



## Quick Installation Guide



**TFC-1000**  
**TFC-210 Series**  
**TFC-2000 Series**

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# 1. Avant de commencer

Boîtier convertisseur fibre TFC-1000 pour convertisseurs des séries TFC-210 et TFC-2000 :



## Contenu de l'emballage

- TFC-1000
- Guide d'installation rapide
- Cordon d'alimentation (courant alternatif)
- Support de montage et vis

Convertisseur fibre des séries TFC-210 ou TFC-2000 :



## Contenu de l'emballage

- Convertisseur fibre
- Guide d'installation rapide
- Alimentation AC (9V DC, 700mA)

## 2. Détails du produit

Convertisseur fibre 10/100Base-TX vers 100Base-FX					
Nom du modèle	Multi/ Mono-Mode	Connecteur Fibre	Bilan de liaison	Longueur d'onde	Distance
TFC-210MST	Multi-Mode	ST (Duplex)	50/125um: 7,5dBm 62,5/125um: 11dBm	1310nm (1270nm ~ 1380nm)	2Km
TFC-210MSC		SC (Duplex)	50/125um: 8,5dBm 62,5/125um: 8,5dBm		
TFC-210S30	Mono-Mode				1310nm (1260nm ~ 1360nm)
TFC-210S20D3	Mono-Mode Mono/ bidirectionnel	SC (Simplex)	9/125um: 12dBm	TX:1310nm (1280nm ~ 1355nm) RX:1550nm (1530nm ~ 1570nm)	20Km
TFC-210S20D5				TX:1550nm (1530nm ~ 1570nm) RX:1310nm (1280nm ~ 1355nm)	

Convertisseur fibre 00Base-T vers 1000Base-SX/LX					
Nom du modèle	Multi/ Mono-Mode	Fiber Connector	Bilan de liaison	Longueur d'onde	Distance
TFC-2000MSC	Multi-Mode	SC (Duplex)	50/125um:8,5dBm	850nm (830nm ~ 860nm)	550M
			62,5/125um:8,5dBm		220M
TFC-2000S20	Mono-Mode		9/125um:15dBm	1310nm (1270nm ~ 1355nm)	20Km
			TFC-2000S50	9/125um:19dBm	1550nm (1520nm ~ 1580nm)
TFC-2000S10D3	Mono-Mode Mono/ bidirectionnel	SC (Simplex)	9/125um:12dBm	TX:1310nm (1280nm ~ 1355nm) RX:1550nm (1530nm ~ 1570nm)	10Km
TFC-2000S10D5				TX:1550nm (1530nm ~ 1570nm) RX:1310nm (1280nm ~ 1355nm)	

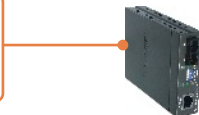
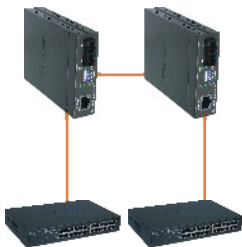
## 3. Installation du matériel

### Installation de 2 convertisseurs fibre autonomes

1. Branchez le câble fibre aux convertisseurs fibre.

2. Branchez un câble Ethernet RJ-45 entre le port Ethernet des convertisseurs de fibre et le port Ethernet de votre switch (e.g TE100-S24R ou TEG-S240TX).

3. Branchez l'adaptateur secteur à l'arrière du convertisseur fibre.



#### Remarque:

– Câblage:

Câble optique multimode: TFC-210MST, TFC-210MSC, TFC-2000MSC

Câble optique monomode: TFC-210S30, TFC-210S50, TFC-2000S30, TFC-2000S50

Câble optique à simple brin pour TFC-210S20D3/D5, TFC-210S10D3/D5

- Les câbles TX et RX doivent être inversés par rapport à la connexion fibre opposée.
- Le TFC-210S20D3 doit être apparié avec le TFC-210S20D5. Le TFC-2000S10D3 doit être apparié avec le TFC-2000S10D5.
- Les ports TX et FX des ports de la Série TFC-2000 ne supportent pas l'auto-négociation. La connexion opposée cuivre et fibre doit être Gigabit.

## Installation d'un convertisseur fibre sur un switch

1. Branchez le câble fibre du convertisseur fibre à un switch fibre (p. ex. TE100-S810Fi)

2. Branchez un câble Ethernet RJ-45 entre le port Ethernet des convertisseurs de fibre switch et le port Ethernet de votre switch (e.g TE100-S24R ou TEG-S240TX).

3. Branchez l'adaptateur secteur à l'arrière du convertisseur fibre.



Remarque: Ceci ne s'applique pas aux TFC-210S20D3, TFC-210S20D5, TFC-2000S10D3 et TFC-2000S10D5.

## Installation d'un convertisseur fibre sur un PC

1. Branchez le câble fibre du convertisseur fibre à un adaptateur fibre (p. ex. TE100-PCIFX+).

2. Branchez un câble Ethernet RJ-45 entre le port Ethernet des convertisseurs de fibre et le port Ethernet de votre switch (e.g TE100-S24R ou TEG-S240TX).

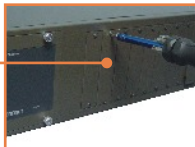
3. Branchez l'adaptateur secteur à l'arrière du convertisseur fibre.



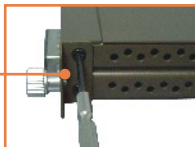
Remarque: Ceci ne s'applique pas aux TFC-210S20D3, TFC-210S20D5, TFC-2000S10D3 et TFC-2000S10D5.

## Installation d'un convertisseur fibre dans un boîtier

1. A l'aide d'un tourne vis, dévissez le couvercle de la baie désirée sur le boîtier et enlevez le couvercle. Conservez les vis et le couvercle qui vous serviront plus tard si vous devez refermer la baie.



2. Fixez le support de montage sur le côté du convertisseur fibre.



3. Insérez le convertisseur fibre dans un logement disponible. Installez le convertisseur fibre avec le port fibre près du bas du boîtier. Serrez ensuite les vis pour fixer le convertisseur fibre.





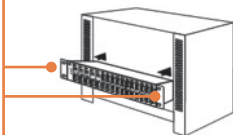
## Montage du rack

Le boîtier peut être installé dans un rack EIA standard de 19 pouces qui peut être placé dans une armoire de répartition avec les autres équipements.

1. Posez les supports de montage sur l'avant du boîtier (un de chaque côté), et fixez les avec les vis fournies.



2. Mettez soigneusement le boîtier dans le rack. Alignez les supports sur les trous des vis du rack, utilisez ensuite les vis fournies avec le rack pour fixer le boîtier.



## Branchement de l'alimentation

1. Branchez le cordon d'alimentation fourni à l'arrière du boîtier.

2. Branchez le cordon d'alimentation à une prise de courant.

3. Mettez le switch sur **ON** pour alimenter le boîtier.



## Commutateur DIP

<b>Séries TFC-210</b>	Switch 1: ON: Mode Full Duplex TX OFF: Auto Négociation TX Switch 2: ON: Half Duplex FX      OFF: Full Duplex FX Switch 3: ON: LLCF activé      OFF: LLCF désactivé Switch 4: ON: Pure Mode      OFF: Mode Switch
<b>Séries TFC-2000</b>	Switch 1: ON: LLCF TX activé OFF: LLCF TX (désactivé) Switch 2: ON: LLCF fibre activé OFF: LLCF fibre (désactivé)

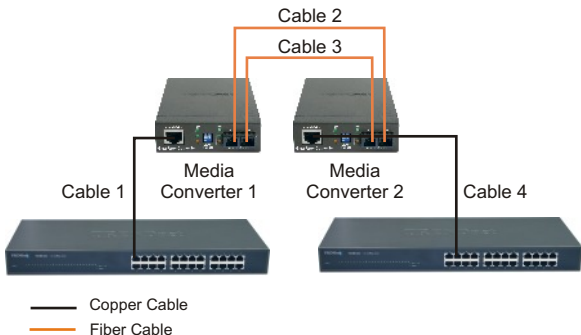
\*Après avoir changé les paramètres du switch DIP, éteignez et rallumez le convertisseur fibre.

\*\*LLCF signifie Link Loss Carry Forward.

# LLCF Function

LLCF allows the network administrator to quickly troubleshoot the network connection based on the LEDs on the Fiber Converters. When the TX port link is down, the converter will force the fiber port link to shutdown. When the fiber port link is down, the converter will force the TX port link to shutdown.

## LLCF (Link Loss Carry Forward) Diagram



Below are examples on how to read the LLCF Function Table:

**Example 1:** If LLCF is enabled on Fiber Converter 1 and disabled on Media Converter 2, when Cable 1 link is down, Fiber Converter 1's Copper and Fiber LED and Fiber Converter 2's Fiber LED will shut off. Fiber Converter 2's Copper LED remains on.

**Example 2:** If LLCF is disabled on both Fiber Converters, when Cable 4 link is down, Fiber Converter 1's Copper and Fiber LED and Fiber Converter 2's Fiber LED remains on. Fiber Converter 2's Copper LED will shut off.

## LLCF (Link Loss Carry Forward) Function Table

		Media Converter 1		Media Converter 2		
		Copper LED	Fiber LED	Copper LED	Fiber LED	
Media Converter 1 LLCF Enable	Cable 1 Link Down	OFF	OFF	OFF	OFF	
	Cable 2 Link Down	OFF	OFF	OFF	OFF	
	Media Converter 2 LLCF Enable	Cable 3 Link Down	OFF	OFF	OFF	OFF
		Cable 4 Link Down	OFF	OFF	OFF	OFF
Media Converter 1 LLCF Enable	Cable 1 Link Down	OFF	OFF	ON	OFF	
	Cable 2 Link Down	OFF	OFF	ON	OFF	
	Media Converter 2 LLCF Disable	Cable 3 Link Down	OFF	OFF	ON	OFF
		Cable 4 Link Down	ON	ON	OFF	ON
Media Converter 1 LLCF Disable	Cable 1 Link Down	OFF	ON	ON	ON	
	Cable 2 Link Down	ON	OFF	OFF	OFF	
	Media Converter 2 LLCF Enable	Cable 3 Link Down	ON	OFF	OFF	OFF
		Cable 4 Link Down	ON	OFF	OFF	OFF
Media Converter 1 LLCF Disable	Cable 1 Link Down	OFF	ON	ON	ON	
	Cable 2 Link Down	ON	OFF	ON	OFF	
	Media Converter 2 LLCF Disable	Cable 3 Link Down	ON	OFF	ON	OFF
		Cable 4 Link Down	ON	ON	OFF	ON

# Specifications

Fiber Converters	
<b>Standards:</b>	<p><u>TFC-210 series:</u> IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX &amp; 100Base-FX</p> <p><u>TFC-2000 series:</u> 1000Base-T, 1000Base-SX/LX, IEEE 802.3ab/ 802.3z</p>
<b>LED Indicators:</b>	<p><u>TFC-210 series:</u> Power; 100Mbps, Full Duplex/ Collision, Link/Activity</p> <p><u>TFC-2000 series:</u> Power; 1000Mbps, Full Duplex/ Collision, Link/Activity</p>
<b>Cable :</b>	<p><u>TFC-210 series:</u> <b>10Base-T</b> – UTP/STP Cat. 3, 4, 5 <b>100Base-TX</b> – UTP/STP Cat 5 <b>100Base-FX – Multi-Mode</b> – 62.5/125µm or 50/125µm Multi-Mode Fiber Optic Cable <b>100Base-FX – Single-Mode</b> – 9/125µm Single-Mode Fiber Optic Cable</p> <p><u>TFC-2000 series:</u> <b>1000Base-T</b> – UTP/STP: Cat. 5e or Cat. 6 <b>1000Base-SX– Multi-Mode</b> – 50/125µm or 62.5/125µm Multi-Mode Fiber Optic Cable <b>1000Base-LX– Single-Mode</b> – 9/125µm Single-Mode Fiber Optic Cable</p>
<b>Dimensions:</b>	85mm × 125mm × 25mm (W × D × H)
<b>Weight:</b>	Around 300 g (10 oz.)
<b>Power:</b>	9VDC, 700mA External Power Adapter
<b>Temperature:</b>	Operating: 0°C ~ 40°C (32°F ~ 104°F) Storage: -25°C ~ 70°C (-13°F ~ 158°F)
<b>Humidity:</b>	10 ~ 90%, non-condensing
<b>Certifications:</b>	CE, FCC

<b>Fiber Chassis</b>	
<b>Capacity:</b>	Ten bays for housing up to Ten media converters
<b>Material:</b>	Metal
<b>Power:</b>	AC 100~240V AC, 50/60Hz
<b>Power Consumption:</b>	90 Watts (Max)
<b>Cooling:</b>	One Fan
<b>Dimensions:</b>	440 mm × 266mm × 133 mm (W × D × H) Standard 19" Rack Mount Size (3U)
<b>Weight:</b>	6.4 kg (14.2 lb.)
<b>Temperature:</b>	Operating: 0°C ~ 40°C (32°F ~ 104°F) Storage: -25°C ~ 70°C (-13°F ~ 158°F)
<b>Humidity:</b>	10 ~ 90%, non-condensing
<b>Certification:</b>	CE, FCC

**Q1: After connecting the Fiber Converter, the LEDs do not turn on. What should I do?**

**A1:** First, check that the power outlet is receiving power. Second, make sure the power adapter is firmly connected to the Fiber Converter and the power outlet. Third, make sure the Ethernet and the Fiber cables are connected.

**Q2: All the LEDs are on, but I can't make a connection. What should I do?**

**A2:** First, verify that you are using the proper fiber cable (e.g. multi-mode fiber cable for multi-mode converters; single-mode fiber cables for single-mode converters). Second, verify that the TX and RX cables have been reversed on the opposite Fiber connection. Third, power down the Fiber Converters and the switches. Wait 15 seconds, then plug the switches and the Fiber Converters back in.

**Q3: What is the maximum distance that is supported by the Fiber Converter?**

**A3:** Please refer to Product Detail for distance information.

**Q4: After connecting the Chassis to a power outlet, the LEDs do not turn on.**

**A4:** First, check that the power outlet is receiving power. Second, make sure the power cord is firmly connected to the chassis and the power outlet. Third, make sure the power switch is flipped to the **ON** position.

If you still encounter problems or have any questions please contact TRENDnet's Technical Support Department.

## Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

### **Fiber Chassis / Fiber Converters - 5-Year Warranty**

If a product does not operate as warranted above during the applicable warranty period, TRENDnet shall, at its option and expense, repair the defective product or deliver to customer an equivalent product to replace the defective item. All products that are replaced will become the property of TRENDnet. Replacement products may be new or reconditioned.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product through any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDnet must be pre-authorized by TRENDnet with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.



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**Governing Law:** This Limited Warranty shall be governed by the laws of the state of California.

**Note:** AC/DC Power Adapter, Cooling Fan, Cables and Power Supply carry a 1-Year Warranty

## Certifications

This equipment has been tested and found to comply with FCC and CE Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received. Including interference that may cause undesired operation.



Waste electrical and electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or Retailer for recycling advice.



**NOTE:** THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

### ADVERTENCIA

En todos nuestros equipos se mencionan claramente las características del adaptador de alimentación necesario para su funcionamiento. El uso de un adaptador distinto al mencionado puede producir daños físicos y/o daños al equipo conectado. El adaptador de alimentación debe operar con voltaje y frecuencia de la energía eléctrica domiciliar existente en el país o zona de instalación.



## TRENDnet Technical Support

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