



Hewlett Packard
Enterprise

HPE ProLiant ML10 Gen9 Server

Maintenance and Service Guide

Abstract

This guide describes identification and maintenance procedures, diagnostic tools, specifications and requirements for hardware components and software. This guide is for an experienced service technician. Hewlett Packard Enterprise assumes that you are qualified in the servicing of computer equipment, trained in recognizing hazards in products, and are familiar with weight and stability precautions.

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Customer self repair

Hewlett Packard Enterprise products are designed with many Customer Self Repair (CSR) parts to minimize repair time and allow for greater flexibility in performing defective parts replacement. If during the diagnosis period Hewlett Packard Enterprise (or Hewlett Packard Enterprise service providers or service partners) identifies that the repair can be accomplished by the use of a CSR part, Hewlett Packard Enterprise will ship that part directly to you for replacement. There are two categories of CSR parts:

- **Mandatory**—Parts for which customer self repair is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.
- **Optional**—Parts for which customer self repair is optional. These parts are also designed for customer self repair. If, however, you require that Hewlett Packard Enterprise replace them for you, there may or may not be additional charges, depending on the type of warranty service designated for your product.

NOTE: Some Hewlett Packard Enterprise parts are not designed for customer self repair. In order to satisfy the customer warranty, Hewlett Packard Enterprise requires that an authorized service provider replace the part. These parts are identified as "No" in the Illustrated Parts Catalog.

Based on availability and where geography permits, CSR parts will be shipped for next business day delivery. Same day or four-hour delivery may be offered at an additional charge where geography permits. If assistance is required, you can call the Hewlett Packard Enterprise Support Center and a technician will help you over the telephone. Hewlett Packard Enterprise specifies in the materials shipped with a replacement CSR part whether a defective part must be returned to Hewlett Packard Enterprise. In cases where it is required to return the defective part to Hewlett Packard Enterprise, you must ship the defective part back to Hewlett Packard Enterprise within a defined period of time, normally five (5) business days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective part may result in Hewlett Packard Enterprise billing you for the replacement. With a customer self repair, Hewlett Packard Enterprise will pay all shipping and part return costs and determine the courier/carrier to be used.

For more information about the Hewlett Packard Enterprise CSR program, contact your local service provider. For the North American program, go to the Hewlett Packard Enterprise CSR website (<http://www.hpe.com/support/selfrepair>).

Parts only warranty service

Your Hewlett Packard Enterprise Limited Warranty may include a parts only warranty service. Under the terms of parts only warranty service, Hewlett Packard Enterprise will provide replacement parts free of charge.

For parts only warranty service, CSR part replacement is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.

Réparation par le client (CSR)

Les produits Hewlett Packard Enterprise comportent de nombreuses pièces CSR (Customer Self Repair = réparation par le client) afin de minimiser les délais de réparation et faciliter le remplacement des pièces défectueuses. Si pendant la période de diagnostic, Hewlett Packard Enterprise (ou ses partenaires ou mainteneurs agréés) détermine que la réparation peut être effectuée à l'aide d'une pièce CSR, Hewlett Packard Enterprise vous l'envoie directement. Il existe deux catégories de pièces CSR :

- **Obligatoire**—Pièces pour lesquelles la réparation par le client est obligatoire. Si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, les coûts de déplacement et main d'œuvre du service vous seront facturés.
- **Facultatif**—Pièces pour lesquelles la réparation par le client est facultative. Ces pièces sont également conçues pour permettre au client d'effectuer lui-même la réparation. Toutefois, si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, l'intervention peut ou non vous être facturée, selon le type de garantie applicable à votre produit.

REMARQUE: Certaines pièces Hewlett Packard Enterprise ne sont pas conçues pour permettre au client d'effectuer lui-même la réparation. Pour que la garantie puisse s'appliquer, Hewlett Packard Enterprise exige que le remplacement de la pièce soit effectué par un Mainteneur Agréé. Ces pièces sont identifiées par la mention "Non" dans le Catalogue illustré.

Les pièces CSR sont livrées le jour ouvré suivant, dans la limite des stocks disponibles et selon votre situation géographique. Si votre situation géographique le permet et que vous demandez une livraison le jour même ou dans les 4 heures, celle-ci vous sera facturée. Pour toute assistance, appelez le Centre d'assistance Hewlett Packard Enterprise pour qu'un technicien vous aide au téléphone. Dans les documents envoyés avec la pièce de rechange CSR, Hewlett Packard Enterprise précise s'il est nécessaire de lui retourner la pièce défectueuse. Si c'est le cas, vous devez le faire dans le délai indiqué, généralement cinq (5) jours ouvrés. La pièce et sa documentation doivent être retournées dans l'emballage fourni. Si vous ne retournez pas la pièce défectueuse, Hewlett Packard Enterprise se réserve le droit de vous facturer les coûts de remplacement. Dans le cas d'une pièce CSR, Hewlett Packard Enterprise supporte l'ensemble des frais d'expédition et de retour, et détermine la société de courses ou le transporteur à utiliser.

Pour plus d'informations sur le programme CSR de Hewlett Packard Enterprise, contactez votre Mainteneur Agréé local. Pour plus d'informations sur ce programme en Amérique du Nord, consultez le site Web Hewlett Packard Enterprise (<http://www.hpe.com/support/selfrepair>).

Service de garantie "pièces seules"

Votre garantie limitée Hewlett Packard Enterprise peut inclure un service de garantie "pièces seules". Dans ce cas, les pièces de rechange fournies par Hewlett Packard Enterprise ne sont pas facturées.

Dans le cadre de ce service, la réparation des pièces CSR par le client est obligatoire. Si vous demandez à Hewlett Packard Enterprise de remplacer ces pièces, les coûts de déplacement et main d'œuvre du service vous seront facturés.

Riparazione da parte del cliente

Per abbreviare i tempi di riparazione e garantire una maggiore flessibilità nella sostituzione di parti difettose, i prodotti Hewlett Packard Enterprise sono realizzati con numerosi componenti che possono essere riparati direttamente dal cliente (CSR, Customer Self Repair). Se in fase di diagnostica Hewlett Packard Enterprise (o un centro di servizi o di assistenza Hewlett Packard Enterprise) identifica il guasto come riparabile mediante un ricambio CSR, Hewlett Packard Enterprise lo spedisce direttamente al cliente per la sostituzione. Vi sono due categorie di parti CSR:

- **Obbligatorie**—Parti che devono essere necessariamente riparate dal cliente. Se il cliente ne affida la riparazione ad Hewlett Packard Enterprise, deve sostenere le spese di spedizione e di manodopera per il servizio.
- **Opzionali**—Parti la cui riparazione da parte del cliente è facoltativa. Si tratta comunque di componenti progettati per questo scopo. Se tuttavia il cliente ne richiede la sostituzione ad Hewlett Packard Enterprise, potrebbe dover sostenere spese aggiuntive a seconda del tipo di garanzia previsto per il prodotto.

NOTA: alcuni componenti Hewlett Packard Enterprise non sono progettati per la riparazione da parte del cliente. Per rispettare la garanzia, Hewlett Packard Enterprise richiede che queste parti siano sostituite da un centro di assistenza autorizzato. Tali parti sono identificate da un "No" nel Catalogo illustrato dei componenti.

In base alla disponibilità e alla località geografica, le parti CSR vengono spedite con consegna entro il giorno lavorativo seguente. La consegna nel giorno stesso o entro quattro ore è offerta con un supplemento di costo solo in alcune zone. In caso di necessità si può richiedere l'assistenza telefonica di un addetto del centro di supporto tecnico Hewlett Packard Enterprise. Nel materiale fornito con una parte di ricambio CSR, Hewlett Packard Enterprise specifica se il cliente deve restituire dei componenti. Qualora sia richiesta la resa ad Hewlett Packard Enterprise del componente difettoso, lo si deve spedire ad Hewlett Packard Enterprise entro un determinato periodo di tempo, generalmente cinque (5) giorni lavorativi. Il componente difettoso deve essere restituito con la documentazione associata nell'imballo di spedizione fornito. La mancata restituzione del componente può comportare la fatturazione del ricambio da parte di Hewlett Packard Enterprise. Nel caso di riparazione da parte del cliente, Hewlett Packard Enterprise sostiene tutte le spese di spedizione e resa e sceglie il corriere/vettore da utilizzare.

Per ulteriori informazioni sul programma CSR di Hewlett Packard Enterprise, contattare il centro di assistenza di zona. Per il programma in Nord America fare riferimento al sito Web (<http://www.hpe.com/support/selfrepair>).

Servizio di garanzia per i soli componenti

La garanzia limitata Hewlett Packard Enterprise può includere un servizio di garanzia per i soli componenti. Nei termini di garanzia del servizio per i soli componenti, Hewlett Packard Enterprise fornirà gratuitamente le parti di ricambio.

Per il servizio di garanzia per i soli componenti è obbligatoria la formula CSR che prevede la riparazione da parte del cliente. Se il cliente invece richiede la sostituzione ad Hewlett Packard Enterprise dovrà sostenere le spese di spedizione e di manodopera per il servizio.

Customer Self Repair

Hewlett Packard Enterprise Produkte enthalten viele CSR-Teile (Customer Self Repair), um Reparaturzeiten zu minimieren und höhere Flexibilität beim Austausch defekter Bauteile zu ermöglichen. Wenn Hewlett Packard Enterprise (oder ein Hewlett Packard Enterprise Servicepartner) bei der Diagnose feststellt, dass das Produkt mithilfe eines CSR-Teils repariert werden kann, sendet Ihnen Hewlett Packard Enterprise dieses Bauteil zum Austausch direkt zu. CSR-Teile werden in zwei Kategorien unterteilt:

- **Zwingend**—Teile, für die das Customer Self Repair-Verfahren zwingend vorgegeben ist. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.
- **Optional**—Teile, für die das Customer Self Repair-Verfahren optional ist. Diese Teile sind auch für Customer Self Repair ausgelegt. Wenn Sie jedoch den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen möchten, können bei diesem Service je nach den für Ihr Produkt vorgesehenen Garantiebedingungen zusätzliche Kosten anfallen.

HINWEIS: Einige Hewlett Packard Enterprise Teile sind nicht für Customer Self Repair ausgelegt. Um den Garantieanspruch des Kunden zu erfüllen, muss das Teil von einem Hewlett Packard Enterprise Servicepartner ersetzt werden. Im illustrierten Teilekatalog sind diese Teile mit „No“ bzw. „Nein“ gekennzeichnet.

CSR-Teile werden abhängig von der Verfügbarkeit und vom Lieferziel am folgenden Geschäftstag geliefert. Für bestimmte Standorte ist eine Lieferung am selben Tag oder innerhalb von vier Stunden gegen einen Aufpreis verfügbar. Wenn Sie Hilfe benötigen, können Sie das Hewlett Packard Enterprise

Support Center anrufen und sich von einem Mitarbeiter per Telefon helfen lassen. Den Materialien von Hewlett Packard Enterprise, die mit einem CSR-Ersatzteil geliefert werden, können Sie entnehmen, ob das defekte Teil an Hewlett Packard Enterprise zurückgeschickt werden muss. Wenn es erforderlich ist, das defekte Teil an Hewlett Packard Enterprise zurückzuschicken, müssen Sie dies innerhalb eines vorgegebenen Zeitraums tun, in der Regel innerhalb von fünf (5) Geschäftstagen. Das defekte Teil muss mit der zugehörigen Dokumentation in der Verpackung zurückgeschickt werden, die im Lieferumfang enthalten ist. Wenn Sie das defekte Teil nicht zurückschicken, kann Hewlett Packard Enterprise Ihnen das Ersatzteil in Rechnung stellen. Im Falle von Customer Self Repair kommt Hewlett Packard Enterprise für alle Kosten für die Lieferung und Rücksendung auf und bestimmt den Kurier-/Frachtdienst.

Weitere Informationen über das Hewlett Packard Enterprise Customer Self Repair Programm erhalten Sie von Ihrem Servicepartner vor Ort. Informationen über das CSR-Programm in Nordamerika finden Sie auf der Hewlett Packard Enterprise Website unter (<http://www.hpe.com/support/selfrepair>).

Parts-only Warranty Service (Garantieservice ausschließlich für Teile)

Ihre Hewlett Packard Enterprise Garantie umfasst möglicherweise einen Parts-only Warranty Service (Garantieservice ausschließlich für Teile). Gemäß den Bestimmungen des Parts-only Warranty Service stellt Hewlett Packard Enterprise Ersatzteile kostenlos zur Verfügung.

Für den Parts-only Warranty Service ist das CSR-Verfahren zwingend vorgegeben. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.

Reparaciones del propio cliente

Los productos de Hewlett Packard Enterprise incluyen muchos componentes que el propio usuario puede reemplazar (Customer Self Repair, CSR) para minimizar el tiempo de reparación y ofrecer una mayor flexibilidad a la hora de realizar sustituciones de componentes defectuosos. Si, durante la fase de diagnóstico, Hewlett Packard Enterprise (o los proveedores o socios de servicio de Hewlett Packard Enterprise) identifica que una reparación puede llevarse a cabo mediante el uso de un componente CSR, Hewlett Packard Enterprise le enviará dicho componente directamente para que realice su sustitución. Los componentes CSR se clasifican en dos categorías:

- **Obligatorio**—Componentes cuya reparación por parte del usuario es obligatoria. Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.
- **Opcional**—Componentes cuya reparación por parte del usuario es opcional. Estos componentes también están diseñados para que puedan ser reparados por el usuario. Sin embargo, si precisa que Hewlett Packard Enterprise realice su sustitución, puede o no conllevar costes adicionales, dependiendo del tipo de servicio de garantía correspondiente al producto.

NOTA: Algunos componentes de Hewlett Packard Enterprise no están diseñados para que puedan ser reparados por el usuario. Para que el usuario haga valer su garantía, Hewlett Packard Enterprise pone como condición que un proveedor de servicios autorizado realice la sustitución de estos componentes. Dichos componentes se identifican con la palabra "No" en el catálogo ilustrado de componentes.

Según la disponibilidad y la situación geográfica, los componentes CSR se enviarán para que lleguen a su destino al siguiente día laborable. Si la situación geográfica lo permite, se puede solicitar la entrega en el mismo día o en cuatro horas con un coste adicional. Si precisa asistencia técnica, puede llamar al Centro de asistencia técnica de Hewlett Packard Enterprise y recibirá ayuda telefónica por parte de un técnico. Con el envío de materiales para la sustitución de componentes CSR, Hewlett Packard Enterprise especificará si los componentes defectuosos deberán devolverse a Hewlett Packard Enterprise. En aquellos casos en los que sea necesario devolver algún componente a Hewlett Packard Enterprise,

deberá hacerlo en el periodo de tiempo especificado, normalmente cinco días laborables. Los componentes defectuosos deberán devolverse con toda la documentación relacionada y con el embalaje de envío. Si no enviara el componente defectuoso requerido, Hewlett Packard Enterprise podrá cobrarle por el de sustitución. En el caso de todas sustituciones que lleve a cabo el cliente, Hewlett Packard Enterprise se hará cargo de todos los gastos de envío y devolución de componentes y escogerá la empresa de transporte que se utilice para dicho servicio.

Para obtener más información acerca del programa de Reparaciones del propio cliente de Hewlett Packard Enterprise, póngase en contacto con su proveedor de servicios local. Si está interesado en el programa para Norteamérica, visite la página web de Hewlett Packard Enterprise CSR (<http://www.hpe.com/support/selfrepair>).

Servicio de garantía exclusivo de componentes

La garantía limitada de Hewlett Packard Enterprise puede que incluya un servicio de garantía exclusivo de componentes. Según las condiciones de este servicio exclusivo de componentes, Hewlett Packard Enterprise le facilitará los componentes de repuesto sin cargo adicional alguno.

Para este servicio de garantía exclusivo de componentes, es obligatoria la sustitución de componentes por parte del usuario (CSR). Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.

Customer Self Repair

Veel onderdelen in Hewlett Packard Enterprise producten zijn door de klant zelf te repareren, waardoor de reparatieduur tot een minimum beperkt kan blijven en de flexibiliteit in het vervangen van defecte onderdelen groter is. Deze onderdelen worden CSR-onderdelen (Customer Self Repair) genoemd. Als Hewlett Packard Enterprise (of een Hewlett Packard Enterprise Service Partner) bij de diagnose vaststelt dat de reparatie kan worden uitgevoerd met een CSR-onderdeel, verzendt Hewlett Packard Enterprise dat onderdeel rechtstreeks naar u, zodat u het defecte onderdeel daarmee kunt vervangen. Er zijn twee categorieën CSR-onderdelen:

- **Verplicht**—Onderdelen waarvoor reparatie door de klant verplicht is. Als u Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, worden u voor deze service reiskosten en arbeidsloon in rekening gebracht.
- **Optioneel**—Onderdelen waarvoor reparatie door de klant optioneel is. Ook deze onderdelen zijn ontworpen voor reparatie door de klant. Als u echter Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, kunnen daarvoor extra kosten in rekening worden gebracht, afhankelijk van het type garantieservice voor het product.

OPMERKING: Sommige Hewlett Packard Enterprise onderdelen zijn niet ontwikkeld voor reparatie door de klant. In verband met de garantievoorwaarden moet het onderdeel door een geautoriseerde Service Partner worden vervangen. Deze onderdelen worden in de geïllustreerde onderdelencatalogus aangemerkt met "Nee".

Afhankelijk van de leverbaarheid en de locatie worden CSR-onderdelen verzonden voor levering op de eerstvolgende werkdag. Levering op dezelfde dag of binnen vier uur kan tegen meerkosten worden aangeboden, indien dit mogelijk is gezien de locatie. Indien assistentie is gewenst, belt u het Hewlett Packard Enterprise Support Center om via de telefoon ondersteuning van een technicus te ontvangen. Hewlett Packard Enterprise vermeldt in de documentatie bij het vervangende CSR-onderdeel of het defecte onderdeel aan Hewlett Packard Enterprise moet worden geretourneerd. Als het defecte onderdeel aan Hewlett Packard Enterprise moet worden teruggezonden, moet u het defecte onderdeel binnen een bepaalde periode, gewoonlijk vijf (5) werkdagen, retourneren aan Hewlett Packard Enterprise. Het defecte onderdeel moet met de bijbehorende documentatie worden geretourneerd in het meegeleverde verpakkingsmateriaal. Als u het defecte onderdeel niet terugzendt, kan Hewlett Packard

Enterprise u voor het vervangende onderdeel kosten in rekening brengen. Bij reparatie door de klant betaalt Hewlett Packard Enterprise alle verzendkosten voor het vervangende en geretourneerde onderdeel en kiest Hewlett Packard Enterprise zelf welke koerier/transportonderneming hiervoor wordt gebruikt.

Neem contact op met een Service Partner voor meer informatie over het Customer Self Repair programma van Hewlett Packard Enterprise. Informatie over Service Partners vindt u op de Hewlett Packard Enterprise website (<http://www.hpe.com/support/selfrepair>).

Garantieservice "Parts Only"

Het is mogelijk dat de Hewlett Packard Enterprise garantie alleen de garantieservice "Parts Only" omvat. Volgens de bepalingen van de Parts Only garantieservice zal Hewlett Packard Enterprise kosteloos vervangende onderdelen ter beschikking stellen.

Voor de Parts Only garantieservice is vervanging door CSR-onderdelen verplicht. Als u Hewlett Packard Enterprise verzoekt deze onderdelen voor u te vervangen, worden u voor deze service reiskosten en arbeidsloon in rekening gebracht.

Reparo feito pelo cliente

Os produtos da Hewlett Packard Enterprise são projetados com muitas peças para reparo feito pelo cliente (CSR) de modo a minimizar o tempo de reparo e permitir maior flexibilidade na substituição de peças com defeito. Se, durante o período de diagnóstico, a Hewlett Packard Enterprise (ou fornecedores/parceiros da Hewlett Packard Enterprise) concluir que o reparo pode ser efetuado pelo uso de uma peça CSR, a Hewlett Packard Enterprise enviará a peça diretamente ao cliente. Há duas categorias de peças CSR:

- **Obrigatória**—Peças cujo reparo feito pelo cliente é obrigatório. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.
- **Opcional**—Peças cujo reparo feito pelo cliente é opcional. Essas peças também são projetadas para o reparo feito pelo cliente. No entanto, se desejar que a Hewlett Packard Enterprise as substitua, pode haver ou não a cobrança de taxa adicional, dependendo do tipo de serviço de garantia destinado ao produto.

OBSERVAÇÃO: Algumas peças da Hewlett Packard Enterprise não são projetadas para o reparo feito pelo cliente. A fim de cumprir a garantia do cliente, a Hewlett Packard Enterprise exige que um técnico autorizado substitua a peça. Essas peças estão identificadas com a marca "No" (Não), no catálogo de peças ilustrado.

Conforme a disponibilidade e o local geográfico, as peças CSR serão enviadas no primeiro dia útil após o pedido. Onde as condições geográficas permitirem, a entrega no mesmo dia ou em quatro horas pode ser feita mediante uma taxa adicional. Se precisar de auxílio, entre em contato com o Centro de suporte técnico da Hewlett Packard Enterprise para que um técnico o ajude por telefone. A Hewlett Packard Enterprise especifica nos materiais fornecidos com a peça CSR de reposição se a peça com defeito deve ser devolvida à Hewlett Packard Enterprise. Nos casos em que isso for necessário, é preciso enviar a peça com defeito à Hewlett Packard Enterprise, você deverá enviar a peça com defeito de volta para a Hewlett Packard Enterprise dentro do período de tempo definido, normalmente em 5 (cinco) dias úteis. A peça com defeito deve ser enviada com a documentação correspondente no material de transporte fornecido. Caso não o faça, a Hewlett Packard Enterprise poderá cobrar a reposição. Para as peças de reparo feito pelo cliente, a Hewlett Packard Enterprise paga todas as despesas de transporte e de devolução da peça e determina a transportadora/serviço postal a ser utilizado.

Para obter mais informações sobre o programa de reparo feito pelo cliente da Hewlett Packard Enterprise, entre em contato com o fornecedor de serviços local. Para o programa norte-americano, visite o site da Hewlett Packard Enterprise (<http://www.hpe.com/support/selfrepair>).

Serviço de garantia apenas para peças

A garantia limitada da Hewlett Packard Enterprise pode incluir um serviço de garantia apenas para peças. Segundo os termos do serviço de garantia apenas para peças, a Hewlett Packard Enterprise fornece as peças de reposição sem cobrar nenhuma taxa.

No caso desse serviço, a substituição de peças CSR é obrigatória. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.

カスタマーセルフリペア

修理時間を短縮し、故障部品の交換における高い柔軟性を確保するために、Hewlett Packard Enterprise製品には多数のカスタマーセルフリペア（CSR）部品があります。診断の際に、CSR部品を使用すれば修理ができるとHewlett Packard Enterprise（Hewlett Packard EnterpriseまたはHewlett Packard Enterprise正規保守代理店）が判断した場合、Hewlett Packard Enterpriseはその部品を直接、お客様に発送し、お客様に交換していただきます。CSR部品には以下の2種類があります。

- **必須** - カスタマーセルフリペアが必須の部品。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、その修理サービスに関する交通費および人件費がお客様に請求されます。
- **任意** - カスタマーセルフリペアが任意である部品。この部品もカスタマーセルフリペア用です。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、お買い上げの製品に適用される保証サービス内容の範囲内においては、別途費用を負担していただくことなく保証サービスを受けることができます。

注：Hewlett Packard Enterprise製品の一部の部品は、カスタマーセルフリペアの対象外です。製品の保証を継続するためには、Hewlett Packard EnterpriseまたはHewlett Packard Enterprise正規保守代理店による交換作業が必須となります。部品カタログには、当該部品がカスタマーセルフリペア除外品である旨が記載されています。

部品供給が可能な場合、地域によっては、CSR部品を翌営業日に届くように発送します。また、地域によっては、追加費用を負担いただくことにより同日または4時間以内に届くように発送することも可能な場合があります。サポートが必要なときは、Hewlett Packard Enterpriseサポートセンターに電話していただければ、技術者が電話でアドバイスします。交換用のCSR部品または同梱物には、故障部品をHewlett Packard Enterpriseに返送する必要があるかどうかが表示されています。故障部品をHewlett Packard Enterpriseに返送する必要がある場合は、指定期限内（通常は5営業日以内）に故障部品をHewlett Packard Enterpriseに返送してください。故障部品を返送する場合は、届いた時の梱包箱に関連書類とともに入れてください。故障部品を返送しない場合、Hewlett Packard Enterpriseから部品費用が請求されます。カスタマーセルフリペアの際には、Hewlett Packard Enterpriseは送料および部品返送費を全額負担し、使用する宅配便会社や運送会社を指定します。

部品のみ保証サービス

Hewlett Packard Enterprise保証サービスには、部品のみ保証サービスが適用される場合があります。このサービスでは、交換部品は無償で提供されます。

部品のみ保証サービスにおいては、CSR部品をお客様により交換作業していただくことが必須になります。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、その修理サービスに関する交通費および人件費がお客様のご負担となります。

客户自行维修

Hewlett Packard Enterprise 产品提供许多客户自行维修 (CSR) 部件，以尽可能缩短维修时间和在更换缺陷部件方面提供更大的灵活性。如果在诊断期间 Hewlett Packard Enterprise (或Hewlett Packard Enterprise 服务提供商或服务合作伙伴) 确定可以通过使用 CSR 部件完成维修，Hewlett Packard Enterprise 将直接把该部件发送给您进行更换。有两类 CSR 部件：

- **强制性的** — 要求客户必须自行维修的部件。如果您请求 Hewlett Packard Enterprise 更换这些部件，则必须为该服务支付差旅费和人工费用。
- **可选的** — 客户可以选择是否自行维修的部件。这些部件也是为客户自行维修设计的。不过，如果您要求 Hewlett Packard Enterprise 为您更换这些部件，则根据为您的产品指定的保修服务类型，Hewlett Packard Enterprise 可能收取或不再收取任何附加费用。

注：某些 Hewlett Packard Enterprise 部件的设计并未考虑客户自行维修。为了满足客户保修的需要，Hewlett Packard Enterprise 要求授权服务提供商更换相关部件。这些部件在部件图解目录中标记为“否”。

CSR 部件将在下一个工作日发运（取决于备货情况和允许的地理范围）。在允许的地理范围内，可在当天或四小时内发运，但要收取额外费用。如果需要帮助，您可以致电 Hewlett Packard Enterprise 技术支持中心，将会有技术人员通过电话为您提供帮助。Hewlett Packard Enterprise 会在随更换的 CSR 部件发运的材料中指明是否必须将有缺陷的部件返还给 Hewlett Packard Enterprise。如果要求您将有缺陷的部件返还给 Hewlett Packard Enterprise，那么您必须在规定的期限内（通常是五 (5) 个工作日）将缺陷部件发给 Hewlett Packard Enterprise。有缺陷的部件必须随所提供的发运材料中的相关文件一起返还。如果未能送还有缺陷的部件，Hewlett Packard Enterprise 可能会要求您支付更换费用。客户自行维修时，Hewlett Packard Enterprise 将承担所有相关运输和部件返回费用，并指定快递商/承运商。

有关 Hewlett Packard Enterprise 客户自行维修计划的详细信息，请与您当地的服务提供商联系。有关北美地区的计划，请访问 Hewlett Packard Enterprise 网站 (<http://www.hpe.com/support/selfrepair>)。

仅部件保修服务

您的 Hewlett Packard Enterprise 有限保修服务可能涉及仅部件保修服务。根据仅部件保修服务条款的规定，Hewlett Packard Enterprise 将免费提供更换的部件。

仅部件保修服务要求进行 CSR 部件更换。如果您请求 Hewlett Packard Enterprise 更换这些部件，则必须为该服务支付差旅费和人工费用。

客戶自行維修

Hewlett Packard Enterprise 產品設計了許多「客戶自行維修」(CSR) 的零件以減少維修時間，並且使得更換瑕疵零件時能有更大的彈性。如果在診斷期間，Hewlett Packard Enterprise (或 Hewlett Packard Enterprise 服務供應商或維修夥伴) 辨認出此項維修工作可以藉由使用 CSR 零件來完成，則 Hewlett Packard Enterprise 將直接寄送該零件給您作更換。CSR 零件分為兩種類別：

- **強制的** — 客戶自行維修所使用的零件是強制性的。如果您要求 Hewlett Packard Enterprise 更換這些零件，Hewlett Packard Enterprise 將會向您收取此服務所需的外出費用與勞動成本。
- **選購的** — 客戶自行維修所使用的零件是選購的。這些零件也設計用於客戶自行維修之用。不過，如果您要求 Hewlett Packard Enterprise 為您更換，則可能需要也可能不需要負擔額外的費用，端視針對此產品指定的保固服務類型而定。

備註：某些 Hewlett Packard Enterprise 零件沒有消費者可自行維修的設計。為符合客戶保固，Hewlett Packard Enterprise 需要授權的服務供應商更換零件。這些零件在圖示的零件目錄中，被標示為「否」。

基於材料取得及環境允許的情況下，CSR 零件將於下一個工作日以快遞寄送。在環境的允許下當天或四小時內送達，則可能需要額外的費用。若您需要協助，可致電 Hewlett Packard Enterprise 支援中心，會有一位技術人員透過電話來協助您。不論損壞的零件是否必須退回，Hewlett Packard Enterprise 皆會在與 CSR 替換零件一起運送的材料中註明。若要将損壞的零件退回 Hewlett Packard Enterprise，您必須在指定的一段時間內(通常為五(5)個工作天)，將損壞的零件寄回 Hewlett Packard Enterprise。損壞的零件必須與寄送資料中隨附的相關技術文件一併退還。如果無法退還損壞的零件，Hewlett Packard Enterprise 可能要向您收取替換費用。針對客戶自行維修情形，Hewlett Packard Enterprise 將負責所有運費及零件退還費用，並指定使用何家快遞/貨運公司。

如需 Hewlett Packard Enterprise 的 CSR 方案詳細資訊，請連絡您當地的服務供應商。至於北美方案，請參閱 Hewlett Packard Enterprise 的 CSR 網站 [selfrepair](http://www.hpe.com/support/selfrepair) (<http://www.hpe.com/support/selfrepair>)。

僅限零件的保固服務

您的「Hewlett Packard Enterprise 有限保固」可能包含僅限零件的保固服務。在僅限零件的保固服務情況下，Hewlett Packard Enterprise 將免費提供替換零件。

針對僅限零件的保固服務，CSR 零件替換是強制性的。如果您要求 Hewlett Packard Enterprise 更換這些零件，Hewlett Packard Enterprise 將會向您收取此服務所需的外出費用與勞動成本。

고객 셀프 수리

Hewlett Packard Enterprise 제품은 수리 시간을 최소화하고 결함이 있는 부품 교체 시 더욱 융통성을 발휘할 수 있도록 하기 위해 고객 셀프 수리(CSR) 부품을 다량 사용하여 설계되었습니다. 진단 기간 동안 Hewlett Packard Enterprise(또는 Hewlett Packard Enterprise 서비스 공급업체 또는 서비스 협력업체)에서 CSR 부품을 사용하여 수리가 가능하다고 판단되면 Hewlett Packard Enterprise는 해당 부품을 바로 사용자에게 보내어 사용자가 교체할 수 있도록 합니다. CSR 부품에는 두 가지 종류가 있습니다.

- 필수 - 고객 셀프 수리가 의무 사항인 필수 부품. 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 이 서비스에 대한 출장비 및 작업비가 청구됩니다.
- 선택 사항 - 고객 셀프 수리가 선택 사항인 부품. 이 부품들도 고객 셀프 수리가 가능하도록 설계되었습니다. 하지만 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 사용자가 구입한 제품에 해당하는 보증 서비스 유형에 따라 추가 비용 없이 교체가 가능할 수 있습니다.

참고: 일부 Hewlett Packard Enterprise 부품은 고객 셀프 수리가 불가능하도록 설계되었습니다. Hewlett Packard Enterprise는 만족스러운 고객 보증을 위해 공인 서비스 제공업체를 통해 부품을 교체하도록 하고 있습니다. 이러한 부품들은 Illustrated Parts Catalog에 "No"라고 표시되어 있습니다.

CSR 부품은 재고 상태와 지리적 조건이 허용하는 경우 다음 영업일 납품이 가능하도록 배송이 이루어집니다. 지리적 조건이 허용하는 경우 추가 비용이 청구되는 조건으로 당일 또는 4시간 배송이 가능할 수도 있습니다. 도움이 필요하시면 Hewlett Packard Enterprise Support Center로 전화하십시오. 전문 기술자가 전화로 도움을 줄 것입니다. Hewlett Packard Enterprise는 결함이 발생한 부품을 Hewlett Packard Enterprise로 반환해야 하는지 여부를 CSR 교체 부품과 함께 배송된 자료에 지정합니다. 결함이 발생한 부품을 Hewlett Packard Enterprise로 반환해야 하는 경우에는 지정된 기간 내(통상 영업일 기준 5일)에 Hewlett Packard Enterprise로 반환해야 합니다. 이때 결함이 발생한 부품은 제공된 포장 재료에 넣어 관련 설명서와 함께 반환해야 합니다. 결함이 발생한 부품을 반환하지 않는 경우 Hewlett Packard Enterprise가 교체 부품에 대해 비용을 청구할 수 있습니다. 고객 셀프 수리의 경우, Hewlett Packard Enterprise는 모든 운송 및 부품 반환 비용을 부담하며 이용할 운송업체 및 택배 서비스를 결정합니다.

Hewlett Packard Enterprise CSR 프로그램에 대한 자세한 내용은 가까운 서비스 제공업체에 문의하십시오. 북미 지역의 프로그램에 대해서는 Hewlett Packard Enterprise CSR 웹 사이트(<http://www.hpe.com/support/selfrepair>)를 참조하십시오.

부품 제공 보증 서비스

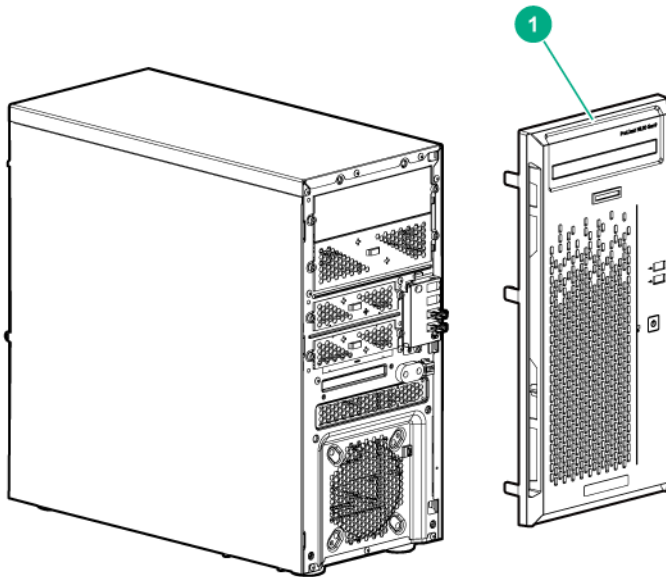
Hewlett Packard Enterprise 제한 보증에는 부품 제공 보증 서비스가 포함될 수 있습니다. 이러한 경우 Hewlett Packard Enterprise는 부품 제공 보증 서비스의 조건에 따라 교체 부품만을 무료로 제공합니다.

부품 제공 보증 서비스 제공 시 CSR 부품 교체는 의무 사항입니다. 사용자가 Hewlett Packard Enterprise에 이 부품의 교체를 요청할 경우 이 서비스에 대한 출장비 및 작업비가 청구됩니다.

Illustrated parts catalog

Mechanical components

Hewlett Packard Enterprise continually improves and changes product parts. For complete and current supported parts information, see the Hewlett Packard Enterprise PartSurfer website (<http://www.hpe.com/info/partssurfer>).



Item	Description	Spare part number	Customer self repair (on page 5)
1	Front bezel	842938-001	Mandatory ¹

¹Mandatory—Parts for which customer self repair is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.

²Optional—Parts for which customer self repair is optional. These parts are also designed for customer self repair. If, however, you require that Hewlett Packard Enterprise replace them for you, there may or may not be additional charges, depending on the type of warranty service designated for your product.

³No—Some Hewlett Packard Enterprise parts are not designed for customer self repair. In order to satisfy the customer warranty, Hewlett Packard Enterprise requires that an authorized service provider replace the part. These parts are identified as "No" in the Illustrated Parts Catalog.

¹Obligatoire—Pièces pour lesquelles le client doit procéder lui-même aux réparations. Si vous demandez à Hewlett Packard Enterprise de procéder au remplacement de ces pièces, les frais de transport et de main d'œuvre pour ce service vous seront facturés.

²Facultatif—Pièces pour lesquelles une réparation par le client est facultative. Ces pièces sont également conçues pour que le client puisse procéder lui-même aux réparations. Cependant, les frais supplémentaires engendrés par le remplacement de ces pièces par Hewlett Packard Enterprise dépendent du type de service de garantie désigné pour votre produit.

³Non—Certaines pièces Hewlett Packard Enterprise ne sont pas conçues pour être remplacées par le client. Afin de se conformer aux exigences de la garantie la garantie du client, Hewlett Packard Enterprise demande à un fournisseur de services agréé de procéder au remplacement de la pièce. Ces pièces sont signalées par le mot « Non » dans le Catalogue de pièces illustré.

¹Obbligatorio—Parti per le quali il cliente è tenuto a effettuare autonomamente la riparazione. Se si richiede l'intervento di Hewlett Packard Enterprise per la sostituzione di queste parti, al cliente verranno addebitate le spese di viaggio e manodopera dell'operazione.

²Facoltativo—Parti per le quali la riparazione in autonomia da parte del cliente è facoltativa. Queste parti sono progettate per consentire anche la riparazione da parte del cliente. Tuttavia, se il cliente richiede l'intervento di Hewlett Packard Enterprise per la sostituzione, potrebbero essere addebitate spese aggiuntive a seconda del tipo di garanzia in assistenza previsto per il prodotto.

³No—Alcune parti Hewlett Packard Enterprise non sono progettate la riparazione in autonomia da parte del cliente. In base a quanto previsto dalla garanzia per il cliente, Hewlett Packard Enterprise richiede l'intervento di un tecnico autorizzato per la sostituzione della parte. Queste parti sono contrassegnate con "No" nel catalogo parti illustrato.

¹Zwingend—Teile, für die das Customer Self Repair-Verfahren zwingend vorgegeben ist. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.

²Optional—Teile, für die das Customer Self Repair-Verfahren optional ist. Diese Teile sind auch für Customer Self Repair ausgelegt. Wenn Sie jedoch den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen möchten, können bei diesem Service je nach den für Ihr Produkt vorgesehenen Garantiebedingungen zusätzliche Kosten anfallen.

³Nein—Einige Hewlett Packard Enterprise Teile sind nicht für Customer Self Repair ausgelegt. Um den Garantieanspruch des Kunden zu erfüllen, muss das Teil von einem Hewlett Packard Enterprise Servicepartner ersetzt werden. Im illustrierten Teilekatalog sind diese Teile mit „No“ bzw. „Nein“ gekennzeichnet.

¹Obligatorio—Componentes cuya reparación por parte del usuario es obligatoria. Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.

²Opcional—Componentes cuya reparación por parte del usuario es opcional. Estos componentes también están diseñados para que puedan ser reparados por el usuario. Sin embargo, si precisa que Hewlett Packard Enterprise realice su sustitución, puede o no conllevar costes adicionales, dependiendo del tipo de servicio de garantía correspondiente al producto.

³No—Algunos componentes de Hewlett Packard Enterprise no están diseñados para que puedan ser reparados por el usuario. Para que el usuario haga valer su garantía, Hewlett Packard Enterprise pone como condición que un proveedor de servicios autorizado realice la sustitución de estos componentes. Dichos componentes se identifican con la palabra "No" en el catálogo ilustrado de componentes.

¹Verplicht—Onderdelen die de klant zelf moet vervangen. Als u Hewlett Packard Enterprise vraagt deze onderdelen te vervangen, worden er reis- en arbeidskosten voor deze service in rekening gebracht.

²Optioneel—Onderdelen die de klant zelf kan vervangen. Deze onderdelen zijn ook ontworpen om door de klant zelf te worden vervangen. Als u Hewlett Packard Enterprise verzoekt om deze te vervangen, kan het zijn dat hiervoor extra kosten in rekening worden gebracht, afhankelijk van het soort garantie dat op uw product van toepassing is.

³Geen—Sommige onderdelen van Hewlett Packard Enterprise zijn niet ontworpen om door de klant zelf te worden vervangen. Om te voldoen aan de garantievoorwaarden eist Hewlett Packard Enterprise dat een geautoriseerde serviceverlener het onderdeel vervangt. Deze onderdelen worden aangeduid met 'Geen' in de geïllustreerde onderdelencatalogus.

¹Obrigatório—Peças cujo reparo feito pelo cliente é obrigatório. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.

²Opcional—Peças cujo reparo feito pelo cliente é opcional. Essas peças também são projetadas para o reparo feito pelo cliente. No entanto, se desejar que a Hewlett Packard Enterprise as substitua, pode haver ou não a cobrança de taxa adicional, dependendo do tipo de serviço de garantia destinado ao produto.

³Não—Algumas peças da Hewlett Packard Enterprise não são projetadas para o reparo feito pelo cliente. A fim de cumprir a garantia do cliente, a Hewlett Packard Enterprise exige que um técnico autorizado substitua a peça. Essas peças estão identificadas com a marca "No" (Não), no catálogo de peças ilustrado.

¹Mandatory : 必須 — カスタマーセルフリペアが必須の部品。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、その修理サービスに関する交通費および人件費がお客様に請求されます。

²Optional : 任意 — カスタマーセルフリペアが任意である部品。この部品もカスタマーセルフリペア用です。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、お買い上げの製品に適用される保証サービス内容の範囲内においては、別途費用を負担していただくことなく保証サービスを受けることができます。

³No : 除外 — Hewlett Packard Enterprise製品の一部の部品は、カスタマーセルフリペアの対象外です。製品の保証を継続するためには、Hewlett Packard EnterpriseまたはHewlett Packard Enterprise正規保守代理店による交換作業が必須となります。部品カタログには、当該部品がカスタマーセルフリペア除外品である旨が記載されています。

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³No — 某些 Hewlett Packard Enterprise 部件的设计并未考虑客户自行维修。为了满足客户保修的需要，Hewlett Packard Enterprise 要求授权服务提供商更换相关部件。这些部件在部件图解目录中标记为“否”。

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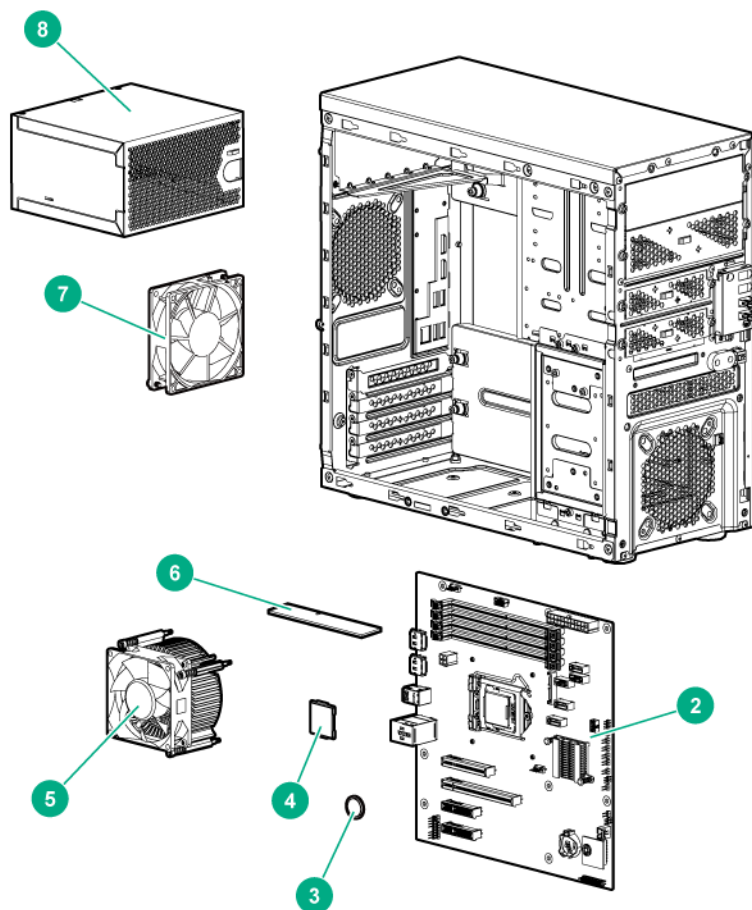
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³No — 일부 Hewlett Packard Enterprise 부품은 고객 셀프 수리가 불가능하도록 설계되었습니다. Hewlett Packard Enterprise는 만족스러운 고객 보증을 위해 공인 서비스 제공업체를 통해 부품을 교체하도록 요구하고 있습니다. 이러한 부품들은 Illustrated Parts Catalog에 "No"라고 표시되어 있습니다.

System components

Hewlett Packard Enterprise continually improves and changes product parts. For complete and current supported parts information, see the Hewlett Packard Enterprise PartSurfer website (<http://www.hpe.com/info/partssurfer>).



Item	Description	Spare part number	Customer self repair (on page 5)
2	System board assembly (includes alcohol pad and thermal compound)	842935-001	Mandatory ¹
3	System battery	234556-001	Optional ²
4	Processors (include alcohol pad and thermal compound)		
	a) 2.00-GHz Intel Xeon E3-1235L v5 processor, 4C, 8 MB, 25 W	842928-001	Optional ²
	b) 3.30-GHz Intel Xeon E3-1225 v5 processor, 4C, 8 MB, 80 W*	839316-001	Optional ²
	c) 3.30-GHz Intel Pentium G4400 processor, 2C, 3 MB, 54 W*	842933-001	Optional ²
	d) 3.50-GHz Intel Pentium G4500 processor, 2C, 3 MB, 51 W*	842934-001	Optional ²
	e) 3.50-GHz Intel Xeon E3-1245 v5 processor, 4C, 8 MB, 80 W*	842929-001	Optional ²

Item	Description	Spare part number	Customer self repair (on page 5)
	f) 3.60-Ghz Intel Pentium G4520 processor, 2C, 3 MB, 51 W*	842927-001	Optional ²
	g) 3.60-Ghz Intel Xeon E3-1275 v5 processor, 4C, 8 MB, 80 W*	842930-001	Optional ²
	h) 3.70-Ghz Intel Pentium i3-6100 processor, 2C, 3 MB, 51 W*	842931-001	Optional ²
	i) 3.80-Ghz Intel Pentium i3-6300 processor, 2C, 4 MB, 51 W*	842932-001	Optional ²
	j) 3.90-Ghz Intel Pentium i3-6320 processor, 2C, 4 MB, 51 W*	842926-001	Optional ²
5	Heatsink	842940-001	Mandatory ¹
6	DIMMs	-	-
	4 GB, single-rank x8 PC4-2133P-E-15	819799-001	Mandatory ¹
	8 GB, single-rank x8 PC4-2133P-E-15*	823170-001	Mandatory ¹
	8 GB, dual-rank x8 PC4-2133P-E-15*	819800-001	Mandatory ¹
	16 GB, dual-rank x8 PC4-2133P-E-15*	819801-001	Mandatory ¹
7	System fan module	842937-001	Mandatory ¹
8	ATX 300 W E-Star 6 Power Supply	842936-001	Mandatory ¹
9	Misc cable kit*	842941-001	Mandatory ¹
	a) Front USB module	-	
	b) Front LEDs and power button module	-	
10	Data cable kit*	842942-001	Mandatory ¹
	a) 140MM, drive SATA cable	-	
	b) 220MM, slim optical drive SATA & power cable	-	
	c) 165mm, drive SATA cable		
11	Extension power cable*	849148-001	Mandatory ¹
12	Ambient temperature sensor cable*	849149-001	Mandatory ¹

*Not shown

¹Mandatory—Parts for which customer self repair is mandatory. If you request Hewlett Packard Enterprise to replace these parts, you will be charged for the travel and labor costs of this service.

²Optional—Parts for which customer self repair is optional. These parts are also designed for customer self repair. If, however, you require that Hewlett Packard Enterprise replace them for you, there may or may not be additional charges, depending on the type of warranty service designated for your product.

³No—Some Hewlett Packard Enterprise parts are not designed for customer self repair. In order to satisfy the customer warranty, Hewlett Packard Enterprise requires that an authorized service provider replace the part. These parts are identified as "No" in the Illustrated Parts Catalog.

¹Obligatoire—Pièces pour lesquelles le client doit procéder lui-même aux réparations. Si vous demandez à Hewlett Packard Enterprise de procéder au remplacement de ces pièces, les frais de transport et de main d'œuvre pour ce service vous seront facturés.

²Facultatif—Pièces pour lesquelles une réparation par le client est facultative. Ces pièces sont également conçues pour que le client puisse procéder lui-même aux réparations. Cependant, les frais supplémentaires engendrés par le remplacement de ces pièces par Hewlett Packard Enterprise dépendent du type de service de garantie désigné pour votre produit.

³Non—Certaines pièces Hewlett Packard Enterprise ne sont pas conçues pour être remplacées par le client. Afin de se conformer aux exigences de la garantie la garantie du client, Hewlett Packard Enterprise demande à un fournisseur de services agréé de procéder au remplacement de la pièce. Ces pièces sont signalées par le mot « Non » dans le Catalogue de pièces illustré.

¹Obbligatorio—Parti per le quali il cliente è tenuto a effettuare autonomamente la riparazione. Se si richiede l'intervento di Hewlett Packard Enterprise per la sostituzione di queste parti, al cliente verranno addebitate le spese di viaggio e manodopera dell'operazione.

²Facoltativo—Parti per le quali la riparazione in autonomia da parte del cliente è facoltativa. Queste parti sono progettate per consentire anche la riparazione da parte del cliente. Tuttavia, se il cliente richiede l'intervento di Hewlett Packard Enterprise per la sostituzione, potrebbero essere addebitate spese aggiuntive a seconda del tipo di garanzia in assistenza previsto per il prodotto.

³No—Alcune parti Hewlett Packard Enterprise non sono progettate la riparazione in autonomia da parte del cliente. In base a quanto previsto dalla garanzia per il cliente, Hewlett Packard Enterprise richiede l'intervento di un tecnico autorizzato per la sostituzione della parte. Queste parti sono contrassegnate con "No" nel catalogo parti illustrato.

¹Zwingend—Teile, für die das Customer Self Repair-Verfahren zwingend vorgegeben ist. Wenn Sie den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen, werden Ihnen die Anfahrt- und Arbeitskosten für diesen Service berechnet.

²Optional—Teile, für die das Customer Self Repair-Verfahren optional ist. Diese Teile sind auch für Customer Self Repair ausgelegt. Wenn Sie jedoch den Austausch dieser Teile von Hewlett Packard Enterprise vornehmen lassen möchten, können bei diesem Service je nach den für Ihr Produkt vorgesehenen Garantiebedingungen zusätzliche Kosten anfallen.

³Nein—Einige Hewlett Packard Enterprise Teile sind nicht für Customer Self Repair ausgelegt. Um den Garantieanspruch des Kunden zu erfüllen, muss das Teil von einem Hewlett Packard Enterprise Servicepartner ersetzt werden. Im illustrierten Teilekatalog sind diese Teile mit „No“ bzw. „Nein“ gekennzeichnet.

¹Obligatorio—Componentes cuya reparación por parte del usuario es obligatoria. Si solicita a Hewlett Packard Enterprise que realice la sustitución de estos componentes, tendrá que hacerse cargo de los gastos de desplazamiento y de mano de obra de dicho servicio.

²Opcional—Componentes cuya reparación por parte del usuario es opcional. Estos componentes también están diseñados para que puedan ser reparados por el usuario. Sin embargo, si precisa que Hewlett Packard Enterprise realice su sustitución, puede o no conllevar costes adicionales, dependiendo del tipo de servicio de garantía correspondiente al producto.

³No—Algunos componentes de Hewlett Packard Enterprise no están diseñados para que puedan ser reparados por el usuario. Para que el usuario haga valer su garantía, Hewlett Packard Enterprise pone como condición que un proveedor de servicios autorizado realice la sustitución de estos componentes. Dichos componentes se identifican con la palabra "No" en el catálogo ilustrado de componentes.

¹Verplicht—Onderdelen die de klant zelf moet vervangen. Als u Hewlett Packard Enterprise vraagt deze onderdelen te vervangen, worden er reis- en arbeidskosten voor deze service in rekening gebracht.

²Optioneel—Onderdelen die de klant zelf kan vervangen. Deze onderdelen zijn ook ontworpen om door de klant zelf te worden vervangen. Als u Hewlett Packard Enterprise verzoekt om deze te vervangen, kan het zijn dat hiervoor extra kosten in rekening worden gebracht, afhankelijk van het soort garantie dat op uw product van toepassing is.

³Geen—Sommige onderdelen van Hewlett Packard Enterprise zijn niet ontworpen om door de klant zelf te worden vervangen. Om te voldoen aan de garantievoorwaarden eist Hewlett Packard Enterprise dat een geautoriseerde serviceverlener het onderdeel vervangt. Deze onderdelen worden aangeduid met 'Geen' in de geïllustreerde onderdelencatalogus.

¹Obrigatório—Peças cujo reparo feito pelo cliente é obrigatório. Se desejar que a Hewlett Packard Enterprise substitua essas peças, serão cobradas as despesas de transporte e mão-de-obra do serviço.

²Opcional—Peças cujo reparo feito pelo cliente é opcional. Essas peças também são projetadas para o reparo feito pelo cliente. No entanto, se desejar que a Hewlett Packard Enterprise as substitua, pode haver ou não a cobrança de taxa adicional, dependendo do tipo de serviço de garantia destinado ao produto.

³Não—Algumas peças da Hewlett Packard Enterprise não são projetadas para o reparo feito pelo cliente. A fim de cumprir a garantia do cliente, a Hewlett Packard Enterprise exige que um técnico autorizado substitua a peça. Essas peças estão identificadas com a marca "No" (Não), no catálogo de peças ilustrado.

¹Mandatory : 必須 — カスタマーセルフリペアが必須の部品。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、その修理サービスに関する交通費および人件費がお客様に請求されます。

²Optional : 任意 — カスタマーセルフリペアが任意である部品。この部品もカスタマーセルフリペア用です。当該部品について、もしもお客様がHewlett Packard Enterpriseに交換作業を依頼される場合には、お買い上げの製品に適用される保証サービス内容の範囲内においては、別途費用を負担していただくことなく保証サービスを受けることができます。

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Removal and replacement procedures

Required tools

You need the following items for some procedures:

- T-10/T-15 Torx screwdriver
- Phillips screwdriver

Safety considerations

Before performing service procedures, review all the safety information.

Preventing electrostatic discharge

To prevent damaging the system, be aware of the precautions you need to follow when setting up the system or handling parts. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

To prevent electrostatic damage:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Symbols on equipment

The following symbols may be placed on equipment to indicate the presence of potentially hazardous conditions.



This symbol indicates the presence of hazardous energy circuits or electric shock hazards. Refer all servicing to qualified personnel.

WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure. Refer all maintenance, upgrades, and servicing to qualified personnel.



This symbol indicates the presence of electric shock hazards. The area contains no user or field serviceable parts. Do not open for any reason.

WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure.



This symbol on an RJ-45 receptacle indicates a network interface connection.

WARNING: To reduce the risk of electric shock, fire, or damage to the equipment, do not plug telephone or telecommunications connectors into this receptacle.



This symbol indicates the presence of a hot surface or hot component. If this surface is contacted, the potential for injury exists.

WARNING: To reduce the risk of injury from a hot component, allow the surface to cool before touching.



This symbol indicates that the component exceeds the recommended weight for one individual to handle safely.

WARNING: To reduce the risk of personal injury or damage to the equipment, observe local occupational health and safety requirements and guidelines for manual material handling.



These symbols, on power supplies or systems, indicate that the equipment is supplied by multiple sources of power.

WARNING: To reduce the risk of injury from electric shock, remove all power cords to completely disconnect power from the system.

Server warnings and cautions



WARNING: This server is very heavy. To reduce the risk of personal injury or damage to the equipment:

- Observe local occupational health and safety requirements and guidelines for manual material handling.
- Get help to lift and stabilize the product during installation or removal, especially when the product is not fastened to the rails. Hewlett Packard Enterprise recommends that a minimum of two people are required for all rack server installations. A third person may be required to help align the server if the server is installed higher than chest level.
- Use caution when installing the server in or removing the server from the rack; it is unstable when not fastened to the rails.



WARNING: To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.



WARNING: To reduce the risk of personal injury, electric shock, or damage to the equipment, remove the power cord to remove power from the server. The front panel Power On/Standby button does not completely shut off system power. Portions of the power supply and some internal circuitry remain active until AC power is removed.



CAUTION: Protect the server from power fluctuations and temporary interruptions with a regulating uninterruptible power supply. This device protects the hardware from damage caused by power surges and voltage spikes and keeps the system in operation during a power failure.



CAUTION: Do not operate the server for long periods with the access panel open or removed. Operating the server in this manner results in improper airflow and improper cooling that can lead to thermal damage.

Preparation procedures

To access some components and perform certain service procedures, you must perform one or more of the following procedures:

- Power down the server (on page 24).
- Remove the access panel (on page 24).
- Remove the tower bezel ("Tower bezel" on page 25).

Power down the server

Before powering down the server for any upgrade or maintenance procedures, perform a backup of critical server data and programs.



WARNING: To reduce the risk of personal injury, electric shock, or damage to the equipment, remove the power cord to remove power from the server. The front panel Power On/Standby button does not completely shut off system power. Portions of the power supply and some internal circuitry remain active until AC power is removed.



IMPORTANT: When the server is in standby mode, auxiliary power is still being provided to the system.

To power down the server, use one of the following methods:

- Press and release the Power On/Standby button.
This method initiates a controlled shutdown of applications and the OS before the server enters standby mode.
- Press and hold the Power On/Standby button for more than 4 seconds to force the server to enter standby mode.
This method forces the server to enter standby mode without properly exiting applications and the OS. If an application stops responding, you can use this method to force a shutdown.
- Use the Turn power off command in Intel AMT WebUI.
This method may cause user application data loss. The command goes directly to the system hardware and does not allow the operating system to shut down gracefully.

Before proceeding, verify the server is in standby mode by observing that the system power LED is amber.

Remove the access panel



WARNING: To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.



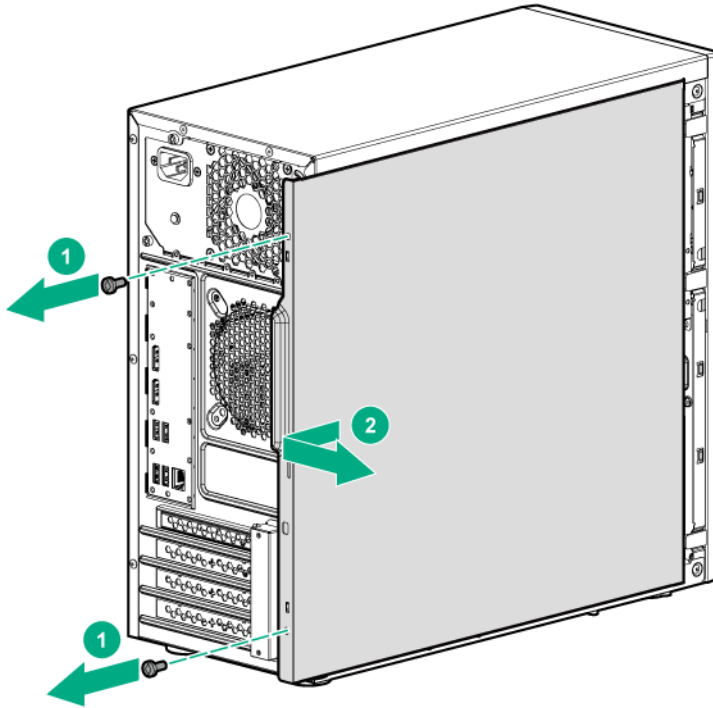
CAUTION: For proper cooling, do not operate the server without the access panel, baffles, expansion slot covers, or blanks installed. If the server supports hot-plug components, minimize the amount of time the access panel is open.



CAUTION: To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel:
 - a. Loosen the access panel screws.
 - b. Slide the access panel back.

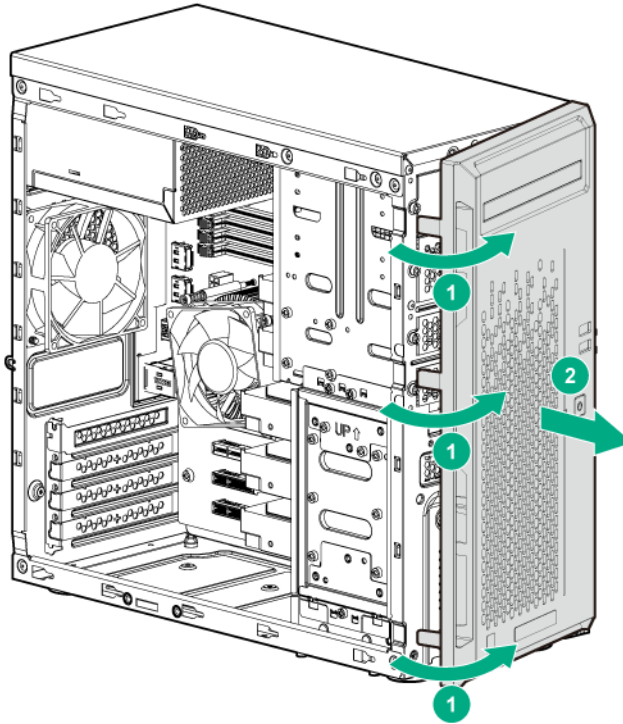
- c. Lift the access panel away from the chassis.



Tower bezel

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove all USB devices from the front I/O assembly.

5. Open the tower bezel.



Hard drives

Drive 1 and 2 in the drive bays

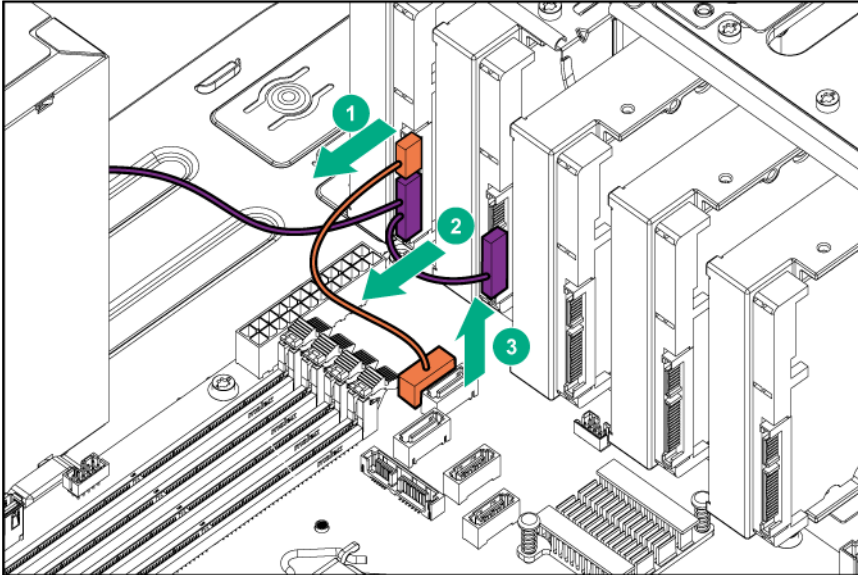


CAUTION: To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

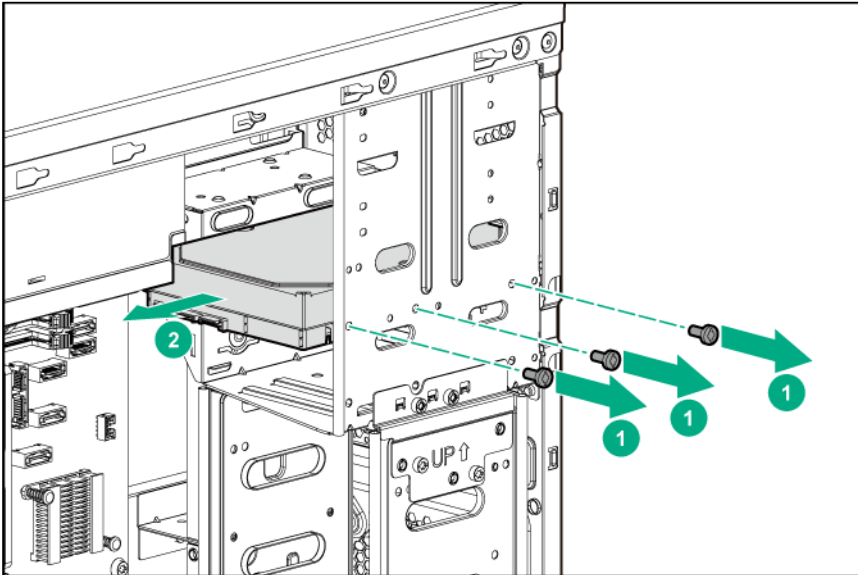
To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. To disconnect power and SATA cables from drive 1 and the system board, do the following:
 - a. Disconnect SATA cable from drive 1.
 - b. Disconnect power cable from drive 1.

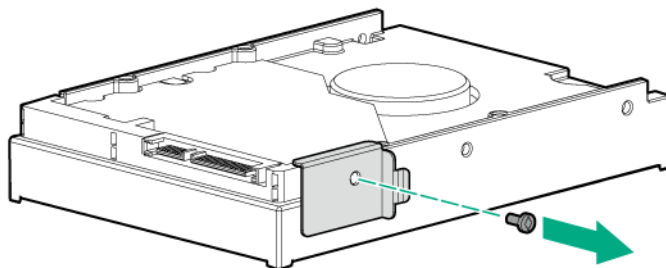
- c. Disconnect SATA cable from SATA 1 connector on the system board.



5. Remove the drive from bay 1.



6. Remove the drive support bracket from the drive.
Retain the support bracket for future use.



To replace the component, reverse the removal procedure.

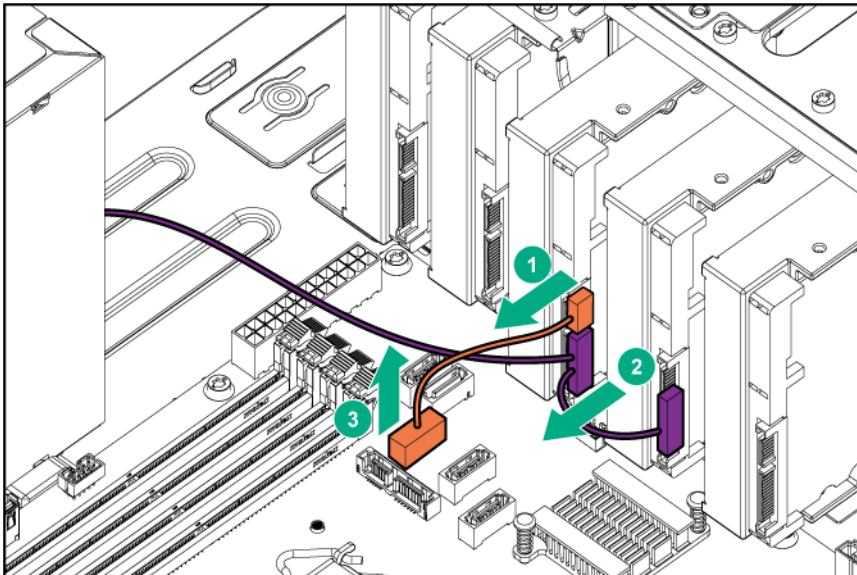
Drive 3 through 5 in the drive cage



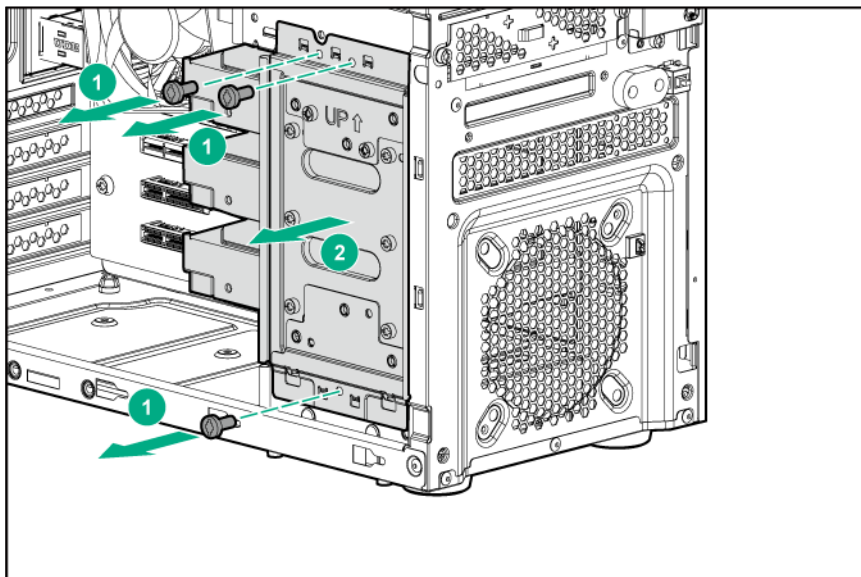
CAUTION: To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

To remove the component:

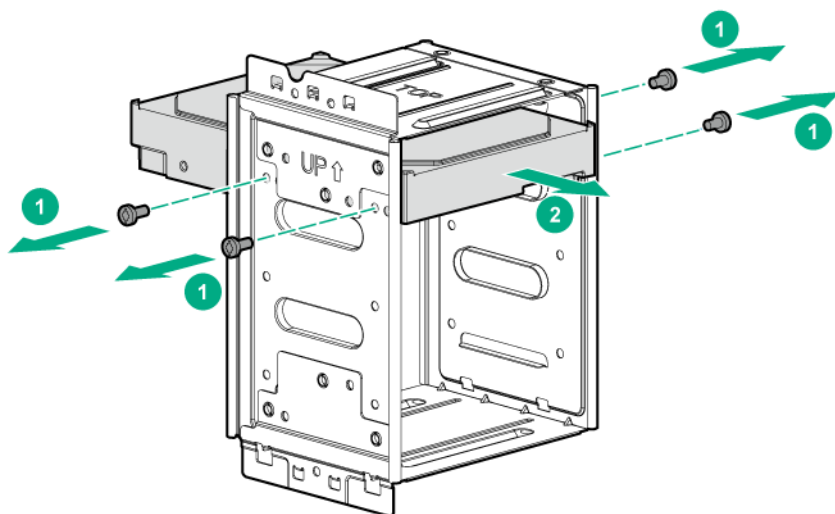
1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. To disconnect power and SATA cables from drive 3 and the system board, do the following:
 - a. Disconnect SATA cable from drive 3.
 - b. Disconnect power cable from drive 3.
 - c. Disconnect SATA cable from SATA 3 connector on the system board.



5. Remove the drive cage from the chassis.



6. Remove the drive from the drive cage.



To replace the component, reverse the removal procedure.

Drive 6 in the drive enablement option

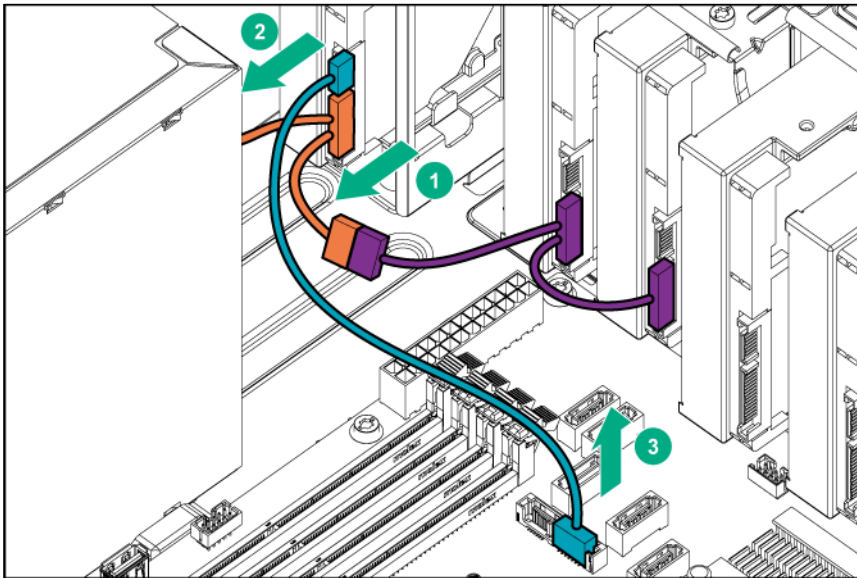


CAUTION: To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

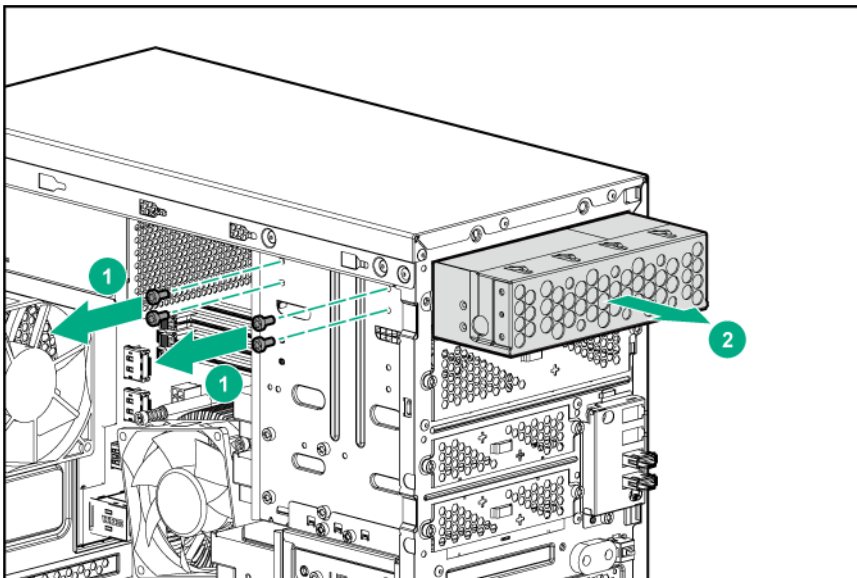
To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).

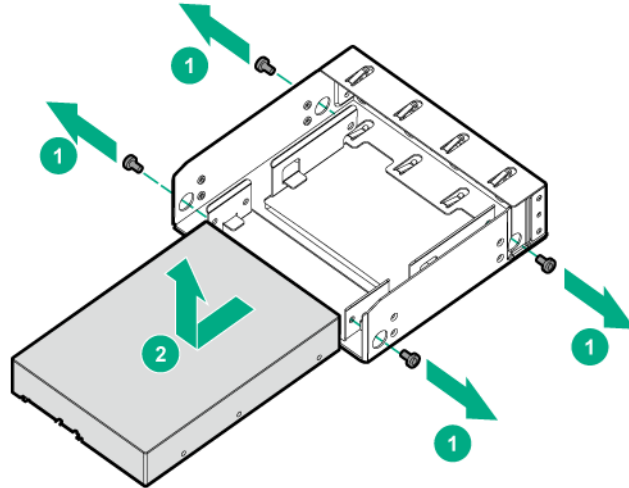
4. Remove the tower bezel ("Tower bezel" on page 25).
5. To disconnect power and SATA cables from drive 6 and the system board, do the following:
 - a. Disconnect SATA cable from drive 6.
 - b. Disconnect power cable from drive 6.
 - c. Disconnect SATA cable from the system board.



6. Remove the drive cage from the chassis.



7. Remove the drive from the drive cage.



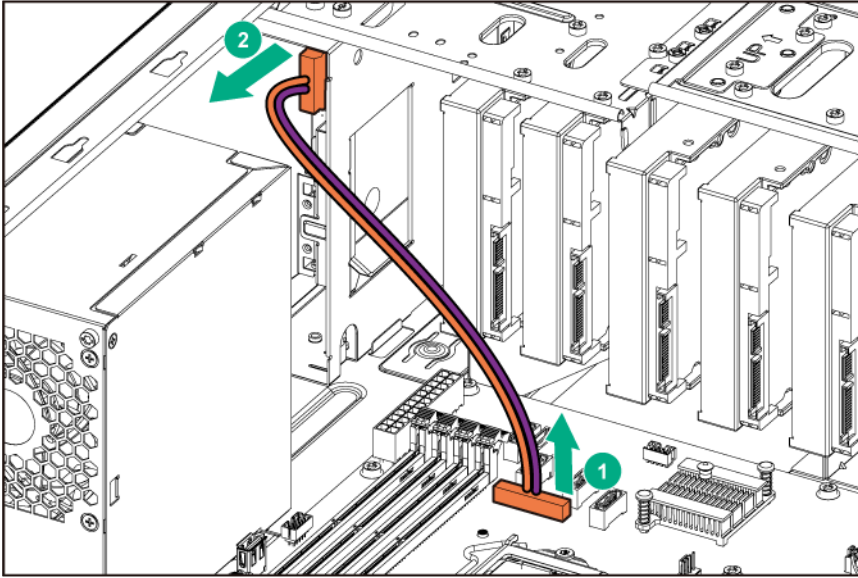
To replace the component, reverse the removal procedure.

Slim optical drive

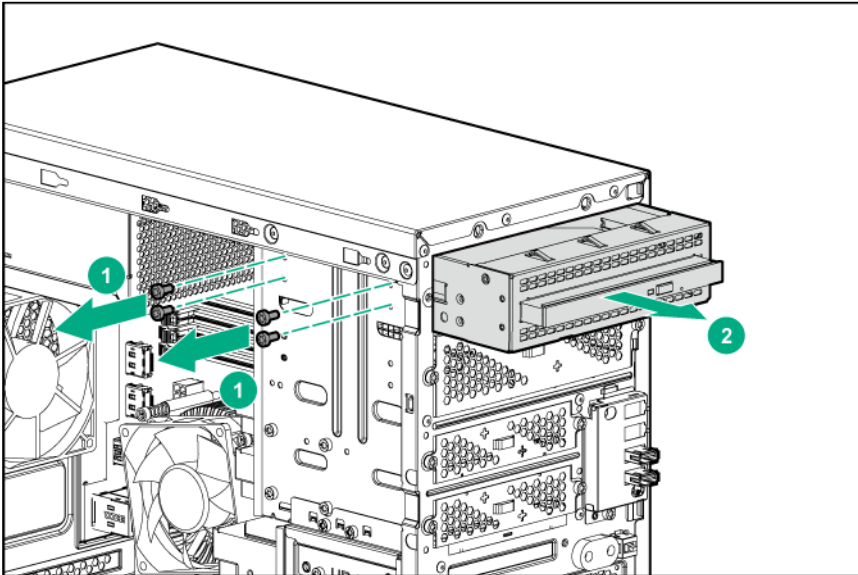
To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove the tower bezel ("Tower bezel" on page 25).
5. Place the server on its side.
6. To disconnect SATA and power cable from the slim optical disk drive and the system board, do the following:
 - a. Disconnect SATA and power cable from the slim optical disk drive.

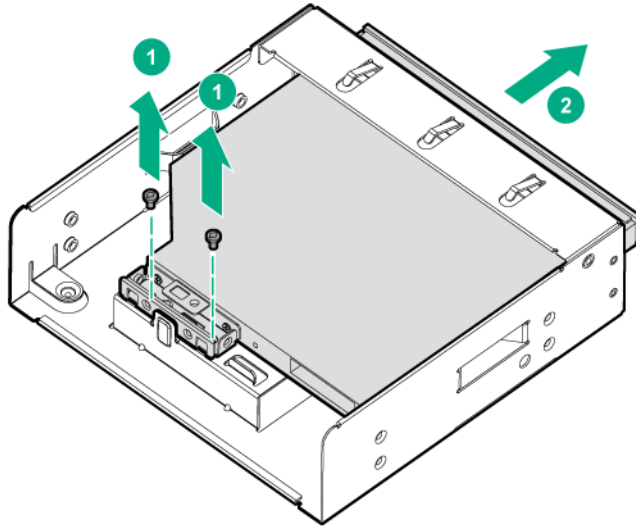
- b. Disconnect SATA and power cable from the optical disk drive connector on the system board.



7. Remove the optical disk drive cage from the chassis.



8. Remove the drive from the optical disk drive cage.



To replace the component, reverse the removal procedure.

System fan

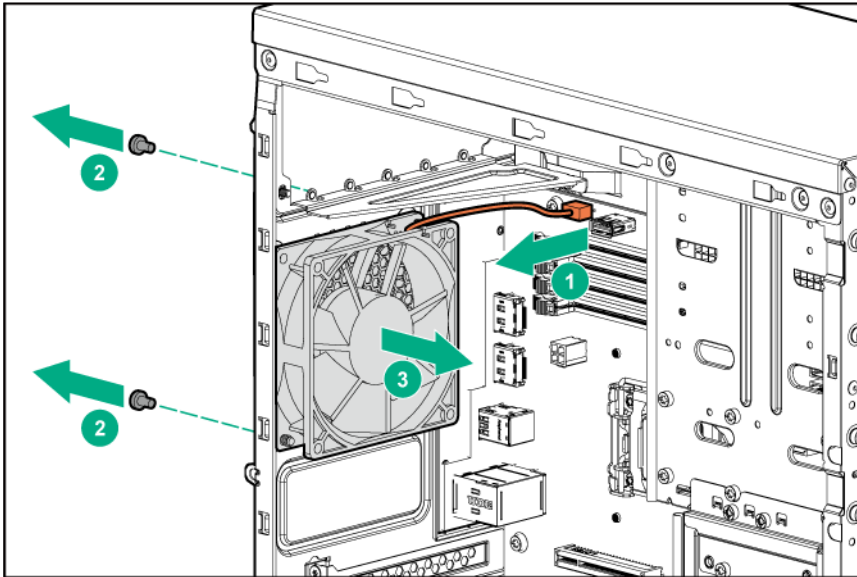


CAUTION: To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove the system fan:
 - a. Disconnect the fan cable.
 - b. Remove two screws from the rear panel.

- c. Remove the fan module.

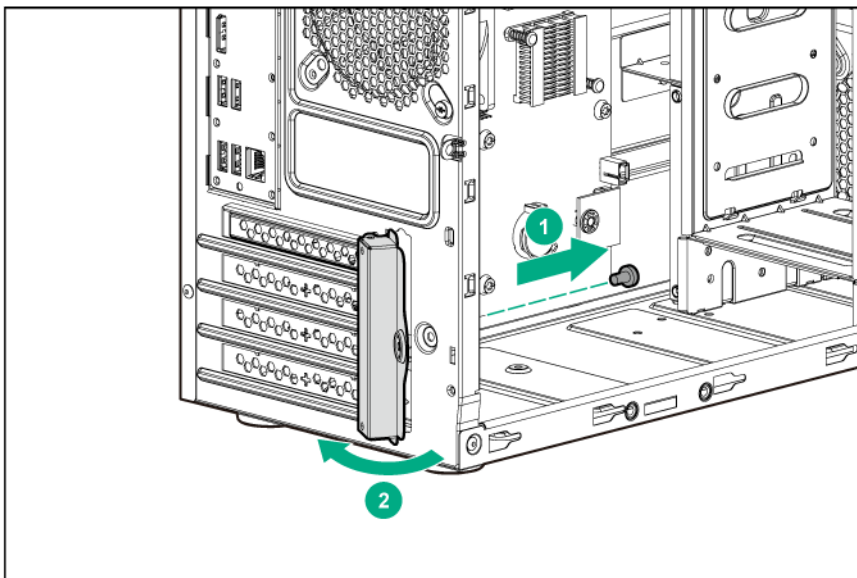


To replace the component, reverse the removal procedure.

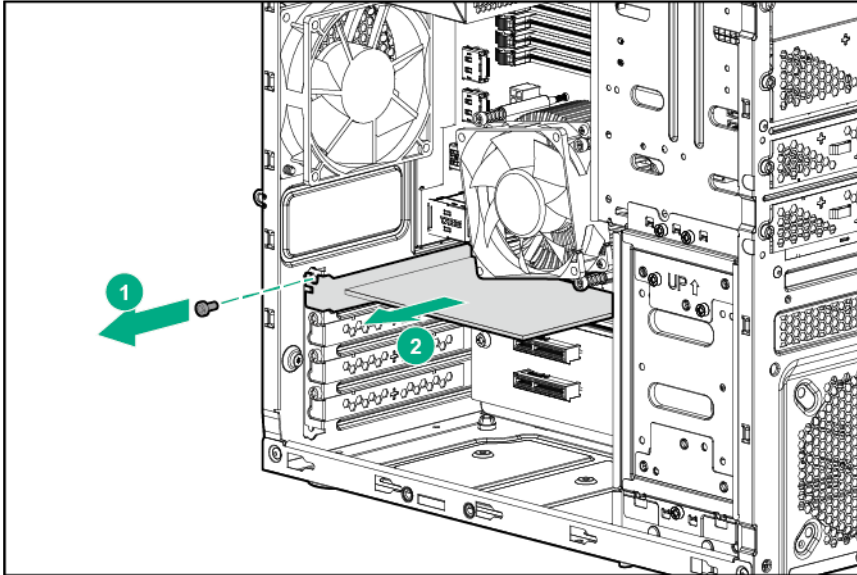
Expansion board

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Disconnect all cables from the expansion board.
5. Open the expansion slot cover retainer.



6. Remove the expansion board.



To replace the components, reverse the removal procedure.

Front USB module

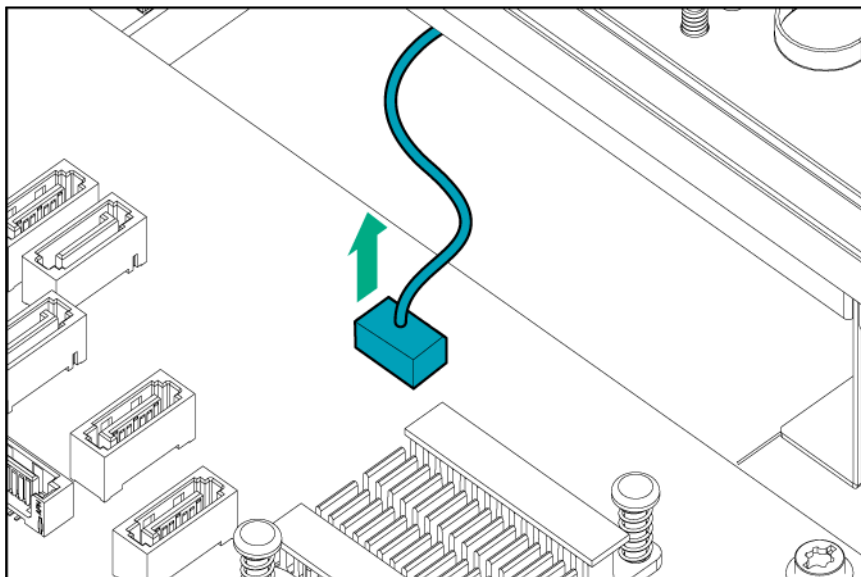


CAUTION: To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.

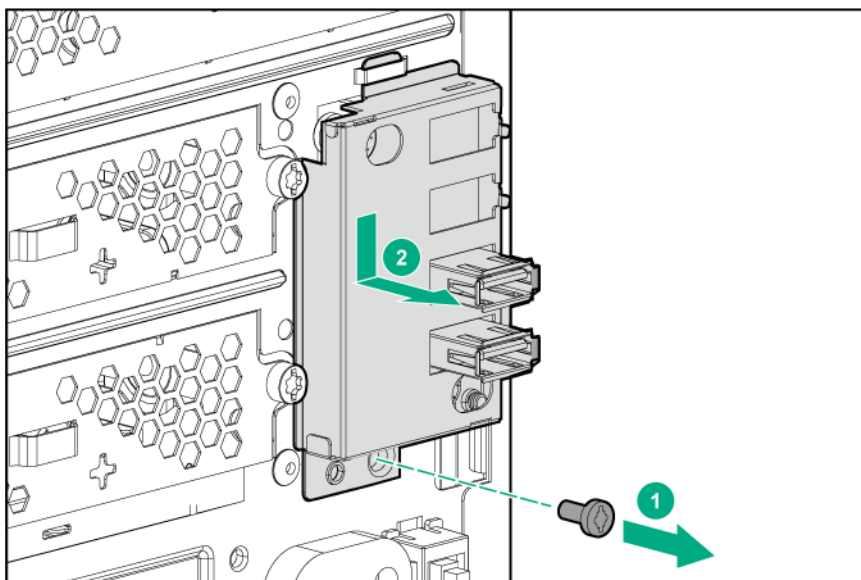
To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove all USB devices from the front panel.
5. Remove the tower bezel ("Tower bezel" on page 25).
6. Place the server on its side.
7. If drives are installed in the drive cage, remove the drive cage ("Drive 3 through 5 in the drive cage" on page 28).

8. Disconnect the front USB module cable from the system board.



9. Remove the front USB module:
 - a. Remove one screw on the module from the front panel.
 - b. Move the module down and pull the cable out from the chassis.



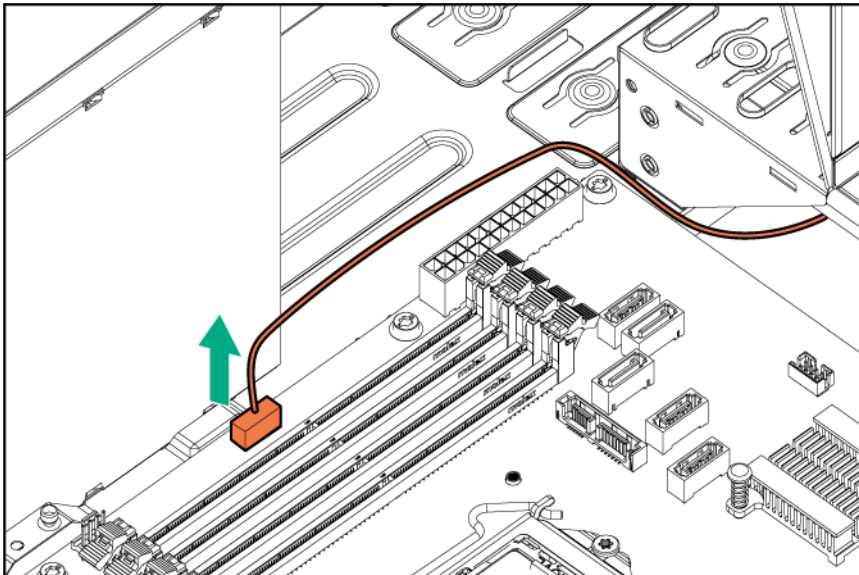
To replace the components, reverse the removal procedure.

Front LEDs and power button module

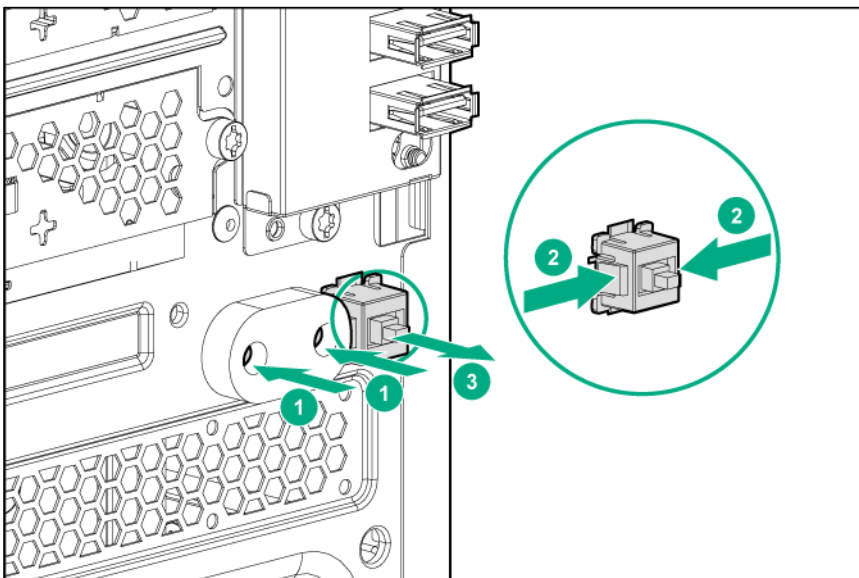
To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).

4. Remove the tower bezel ("Tower bezel" on page 25).
5. Place the server on its side.
6. Disconnect the front LEDs and power button module.



7. Remove the front LEDs and buttons cable:
 - a. Press LEDs inward into the chassis.
 - b. Release the power button.
 - c. Pull the front LEDs and power button module cable away from the chassis.
 - d. Use both hands to ensure the two LEDs get through the power buttons hole.



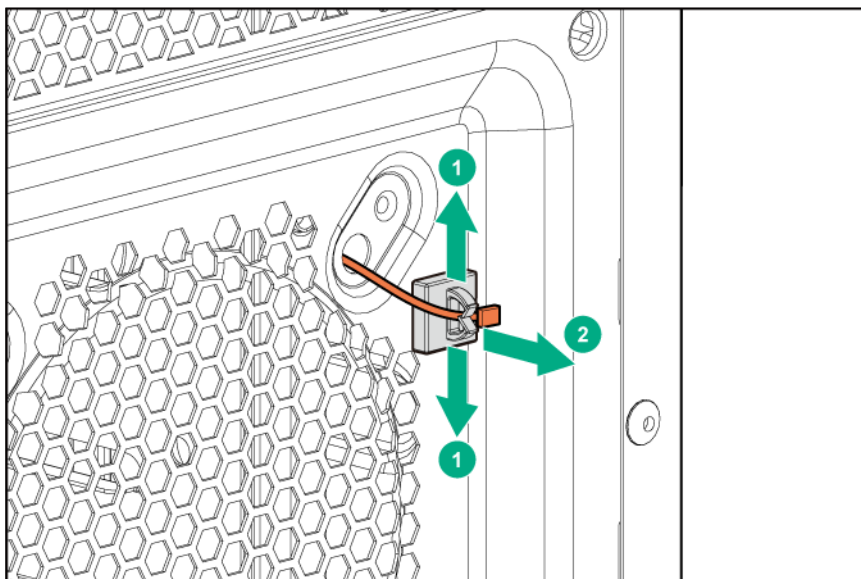
To replace the component, reverse the removal procedure.

Ambient temperature sensor cable

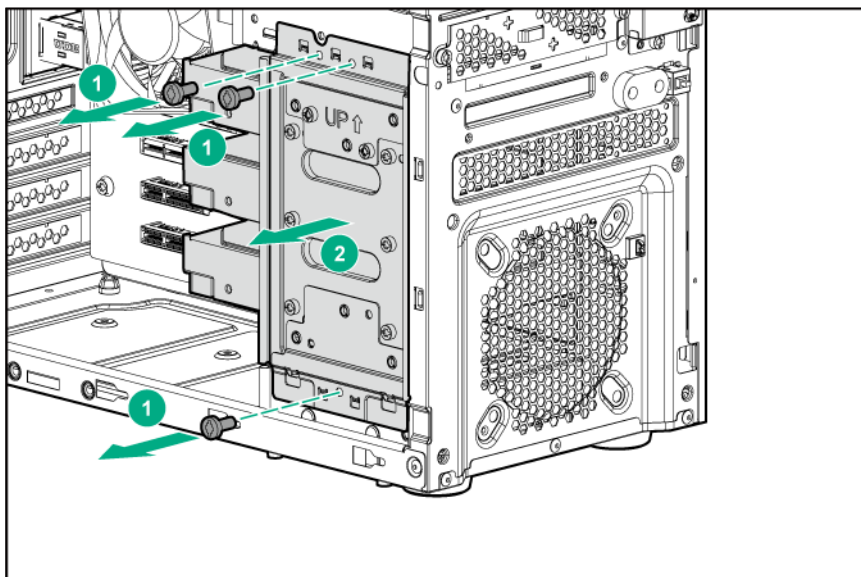
To remove the component:

1. Power down the server (on page 24).

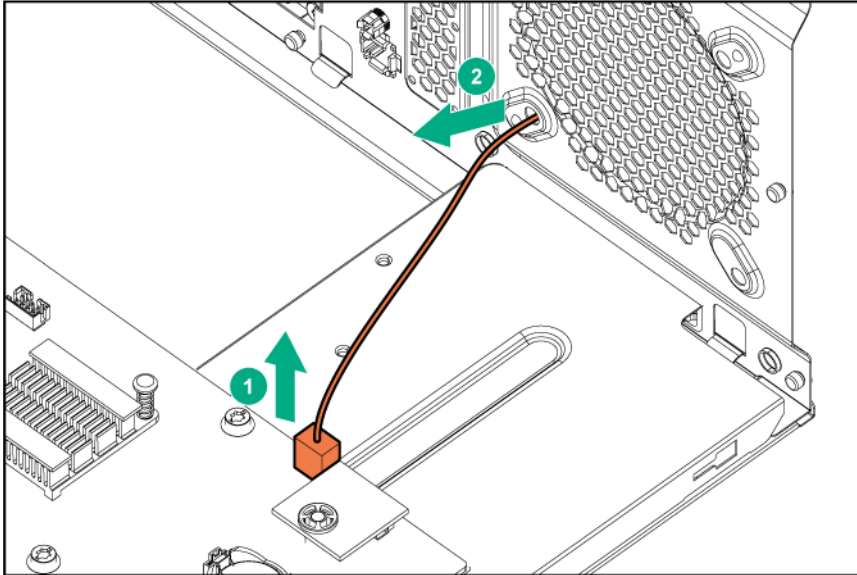
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove the tower bezel ("Tower bezel" on page 25).
5. Place the server on its side.
6. Open the clip and release sensor from the chassis.



7. If drive 3 through 5 are installed, do the following:
 - a. Disconnect SATA and power cables from drives.
 - b. Remove the drive cage.



8. Disconnect the ambient temperature sensor cable from the system board.

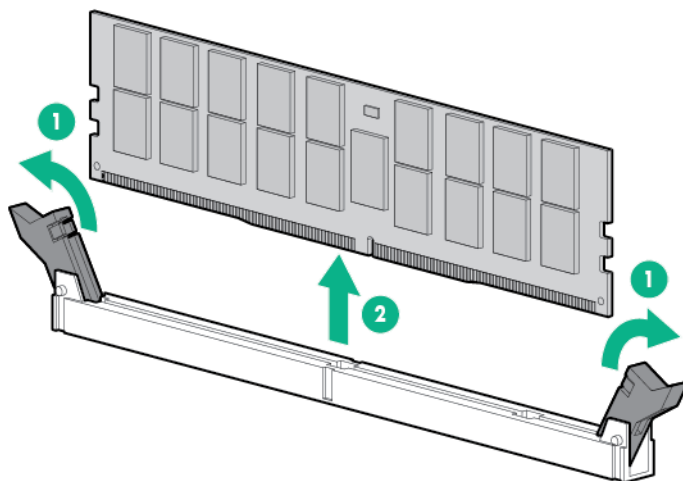


To replace the component, reverse the removal procedure.

DIMMs

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Place the server on its side.
5. Open the DIMM slot latches.
6. Remove the DIMM.



To replace the component, reverse the removal procedure.

Heatsink



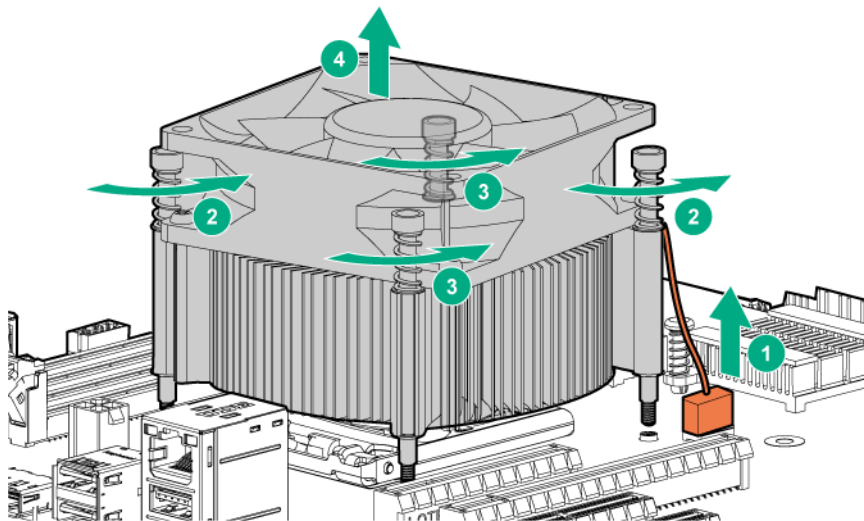
WARNING: To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.



CAUTION: To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.

To remove the component:

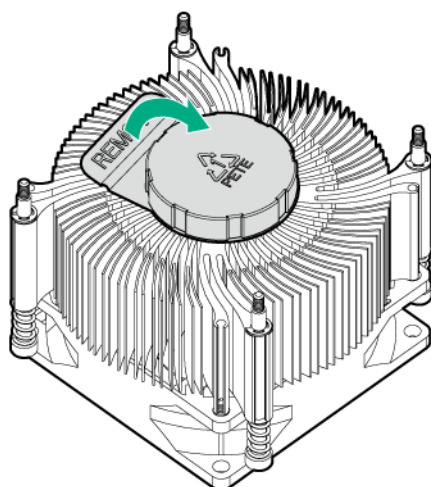
1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Place the server on its side.
5. Remove the heatsink:
 - a. Disconnect the processor fan cable.
 - b. Loosen one pair of diagonally opposite screws halfway, and then loosen the other pair of screws.
 - c. Completely loosen all screws in the same sequence.
 - d. Remove the heatsink from the processor backplate.



To replace the component:

1. Clean the old thermal grease from the processor with the alcohol swab. Allow the alcohol to evaporate before continuing.

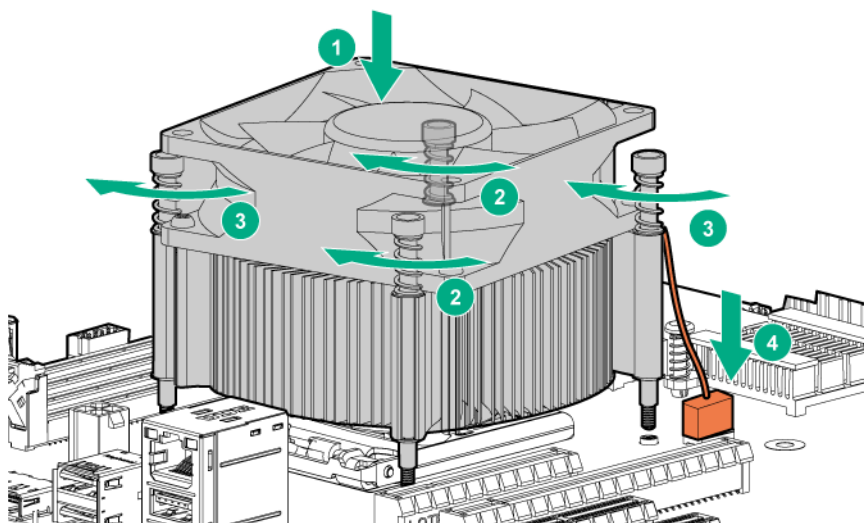
2. Remove the thermal interface protective cover from the heatsink.



3. Install the heatsink:
 - a. Position the heatsink on the processor backplate.
 - b. Tighten one pair of diagonally opposite screws halfway, and then tighten the other pair of screws.
 - c. Finish the installation by completely tightening the screws in the same sequence.
 - d. Connect the processor fan cable.



CAUTION: The fan does not have a fan guard. Special attention is needed when removing or installing the fan to prevent finger injury.



4. Return the server to an upright position.
5. Install the access panel.
6. Connect each power cord to the server.
7. Connect each power cord to the power source.
8. Power up the server.

Processor



WARNING: To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.



CAUTION: To avoid damage to the processor and system board, only authorized personnel should attempt to replace or install the processor in this server.



CAUTION: To prevent possible server malfunction and damage to the equipment, multiprocessor configurations must contain processors with the same part number.



CAUTION: To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.



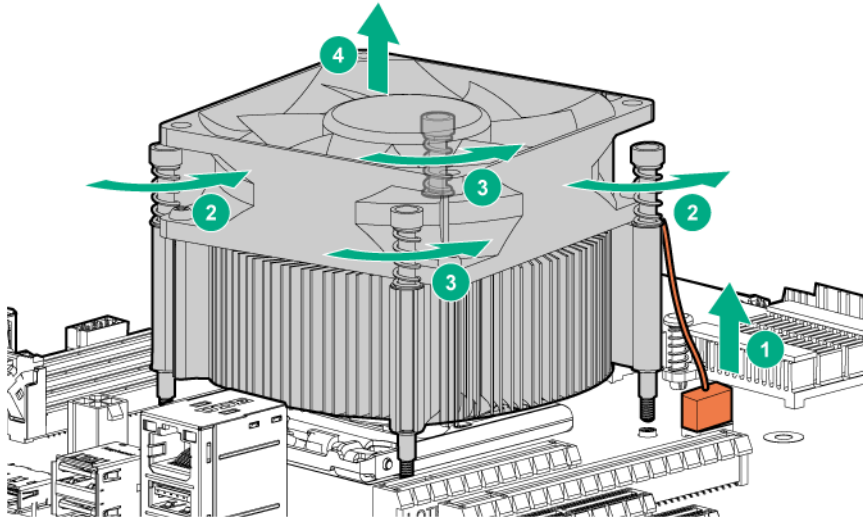
IMPORTANT: If installing a processor with a faster speed, update the system ROM before installing the processor.

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Place the server on its side.
5. Remove the heatsink:
 - a. Disconnect the processor fan cable.
 - b. Loosen one pair of diagonally opposite screws halfway, and then loosen the other pair of screws.
 - c. Completely loosen all screws in the same sequence.
 - d. Remove the heatsink from the processor backplate.



CAUTION: The fan does not have a fan guard. Special attention is needed when removing or installing the fan to prevent finger injury.

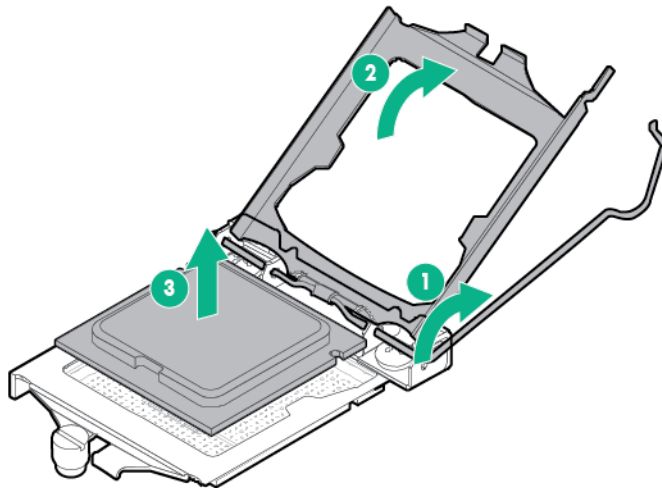


CAUTION: To avoid damage to the processor, do not touch the bottom of the processor, especially the contact area.



CAUTION: The pins on the processor socket are very fragile. Any damage to them may require replacing the system board.

6. Open the processor locking lever, and then open the processor retaining bracket.
7. Hold the processor by the edges, and then lift it out of the socket.

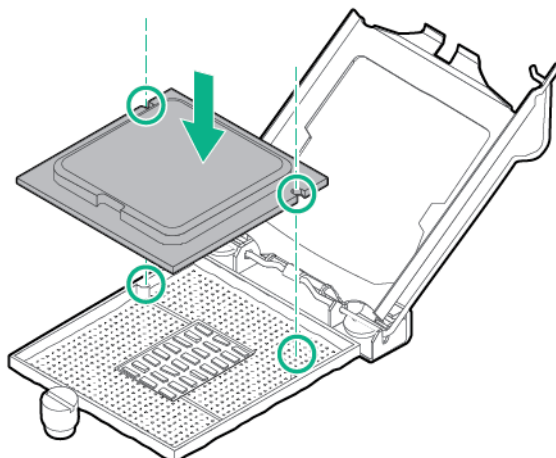


To replace the component:



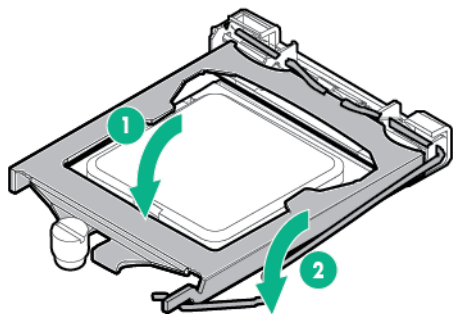
CAUTION: THE PINS ON THE SYSTEM BOARD ARE VERY FRAGILE AND EASILY DAMAGED. To avoid damage to the system board, do not touch the processor or the processor socket contacts.

1. Install the processor. Use the notches on both sides of the processor to properly align it into the socket.



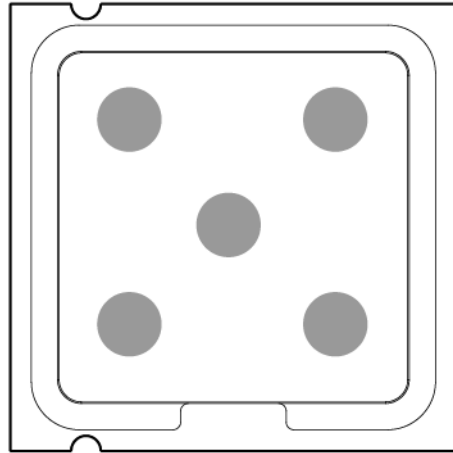
-
- ⚠ **CAUTION:** Be sure to close the processor socket retaining bracket before closing the processor locking lever. The lever should close without resistance. Forcing the lever closed can damage the processor and socket, requiring system board replacement.
-
- ⚠ **CAUTION: THE PINS ON THE SYSTEM BOARD ARE VERY FRAGILE AND EASILY DAMAGED.** To avoid damage to the system board, do not touch the processor or the processor socket contacts.
-
- ⚠ **CAUTION:** Do not press down on the processor. Pressing down on the processor may cause damage to the processor socket and the system board. Press only in the area indicated on the processor retaining bracket.
-

2. Close the processor retaining bracket, and then secure the processor locking lever.



3. Clean the old thermal grease from the heatsink with the alcohol swab. Allow the alcohol to evaporate before continuing.

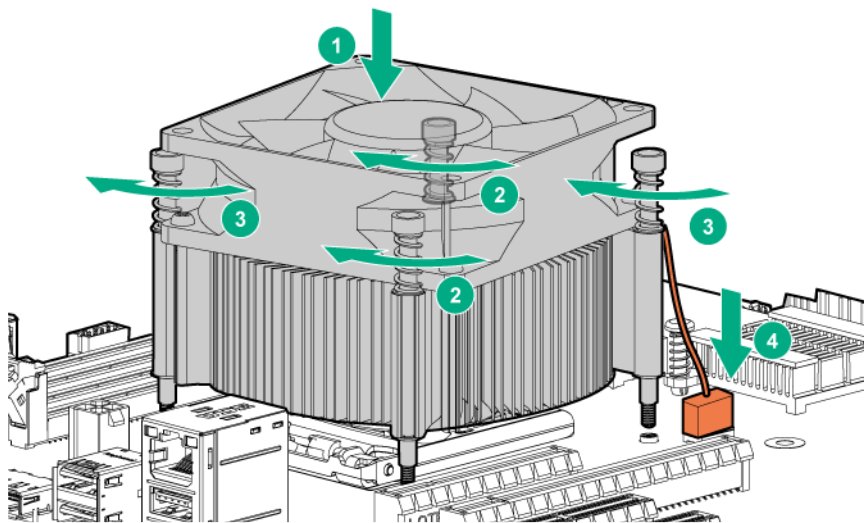
4. Apply all the grease to the top of the processor in the following pattern to ensure even distribution.



5. Install the heatsink:
 - a. Position the heatsink on the processor backplate.
 - b. Tighten one pair of diagonally opposite screws halfway, and then tighten the other pair of screws.
 - c. Finish the installation by completely tightening the screws in the same sequence.
 - d. Connect the processor fan cable.



CAUTION: The fan does not have a fan guard. Special attention is needed when removing or installing the fan to prevent finger injury..



6. Return the server to an upright position.
7. Install the access panel.
8. Connect each power cord to the server.
9. Connect each power cord to the power source.
10. Power up the server.

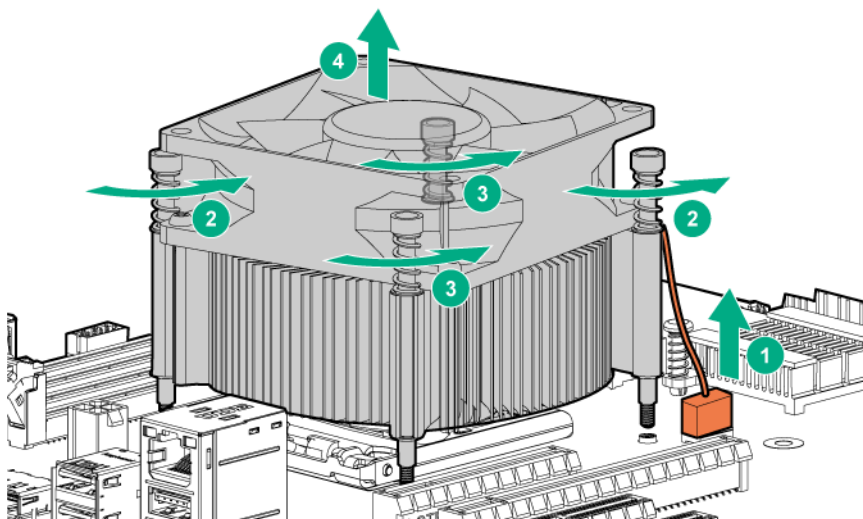
System board

-
- ⚠ **WARNING:** To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.
-
- ⚠ **CAUTION:** To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.
-
- ⚠ **CAUTION:** To avoid ESD damage, when removing electrostatic-sensitive components from the failed system board, place the components on a static-dissipating work surface or inside separate antistatic bags.
-

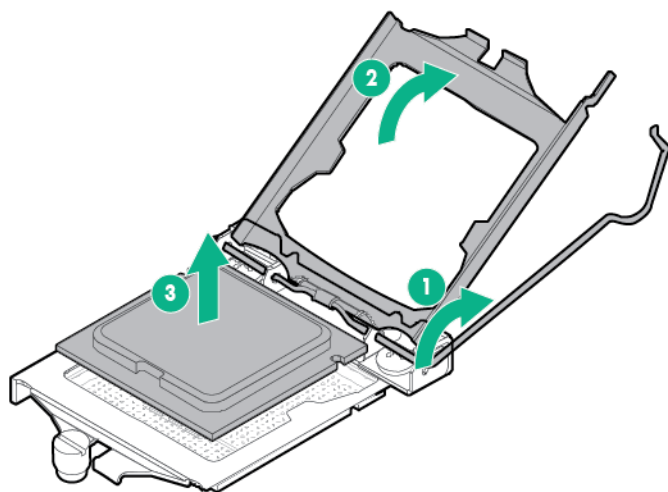
To remove the system board:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Place the server on its side.
5. Remove drive from the drive bay ("Drive 1 and 2 in the drive bays" on page 26).
6. If drive 3 through 5 are installed, remove the drive cage ("Drive 3 through 5 in the drive cage" on page 28).
7. Remove all expansion boards ("Expansion board" on page 34).
8. Disconnect all cables connected to the system board.
9. Remove all DIMMs ("DIMMs" on page 39).
10. Remove the heatsink:
 - a. Disconnect the processor fan cable.
 - b. Loosen one pair of diagonally opposite screws halfway, and then loosen the other pair of screws.
 - c. Completely loosen all screws in the same sequence.
 - d. Remove the heatsink from the processor backplate.

-
- ⚠ **CAUTION:** The fan does not have a fan guard. Special attention is needed when removing or installing the fan to prevent finger injury..
-

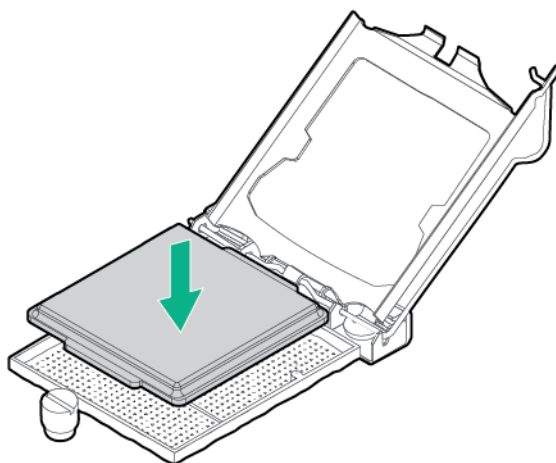


11. Open the processor locking lever, and then open the processor retaining bracket.
12. Hold the processor by the edges, and then lift it out of the socket.

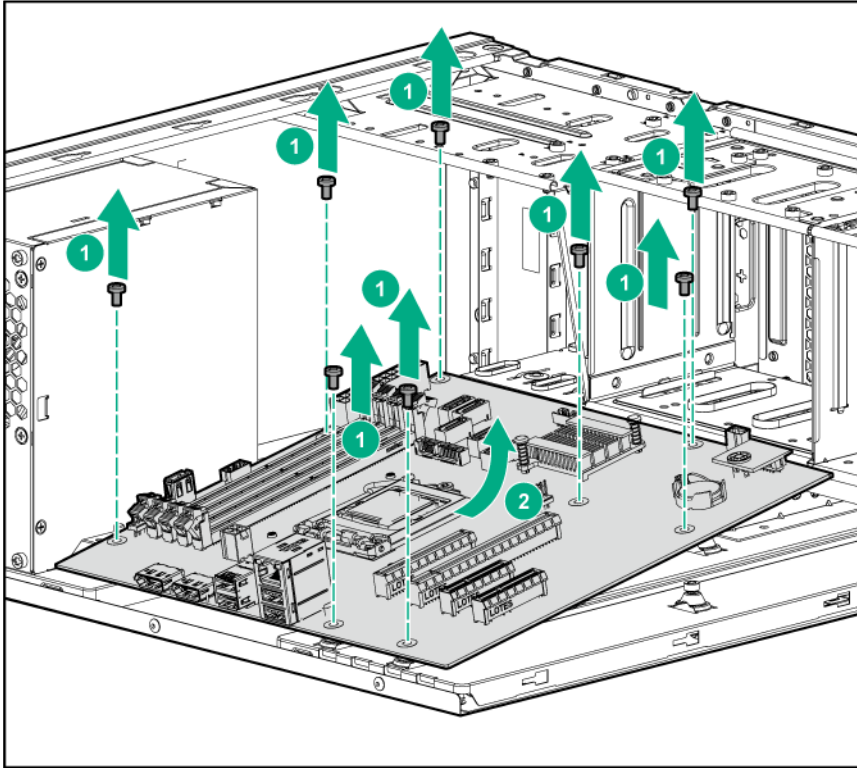


CAUTION: When returning a damaged system board to Hewlett Packard Enterprise, always install all processor socket covers to prevent damage to the processor sockets and system board.

13. Install the processor socket cover on the failed system board.

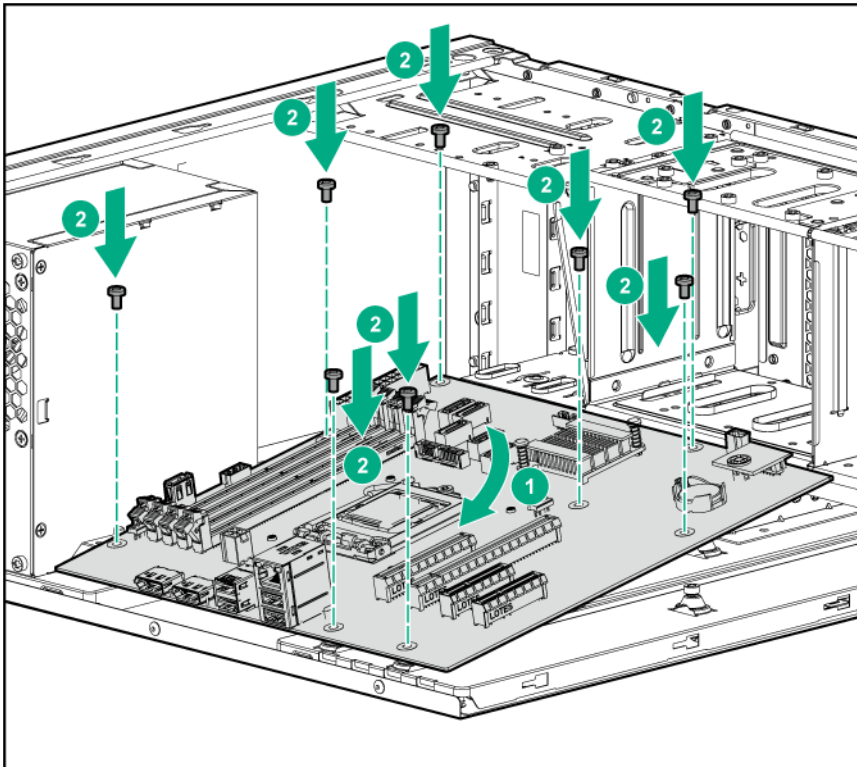


14. Remove the failed system board.

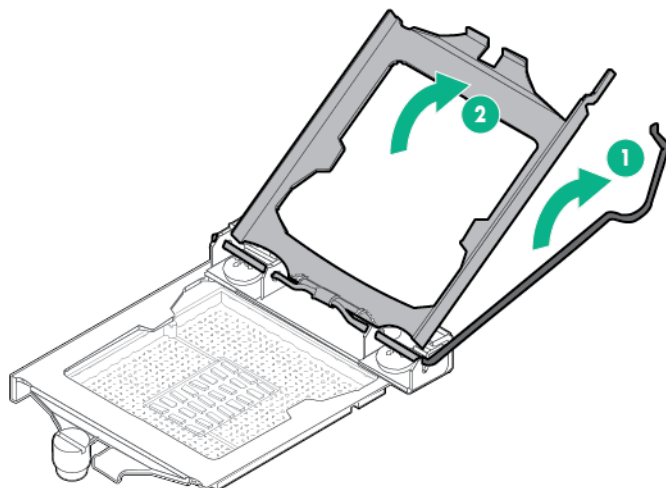


To replace the system board:

1. Install the system board.



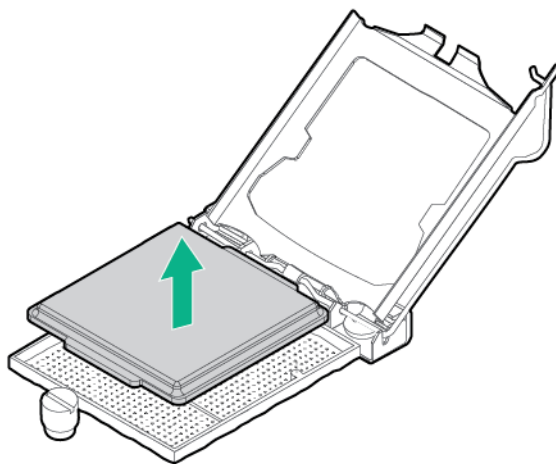
2. Open the processor locking lever, and then open the processor retaining bracket.



⚠ **CAUTION:** To avoid damage to the processor, do not touch the bottom of the processor, especially the contact area.

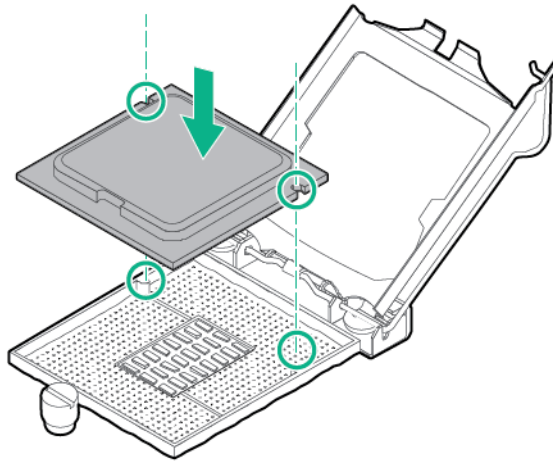
⚠ **CAUTION:** Failure to completely open the processor locking lever prevents the processor from seating during installation, leading to hardware damage.

3. Remove the processor socket cover.



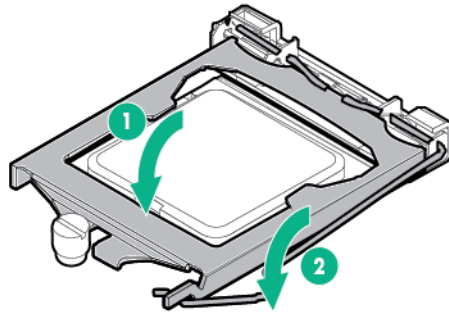
⚠ **CAUTION: THE PINS ON THE SYSTEM BOARD ARE VERY FRAGILE AND EASILY DAMAGED.** To avoid damage to the system board, do not touch the processor or the processor socket contacts.

4. Install the processor. Use the notches on both sides of the processor to properly align it into the socket.



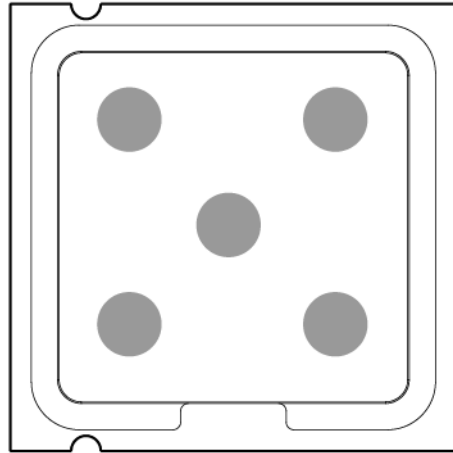
-
- ⚠ **CAUTION:** Be sure to close the processor socket retaining bracket before closing the processor locking lever. The lever should close without resistance. Forcing the lever closed can damage the processor and socket, requiring system board replacement.
-
- ⚠ **CAUTION: THE PINS ON THE SYSTEM BOARD ARE VERY FRAGILE AND EASILY DAMAGED.** To avoid damage to the system board, do not touch the processor or the processor socket contacts.
-
- ⚠ **CAUTION:** Do not press down on the processor. Pressing down on the processor may cause damage to the processor socket and the system board. Press only in the area indicated on the processor retaining bracket.
-

5. Close the processor retaining bracket, and then secure the processor locking lever.

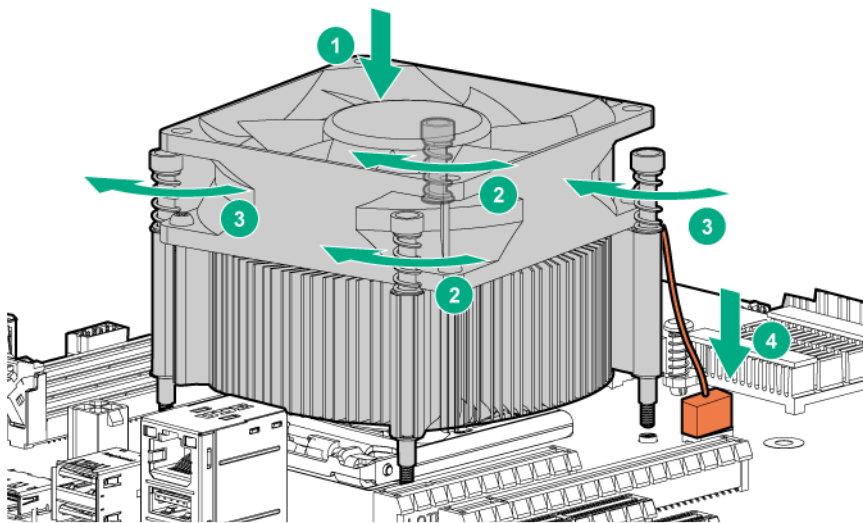


6. Clean the old thermal grease from the heatsink and the top of the processor with the alcohol swab. Allow the alcohol to evaporate before continuing.

7. Apply all the grease to the top of the processor in the following pattern to ensure even distribution.



8. Install the heatsink:
 - a. Position the heatsink on the processor backplate.
 - b. Tighten one pair of diagonally opposite screws halfway, and then tighten the other pair of screws.
 - c. Finish the installation by completely tightening the screws in the same sequence.
 - d. Connect processor fan cable to system board.



9. Install the DIMMs.
10. Install all components removed from the failed system board.
11. Connect all cables disconnected from the failed system board.
12. Install the access panel.
13. Connect each power cord to the server.
14. Connect each power cord to the power source.
15. Power up the server.



IMPORTANT: Install all components with the same configuration that was used on the failed system board.

System battery

If the server no longer automatically displays the correct date and time, then replace the battery that provides power to the real-time clock. Under normal use, battery life is 5 to 10 years.

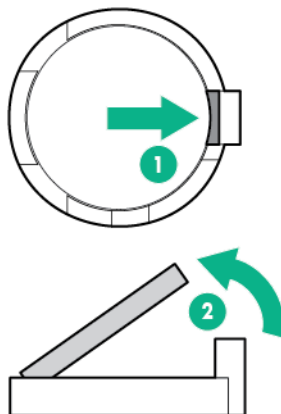


WARNING: The computer contains an internal lithium manganese dioxide, a vanadium pentoxide, or an alkaline battery pack. A risk of fire and burns exists if the battery pack is not properly handled. To reduce the risk of personal injury:

- Do not attempt to recharge the battery.
- Do not expose the battery to temperatures higher than 60°C (140°F).
- Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.
- Replace only with the spare designated for this product.

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Place the server on its side.
5. Locate the battery on the system board ("[System board components](#)" on page 62).
6. Use your finger or a small flat-bladed, nonconductive tool to press the metal tab. This will partially release the battery from the socket.
7. Remove the battery.



IMPORTANT: Replacing the system board battery resets the system ROM to its default configuration. After replacing the battery, use BIOS setup utility to reconfigure the system.

To replace the component, reverse the removal procedure.

For more information about battery replacement or proper disposal, contact an authorized reseller or an authorized service provider.

Power Supply



WARNING: To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the equipment.



WARNING: To reduce the risk of injury from electric shock hazards, do not open power supplies. Refer all maintenance, upgrades, and servicing to qualified personnel.



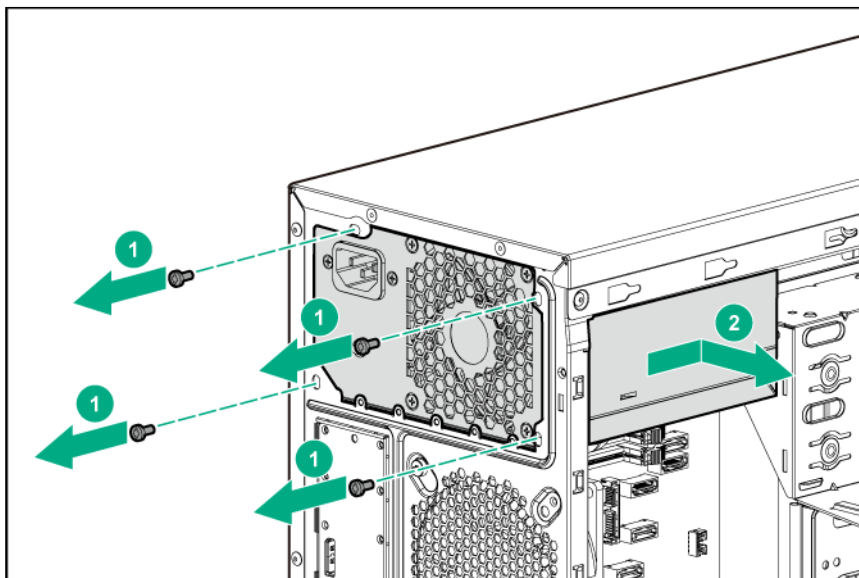
WARNING: To reduce the risk of personal injury from hot surfaces, allow the drives and the internal system components to cool before touching them.



CAUTION: To prevent damage to electrical components, take the appropriate anti-static precautions before beginning any installation, removal, or replacement procedure. Improper grounding can cause electrostatic discharge.

To remove the component:

1. Power down the server (on page 24).
2. Remove all power:
 - a. Disconnect each power cord from the power source.
 - b. Disconnect each power cord from the server.
3. Remove the access panel (on page 24).
4. Remove the power supply.
 - a. Remove four screws from the rear panel.
 - b. Push the power supply slightly forward and pull out from the chassis.



To replace the component, reverse the removal procedure.

HP Trusted Platform Module

The TPM is not a customer-removable part.



CAUTION: Any attempt to remove an installed TPM from the system board breaks or disfigures the TPM security rivet. Upon locating a broken or disfigured rivet on an installed TPM, administrators should consider the system compromised and take appropriate measures to ensure the integrity of the system data.

If you suspect a TPM board failure, leave the TPM installed and remove the system board. Contact a Hewlett Packard Enterprise authorized service provider for a replacement system board and TPM board.

Troubleshooting

Troubleshooting resources

The *HPE ProLiant ML10 Gen9 Troubleshooting Guide* provides procedures for resolving common problems and comprehensive courses of action for fault isolation and identification, issue resolution, and software maintenance. To view the guide, select a language:

- English (<http://www.hpe.com/support/ML10Gen9-TSG-en>)
- French (<http://www.hpe.com/support/ML10Gen9-TSG-fr>)
- Spanish (<http://www.hpe.com/support/ML10Gen9-TSG-es>)
- German (<http://www.hpe.com/support/ML10Gen9-TSG-de>)
- Japanese (<http://www.hpe.com/support/ML10Gen9-TSG-ja>)
- Simplified Chinese (<http://www.hpe.com/support/ML10Gen9-TSG-zh-cn>)

Diagnostic tools

Product QuickSpecs

For more information about product features, specifications, options, configurations, and compatibility, see the product QuickSpecs on the Hewlett Packard Enterprise website (<http://www.hpe.com/info/qs>).

Intel Management and Security Status

The utility application enables users to view the status of a platform's support for Intel AMT and Standard Manageability programs, and allows users to configure the Intel AMT and Standard Manageability in the Microsoft Windows environment.

The application can be accessed from the system tray after you have downloaded and installed the Intel Management Engine Interface and Serial Over LAN driver for Windows. The instructions for downloading the driver are available on the Hewlett Packard Enterprise website (<http://www.hpe.com/support/ML10Gen9-DriverSW>).

To set up the Intel AMT, see *Setting Up and Configuring Intel AMT and RAID volumes on the ProLiant ML10 Gen9 Server* on the Hewlett Packard Enterprise website (<http://www.hpe.com/support/ML10Gen9/docs>). For more information, see the Intel AMT website (<http://www.intel.com/technology/platform-technology/intel-amt>).

Intel AMT WebUI

Intel AMT has a built-in web interface that enables users to see detailed information on the CPU, memory, and hard drives. The client system can be accessed from the local host and any other system on the network that has a supported web browser after the Intel AMT is provisioned. It can also be used by the management system to change settings on the client system including IP settings, host name, and editing user accounts. The Event Log page of the Intel AMT WebUI displays the event log in which the events happening on the client system are logged.

To access Intel AMT via the WebUI Interface, see the Intel AMT website (<http://www.intel.com/technology/platform-technology/intel-amt>).

Intel Rapid Storage Technology

Intel Rapid Storage Technology enables RAID array management in the Microsoft Windows environment. The instructions for downloading the application are available on the Hewlett Packard Enterprise website (<http://www.hpe.com/support/ML10Gen9-DriverSW>).

For more information about Intel Rapid Storage Technology, see *Support for Intel® Rapid Storage Technology* on the Intel website (http://www.intel.com/p/en_US/support/highlights/sftwr-prod/imsm).

Server BIOS

The UEFI-based BIOS from AMI provides reliability, manageability, and connectivity for server platforms. It contains a set of programs permanently stored in an EEPROM chipset located on the system board. The programs assist in managing, initializing, and testing the hardware devices installed on the computer.

The AMI BIOS serves three functions:

- Configures the system from the AMI BIOS Setup Utility
Using the Setup program, you can install, configure, and optimize the hardware devices on your system such as memory or disk drives. In addition, you can enable various features such as PXE boot.
- Initializes hardware at boot using POST routines
During power-on or warm reset, the AMI BIOS performs Power-On Self-Test (POST) routines to test components, to allocate resource for various hardware devices, and to prepare the system to boot to various operating systems.
- Perform run-time routines
During use, the AMI BIOS performs basic hardware routines that can be called from DOS and Windows applications.

Configuring the system BIOS using Setup Utility

AMI BIOS Setup Utility is a hardware configuration program built into the system's BIOS. Because most systems are already configured and optimized for most environments, running this utility is usually not required. However, you might need to run the AMI BIOS Setup Utility when changing specific system configuration options including:

- Setting the system time and date
- Configuring the hard drives
- Specifying the boot device sequence
- Installing PCI expansion boards
- Upgrading the system BIOS
- Setting up system passwords or making other changes to the security setup

You must run this utility to change the BIOS settings from the default or current configuration.

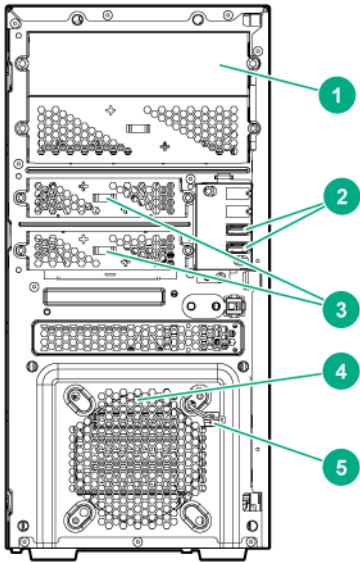
The AMI BIOS Setup Utility loads the configuration values in a region of BIOS flash called the NVRAM region, which enables configuration data to be retained when power is turned off. The values take effect when the system is booted. POST uses these values to configure the hardware. If the values and the actual hardware do not agree, POST generates an error message.

To run the AMI BIOS Setup Utility:

1. Power on the monitor and the server.
If the server is already powered on, save your data and exit all open applications, and then restart the server.
2. During POST, press **DEL** or **ESC**. The Main menu showing the AMI BIOS Setup Utility's menu bar appears. Use the left (←) and right (→) arrow keys to move between selections on the menu bar.
If you do not press a hot key before POST is completed, restart the server.

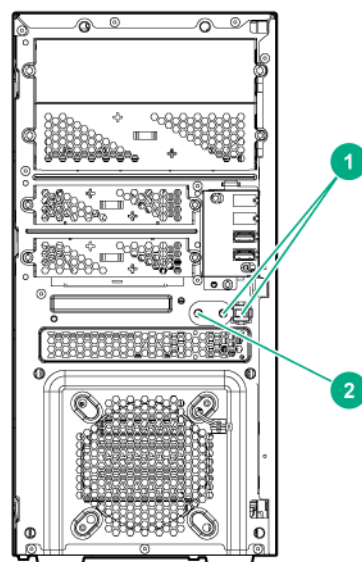
Component identification

Front panel components



Item	Description
1	Media bay
2	USB 2.0 connectors
3	Hard drive bays
4	Drive cage
5	Ambient temperature sensor

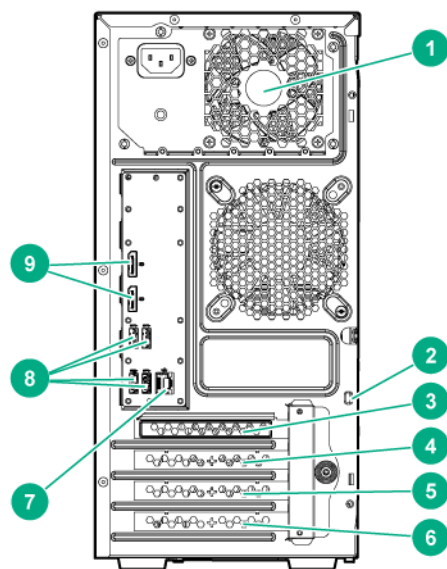
Front panel LEDs and buttons



Item	Description	Status
1	Power On/Standby button and system power LED	Solid green = System on Solid amber = System in standby Off = No power present*
2	Health LED	Solid green = Normal Solid amber = Thermal warning Flashing amber = Critical thermal issue† Solid red = CPU failure† Flashing red = System failure† Off = System off

* Facility power is not present, power cord is not attached, no power supplies are installed, power supply failure has occurred, or the power button cable is disconnected.
† System shuts down.

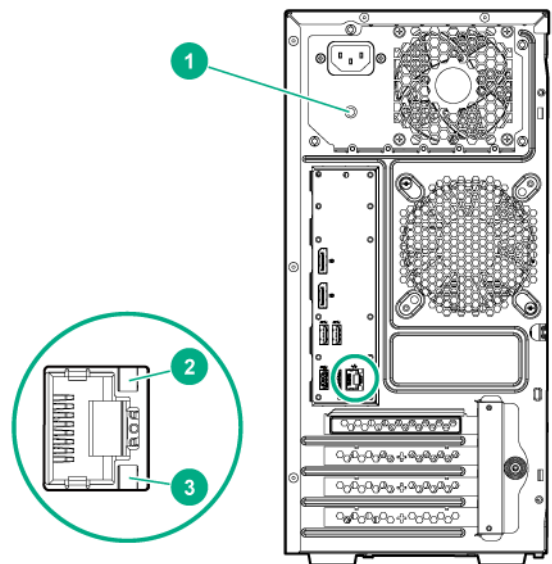
Rear panel components



Item	Description
1	Power supply
2	Kensington security slot
3	Slot 1, PCIe3 x8 (8,4,1)*
4	Slot 2, PCIe3 x16 (16,8,4,1)*
5	Slot 3, PCIe3 x4 (4,1)*
6	Slot 4, PCIe3 x4 (4,1)*
7	NIC connector
8	USB 3.0 connectors
9	Display Ports

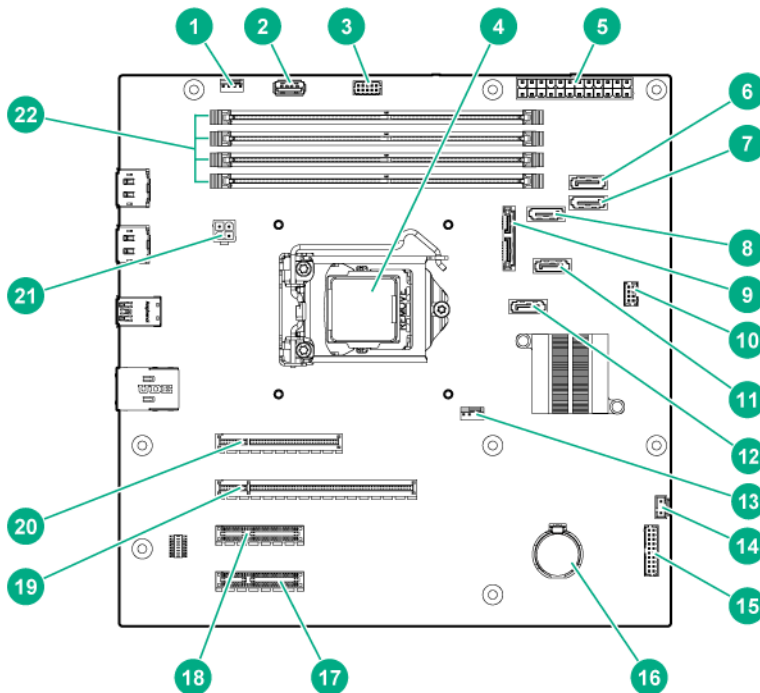
* For more information on the expansion slot specifications, see "PCIe expansion slot definitions (on page 63)."

Rear panel LEDs and buttons



Item	Description	Status
1	Power supply LED	Solid green = One or more of the following conditions exists: Normal Power supply is in standby mode. Off = One or more of the following conditions exists: Power is unavailable. Power supply failed.
2	NIC activity LED	Flashing green = 100 megabytes/sec network active Flashing amber = 1 gigabytes/sec network active
3	NIC link LED	Solid green = Link exists Off = No link exists

System board components



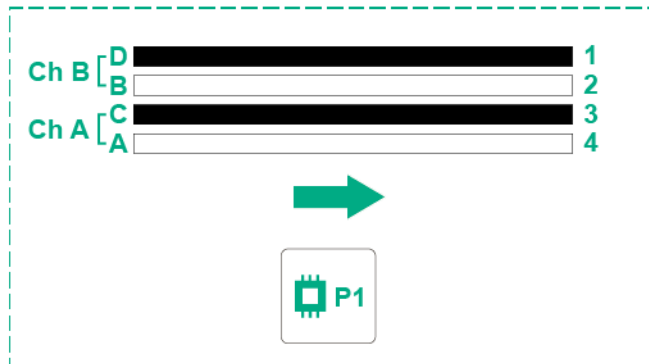
Item	Description
1	System fan connector
2	Internal USB 2.0 connector
3	Front LEDs and power button module connector
4	Processor
5	24-pin power supply connector
6	SATA connector 1
7	SATA connector 2
8	SATA connector 3
9	SATA 6 and optical drive shared connector
10	Front USB connector
11	SATA connector 4
12	SATA connector 5
13	Processor fan connector
14	Ambient temperature sensor connector
15	TPM connector
16	System battery
17	Slot 4, PCIe3 x4 (4,1)*
18	Slot 3, PCIe3 x4 (4,1)*
19	Slot 2, PCIe3 x16 (16,8,4,1)*
20	Slot 1, PCIe3 x8 (8,4,1)*
21	4-pin power connector
22	DIMM slots

* For more information on the expansion slot specifications, see "PCIe expansion slot definitions (on page 63)."

PCIe expansion slot definitions

Expansion slot number	Technology	Bus Width	Connector Width	Form Factor
1	PCIe 3.0	x8	x8	Full-height Half-length
2	PCIe 3.0	x8	x16	Full-height Half-length
3	PCIe 3.0	x4	x4	Full-height Half-length
4	PCIe 3.0	x1	x4	Full-height Half-length

DIMM slot locations

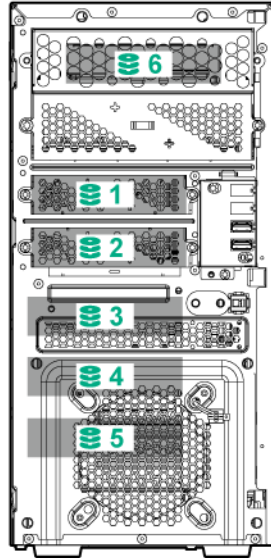


The arrow points to the front of the server.

Drive numbering

The server supports up to 6 LFF non-hot-plug drives when a drive enablement option is installed in the upper media bay, or 5 LFF non-hot-plug drives plus one optical drive when a slim optical drive enablement option is installed in the upper media bay. For more information, see the *HPE ProLiant ML10 Gen9 Server User Guide* (<http://www.hpe.com/support/ML10Gen9/docs>).

The following image shows the drive numbering.



Cabling

Cabling overview

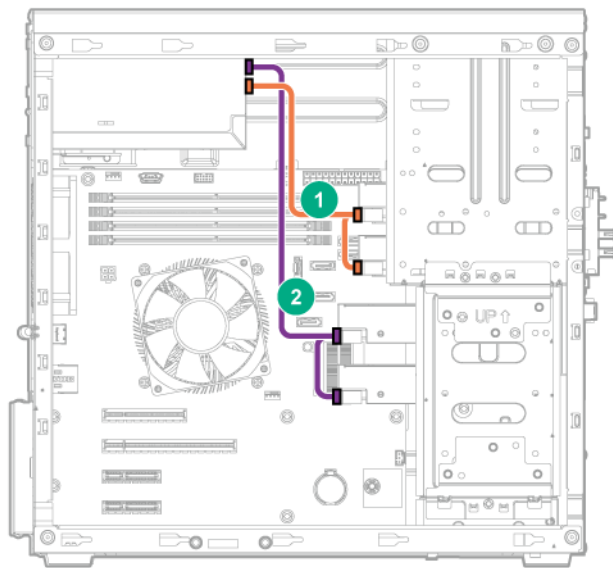
This section provides guidelines to help make informed decisions about cabling the server and hardware options to optimize performance.

For information on cabling peripheral components, see the white paper on high-density deployment at the Hewlett Packard Enterprise website. (<http://www.hpe.com/products/servers/platforms>)

CAUTION: When routing cables, always be sure that the cables are not in a position where they can be pinched or crimped.

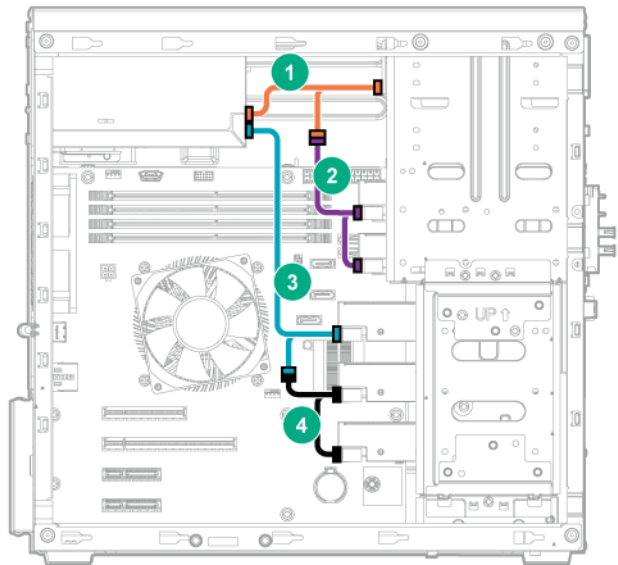
Storage cabling

Drive power cabling (4 drives installation)



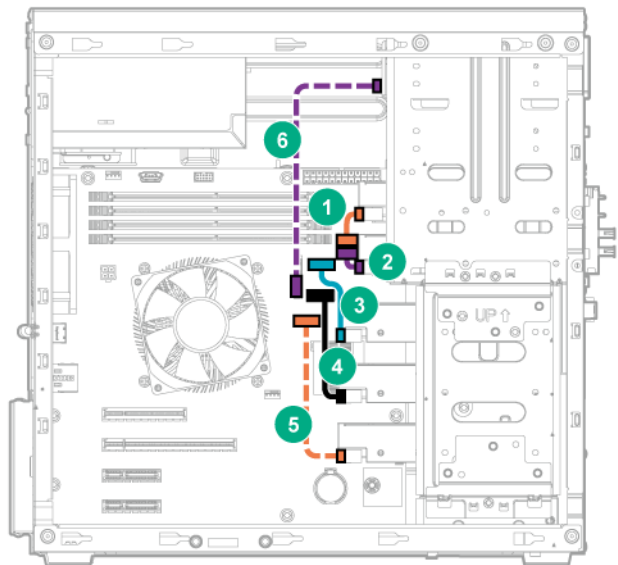
Item	Description
1	Drive power cable for drive 1 and 2
2	Drive power cable for drive 3 and 4

Drive power cabling (6 drives installation)



Item	Description
1	Drive power cable for drive 1, 2, and 6
2	Extension power cable
3	Drive power cable for drive 3 to 5
4	Extension power cable

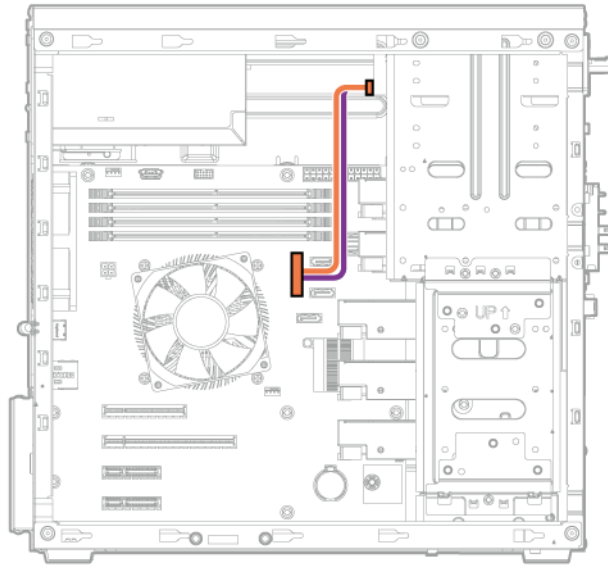
Drive SATA cabling



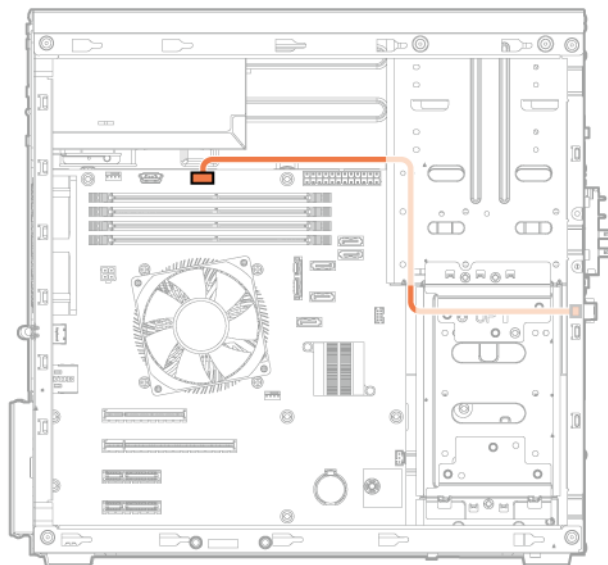
Item	Description
1	Drive 1 to SATA 1 on system board
2	Drive 2 to SATA 2 on system board
3	Drive 3 to SATA 3 on system board
4	Drive 4 to SATA 4 on system board

Item	Description
5	Drive 5 to SATA 5 on system board
6	Drive 6 to SATA 6 and optical drive shared connector on system board

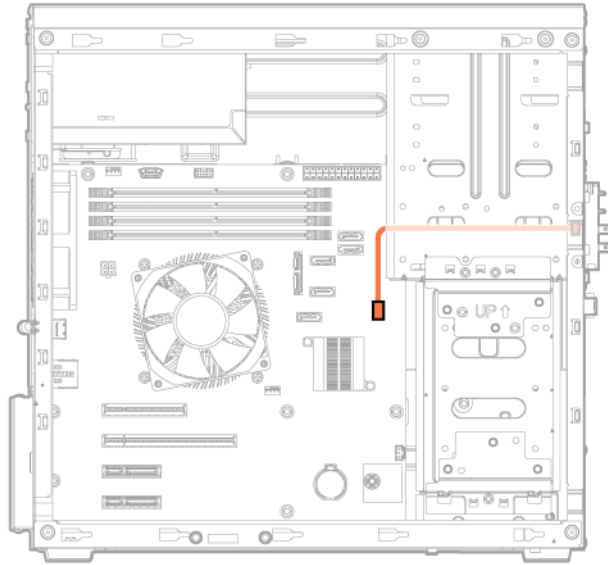
Optical drive cabling



Front LEDs and power button module cabling

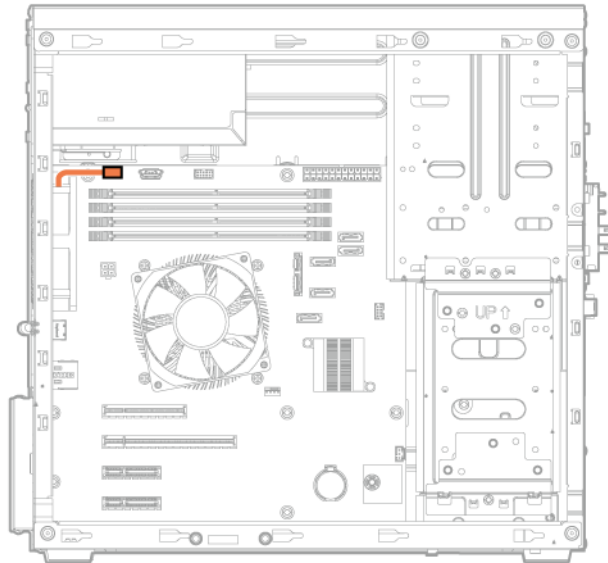


Front USB cabling

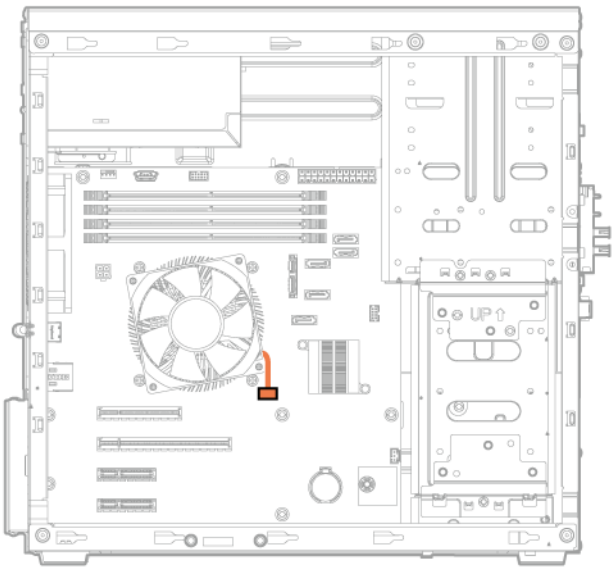


Fan cabling

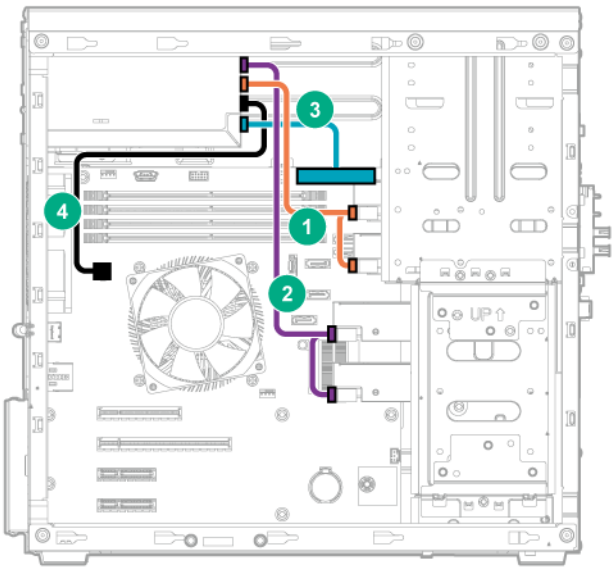
System fan



Processor fan



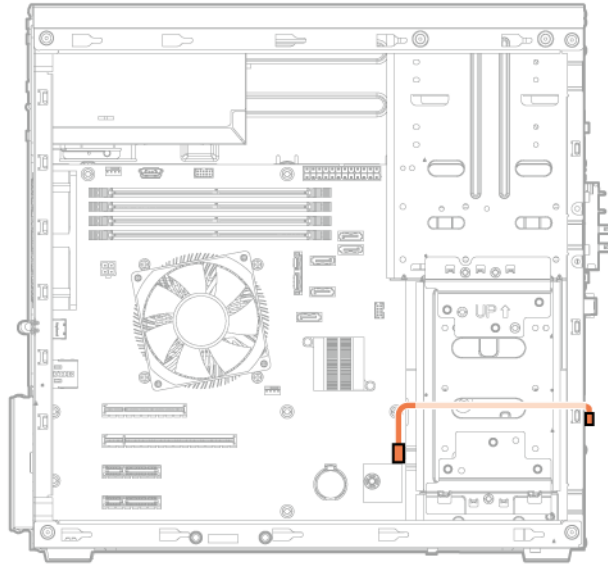
Power supply cabling



Item	Description
1	Drive power cable for drive 1, 2, and 6*
2	Drive power cable for drive 3, 4, and 5*
3	24-pin power cable
4	4-pin power cable

*The installation of drive 5 and 6 requires an extension power cable. See "Drive power cabling (6 drives installation) (on page 66)."

Ambient temperature sensor cabling



Specifications

Environmental specifications

Specification	Value
Temperature range*	—
Operating	10°C to 35°C (50°F to 95°F)
Nonoperating	-30°C to 60°C (-22°F to 140°F)
Relative humidity (noncondensing)	—
Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity Maximum to be 24°C (75.2°F) dew point or 90% relative humidity
Nonoperating	5% to 95% 38.7°C (101.7°F), maximum wet bulb temperature

* All temperature ratings shown are for sea level. An altitude derating of 1.0°C per 304.8 m (1.8°F per 1000 ft) to 3048 m (10,000 ft) is applicable. No direct sunlight allowed. Maximum rate of change is 20°C per hour (36°F per hour). The upper limit and rate of change might be limited by the type and number of options installed.

For certain approved hardware configurations, the supported system inlet temperature range is extended:

- 5°C to 10°C (41°F to 50°F) and 35°C to 40°C (95°F to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3048 m (10,000 ft).
- 40°C to 45°C (104°F to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3048 m (10,000 ft).

Server specifications

Specification	Tower model
Height	36.76cm (14.47 in)
Depth	40.13cm (15.79 in)
Width	17.50cm (6.89 in)
Minimum weight	6.68 kg (14.73 lbs)
Maximum weight	10.58 kg (23.32 lbs)

Power supply specifications

The server supports the ATX 300W Power Supply.



CAUTION: Check the system and power supply input ratings before powering up the server.

Specification	Value
Input requirements	
Rated input voltage	100-120 VAC/200-240 VAC
Rated input frequency	50/60Hz
Rated input current	6 A/4 A
Maximum rated input power	333 W at 115 VAC 333 W at 230 VAC
BTUs per hour	1133.33 at 115 VAC 1133.33 at 230 VAC
Power supply output	
Rated steady-state power	300 W at 115 VAC input 300 W at 230 VAC input
Maximum peak power	300 W at 115 VAC input 300 W at 230 VAC input

Acronyms and abbreviations

ASHRAE

American Society of Heating, Refrigerating and Air-Conditioning Engineers

CSR

Customer Self Repair

ODD

Optical Disk Drive

PCIe

Peripheral Component Interconnect Express

POST

Power-On Self Test

SATA

serial ATA

TPM

Trusted Platform Module

USB

universal serial bus

Documentation feedback

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