

## NetBotz Fiber 500m Pod Extender

This manual is intended to assist you in the process of installing the NetBotz Fiber 500m Pod Extender. The instructions in this guide assume a knowledge of computer installation procedures, familiarity with cabling requirements, and some understanding of USB devices.

### Fiber 500m Pod Extender Product Contents

Your NetBotz Fiber 500m Pod Extender package should include the following items:

- NetBotz Fiber 500m Pod Extender User's Guide (this publication)
- Fiber 500m Pod Extender Local Module
- Fiber 500m Pod Extender Remote Module
- 2 AC power adapters
- USB cable (2m long)

To complete the installation, you will also need the following items that are not included with the product:

- NetBotz 500 or 420 appliance
- 2-strand fiber-optic cable with MT-RJ connectors (if using surface cabling)

**OR**

2-strand fiber-optic cable with two information outlets and two 2-strand fiber-optic cable patch cords with MT-RJ connectors (if using premise cabling)



**Note**

The maximum length of the 2-strand fiber-optic cable, including patch cords, must not exceed 500m.

- 1 NetBotz Camera Pod 120, or 1 or more NetBotz Sensor Pod 120s.

### About the NetBotz Fiber 500m Pod Extender

The Fiber 500m Pod Extender enables you to deploy NetBotz Camera Pod 120s or NetBotz Sensor Pod 120s at a distance greater than the typical the five-meter limit for USB peripheral devices. With the Fiber 500m Pod Extender, your pods can be located up to 500 meters from the NetBotz appliance. In addition, the Fiber 500m Pod Extender can supply power to 1 NetBotz Camera Pod 120 or up to 4 NetBotz Sensor Pod 120s. You can also use daisy chained self-powered USB hubs to connect a NetBotz Camera Pod 120 or more than 4 NetBotz Sensor Pod 120s to your Fiber 500m Pod Extender.

The Fiber 500m Pod Extender is composed of two individual modules: The Local Module and the Remote Module.

#### The Local Module

The Local Module connects to the NetBotz appliance using a conventional USB cable and a power outlet using the included AC power adapter.

## The Remote Module

The Remote Module connects to one Camera Pod 120s or one or more Sensor Pod 120s using conventional USB cables, and to a power outlet using the included AC adapter. The Remote Module allows you to connect up to 4 USB devices, such as a NetBotz Camera Pod 120, NetBotz Sensor Pod 120, or USB hubs to which additional devices (such as one Camera Pod 120 with one or more Sensor Pod 120s) will be connected.

## Connecting the Local Module to the Remote Module

The Local Module and Remote Module are interconnected by up to 500m of 2-strand fiber-optic cabling. The cabling must provide a duplex connection and be terminated with MT-RJ connectors at both ends.

## USB Cables

USB cables have two distinct connectors. The Type A connector is used to connect the cable from a USB device to the Type A port on a computer or hub. The Type B connector is used to attach the USB cable to a USB device.



Note

Connecting more than one NetBotz Camera Pod 120 to a single Fiber 500m Pod Extender places a significant burden on the bandwidth of the USB port and will reduce the maximum image capture rate for all cameras connected to the port.

## Before You Begin

Before you can install the Fiber 500m Pod Extender, you need to prepare your site.

1. Determine where the NetBotz appliance is to be located and set up the appliance.
2. Determine where you want to deploy your pod or pods.
3. If you are using surface cabling, ensure you have enough 2-strand fiber-optic cabling to connect the two locations.

**OR**

If you are using premise cabling, ensure the 2-strand fiber-optic cabling is installed between the two locations with information outlets located near both the computer and the USB device(s).

## Install the Local Module

1. Place the Local Module near the NetBotz appliance.
2. Plug the Type B connector on the USB cable (included) into the USB Type B Port on the Local Module.
3. Plug the power adapter into a suitable AC outlet.
4. Connect the power adapter to the Power Connector on the Local Module.
5. Plug the Type A connector on the USB cable into a USB port on the NetBotz appliance.

## Install the Remote Module

1. Place the Remote Module near the pod.
2. Using a USB cable, plug the USB Type B connector into the pod, and then plug the

- USB Type A connector into a USB Type A Port on the Remote Module (shown below).
3. Plug the power adapter into a suitable AC outlet.
  4. Connect the power adapter to the Power Connector on the Remote Module.

## Connect the Remote Module to the Local Module



**Note**

To ensure proper operation, we recommend that only 62.5/125 multimode, 50/125 multimode, or single-mode cabling be used to connect the Local Module to the Remote Module. The cabling must provide a duplex connection and be terminated with MT-RJ connectors at both ends.

### With Surface Cabling

1. Plug one end of the fiber-optic cabling (not included) Category 5 UTP cabling (not included) into the MT-RJ connector on the Local Module.
2. Plug the other end of the fiber-optic cabling into the MT-RJ connector on the Remote Module.

### With Premise Cabling

1. Plug one end of a fiber-optic patch cord (not included) into the MT-RJ connector on the Local Module.
2. Plug the other end of the fiber-optic patch cord into the information outlet near the NetBotz appliance.
3. Plug one end of a second fiber-optic patch cord (not included) into the MT-RJ connector on the Remote Module.
4. Plug the other end of the second fiber-optic patch cord into the information outlet near the pod.



**Note**

The maximum length of the fiber-optic cable, including patch cords, must not exceed 500m.

## Check the Installation

To ensure that your Fiber 500m Pod Extender has been installed correctly, check that the following indicator LEDs are illuminated:

- Power indicators on both the Remote and Local Modules
- Link indicators on both the Remote and Local Modules
- Host indicator on the Local Module
- USB Port indicators on the ports in use on the Remote Module

# Troubleshooting

Symptoms/Cause	Remedy
<p>LEDs on the Remote Module or Local Module are not lit.  <b>Cause:</b> The Fiber 500m Pod Extender is not receiving power.</p>	<p>Ensure the power adapter is securely connected to either the Local Module or Remote Module as appropriate and to a proper local power supply outlet.</p>
<p>Link LEDs on the Local Module and Remote Module are not lit.  <b>Cause:</b> The connection between the Local Module and Remote Module is not correct.</p>	<p>Ensure that the proper fiber optic cable is connected between the Remote Module and Local Module.</p>
<p>Host LED on the Local Module and the USB LED on the Remote Module are not lit.  <b>Cause:</b></p> <ul style="list-style-type: none"> <li>a. The link between the Local Module and the NetBotz appliance is not correct.</li> <li>b. The NetBotz appliance is not functioning.</li> <li>c. The NetBotz appliance does not recognize the Fiber 500m Pod Extender.</li> </ul>	<ul style="list-style-type: none"> <li>1. Ensure all cables are securely connected.</li> <li>2. Remove and then reconnect the power adapter to the Fiber 500m Pod Extender.</li> <li>3. Restart the NetBotz appliance.</li> </ul>
<p>USB port LED on Remote Module is not lit.  <b>Cause:</b></p> <ul style="list-style-type: none"> <li>a. Connection between the pod and the Remote Module is not correct.</li> <li>b. The pod is malfunctioning.</li> <li>c. The Fiber 500m Pod Extender is malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>1. Ensure the pod is securely connected to the USB port on the Remote Module. If the USB port LED on the Remote Module is still not lit:</li> <li>2. Disconnect the Fiber 500m Pod Extender from the NetBotz appliance.</li> <li>3. Connect the pod directly to the USB port on the NetBotz appliance.</li> <li>4. If the pod is functioning properly when connected directly to the NetBotz appliance: <ul style="list-style-type: none"> <li>a. Connect another pod (of a different type) to the Fiber 500m Pod Extender.</li> <li>b. If the second pod does not work, the Fiber 500m Pod Extender may be malfunctioning. Contact Technical support for assistance.</li> </ul> </li> <li><b>OR</b></li> <li>5. If the pod does not function properly when connected directly to the NetBotz appliance, the pod may be malfunctioning. Contact Technical support for assistance.</li> </ul>

Symptoms/Cause	Remedy
<p>LEDs on the Remote Module and Local Modules are lit, but a pod does not work.</p> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>a. The pod is malfunctioning.</li> <li>b. The Fiber 500m Pod Extender is malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>1. Disconnect the Fiber 500m Pod Extender from the NetBotz appliance.</li> <li>2. Connect the pod directly to a USB port on the NetBotz appliance.</li> <li>3. If the pod does not function properly when connected directly to the NetBotz appliance, the pod may be malfunctioning. Contact Technical support for assistance.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>4. If the device is functioning properly when connected directly to the computer:                             <ul style="list-style-type: none"> <li>a. Connect another pod (of a different type) to the Fiber 500m Pod Extender.</li> <li>b. If the second pod does not work, the Fiber 500m Pod Extender may be malfunctioning. Contact Technical support for assistance.</li> </ul> </li> </ul>

## Specifications

Item	Fiber 500 Pod Extender
Range (over 62.5/125 fiber-optic cabling)	500 meters
Host cable (USB)	Type A/B 2m
Local Module connector (UTP)	1 x MT-RJ
Local Module connector (USB)	1 x USB Type B
Remote Module connector (UTP)	1 x MT-RJ
Remote Module connector (USB)	4 x USB Type A
Local Module/Remote Module power adapter	15V DC 1A
USB power at Remote Module	4 x 500mA
Local Module dimensions (overall)	114 x 106 x 38 mm
Remote Module dimensions (overall)	114 x 106 x 38 mm
Temperature range	4°C to 40°C
USB Speeds	1.5 Mbps and 12 Mbps
Link cable (not included)	62.5/125 multimode, 2-strand or 50.125 multimode, 2-strand or single-mode 2-strand

## Certifications

The Fiber 500m Pod Extender has been certified to the following standards:

- FCC Part 15 Class A
- CE
- USB-IF

## Compatibility

The Fiber 500m Pod Extender complies with all USB 1.1 specifications. However, NetBotz Inc. does not guarantee that all USB devices are compatible with the Fiber 500m Pod Extender.

**PN: 01562D02**