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How Is Fiber Internet Installed?

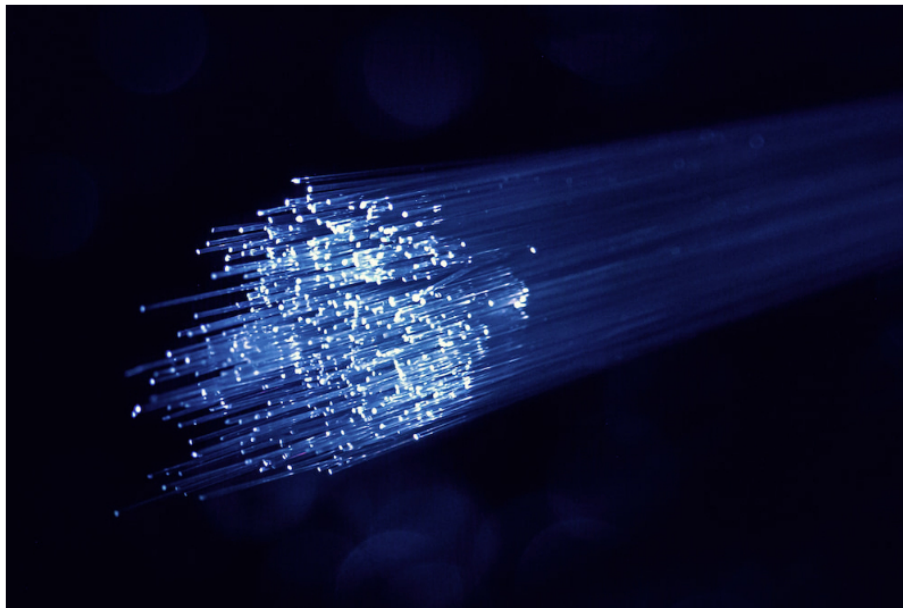
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Want to get more out of your home internet?

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It's only a relatively recent development that [fiber optic Internet](#) is more widely available. And if all you've ever known is DSL or cable, you're likely to be surprised when you experience fiber's speed and reliability. However, you may also find yourself curious about fiber Internet installation and what it entails. For instance: Is fiber Internet installed in the ground? Does it use a router? How do you prepare for an installation appointment?

In this guide, we'll address these topics and more, from specifics about equipment and wiring to the overarching question, "how is fiber optic Internet installed?" Keep reading to learn all about installing fiber.



What Is Fiber Internet?

Let's back up for a second. In order to understand how fiber Internet gets installed, you need to know what fiber Internet is. Here's the answer: Fiber Internet is a type of Internet connection that uses fiber optic cables, rather than the traditional copper wires used for DSL and cable Internet, to transmit data. (Read our article on [DSL vs. Fiber vs. Cable](#) to learn more about the differences between the three.) Fiber cables, which are usually glass or plastic, enable high-bandwidth connections, allowing for fast data uploads and downloads. Fiber Internet is also known for low latency, meaning there are minimal delays, and reliability—even in inclement weather.

[Optimum Fiber Internet](#) uses glass fibers for high reliability and symmetrical upload and download speeds. Beyond this, our fiber plans include [WiFi 6E](#) for faster streaming, working, and gaming, as well as built-in security.

Does Your House Have to Be Wired for Fiber?

The fiber cables that are necessary for fiber Internet can be wired in your house, but this isn't your only option. There are three core types of fiber Internet connections:

Fiber to the Home (FTTH): With FTTH, fiber optic cables run directly from your Internet service provider's network to your house. Because it doesn't require any copper wiring, FTTH offers the fastest Internet speeds.

Fiber to the Curb (FTTC): Here, the fiber cables stop at a pole or curb near your house. A coaxial cable is then used to bring the

fiber Internet the remaining distance to your home. FTTC connections can be slower but are still considered more advanced than cable or DSL.

Fiber to the Neighborhood (FTTN): Also known as “Fiber to the Node,” with this type of connection, the fiber optic cables stop further away from your home. They run to a node, which is a connection hub near your neighborhood. All homes in the area with fiber Internet are connected to this node via coaxial cable. In some cases, copper coaxial wiring must travel quite far to reach your house, which can result in slower speeds.

What Equipment Is Needed for Fiber-Optic Internet?

If you currently have a cable or DSL connection, you’ll need different equipment for fiber. Here’s an overview:

Fiber Optic Cables: As we mentioned, fiber optic cables are a key part of establishing a fiber Internet connection. These fibers can either run underground or aerially, in which case they’re connected to existing utility poles.

Clamshell: With a FTTH connection, a protective utility box called a clamshell is used. The clamshell is stored in your home and houses the ends of the fiber optic cables where they connect to the optical network terminal.

Optical Network Terminal (ONT): Fiber Internet doesn’t require a traditional modem. For FTTH, you use an ONT instead. The ONT communicates directly with your Internet service provider and converts the optical signals received via the fibers into the signals needed for you to access the Internet. These terminals are sometimes also referred to as fiber optic modems or fiber boxes.

Fiber Optic Router or Gateway: You may not need a modem, but does fiber optic Internet use a router? The answer is yes—however, any old router won’t do. You need one that’s compatible with fiber to ensure it can handle such a high-speed connection. A gateway, which is a device that functions as both a modem and router, is also an option. If you sign up for Optimum Fiber, you’ll receive a new Gateway 6.

WiFi Extenders: It’s possible some areas in your home won’t be fully covered by WiFi. In this case, you can use WiFi extenders. As part of our Optimum Fiber installation, the technicians will perform a signal check and install extenders for any areas with a weak signal.

Ethernet Cord: To get a wired connection, you’ll need an Ethernet cord. It’s important to make sure your cord is compatible with your Internet speed. To support Optimum’s 300 Mbps, 500 Mbps, and 1 Gig Fiber Internet plans, you’ll need at least a Cat 5e cable. For our fastest service—[8 Gig fiber Internet](#)—make sure you have either a Cat 6a, Cat 7, or Cat 7a cable. You can learn more about the differences between these cables in our article on [Ethernet cords](#).

How Do You Prepare for Fiber Optic Installation?

If you sign up for Optimum Fiber Internet, your service will be professionally installed. This means most of the work is handled for you. But there are a few things for you to check off your to-do list before install day.

- **Check for availability in your area.** Fiber networks are expanding but aren’t available everywhere just yet. You can check if Optimum Fiber Internet is available where you live [here](#).
- **Assess your needs and pick the right plan.** An important part of choosing the right fiber Internet plan is knowing how fast your Internet needs to be. At Optimum, we offer a range of speeds so you can pick the right one for you. If you need help, read our article on [Internet speeds](#).
- **Book your appointment and plan your day accordingly.** Once you choose a plan and sign up for service, you’ll need to schedule your installation. It’s a good idea to take your availability into consideration, as fiber installation can take up to three hours. Often, Internet service providers will give you an appointment window rather than a set time when the technicians will arrive, so there may also be additional waiting involved.

How To Get Optimum Fiber Internet Installed at Your Home

The answer to “how is Internet installed in a house?” may differ based on the type of Internet you choose, as well as your Internet service provider. This is what you can expect from a professional **Optimum Fiber Internet** installation:

Step 1: Prework home visit

Before your appointment, a technician may visit your property to better plan for your installation. If they do pay you a visit, all the work will be done outside—you don’t need to be home.

Step 2: Technician arrival and fiber set-up

When your technician arrives, they can help you find the best location for your new equipment. Once you’ve picked a spot, they’ll start on your installation. As we mentioned, this can take up to three hours from start to finish.

As part of the set-up, your technician may need to drill a small hole to bring the fiber cable into your house. If possible, they’ll avoid this by using an existing hole from a previous service set-up.

Step 3: Gateway installation

The technician will bring all the necessary equipment with them, including your new gateway (to replace your old modem and router). They will set it up as part of the installation.

Step 4: Signal test

To make sure you'll have WiFi throughout your entire home, the technician will perform a signal test. Based on the results, they'll determine if WiFi extenders are needed. If you do need extenders, your technician will install them during the same visit.

Step 5: Customer test

Once they've finished installing your fiber Internet, you'll get the chance to confirm that your services and equipment are working. The technician will share your new WiFi network name and password with you, and you can test them out.

After installation, if you so choose, you can change the name and password on your own. You can find a step-by-step tutorial on how to do so in the "After Installation" section of [Optimum's Fiber Internet installation](#) page.

Step 6: Appointment conclusion

Before your technician leaves, they'll have you sign the work order. Afterward, you'll receive an email with a copy of it for your records. If you were previously an Optimum Internet customer (but didn't have fiber), the technician will also take your old equipment with them and remove it from your account. They'll note this in the work order before you sign it.

Now that you know how fiber Internet gets installed, learn how to get Internet access when you're away from home. Read our article on [staying connected to WiFi](#)—anywhere—for all the details.

Are you getting everything you need from your home internet?

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Have a question about Optimum Internet service? Explore our [Frequently Asked Questions](#) page or [contact us](#) for

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