

TIME SERVER

OPTION CARDS NETSILON



Installation guide



www.bodet-time.com

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Ref.: 608066 D

On receipt, ensure that the product has not been damaged during transportation and report any concerns to the carrier.

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1. GENERAL POINTS

We recommend that you read this manual carefully before opening Netsilon or installing an option card.

The illustrations show a Netsilon by itself (with no option card) then with 4 option cards installed.

Failure to observe these instructions may cause irreversible damage and invalidate the warranty.

Non-contractual data. Bodet reserves the right to make changes to equipment, including functional, technical and aesthetic changes or changes to colours, without notice.

1.1 Introduction

Netsilon offers customisation and scalability through the addition of a range of option cards.

Up to 4 option cards can be adapted to offer a variety of time signals.

4 models of option card are available:

- > NETWORK option card (RJ45), ref. 907920.
- > AFNOR option card, ref. 907940.
- > PULSE option card, ref. 907942.
- > CURRENT LOOP option card, ref. 907944.
- > NETWORK FIBER option card (2 SFP), ref. 907921.

1.2 Recommendations list

Before installing Netsilon option cards, we recommend that you:

- > Back up your configuration before adding an option card.
- > Switch off Netsilon then disconnect the power supply cable before removing the frame cover.
- > Only install an option card when the power supply cable is disconnected.
- > Fully return the product to its original state. There should be no surplus parts, and Netsilon should match its original appearance.

2. INTRODUCTION

This guide concerns the installation of one or more option cards.

The operation and use of these option cards is presented in the full Netsilon guide (available from the website www.bodet-time.com).

2.1 Checking the package

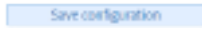
Carefully unpack and check the contents of the package. These should include:

- > The option card(s),
- > Accessories for mounting the option card(s).

2.2 Saving the configuration

We recommend that you save the current Netsilon configuration before installing an option card.

To save a configuration via the Netsilon web server, follow these steps:

- 1) SYSTEM menu > Tools > Updating and backup.
- 2) Click , and a file named “export.nets” will download to your PC.

2.3 Safety

Netsilon can be equipped with several power supply sources: if both AC and DC power supply options are present, turning off the switch on the rear panel will not disconnect all power supply sources.

Ensure that all power supply sources have been removed from the Netsilon device before taking off the cover and opening the product.

Only open the device in order to add or change option cards:

- > Never open the product with the power supply or supplies connected.
- > Ensure that all power supply sources are removed from the device before installing the option cards: unplug the AC and/or DC power supplies connected to the equipment (according to model).



the switch is of functional type. It is not a power supply disconnect switch. Disconnect the power supply and relay circuits before any intervention.



Fibre optic: risk to your eyes.

When inspecting a connector, make sure that the light sources are turned off. The light source in the fibre optic cables may damage your eyes.

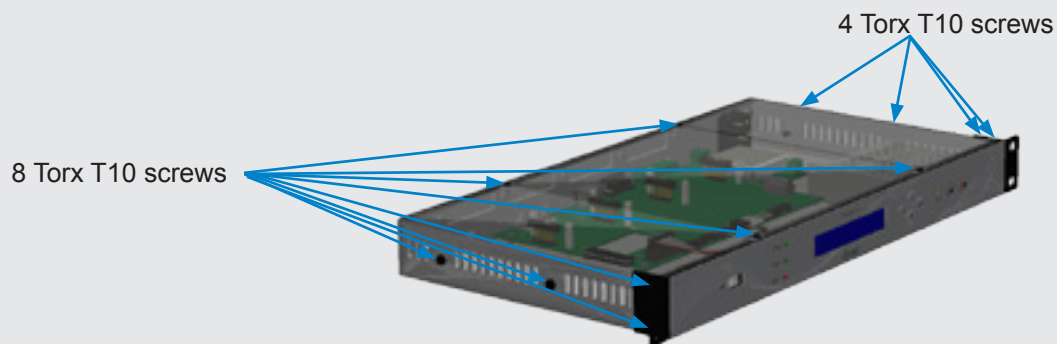
3. MECHANICAL INSTALLATION

The installation method is identical regardless of the option card installed. One specific feature is to be noted for the Network option card (RJ45) and the network fiber option card (2 SFP) : connection to the Netsilon motherboard. To illustrate this particular case, the option card images are of a Network option card.

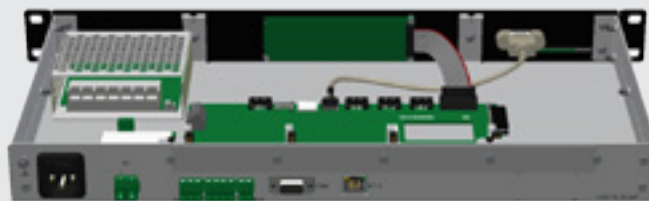
i if the new option card is installed in place of an existing option card (involving removal of the latter), it is necessary to uninstall the removed option card via the web server (see Chapter 4. Removing an option card, page 8). Once this uninstallation has been completed, the product will redetect the option card with its new slot number.

> OPEN NETSILON

1) Loosen and remove the 12 screws as shown below using a Torx T10 screwdriver:



2) Remove the black cover:



> INSTALL AN OPTION CARD

3) Determine the location of the option card.

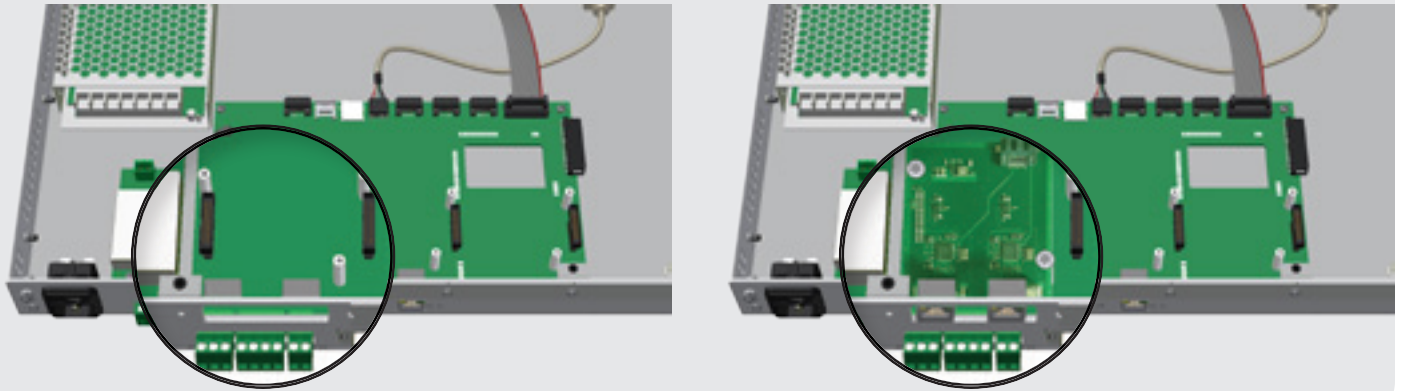
4) Remove the aluminium plate from the desired location using the Torx T10 screwdriver:



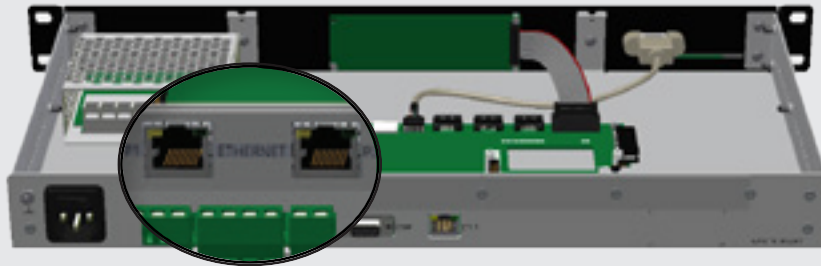
5) Fit the option card, ensuring that the output(s) of the option card are aligned with the opening:



4) Clip the electronic card onto the connector, then fix it in place using the two Torx T8 screws:

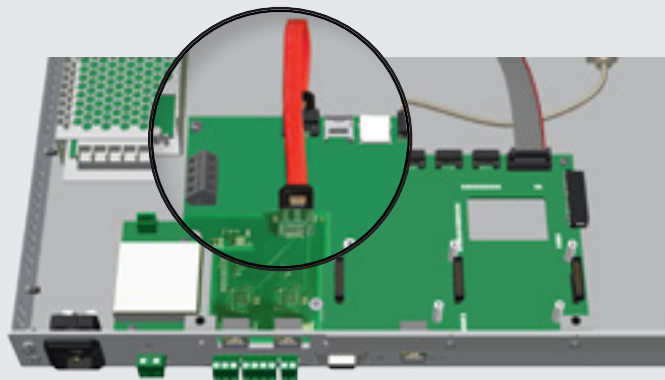


5) Attach the aluminium plate in order to close up the space around the option card:



NOTE: repeat these 5 steps for each option card you wish to install.

6) Connect the SATA cable linking the Network card to the Netsilon motherboard:



i this operation is only valid for the Network option card (RJ45) and the Network Fiber option card (2 SFP). For other option cards, see point 7).

7) Close up the Netsilon device by refitting the black cover identically to its original condition.

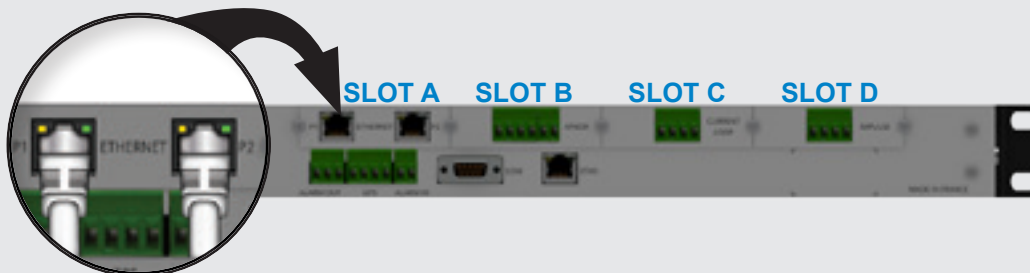
8) Connect the power supply and turn the switch to ON (I).

9) Connect the network cable to the ETH0 port to access the web server.

4. ELECTRICAL CONNECTIONS

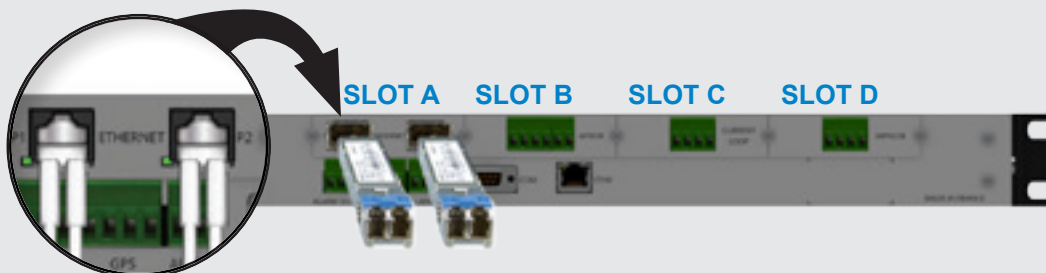
4.1 Option cards

> NETWORK option card, ref. 907920.: 907920.



- > Ports 1 and 2 can be used to assign two separate time zones via the web server.
- > A maximum of two network option cards may be installed.
- > These option cards must be installed in slots A and B.
- > Network port: RJ45, 100BASE-T (Gigabit).

> Option card NETWORK FIBER (port SFP), réf.: 907 921.



- > Ports 1 and 2 allow you to assign two separate time zones from the web server.
- > A maximum of two option cards can be installed.
- > These option cards must be installed in slots A and B.
- > Connectors: 2 SFP:

Module types	Description
SX.....	Colour: black 1000 BaseSX LC-Duplex Fiber connector Wavelength = 850 nm
LX.....	Colour: blue 1000 BaseLX LC-Duplex Fiber connector Wavelength = 1310 nm

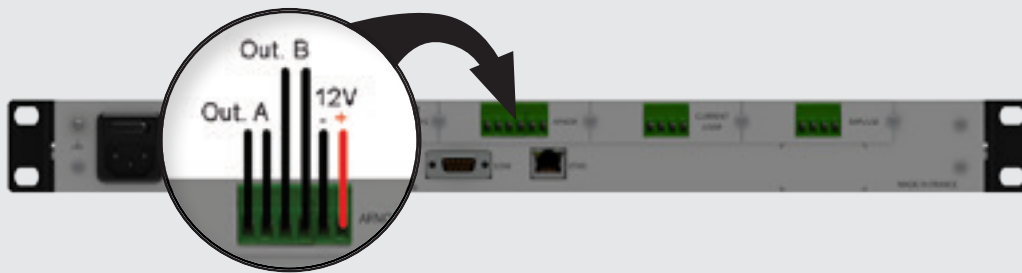
We recommend using BODET modules SX and LX. Other SFP MSA-compatible (Multi-Source Agreement) modules can be used but there is no guarantee that they will work (module RJ45 not compatible).

- > Status of the LED (at the bottom to the left of the port):
 - Red: fibre optic link not established
 - Green: fibre optic link OK (flashes following activity)



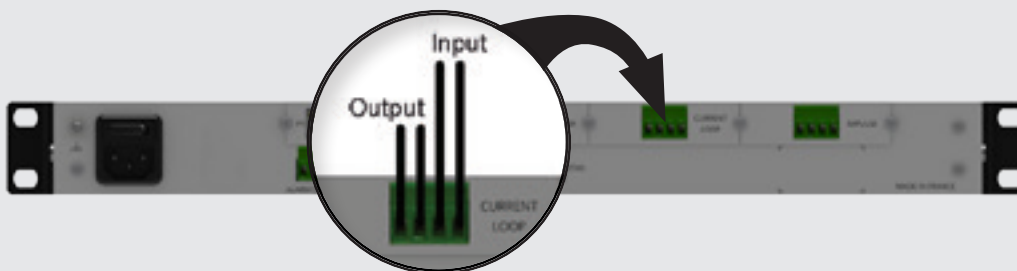
Risk to your eyes: when inspecting a connector, make sure that the light sources are turned off. The light source in the fibre optic cables may damage your eyes.

> **AFNOR option card (IRIG B 127), ref. 907940.**



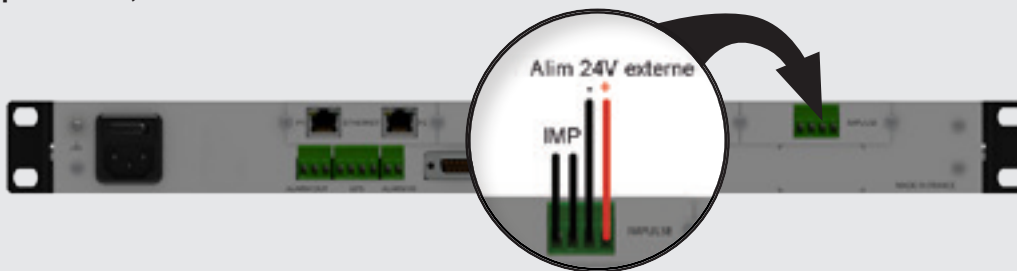
- > The A and B outputs can be used to assign two separate time zones via the web server.
- > The power supply can be used to power a maximum of two Bodet DHF V1 transmitters.
- > A maximum of four AFNOR option cards may be installed.

> **CURRENT LOOP option card, ref. 907944.**



- > This option card makes it possible to :
 - Simulate a DCF signal for the synchronisation of equipment using the 4-20mA DCF
 - Synchronise Netsilon in 4-20mA ALS162 with an ALS162 antenna (product code: 907025)
- > Just one CURRENT LOOP option card may be installed.

> **PULSE option card, ref. 907942.**



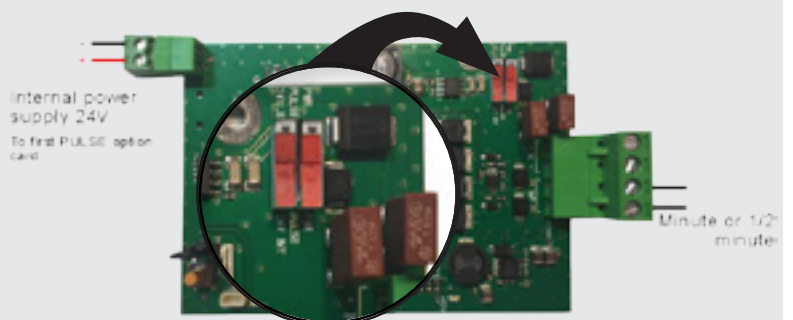
- > A maximum of four PULSE option cards may be installed.

The IMPULSE option cards 2, 3 and 4 are powered in parallel as illustrated below.

> **Wiring the second PULSE option card:**

- 1) Wire the internal power supply
- 2) Configure the DIPs as shown opposite.

i Wire one power supply at a time onto the PULSE option card. This option card can send the impulses generated from the internal 24V voltage or from external 20 to 50 VDC source.



5. QUICK CONFIGURATION

5.1 Access to the web server

> To access the Netsilon web server, follow these steps:

1) Note the Netsilon IP address.

To obtain the Netsilon IP address, see the full product guide.

2) Open a web browser page (Google Chrome®, Mozilla Firefox or Microsoft Internet Explorer®).

3) Enter the IP address into the browser's address bar.

4) Enter your username and associated password to access the web server.

> For more information on the product and its configuration via the web server, download the full guide from:

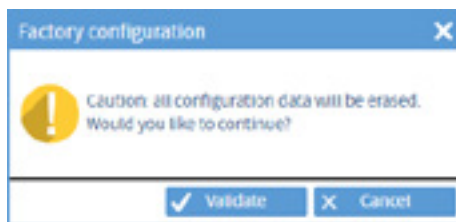
<http://www.bodet-time.com/support/documentations.html>

5.2 Factory configuration

To perform a factory configuration reset via the Netsilon web server, follow these steps:

1) SYSTEM menu > Tools > Updating and backup.

2) Click , and the following window will appear



WARNING: all configurations will be lost in the event of a factory configuration reset.

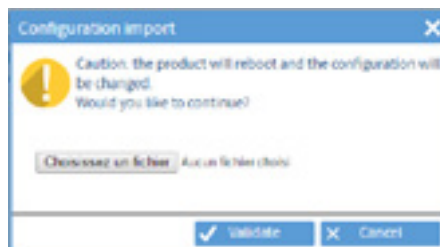
The link to the web server will be broken because the IP address is lost: it is necessary to reconfigure the network settings to access the web server (refer to the full Netsilon guide).

5.3 Loading the configuration

To load a configuration from the Netsilon web server, follow these steps:

1) SYSTEM menu > Tools > Updating and backup.

2) Click , and the following window will appear for selection of the file to import:



The file to be imported must have a "FileName.nets" extension

5.4 Option card detection

To view the detection of an option card from the Netsilon web server, proceed as follows:


1) SYSTEM menu > Tools > Option cards:

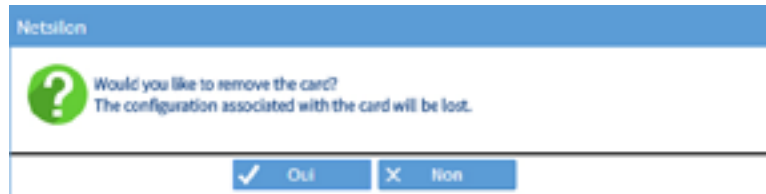
No.	Type
Option card slot A	Ethernet
Option card slot B	Altor
Option card slot C	Current loop
Option card slot D	RF module

5.5 Removing an option card

If it is necessary to transfer or physically remove an option card from the Netsilon device, it is essential that it is also removed from the web server so as not to generate false alarms.

To remove an option card from the Netsilon software, follow these steps:

- 1) SYSTEM menu > Tools > Option cards.
- 2) Select the option card to be removed.
- 3) Click , and the following window will appear:



NOTE: if this removal is performed but the option card is still present or moved to another slot, it will be redetected when the user returns to this menu.

6. SUPPORT

> To request technical support for this equipment, fill in the contact form at:

<http://www.bodet-time.com/en/customer-support.html>

Telephone support is available Monday to Friday from 8.00 to 12.00 am and 1.30 to 5.00 pm.

To speed up your Netsilon diagnosis, back up the system and note the Netsilon MAC address.