



Packaging Computer Shipments

To help protect your computers and peripherals from shock and vibration during transit, follow these instructions for shipping via FedEx® services.



Recommended Packaging Options

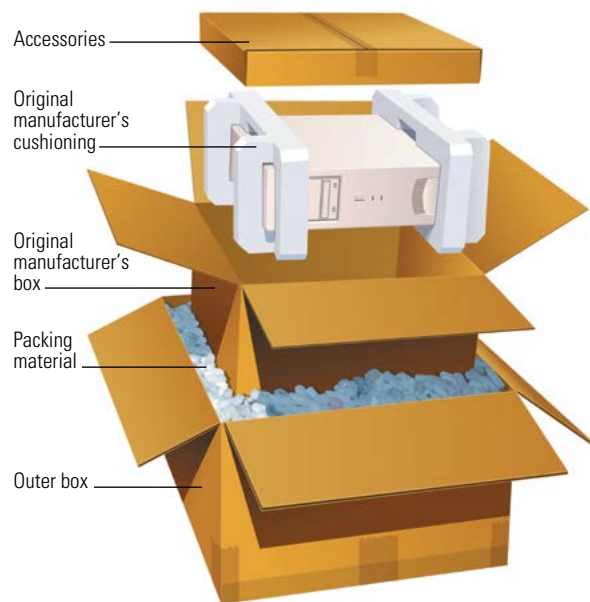
This brochure will help you pack and prepare your computer and peripheral shipments. Follow the instructions for the packaging method of your choice.

- Shipping with original manufacturer's packaging.
- Shipping without original manufacturer's packaging.
- Shipping in a FedEx Laptop Box.
- Shipping in a transit case.
- Packaging freight shipments.

Shipping With Original Manufacturer's Packaging

Original packaging is usually designed to ship the product once, not multiple times. Reuse can weaken the packaging and place the inside product at risk. Overboxing provides extra integrity for the weakened original manufacturer's packaging.

Using Original Packaging and an Outer Box



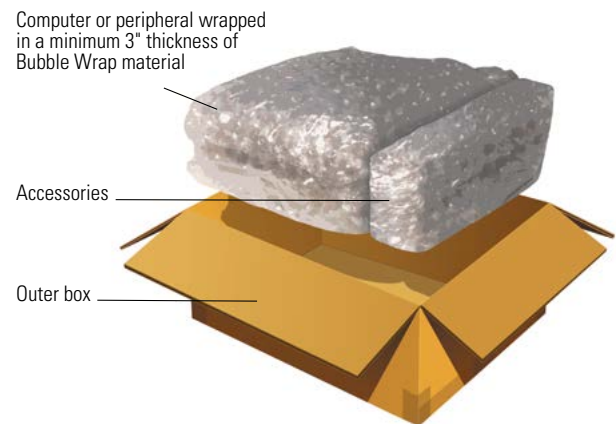
Inspect the original packaging to ensure that the cushioning material and box are intact and unbroken. Make any repairs with pressure-sensitive adhesive plastic tape that is at least 2" wide. Pack the product using all the original packaging components.

Obtain a box that is at least 6" larger in length, width, and height than the original manufacturer's packaging. Fill the bottom of the box with 3" of packing material (e.g., air-cellular cushioning material such as Bubble Wrap® or loosefill peanuts). Do not use crushed paper. Center the original manufacturer's packaging inside the outer box and fill empty spaces on all sides and the top with packing material. The inner box should be surrounded with at least 3" of packing material around all six sides of the inner box.

Apply at least three strips of pressure-sensitive adhesive plastic tape that is at least 2" wide to both the top and bottom of the carton to protect the package and its contents. Tape all seams or flaps.

Shipping Without Original Manufacturer's Packaging

We recommend three methods for shipping your computers and peripherals if you don't have, or prefer not to use, the original manufacturer's packaging.

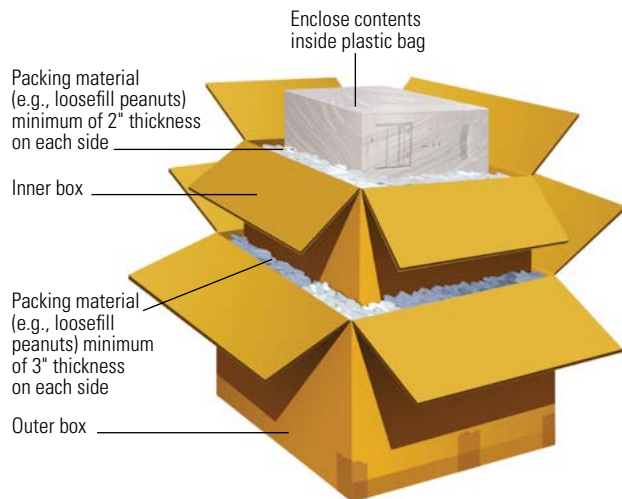


Using Air-Cellular Cushioning Material

Wrap the computer or peripheral on all sides with at least 3" to 4" of air-cellular cushioning material. Place the wrapped item inside a sturdy outer box. Accessories that are wrapped in appropriate amounts of cushioning can also be placed in any open spaces of the box. Fill all spaces with additional cushioning so that the wrapped item fits tightly inside the box. If no open spaces exist, pack accessories in an additional box.

Close and seal both the top and bottom of the box with three strips of pressure-sensitive plastic tape that is at least 2" wide. Tape all seams or flaps.

Using Loosefill Peanuts



Since this type of packing material allows the packaged item to settle to the bottom of the box, it is important to use the overbox method of packaging. The inner box should be at least 4" greater in length, width, and height than the item you are shipping. This will allow for 2" of space for all six sides. The outer box should be at least 6" greater in length, width, and height than the inner box. This will allow 3" of space between the inner box and the outer box.

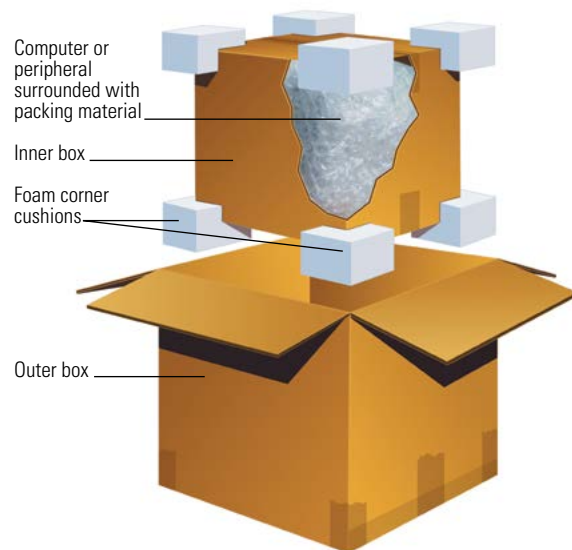
Wrap the computer or peripheral in a plastic bag to prevent the loosefill peanuts from getting inside the unit. Fill the bottom of the inner box with at least 2" of loosefill peanuts and center the wrapped item inside the box. Fill empty spaces on all sides and top with loosefill peanuts, ensuring that there is at least 2" of loosefill peanuts on all six sides of the item. Pack accessories such as power cords, keyboards, and external drives separately, away from the computer or peripheral.

Close and seal both the top and bottom of the box with three strips of pressure-sensitive plastic tape that is at least 2" wide.

Fill the bottom of the outer box with at least 3" of loosefill peanuts and center the inner box inside the outer box. Fill empty spaces on all sides and top of the inner box with loosefill peanuts, ensuring that there is at least 3" of loosefill peanuts on all six sides.

Close and seal both the top and bottom of the box with three strips of pressure-sensitive plastic tape that is at least 2" wide. Tape all seams or flaps.

Using Foam Corner Cushioning



You may choose to use foam corner cushioning specifically designed to properly cushion your product during shipping. This packing method allows you to use one size of inner box, one size of outer box, and one type of foam corner cushioning to ship items of various sizes and weights.

Place the computer or peripheral inside the box and surround the item with at least 1-1/2" of packing material (e.g., loosefill peanuts, air-cellular cushioning, foam-in-place) on all sides so that the item does not move inside the box.

Close and seal the top and bottom of the inner box with three strips of pressure-sensitive plastic tape that is at least 2" wide.

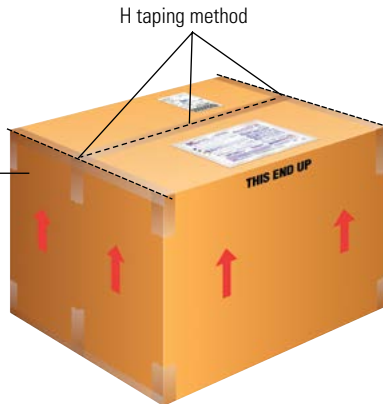
Place the box containing the item inside a larger (outer) box fitted with the foam corner cushions. The outer box must fit tightly around the foam corner cushions.

Close and seal the top and bottom of the outer box with three strips of pressure-sensitive plastic tape that is at least 2" wide. Tape all seams or flaps.

Sealing and Labeling Instructions

- Using the H taping method, apply at least three strips of pressure-sensitive adhesive plastic tape that is at least 2" wide to both the top and bottom of the carton.
- Tape all seams or flaps.
- Place the shipping label on the top of the largest side.

While we cannot ensure compliance with markings such as up arrows or "This End Up," properly placing the shipping label increases your chance for the preferred orientation.



Place the laptop in the plastic bag, then place one foam pad above and one foam pad below the wrapped laptop. Adjust the slotted foam liner by tearing off just enough material to ensure a snug fit around the laptop. Close the box by inserting the flaps into the side walls. Seal the bottom edge of the laptop box with a strip of pressure-sensitive plastic tape that is at least 2" wide.

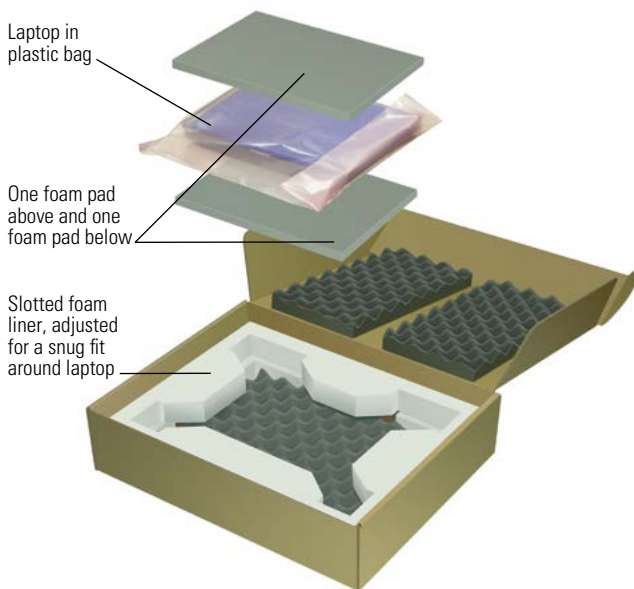
Laptops have a rechargeable lithium ion battery inside. These batteries are regulated dangerous goods under International Air Transport Association (IATA)/International Civil Aviation Organization (ICAO) regulations.

Before shipping a lithium ion battery, consult the Safety Data Sheet (SDS) from the battery manufacturer. If the battery is 100 watts or less, it must be packed in accordance with IATA Section II. Up to two of these batteries may be shipped contained in the equipment (laptop) without any additional labeling or documentation.

If more than two batteries are shipped in a laptop per package, or if spare batteries are shipped in the same package but separate from the laptop itself, then a completed IATA Lithium Battery handling label is required on each package.

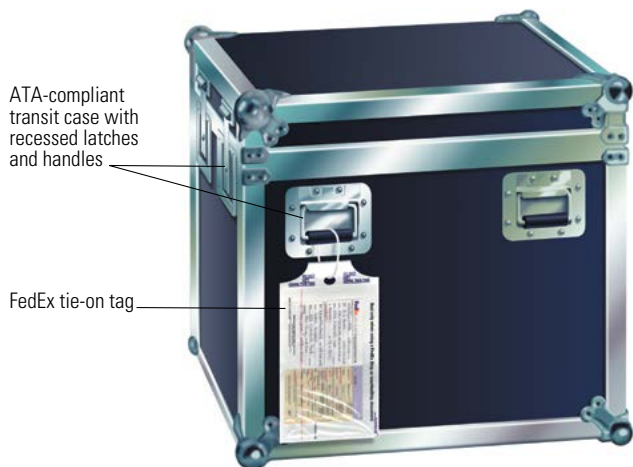
In addition, alternate documentation, such as a packing slip, is required. Please refer to the current IATA/ICAO regulations for more information.

Shipping in a FedEx Laptop Box



When shipping a laptop computer, we recommend that you use our specially designed FedEx Laptop Box whenever possible. The box includes cushioning material and is available for purchase at FedEx Office and FedEx World Service Center® locations.

Shipping in a Transit Case

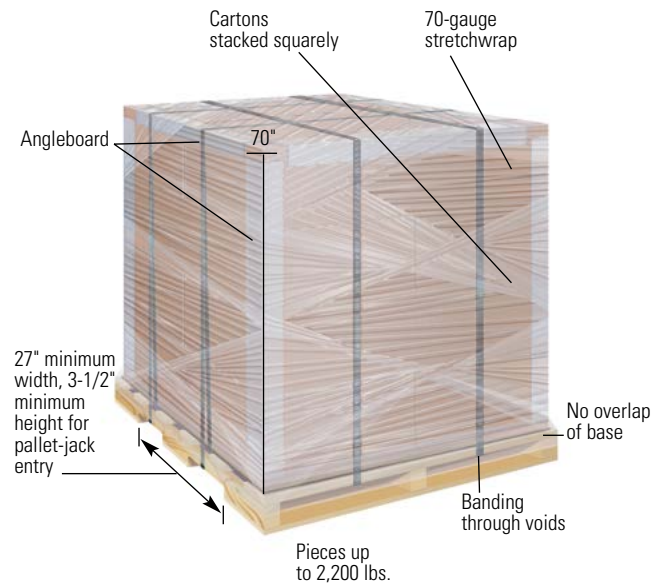


While transit cases can effectively protect computers and peripherals that will be shipped multiple times, care must be taken in the design of both the outer case and the inner cushioning.

When selecting a transit case, make sure the inner foam cushioning is designed to the proper fragility level to protect the computer or peripheral during shipping. Also make sure the outer case is manufactured in compliance with Airline Transport Association (ATA) standards. Handles, latches, wheels, and locks should be recessed into the case. Replace the foam cushioning inside the case periodically, because with use, the cushioning will break down and no longer provide proper protection for the product.

Attach the shipping label using a FedEx tie-on tag, available at [fedex.com](https://www.fedex.com) or by calling 1.800.GoFedEx 1.800.463.3339.

Packaging Freight Shipments



Shipments that qualify as freight must be packaged accordingly. See the current FedEx Service Guide to determine if your shipment qualifies as freight.

For detailed information on preparing freight shipments, refer to *Packaging Guidelines for Shipping Freight* at [fedex.com/packaging](https://www.fedex.com/packaging).

You must package your freight shipments to allow for stacking of other packages on top of your shipment. Make sure your freight shipments are banded and stretchwrapped to the pallet, with the bands running in both directions. (Pallet loads secured with only stretchwrap are not acceptable.)

Avoid corrugated or fiberboard pallets. You must secure all freight shipments weighing 151 lbs. or more on a forkliftable base, compatible with pallet-jack usage. The minimum specifications for a typical base for forklift or pallet-jack configuration are illustrated above.

Express Freight Shipments

To lessen the possibility of damage or delay to your cargo, make sure that all single-piece cargo greater than 150 lbs. is banded on all sides with heavy-duty metal or break-resistant plastic banding.

If your cargo is a single piece contained within a hardened container (plywood, metal) and is greater than 150 lbs., it does not require banding if exterior locks or clamps are used. (Glue, nails, or screws are not sufficient.)

General Guidelines for Shipping Computer Parts and Peripherals

Whichever packaging method you use, you'll find the following tips helpful when packing specific items.

Monitors

Remove the base and any attachments from the monitor when possible. Ship the monitor face-down.

Printers

Remove printing cartridges before shipping, and place cartridges inside a sealed plastic bag to prevent ink or powder from leaking into the box. Tape moving parts such as doors and print heads to secure them during transit. Remove any paper trays and pack them separately.

Scanners

Most manufacturers recommend that you secure the scanner carriage to prevent movement when shipping. Refer to your owner's manual for more information.

Computer Housings With or Without Internal Components

Packaging designed for computer housings without internal components is usually designed for the weight of the empty housing. If you assemble and install inner components (such as circuit boards and disk drives), make sure your packaging can accommodate the increased weight. For security reasons, you may want to encrypt or remove any confidential data stored on the computer before shipping. Overbox shipments of assembled units in original packaging.

Data Storage Devices

Before shipping CDs, memory sticks, magnetic tapes, or other data storage media, you should back up any data stored on the devices. For security reasons, you may also want to remove or encrypt any sensitive personal, confidential, or financial information. FedEx liability for loss of any electronic data is limited only to the cost of the medium on which the data is stored. See Liabilities Not Assumed in the current FedEx Service Guide.

Servers, Routers, Large Laser Printers

Due to the high value and variable weights and sizes of these units, we recommend that customers contact FedEx Packaging Services for packaging recommendations.

FedEx Package Testing and Design Services

We offer free package testing, evaluation, and design services that can help you avoid product damage. In some cases, we may even help you eliminate unnecessary packaging costs. We encourage you to submit a sample of your packaging for testing and evaluation. For a copy of our test procedures go to fedex.com/packaging or contact FedEx Packaging Services.

Testing Request Guidelines

Follow these steps for submitting your packaging for testing. An active FedEx account number is required. You and your FedEx account executive should expect testing results via email in approximately five to seven business days from FedEx Packaging Services' receipt of your packaging.

1. Obtain a FedEx Packaging Test Application at fedex.com/packaging or by contacting FedEx Packaging Services at packagingservices@fedex.com or 1.800.633.7019.
2. Complete and sign your application, referencing the name of your FedEx account executive on the form. See the FedEx Packaging Test Application for terms governing testing or design.
3. Prepare a sample test package including all the packaging components and contents in the exact configuration you intend to send to your customer.
4. Place your completed application, your sample test package labeled "Test This Package," and any necessary cushioning material in a sturdy outer container marked "Overpacked/Test Pkg. Inside."
5. Send your shipment to the address indicated on the FedEx Packaging Test Application.

Custom-Designed Packaging

If you ship computers and peripherals frequently, you may also want to have your packaging custom designed. FedEx Packaging Services can provide guidance to you and your packaging supplier. For example, you may be interested in a customized foam cushion specifically designed to fit and protect your fragile computer and to pass all FedEx packaging tests. Our packaging engineers can help with your custom designs.

Contacts and Resources

- *How to Pack* guidelines at [fedex.com/packaging](https://www.fedex.com/packaging).
- FedEx Packaging Design and Development lab, packagingservices@fedex.com or 1.800.633.7019.
- FedEx field packaging engineers, pkgfield@corp.ds.fedex.com, or contact your FedEx account executive for a referral.
- FedEx Express provides a lithium battery flow chart at [fedex.com/dangerousgoods](https://www.fedex.com/dangerousgoods). Select the Resources button and follow the prompts to the job aids.

Bubble Wrap is a registered trademark of Sealed Air Corporation.

NOTICE: This packaging brochure is provided to FedEx customers to help reduce loss or damage due to improper packaging. It is NOT intended to be a comprehensive guide for packaging items we accept for transit. We make no warranties, expressed or implied, regarding this information. Proper packaging is the sole responsibility of the shipper. For more information and additional guidelines, go to the packaging tips page on [fedex.com/packaging](https://www.fedex.com/packaging), email packagingservices@fedex.com, or contact FedEx Packaging Services at 1.800.633.7019. Refer to the current FedEx Service Guide for terms, conditions, and limitations applicable to FedEx® delivery services.

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