterramento de segurança da UPS e do equipamento conectado.
- Para reduzir o risco de incêndios ou choques elétricos, instale a UPS em ambiente interno com temperatura e umidade controladas e livres de contaminadores condutíveis. A temperatura ambiente não deve exceder 40°C. Não opere próximo a água ou em umidade excessiva (máx: 95%).
- Para estar de acordo com os padrões internacionais e os regulamentos de fiação, o equipamento total conectado à saída desta UPS não deve ter uma corrente de fuga à terra maior que 1,5 miliampères.

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.
- Nunca jogue as baterias no fogo, porque há risco de explosão.

Предупреждения по мерам безопасности

ВАЖНЫЕ УКАЗАНИЯ ПО МЕРАМ БЕЗОПАСНОСТИ СОХРАНИТЕ ЭТИ УКАЗАНИЯ ДАННОЕ РУКОВОДСТВО СОДЕРЖИТ ВАЖНЫЕ УКАЗАНИЯ ПО МЕРАМ БЕЗОПАСНОСТИ

ОПАСНО

В данном ИБП имеются СМЕРТЕЛЬНО ОПАСНЫЕ НАПРЯЖЕНИЯ. Все работы по ремонту и обслуживанию должны выполняться ТОЛЬКО УПОЛНОМОЧЕННЫМ ОБСЛУЖИВАЮЩИМ ПЕРСОНАЛОМ. Внутри ИБП нет узлов, ОБСЛУЖИВАЕМЫХ ПОЛЬЗОВАТЕЛЕМ.

ПРЕДУПРЕЖДЕНИЕ

- Данный ИБП содержит собственные источники энергии (аккумуляторы). На выходных розетках может иметься напряжение, даже когда ИБП не подключен к сети переменного тока.
- Не отсоединяйте сетевой шнур и не извлекайте его вилку из розетки при включенном ИБП. При этом защитное заземление отключается от ИБП и от оборудования, подключенного к ИПБ.
- Для снижения опасности пожара или поражения электрическим током устанавливайте ИБП в закрытом помещении с контролируемыми температурой и влажностью, в котором отсутствуют проводящие загрязняющие вещества. Температура окружающего воздуха не должна превышать 40°C. Не эксплуатируйте устройство около воды или в местах с повышенной влажностью (макс. 95%).

- Для обеспечения соблюдения требований международных стандартов и требований к разводке электрических цепей, суммарная величина тока утечки на землю всего оборудования, подключенного к выходу ИБП, не должна превышать 1,5 миллиампера.

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.
- Никогда не бросайте аккумуляторы в огонь. Аккумуляторы могут взорваться под воздействием огня.

Advertencias de Seguridad

INSTRUCCIONES DE SEGURIDAD IMPORTANTES
GUARDE ESTAS INSTRUCCIONES
ESTE MANUAL CONTIENE INSTRUCCIONES DE SEGURIDAD IMPORTANTES

PELIGRO

Este SIE contiene VOLTAJES MORTALES. Todas las reparaciones y el servicio técnico deben ser efectuados SOLAMENTE POR PERSONAL DE SERVICIO TÉCNICO AUTORIZADO. No hay NINGUNA PARTE QUE EL USUARIO PUEDA REPARAR dentro del SIE.

ADVERTENCIA

- 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.).
- No retire o desenchufe el cable de entrada mientras el SIE se encuentre encendido. Esto suprime la descarga a tierra de seguridad del SIE y de los equipos conectados al SIE.

- Para reducir el riesgo de incendio o de choque eléctrico, instale este SIE en un lugar cubierto, con temperatura y humedad controladas, libre de contaminantes conductores. La temperatura ambiente no debe exceder los 40°C. No trabaje cerca del agua o con humedad excesiva (95% máximo).
- Para cumplir con los estándares internacionales y las normas de instalación, la totalidad de los equipos conectados a la salida de este SIE no debe tener una intensidad de pérdida a tierra superior a los 1,5 miliamperios.

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.
- Nunca deseche las baterías en el fuego. Las baterías pueden explotar si se las expone a la llama.

Säkerhetsföreskrifter

VIKTIGA SÄKERHETSFÖRESKRIFTER
SPARA DESSA FÖRESKRIFTER
DENNA BRUKSANVISNING INNEHÅLLER VIKTIGA SÄKERHETSFÖRESKRIFTER

FARA

Denna UPS-enhet innehåller LIVSFARLIG SPÄNNING. ENDAST AUKTORISERAD SERVICEPERSONAL får utföra reparationer eller service. Det finns inga delar som ANVÄNDAREN KAN UTFÖRA SERVICE PÅ inuti UPS-enheten.

VARNING

- Denna UPS-enhet har en egen energikälla (batterier). De utgående kontakterna kan vara strömförande när UPS-enheten inte är ansluten till en växelströmkälla.
- Ta aldrig bort nätsladden när UPS-enheten är påslagen. Detta tar bort skyddsjordningen från både UPS-enheten och den anslutna utrustningen.

- Minska risken för brand eller elektriska stötar genom att installera denna UPS-enhet inomhus, där temperatur och luftfuktighet är kontrollerade och där inga ledande föroreningar förekommer. Omgivande temperatur får ej överstiga 40°C. Använd inte utrustningen nära vatten eller vid hög luftfuktighet (max 95 %).
- För att överensstämma med internationell standard och installationsföreskrifter får inte den totala utrustning som anslutits till uttagen på denna UPS-enhet ha läcksström som överstiger 1,5 milliampere.

VIKTIGT

- Batterierna kan ge elektriska stötar eller brännskador från hög kortslutningsström. Följ tillämpliga anvisningar.
- Batterierna måste avyttras enligt anvisningarna i lokal lagstiftning.
- Använda batterier får aldrig brännas upp. De kan explodera.

CHAPTER 3

INSTALLATION

This section explains:

- Equipment inspection
- UPS setup and installation
- UPS rear panels

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 file a claim for shipping damage. If you discover damage after acceptance, file a claim for concealed damage.

To file a claim for shipping damage or concealed damage: 1) File with the carrier within 15 days of receipt of the equipment; 2) Send a copy of the damage claim within 15 days to your service representative.

UPS Setup

The Powerware 9125 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 19.

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 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 2).
3. Align the mounting brackets with the screw holes on the side of the UPS and secure with the supplied screws (see Figure 2).
4. If installing optional Extended Battery Modules, repeat Steps 1 through 3 for each cabinet.

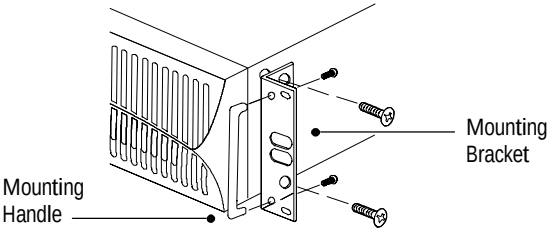


Figure 2. Installing the Mounting Brackets

NOTE The EBMs must be installed below the UPS as shown in Figure 3.

5. Slide the UPS and any optional EBMs into the rack. Continue to "Installing the UPS" on page 21 to complete the installation.

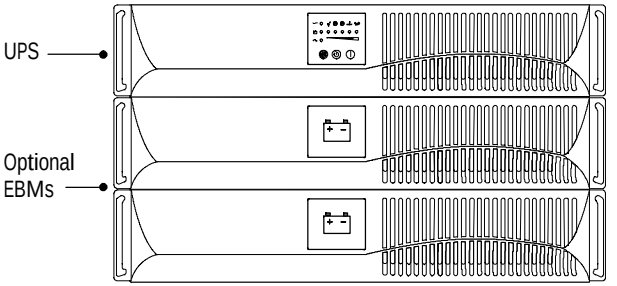


Figure 3. Rack-Mount UPS with EBMs

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 4).

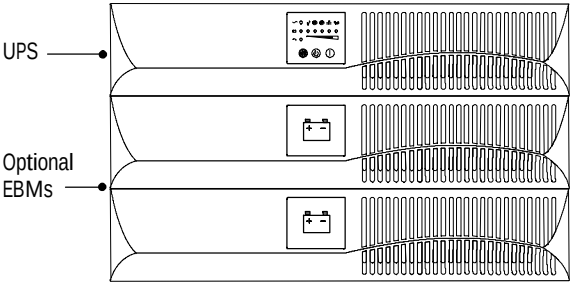


Figure 4. Horizontal Cabinet Setup

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

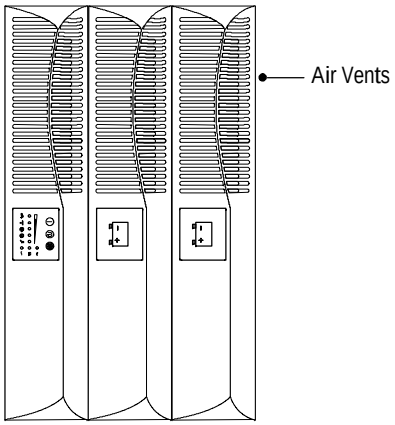


Figure 5. Vertical Cabinet Setup

When a single UPS cabinet is positioned vertically, the UPS stands must be attached to the bottom of the cabinet tower:

1. Place the UPS horizontally, so that the left end of the unit is accessible.
2. Slide and position the UPS stands over the end of the unit so that the weight of the UPS is evenly distributed (see Figure 6). Secure the stands with the screws provided in the accessory kit.

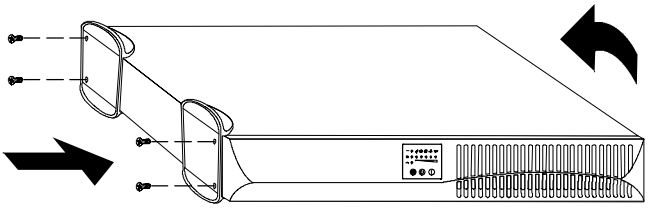


Figure 6. Installing the UPS Stands

3. Carefully position the unit upright on the UPS stands (see Figure 7).

   Continue to the following section, “Installing the UPS.”

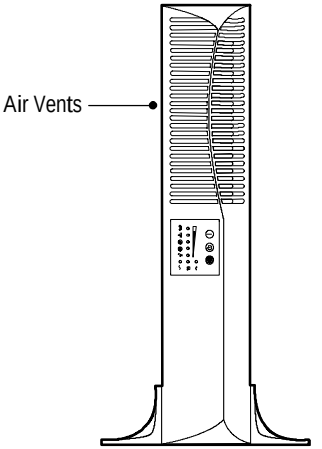


Figure 7. UPS Cabinet with Stands

Installing the UPS

The following steps explain how to install the UPS. Figure 9 shows a typical installation only. See “UPS Rear Panels” on page 24 for the rear panel of each model.

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.

NOTE Do not make unauthorized changes to the UPS; otherwise, damage may occur to your equipment and void your warranty.

1. If installing an optional EBM, continue to Step 2; otherwise, skip to Step 7.

   Steps 2–4 are not required for rack-mount installations.

2. Remove the adjacent corner screws from the rear panels as shown in Figure 8 to install the EBM brackets.
3. Align each EBM bracket with the screw holes and secure with the screws removed in Step 2.

4. If installing additional EBMs, repeat Steps 2 and 3 for each cabinet.

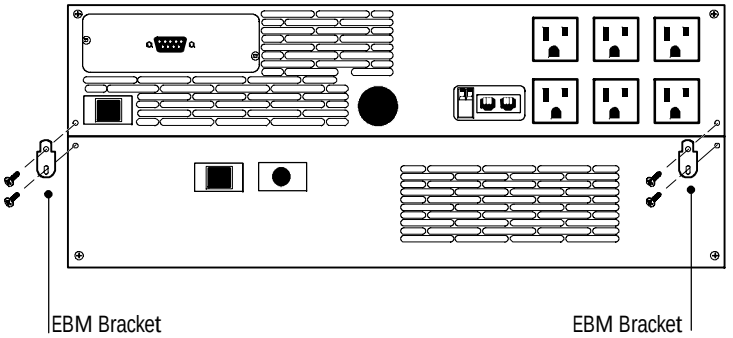


Figure 8. Installing the EBM Brackets

5. Plug the EBM cable into the battery connector on the UPS rear panel (see Figure 9).
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.

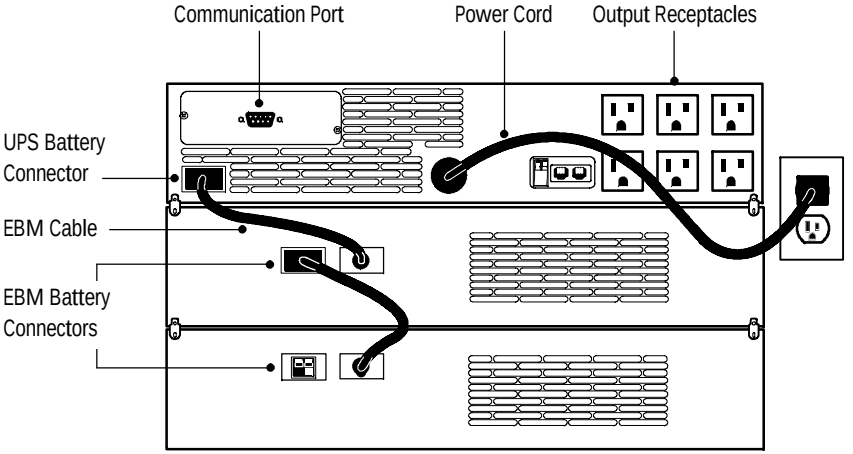


Figure 9. Typical UPS Installation (120V Model Shown)

7. If you are installing power management software, connect your computer to the UPS communication port using the supplied communication cable.
8. Plug the equipment to be protected into the appropriate UPS output receptacles (see page 43 for more information on load segments).

   DO NOT protect laser printers with the UPS because of the exceptionally high power requirements of the heating elements.
9. On 230V models, plug the detachable UPS power cord into the input connector on the UPS rear panel.
10. Plug the UPS power cord into a power outlet. All front panel indicators flash briefly and the UPS conducts a self-test.

    When the self-test is complete, the ~ indicator flashes, indicating the UPS is in Standby mode with the equipment offline. If the ⊘ or ⊘ indicator flashes, see page 57.

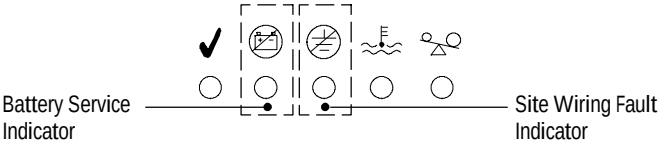


Figure 10. Fault Indicators

11. Start the UPS by pressing the On | button (see Figure 15 on page 27). The ~ indicator stops flashing and the bar graph indicators display the percentage of load being applied to the UPS.

    The UPS is now in Normal mode and supplying power to your equipment. To learn how to operate the UPS, see "Operation" on page 27. To change the factory-set defaults, see "Configuration" on page 33.

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.

UPS Rear Panels

This section shows the rear panels of the Powerware 9125 models.

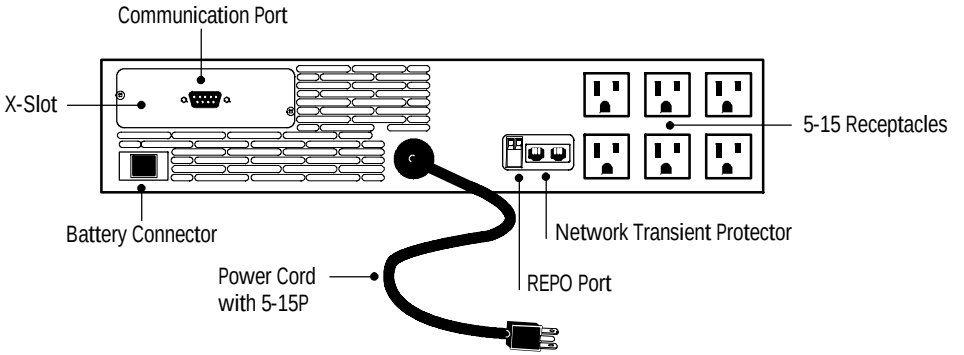


Figure 11. 700–1500 VA, 120V Rear Panel

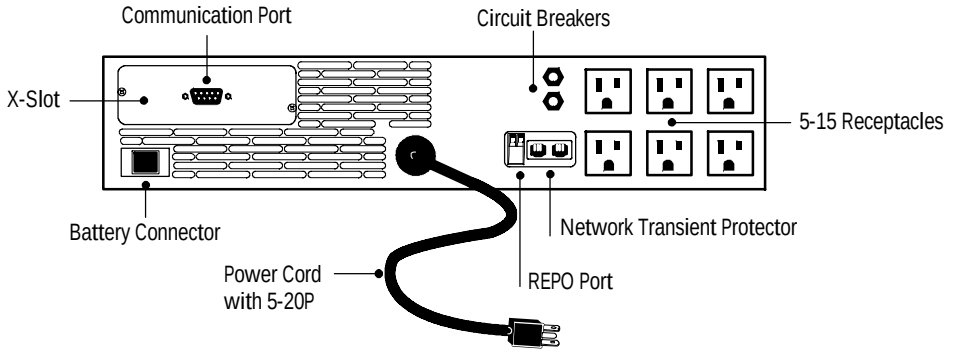


Figure 12. 2000 VA, 120V Rear Panel

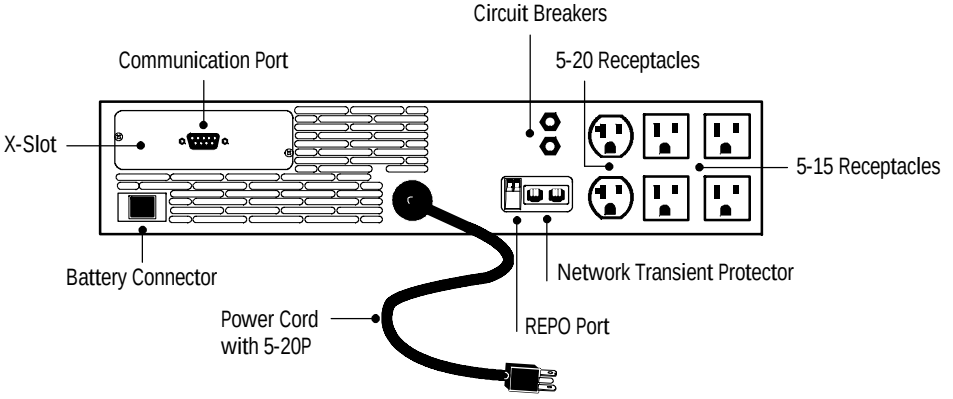


Figure 13. 2000 VA, 120V Rear Panel (with 5-20R)

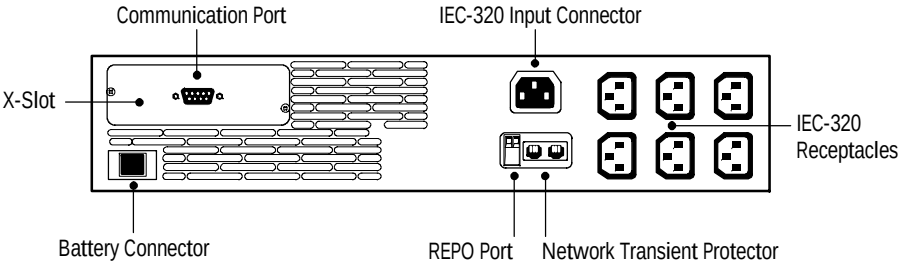


Figure 14. 700–2000 VA, 230V Rear Panel

CHAPTER 4

OPERATION

This section describes:

- Operating modes
- Turning the UPS on and off
- Starting the UPS on battery
- Initiating the self-test

Operating Modes

Powerware 9125's front panel indicates the UPS status through the UPS indicators. Figure 15 shows the UPS front panel indicators and controls.

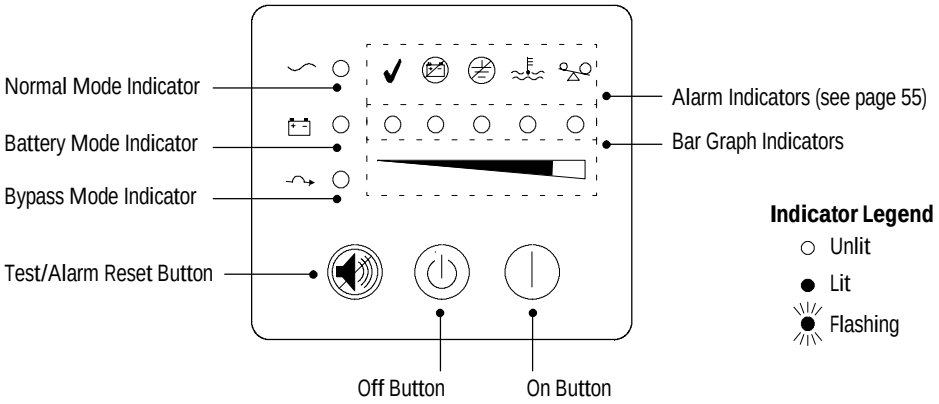


Figure 15. UPS Front Panel

Normal Mode

During Normal mode, the ~ indicator illuminates and the front panel displays the percentage of UPS load capacity being used by the protected equipment (see Figure 16). The UPS monitors and charges the batteries as needed and provides power protection to your equipment.

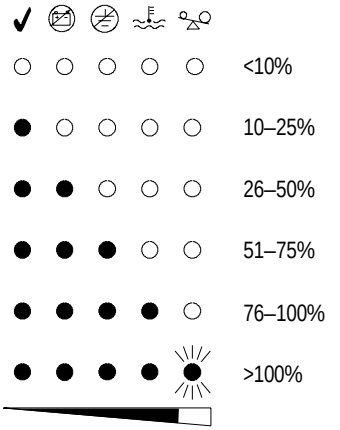


Figure 16. Load Level Indicators

The LEDs do not illuminate when the UPS load is less than approximately 10%. Each LED represents 1/4 of a full load rating.

When all of the bar graph indicators are illuminated and the indicator flashes, power requirements exceed UPS capacity; see page 57 for more information.

Battery Mode

When the UPS is operating during a power outage, the alarm beeps once per second and the + − indicator illuminates. The front panel displays the approximate percentage of battery capacity remaining (see Figure 17). When the utility power returns, the UPS switches to Normal mode operation while the battery recharges.

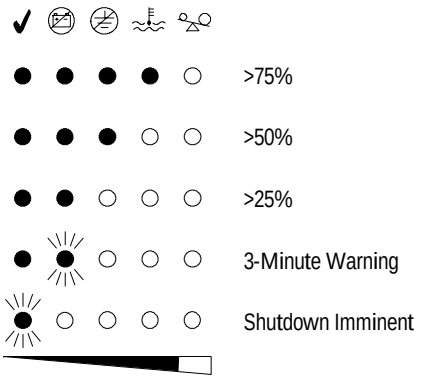


Figure 17. Battery Capacity Indicators

If battery capacity becomes low while in Battery mode, the ⊘ indicator flashes and the alarm sounds continuously, indicating approximately three minutes of battery time remaining. When shutdown is imminent, the ✓ indicator flashes.

NOTE Depending on the UPS load, the 3-minute warning may occur before the batteries reach 25% capacity; the front panel immediately displays the 3-minute warning. For UPS and Extended Battery Module run times, see Table 9 on page 54.

These warnings are approximate, and the actual time to shutdown may vary significantly. Once these warnings are indicated, immediately complete and save your work to prevent data loss and similar difficulties. When utility power is restored after the UPS shuts down, the UPS automatically restarts.

Bypass Mode

In the event of a UPS overload or internal failure, the UPS transfers your equipment to utility power. Battery mode is not available; however, the utility power continues to be passively filtered by the UPS. The alarm sounds and the ⌁→ indicator illuminates. The UPS switches to Bypass mode when:

- The UPS has an overtemperature condition.
- The UPS has an overload condition of 101 to 110% for 2 minutes.
- The UPS has an overload condition of 111 to 150% for 30 seconds.
- The UPS detects a fault in the battery or UPS electronics.

Standby Mode

When the UPS is turned off and remains plugged into a power outlet, the UPS is in Standby mode. The ~ indicator flashes and the bar graph indicators are off, indicating that power is not available from the UPS output receptacles. The battery recharges when necessary.

Sleep Mode

If the UPS is on battery for approximately five minutes and supporting a small electrical load (≤ 10%), the UPS shuts down the load. This feature conserves battery power. To enable this feature, contact your service representative.

Turning the UPS On

After the UPS is connected to a power outlet, it conducts a self-test and enters Standby mode. To turn on the UPS, press the On | button on the front panel (shown in Figure 15 on page 27). The ~ indicator illuminates and the bar graph indicators display the percentage of load being applied to the UPS.

Starting the UPS on Battery

To turn on the UPS without using utility power, press and hold the On | button for at least four seconds. The UPS supplies power to your equipment and goes into Battery mode. When the UPS starts on battery, it does not conduct a self-test to conserve battery power.

Turning the UPS Off

To turn off the UPS:

1. Press and hold the Off ⏻ button for approximately three seconds. The UPS switches to Standby mode and removes power from the UPS output receptacles.
2. Unplug the UPS from the power outlet; the UPS shuts down in five seconds. All front panel indicators flash briefly prior to shutdown.

   If you do not unplug the UPS, it remains in Standby mode.

Pressing the Off ⏻ button while the UPS is in Battery mode causes the UPS to shut down immediately.

Initiating the Self-Test

Press and hold the 🔊 button for three seconds to initiate the self-test. During the five-second test, the bar graph indicators cycle through twice. If the UPS finds a problem, an LED indicates where the problem is. For more information, see “Troubleshooting” on page 55.

NOTE The batteries must be fully charged and the UPS must not be in Battery mode to perform the self-test.

CHAPTER 5

CONFIGURATION

This section describes how to reconfigure options using the Configuration mode, including: input voltage, site wiring fault, and AC input alarm.

Configuration Mode

When the UPS is in Configuration mode, the bar graph indicators represent the configuration options. The control buttons (On | button and 🔊 button) are used to modify the UPS configuration. Figure 18 shows the LEDs and Table 1 explains the corresponding options.

NOTE The UPS can be configured while in Battery mode. If the UPS switches to battery power while in Configuration mode, the UPS remains in Configuration mode and indicates Battery mode on the front panel.

CAUTION

DO NOT press the Off ⏻ button while the UPS is in Configuration mode; pressing the Off ⏻ button removes all power to your equipment immediately and the UPS enters Standby mode.

1. Press the On | button and the 🔊 button simultaneously for one beep. The UPS switches to Configuration mode.

   The bar graph indicators flash briefly and then display the enabled options.

2. Press the On | button to scroll through the options. Each time you press the button, the UPS beeps. The LED for the selected option indicates the current setting; flashing represents disabled options (see Figure 18 and Table 1).

   If you press the On | button and nothing happens, the UPS is still in Operation mode. Repeat Step 1 for one beep ONLY to enter Configuration mode, and then perform Step 2.

3. Press the button ONCE to toggle the selected option on or off.

   Repeat Steps 2 and 3 for each option. Scrolling past the last LED returns to the first configuration option.

NOTE The UPS exits Configuration mode automatically after two minutes.

4. Press the On | button and the button simultaneously to exit Configuration mode at any time.

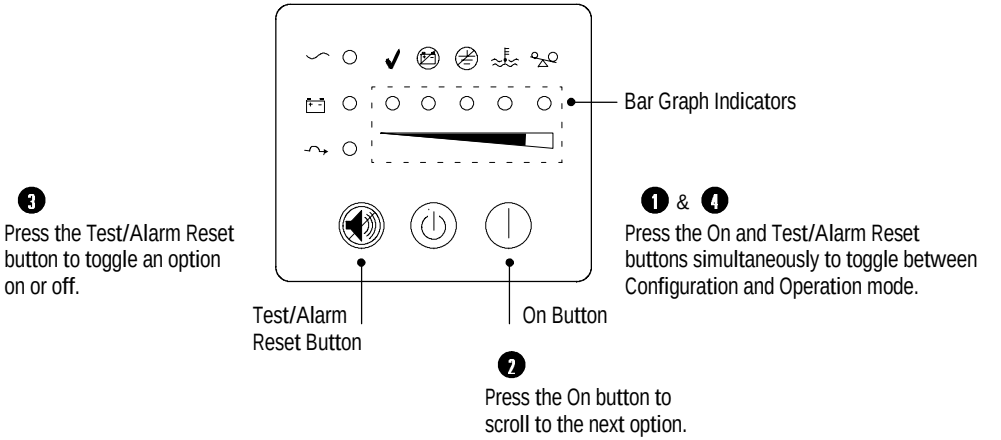
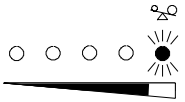
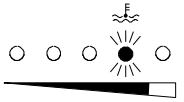
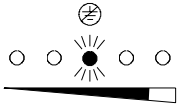
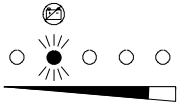
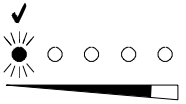


Figure 18. Using the Configuration Mode

Table 1. Configuration Mode LEDs and Options

Bar Graph Indicators	Option	LED Status	Explanation
	120/230V Nominal Input Voltage	On (default)	Nominal input voltage on low voltage models is 120V and on high voltage models is 230V; all other nominal input voltages are disabled.
		Flashing	120/230V is disabled; one of the other input voltage options is selected.
	110/220V Nominal Input Voltage	On	Selecting this option changes the nominal input voltage on low voltage models to 110V and to 220V for high voltage models.
		Flashing (default)	110/220V is disabled; one of the other input voltage options is selected.
	127/240V Nominal Input Voltage	On	Selecting this option changes the nominal input voltage on low voltage models to 127V and to 240V for high voltage models.
		Flashing (default)	127/240V is disabled; one of the other input voltage options is selected.
	Site Wiring Fault Alarm	On (default)	Alarm sounds when the polarity of the outlet is reversed or the ground connection is missing; have a qualified electrician repair the outlet wiring.
		Flashing*	Alarm DOES NOT sound when the polarity of the outlet is reversed or the ground connection is missing. *Site Wiring Fault is not available for 230V models; Flashing is the default.
	AC Input Failure	On (default)	Alarm sounds when there is an AC input failure.
		Flashing	Alarm DOES NOT sound when there is an AC input failure.

NOTE 100V, 200V, and 208V nominal input voltages are available. Contact the help desk at one of the telephone numbers on page 58 for assistance.

CHAPTER 6

ADDITIONAL UPS FEATURES

This section describes:

- X-Slot modules
- Remote Emergency Power-Off
- Network Transient Protector
- Load segments

X-Slot Modules

X-Slot modules allow the UPS to communicate in a variety of networking environments and with different types of devices. The Powerware 9125 is compatible with any X-Slot module, including:

- Single-Port Module - has one serial communication port.
- USB Module - connects to a USB port on your computer.
- Multi-Port Module - has six serial communication ports that can communicate with UPSs, terminals, computers, and modems.
- ConnectUPS™-MX SNMP Module - has Ethernet, modem, and SNMP capabilities.

The Powerware 9125 is factory-installed with a Single-Port Module or USB Module, depending on the customer order.

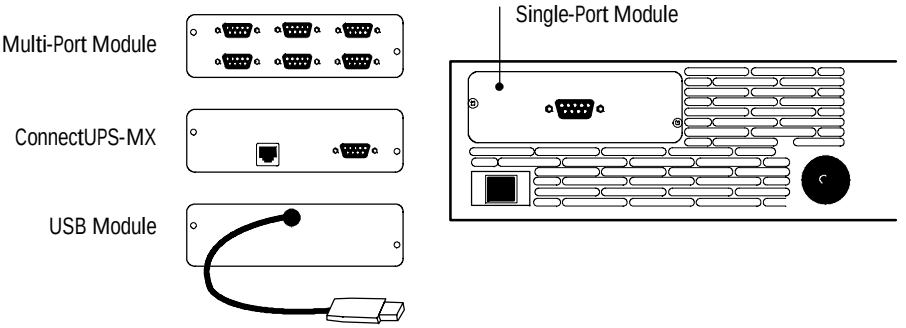


Figure 19. X-Slot Modules

Single-Port Module

To establish communication between the UPS and a computer, connect your computer to the UPS communication port using the supplied communication cable.

When the communication cable is installed, power management software can exchange data with the UPS. The software polls the UPS for detailed information on the status of the power environment. If a power emergency occurs, the software initiates the saving of all data and an orderly shutdown of the equipment.

The cable pins are identified in Figure 20 and the pin functions are described in Table 2.

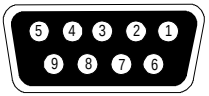


Figure 20. Communication Port

Table 2. Communication Port Pin Assignment

Pin Number	Signal Name	Function	Direction from the UPS
1	Low Batt	Low Battery relay contact	Out
2	RxD	Transmit to external device	Out
3	TxD	Receive from external device	In
4	DTR	PnP (Plug and Play) from external device (tied to Pin 6)	In
5	GND	Signal common (tied to chassis)	—
6	DSR	To external device (tied to Pin 4)	Out
7	RTS	PnP from external device (default) or On Bypass relay contact (jumper-selectable)	In / Out
8	AC Fail	AC Fail relay contact	Out
9	Power Source	+V (8 to 24 volts DC power)	Out

The On-Bypass Relay Contact. You can enable the On-Bypass relay using the jumper on the single-port module. The jumper default is disabled. To enable the On-Bypass relay:

1. Remove the single-port module on the UPS rear panel. Retain the screws (see Figure 21).

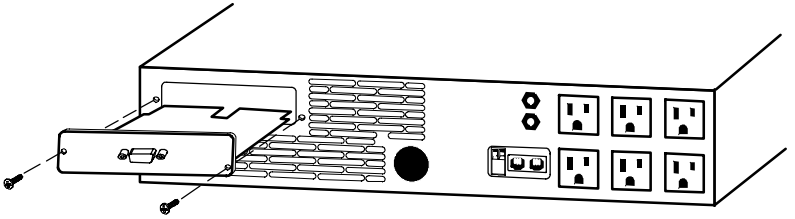


Figure 21. Removing the Single-Port Module

2. Move the J3 jumper to the AS/400 position to enable the On-Bypass relay as shown in Figure 22.

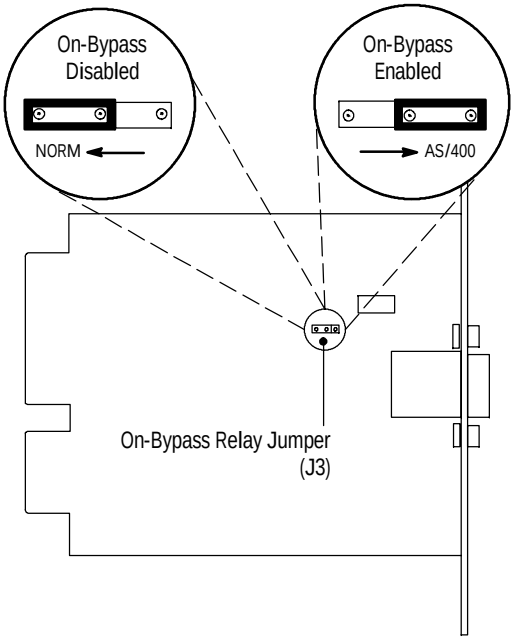


Figure 22. On-Bypass Relay Jumper

3. To prevent electrostatic discharge (ESD), place one hand on a metal surface such as the UPS rear panel.

   Align the single-port module with the slot guides and slide the module into the slot until it is firmly seated.

4. Secure the single-port module with the screws removed in Step 1.

USB Module

With this module, the UPS can communicate with a USB-compliant computer using LanSafe III/FailSafe III (v4.15 or higher) power management software.

To establish communication with your computer:

1. Connect the USB cable to the USB port on your computer.
2. Install the LanSafe III/FailSafe III software and USB drivers according to the instructions provided with the CD.

Remote Emergency Power-Off

The Powerware 9125 includes a REPO port that allows power to be switched off at the UPS output receptacles from a customer-supplied switch in a remote location.

The REPO feature shuts down the protected equipment immediately and does not follow the orderly shutdown procedure initiated by any power management software.

Any devices that are operating on battery power are also shut down immediately. When the REPO switch is re-opened, the equipment will not return to battery power until the UPS is manually restarted.

If the Off ⏻ button is pressed after the REPO is activated, the UPS remains in Standby mode when restarted until the On | button is pressed.

WARNING

The REPO circuit is an IEC 60950 safety extra low voltage (SELV) circuit. This circuit must be separated from any hazardous voltage circuits by reinforced insulation.

CAUTION

To ensure the UPS stops supplying power to the load during any mode of operation, the input power must be disconnected from the UPS when the emergency power-off function is activated.

NOTE The REPO function activates when the REPO contacts close.

Use the following procedure to install the REPO switch:

1. Verify that the UPS is off and unplugged.
2. Remove the REPO connector from the accessory kit.
3. Connect isolated, normally-open, dry contacts (rated at 60 Vdc maximum, 30 Vac RMS maximum, and 20 mA maximum) across the REPO device to Pin 1 and Pin 2 (see Figure 23). Use stranded, non-shielded wiring, size 18–22 AWG (0.75 mm^2–0 mm^2).
4. Connect the REPO connector to the REPO port on the rear panel of the UPS.

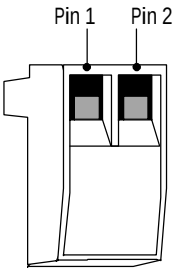


Figure 23. REPO Connector

5. Verify that the externally-connected REPO switch is off to enable power to the UPS output receptacles.
6. Plug in the UPS and start the UPS by pressing the On | button.
7. Turn on the external REPO switch to test the REPO function.
8. Turn off the external REPO switch and restart the UPS.

Network Transient Protector

The Network Transient Protector, shown in Figure 24, is located on the rear panel and has jacks labeled IN and OUT. This feature accommodates a single RJ-45 (10BaseT) network connector.

Low voltage models can also accommodate an RJ-11 telephone connector that provides protection for modems, fax machines, or other telecommunications equipment. As with most modem equipment, it is not advisable to use this jack in digital PBX (Private Branch Exchange) environments.

Connect the input connector of the equipment you are protecting to the jack labeled IN. Connect the output connector to the jack labeled OUT.

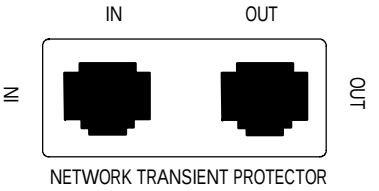


Figure 24. Network Transient Protector

Load Segments

Load segments are sets of receptacles that can be controlled by power management software, providing an orderly shutdown and startup of your equipment. For example, during a power outage, you can keep key pieces of equipment running while you turn off other equipment. This feature allows you to save battery power. See your power management software manual for details.

NOTE If the power management software is not used, the individual load segments cannot be controlled.

Each UPS has two load segments as shown in Figure 25 and Figure 26. Figure 25 shows the load segments for all models except the PW9125 2000 20R model (shown in Figure 26).

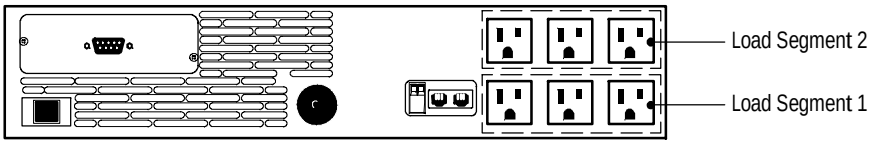


Figure 25. UPS Load Segments (120V Model Shown)

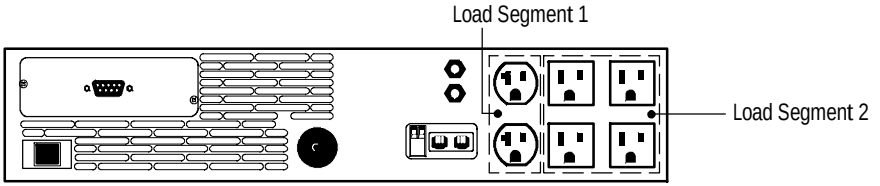


Figure 26. UPS Load Segments for PW9125 2000 20R

CHAPTER 7

UPS MAINTENANCE

This section explains how to:

- Care for the UPS and batteries
- Replace the batteries
- Test new batteries
- Recycle used batteries

UPS and Battery Care

For the best preventive maintenance, keep the area around the UPS clean and dust-free. If the atmosphere is very dusty, clean the outside of the system with a vacuum cleaner.

For full battery life, keep the UPS at an ambient temperature of 25°C (77°F).

Storing the UPS and Batteries

If you store the UPS for a long period, recharge the battery every 12 months by plugging the UPS into a power outlet. The batteries charge to 80% capacity in approximately 2 hours. However, it is recommended that the batteries charge for 24 hours after long-term storage.

When to Replace Batteries

When the indicator illuminates, the batteries may need replacing. Conduct a self-test by pressing and holding the button for three seconds. If the indicator stays on, contact your service representative to order new batteries.

Replacing Batteries

With the hot-swappable battery feature, UPS batteries can be replaced easily without turning the UPS off or disconnecting the load.

If you prefer to remove input power to change the battery, press and hold the Off ⏻ button for approximately three seconds, then unplug the UPS.

Consider all warnings, cautions, and notes before replacing batteries.

WARNING

- Batteries can present a risk of electrical shock or burn from high short-circuit current. The following precautions should be observed: 1) Remove watches, rings, or other metal objects; 2) Use tools with insulated handles; 3) Do not lay tools or metal parts on top of batteries.
- ELECTRIC ENERGY HAZARD. Do not attempt to alter any battery wiring or connectors. Attempting to alter wiring can cause injury.

NOTE DO NOT DISCONNECT the batteries while the UPS is in Battery mode.

How to Replace Extended Battery Modules

Use the following procedure to replace EBMs:

1. Unplug the EBM cable from the UPS and remove the EBM brackets.
2. Replace the EBM. See “Recycling the Used Battery” on page 50 for proper disposal.
3. Reinstall the EBM brackets.
4. Plug the new EBM into the UPS as shown in Figure 27.
5. For additional EBMs, plug the EBM cable of the second cabinet into the battery connector on the first EBM.

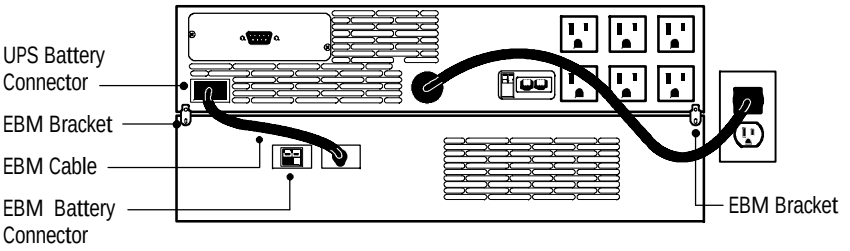


Figure 27. EBM Connections (120V Model Shown)

NOTE The battery connectors are designed to ensure proper connection with the correct EBM model (use EBM model PW9125 24 EBM with 700–1000 VA UPSs and EBM model PW9125 48 EBM with 1250–2000 VA UPSs).

How to Replace Internal Batteries

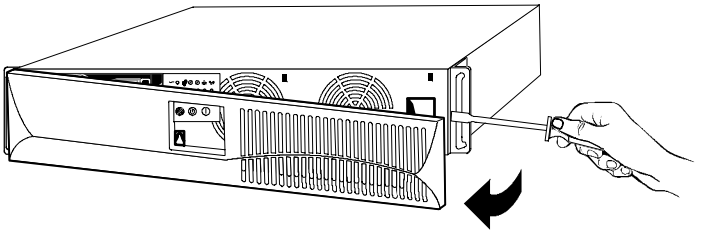
CAUTION

Pull the battery out onto a flat, stable surface. The battery is unsupported when you pull it out of the UPS.

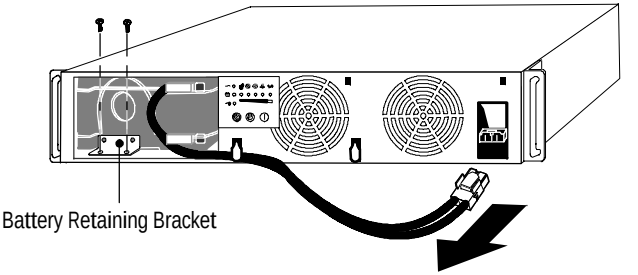
Use the following procedure to replace internal batteries:

1. Using a flat-head screwdriver, open the right side of the front panel and pull the front panel forward to access the battery.

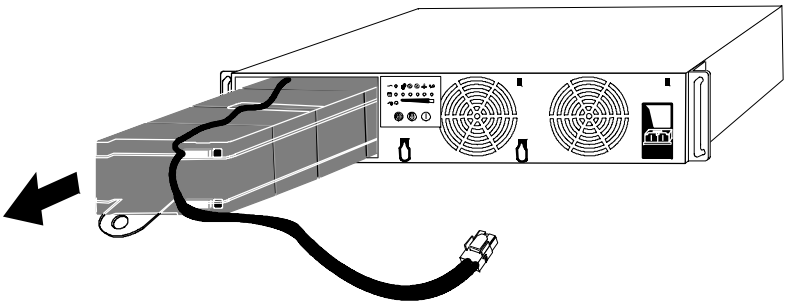
NOTE DO NOT attempt to open the left side.



2. Unscrew and set aside the battery retaining bracket. Disconnect the battery cable from the UPS and remove the battery cable from the wire clips.



3. Pull the battery out onto a flat, stable surface. See “Recycling the Used Battery” on page 50 for proper disposal.



4. Slide the new battery into the UPS. Reconnect the battery cable and secure the battery cable in the wire clips.
5. Reinstall the battery retaining bracket and screws removed in Step 2. Replace the front panel.

Testing New Batteries

Press and hold the button for three seconds to initiate a self-test. After the test is finished, the indicator should turn off. If the indicator stays on, check the battery connections. Call your service representative if the problem persists.

Recycling the Used Battery

Contact your local recycling or hazardous waste center for information on proper disposal of the used battery.

WARNING

- Do not dispose of the battery or batteries in a fire. Batteries may explode. Proper disposal of batteries is required. Refer to your local codes for disposal requirements.
- Do not open or mutilate the battery or batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

CAUTION

Do not discard the UPS or the UPS batteries in the trash. This product contains sealed, lead-acid batteries and must be disposed of properly. For more information, contact your local recycling or hazardous waste center.

CHAPTER 8
SPECIFICATIONS

This section provides the following specifications for the Powerware 9125 models:

- Electrical input and output
- Weights and dimensions
- Environmental and safety
- Battery

Table 3. Model List

	120V Models	230V Models
UPS Models	PW9125 700 PW9125 1000 PW9125 1250 PW9125 1500 PW9125 2000 PW9125 2000 20R	PW9125 700i PW9125 1000i PW9125 1250i PW9125 1500i PW9125 2000i

NOTE The model numbers shown are for gray units; model numbers for black units end with "BLK."

Table 4. Electrical Input

	120V Models	230V Models
Nominal Voltage	120V default; 110, 120, 127V selectable*	230V default; 220, 230, 240V selectable*
Voltage Range	80–144V for 110, 120, 127V nominal	160–288V for 220, 230, 240V nominal
Nominal Frequency	45–65 Hz, 50/60 Hz auto-sensing	
Noise Filtering	MOVs and line filter for normal and common mode noise	
Connections	700–1500 VA: 6-ft, 5-15P power cord 2000 VA: 6-ft, 5-20P power cord	10A, IEC-320 input connector

*100V, 200V, and 208V nominal input voltages are available. Contact the help desk at one of the telephone numbers on page 58 for assistance.

Table 5. Electrical Output

	120V Models	230V Models
Power Levels (rated at nominal inputs)	PW9125 700: 700 VA, 490W PW9125 1000: 1000 VA, 700W PW9125 1250: 1250 VA, 875W PW9125 1500: 1500 VA, 1050W PW9125 2000: 2000 VA, 1400W PW9125 2000 20R: 2000 VA, 1400W	PW9125 700i: 700 VA, 490W PW9125 1000i: 1000 VA, 700W PW9125 1250i: 1250 VA, 875W PW9125 1500i: 1500 VA, 1050W PW9125 2000i: 2000 VA, 1400W
Regulation (Normal mode)	Nominal output voltage ±3%	
Regulation (Battery mode)	Nominal output voltage ±3%	
Voltage Waveform	Normal mode: Sine wave; <5% THD with full PFC and nonlinear load	
Output Receptacles	(6) 5-15R PW9125 2000 20R: (4) 5-15R, (2) 5-20R	(6) IEC-320

Table 6. Weights and Dimensions

	UPS	Extended Battery Module
Dimensions (WxDxH)	17.0” x 19.0” x 3.5” (2U) (43.2 x 48.2 x 8.9 cm)	17.0” x 19.0” x 3.5” (2U) (43.2 x 48.2 x 8.9 cm)
Weight	700–1000 VA: 34 lb (15 kg) 1250–2000 VA: 50 lb (23 kg)	65 lb (29.5 kg)

Table 7. Environmental and Safety

	120V Models	230V Models
Operating Temperature	0°C to 40°C (32°F to 104°F) Optimal battery performance: 25°C (77°F)	
Storage Temperature	0°C to 25°C (32°F to 77°F)	
Transit Temperature	-25°C to 55°C (-13°F to 131°F)	
Relative Humidity	5–90% noncondensing	
Operating Altitude	Up to 3,000 meters above sea level	
Transit Altitude	Up to 10,000 meters above sea level	
Audible Noise	Less than 45 dBA Normal mode, typical load Less than 50 dBA Battery mode	
Surge Suppression	ANSI C62.41 Category B (formerly IEEE 587)	
Safety Conformance	UL 1778, UL 497A; CAN/CSA C22.2, No. 107.1, 107.2; NOM-019-SCFI	UL 1778, UL 497A; CAN/CSA C22.2, No. 107.1, 107.2; EN 50091-1-1 and IEC 60950; NOM-019-SCFI
Safety Markings	UL, CSA	
EMC (Class B)	FCC Part 15, ICES-003, VCCI	EN 50091-2, FCC Part 15, ICES-003, VCCI

Table 8. Battery

Configuration	700–1000 VA: (2) 12V, 9 Ah internal batteries 1250–2000 VA: (4) 12V, 9 Ah internal batteries
EBM Configuration	PW9125 24 EBM: (8) 12V, 9 Ah PW9125 48 EBM: (8) 12V, 9 Ah
Type	Sealed, maintenance-free, valve-regulated, lead-acid
Charging	Internal battery: approximately 2 hours to 80% usable capacity at nominal line voltage after full load discharge External battery: no more than 10x discharge time to 90% usable capacity at nominal line voltage after full load discharge
Monitoring	Advanced monitoring for earlier failure detection and warning; auto detection of additional EBMs

Table 9. Battery Run Times (in Minutes)

700–1000 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.					
1250–2000 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 1250 VA models.					
***Run times do not apply for 1250 VA and 1500 VA models.					

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

CHAPTER 9

TROUBLESHOOTING

This section explains:

- UPS alarms and conditions
- How to silence an alarm
- Service and support

Audible Alarms and UPS Conditions

The UPS has an audible alarm feature to alert you of potential power problems. Use Table 10 to determine and resolve the UPS alarms and conditions.

NOTE Some alarms, such as the Overtemperature and Overload alarms, have to be cleared by shutting down and restarting the UPS (see page 57 for more information).

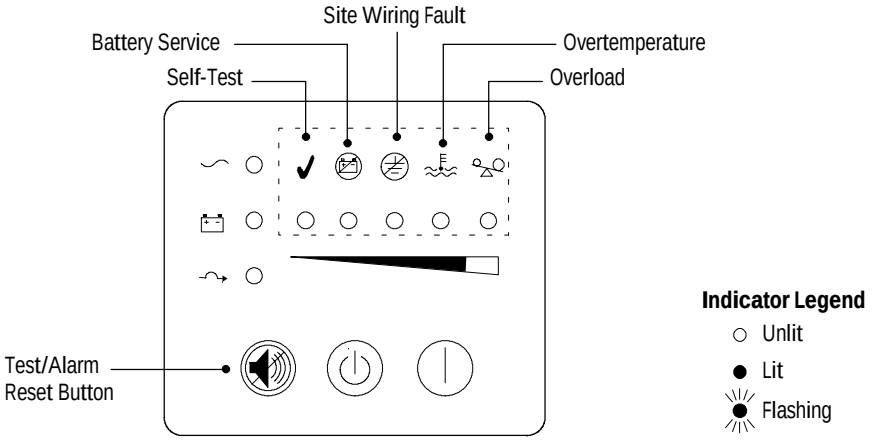
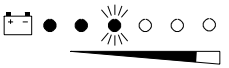
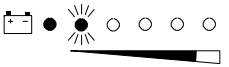


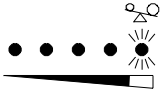
Figure 28. Alarm Indicators

Silencing an Audible Alarm

To silence the alarm for an existing fault, press the button. If UPS status changes, the alarm beeps, overriding the previous alarm silencing.

Table 10. Troubleshooting Guide

Alarm or Condition	Possible Cause	Action
The ~ indicator is not on; the UPS does not start.	The power cord is not correctly connected.	Check the power cord connections.
	The wall outlet is faulty.	Have a qualified electrician test and repair the outlet.
The ~ indicator is flashing; power is not available at the UPS output receptacles.	The UPS is in Standby mode.	Press the On | button to supply power to the connected equipment.
Output circuit breaker trips (2000 VA only).	Load fault.	Check the load. Disconnect faulty load equipment. Wait several minutes before resetting the UPS circuit breaker.
The UPS does not provide the expected backup time.	The batteries need charging or service.	Plug the UPS into a power outlet for 24 hours to charge the battery. After charging the battery, press and hold the button for 3 seconds; then check the indicator. If the indicator is still on, see "UPS Maintenance" on page 45 to replace the battery.
	The UPS is in Sleep mode.	If the UPS is on battery and supporting a small electrical load (≤ 5%), the UPS shuts down the load in approximately 30 seconds. This feature conserves battery power. To disable this feature, contact your service representative.
Battery Intermittent audible alarm	UPS on battery (see "Battery Mode" on page 29 for more information).	The UPS is powering the equipment with battery power. Check the bar graph indicators for available battery capacity and prepare your equipment for shutdown.
 Warning - Low Battery	3-minute battery warning.	3 minutes or less of battery power remains (depending on load configuration and battery charge). Prepare for a shutdown. Save your work and turn off your equipment.
 Shutdown - Low Battery	Shutdown imminent.	Prepare equipment for shutdown.
Bypass Continuous audible alarm	UPS is in Bypass mode.	The equipment is transferred to utility power; however, the utility power continues to be passively filtered by the UPS. Check for one of the following alarms: Overtemperature, Overload, UPS Failure, or Battery Service.

Alarm or Condition	Possible Cause	Action
 Bypass	Bypass is not available. Input voltage is not within ±12% of nominal or input frequency is not within ±3% of nominal.	The UPS is receiving utility power that may be unstable or in brownout conditions. The UPS continues to supply power to your equipment. If conditions worsen, the UPS may switch to battery power.
 Battery Service	The battery may be fully discharged.	Plug the UPS into a power outlet for 24 hours to charge the battery. After charging the battery, press and hold the  button for 3 seconds; then check the  indicator. If the  indicator is still on, see "UPS Maintenance" on page 45 to replace the battery.
	The battery is not connected correctly.	Check the battery connections. Call your service representative if the problem persists.
 Site Wiring Fault (120V models only)	Ground wire connection does not exist or the line and neutral wires are reversed in the wall outlet.	Have a qualified electrician correct the wiring. To disable this alarm, see "Configuration Mode" on page 33.
 Overtemperature	UPS internal temperature is too high. The UPS switches to Bypass, allowing the UPS to cool.	Turn off and unplug the UPS. Clear vents and remove any heat sources. Ensure the airflow around the UPS is not restricted. Wait at least 5 minutes and restart the UPS. If the condition persists, contact your service representative.
 Overload Continuous audible alarm	Power requirements exceed UPS capacity (101–110% for 2 minutes or 111–150% for 30 seconds) or the load is defective.	Turn off and unplug the UPS. Remove some of the equipment from the UPS. Wait at least 5 seconds until all LEDs are off and restart the UPS. You may need to obtain a larger capacity UPS.

Service and Support

If you have any questions or problems with the UPS, call your **Local Distributor** or the **Help Desk** at one of the following telephone numbers and ask for a UPS technical representative.

In the United States	1-800-365-4892
In Canada	1-800-461-9166
All other countries	1-919-870-3149

Please have the following information ready when you call the Help Desk:

- Model number
- Serial number
- Version number (if available)
- Date of failure or problem
- Symptoms of failure or problem
- Customer return address and contact information

If repair is required, you will be given a Returned Material Authorization (RMA) Number. This number must appear on the outside of the package and on the Bill Of Lading (if applicable). Use the original packaging or request packaging from the Help Desk or distributor. Units damaged in shipment as a result of improper packaging are not covered under warranty. A replacement or repair unit will be shipped, freight prepaid for all warrantied units.

NOTE For critical applications, immediate replacement may be available. Call the **Help Desk** for the dealer or distributor nearest you.