# FTTB-1218-L1W

Fiber Optic 1218 MHz
One-Way Indoor Optical Node
Stock No. 7621

# General Installation Instructions

The **FTTB-1218-L1W** has an operating temperature range of -20°C to +60°C. It should be mounted in an adequately ventilated area. For a longer life span, it should not be operated at the upper limit of the temperature range. Installation in wet areas or areas of extremely high humidity should be avoided. The FTTB-1218-L1W should not be installed in areas that are accessible to children. The FTTB-1218-L1W may be installed and operated in any position on a flat surface. The unit has two mounting holes to accommodate either wood screws (#4 or #6 pan-head) or 6-32 pan-head machine screws for tapped mounting holes. These are commonly available at hardware stores.

### Optical Connectors

The optical input connector is an SC/APC type termination. Should a FC/APC connector be required for your installation, please see Blonder Tongue model FC/APC Adapter (Stk # 7607.)

### Powering

Apply +18 VDC to the DC socket from the included power supply and power cable.

## Operational Setup

The FTTB-1218-L1W Series will operate at optical input levels as high as +3 dBm however there is little improvement in the C/N performance with optical input levels above 0 dBm. For optimum distortion performance it is recommended that the optical input be kept at -1 dBm.

The unit's RF output level is fixed over the effective optical input range due to an internal RF AGC. Additional RF output signal conditioning can be done using the user-adjustable Attenuator to lower the RF level and the user-adjustable Equalizer to generate a positive slope from 54-1218 MHz. These are accessed through the LCD control using the up, down, and enter buttons.

The LCD also monitors various operating parameters including the Optical Input Level, RF Output level, AGC attenuation, Power to the unit, Temperature, and System Information.

## LCD Control and Monitoring

| | |
|---|---|
| **User-Adjustable Controls** | |
| Attenuator: | 0-15 dB (1 dB step) |
| Equalizer: | 0-15 dB (1 dB step) |
| **Monitoring*** | |
| Optical Input Level [1]: | < -4.0 dBm or > +3.0 dBm |
| RF Output Level [1]: | < 10.0 dBmV or > 50.0 dBmV |
| AGC Attenuator: | 0-15 dB (Status Only) |
| **System Status** | |
| Power: | < +16.5V or > +19.5V (18V ±1.5V) |
| Temperature: | < -40.0° C or > +80.0° C |
| System Information: | Model<br>Serial Number<br>Firmware Version |

** Monitoring alerts will display when the following specifications are out of range.*

## User-Adjustable Controls

**Attenuator**: Changes the value of the forward path attenuator from 0 to 15dB. This also changes the RF output accordingly: (a 10dB increase in attenuation will reduce the RF output by 10dB). To change the attenuation, scroll down to the "Forward Path Attenuator" screen on the LCD. The current attenuator value will be displayed. To change the value, press the SET key and use the up/down arrows to select the desired value. When desired value is selected, press SET key again to load the value.

**Equalizer**: Changes the slope of the RF output from 0 to 15dB. To change the slope, scroll down to the "Equalizer" screen on the LCD. The current equalizer value will be displayed. To change the value, press the SET key and use the up/down arrows to select the desired value. When desired value is selected, press SET key again to load the value.

## Monitoring

**Optical Input Level [1]**: Indicates the optical power applied to the input of the unit in dBm. The recommended input level for best operation is -1dBm.

**RF Output Level [1]**: Indicates the nominal RF output level present at outputs RF1 and RF2.

**AGC Attenuator**: Indicates the internal AGC attenuation.

## System Status

**Temperature**: Indicates the internal temperature of the unit in degrees C.

**Power**: Indicates the dc voltage applied to the DC power input port.

## System Information

Displays the Model, Serial Number, and Firmware Version of the unit.

[1] The displayed levels are for reference only. A calibrated optical power meter and a CATV RF meter or Spectrum analyzer should be used for actual levels.

## Need More Information?

For additional information and product warranty, download the latest User Manual (PDF) by visiting our website: ***www.blondertongue.com***

Navigate to the product page by entering the full Model Name or Stock Number in the search field. Upon reaching the product page, the "User Manual" download link will be located beneath the product image.

For technical support please contact us at 1-800-523-6049 between the hours of 8am and 5pm EST.

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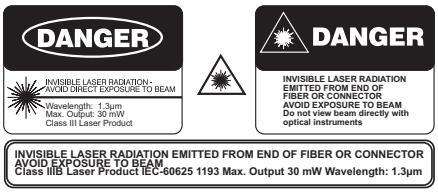
## Safety Instructions




**WARNING: The optical emissions from the units are laser-based and present eye hazards. Follow all safety precautions.**


The YIELD sign symbol is intended to alert you to the presence of RECOMMENDED operating and maintenance (servicing) instructions.

**TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE**

**NOTE TO CATV SYSTEM INSTALLER**

**This reminder is provided to call the CATV System Installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.**

**You should always follow these Instructions to help ensure against injury to yourself and damage to your equipment.**

### Safety Precautions

The optical emissions from the units are laser-based Class IIIb, and may present eye hazards if improperly used. **NEVER USE ANY KIND OF OPTICAL INSTRUMENT TO VIEW THE OPTICAL OUTPUT OF THE UNIT**.

As always, be careful when working with optical fibers. Fibers can cause painful injury if they penetrate the skin.

### Laser Safety Procedures

- **ALWAYS** read the product data sheet and the laser safety label before powering the product. Note the operating wavelength, optical output power, and safety classifications.
- If safety goggles or other eye protection are used, be certain that the protection is effective at the wavelength(s) emitted by the device under test **BEFORE** applying power.
- **ALWAYS** connect a fiber to the input of the device **BEFORE** power is applied. Power should never be applied without an attached fiber input. If the device has a fiber output, a connector should be attached that is connected to a fiber. This ensures that all light is confined within the fiber waveguide, virtually eliminating all potential hazard.
- **NEVER** look in the end of a fiber to see if light is coming out. **NEVER**! Most fiber optic laser wavelengths (1310 nm and 1550 nm) are totally invisible to the unaided eye and will cause permanent damage. Shorter wavelength lasers (e.g. 780 nm) are visible and are very damaging. Always use instruments, such as an optical power meter, to verify light output.
- **NEVER, NEVER, NEVER** look into the end of a fiber on a power device with **ANY** sort of magnifying device. This includes microscopes, eye loupes, and magnifying glasses. This **WILL** cause permanent, irreversible burn on your retina.
- **ALWAYS** double check that power is disconnected before using such devices. If possible, completely disconnect the unit from any power source.
- If you have questions about laser safety procedures, please call Blonder Tongue before powering your product.

**CAUTION: If any of the equipment appears to have been damaged, do NOT connect it to a power source. This will only cause additional damage to the unit. Contact Technical Support for further instructions.**

**You will find the following items in the box:**

- FTTB-1218-L1W Series Optical Node [QTY=1]
- 18 VDC Power Supply [QTY=1]
- Power Cable, 6.5 ft. (2 meters) [QTY=1]

**The following tools and supplies are recommended for installation:**

- An optical power meter
- A digital multimeter
- A standard fiber test jumper
- A cable TV RF meter or spectrum analyzer
- Denatured or 99% pure isopropyl alcohol and lint-free fiber optic cleaning wipes.

**www.blondertongue.com**

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Blonder Tongue is ISO 9001:2015 Certified

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