


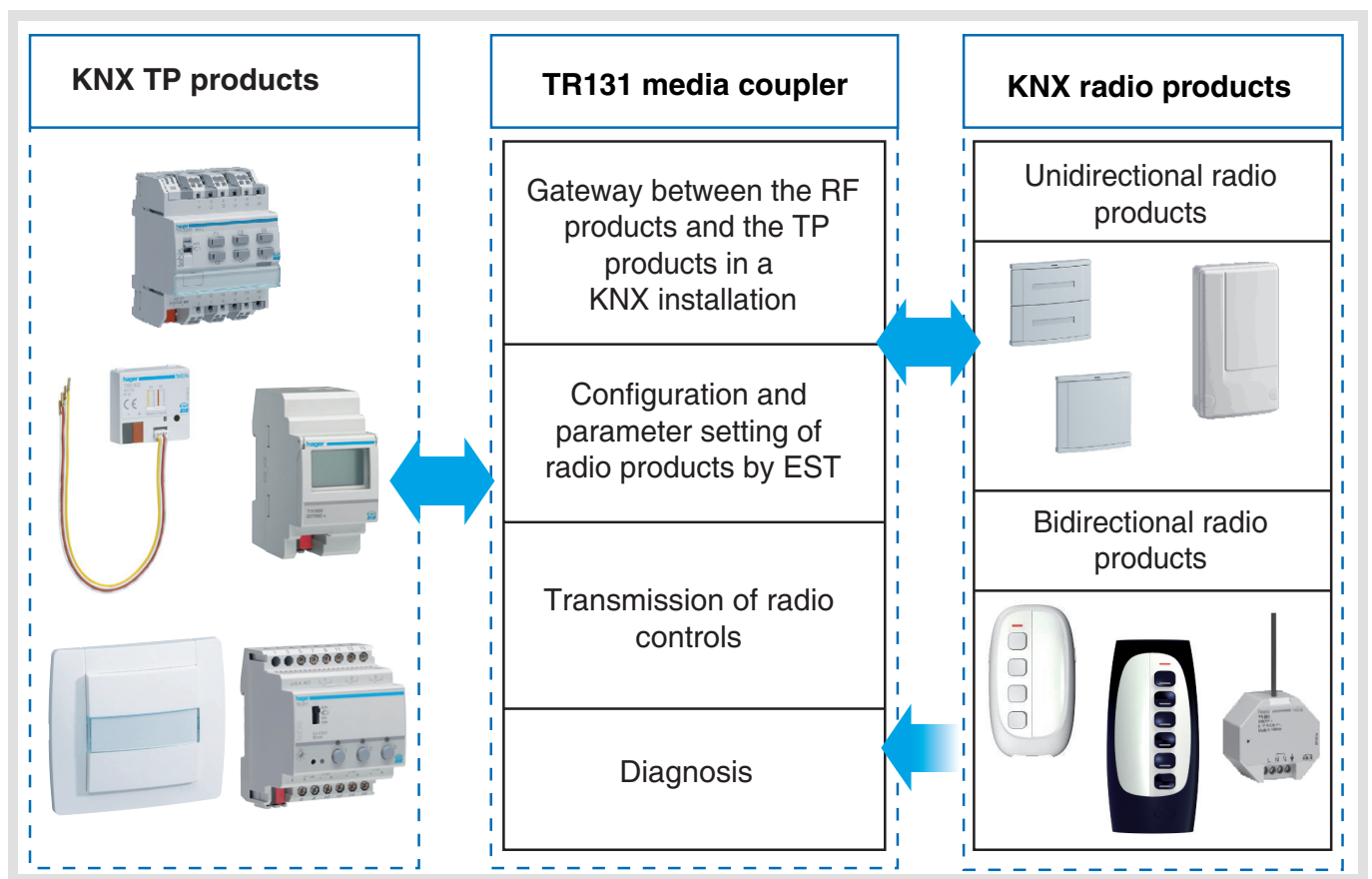


- ☐ Catalog
- ☐ RF devices
- ☐ Dimmers
- ☐ Inputs
- ☐ Inputs / Outputs
- ☐ Kallysta
- ☐ Kallysto
- ☐ Media coupler
- ☐ Outputs
- ☐ Plug adaptor
- ☐ Push buttons
- ☐ Remote controls
- ☐ Shutters / blinds

## Tebis TL131A application software

Radio media coupler TR131

	Product reference	Description
	TR131A	White media coupler
	TR131B	Silver media coupler



## Summary

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# 1. Description of the TR131 media coupler

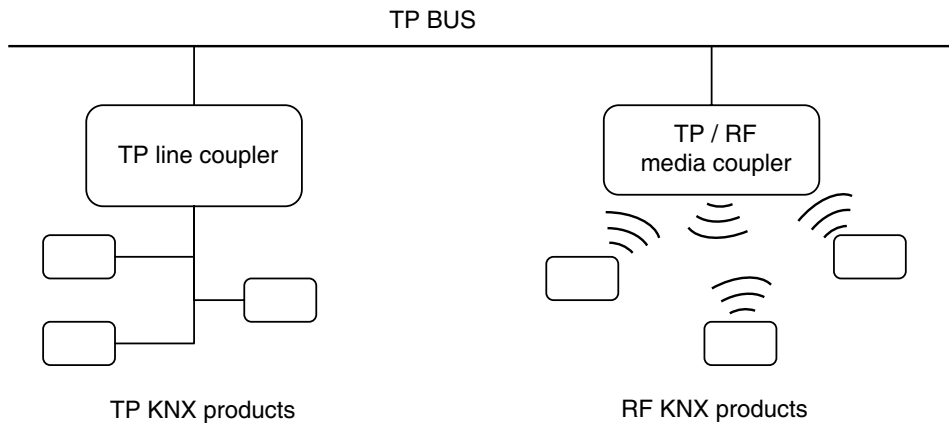
## 1.1 The different types of KNX installations

A KNX installation can be:

**Entirely RF:** All the products in the installation are interconnected by radio media (unidirectional or bidirectional transmission).

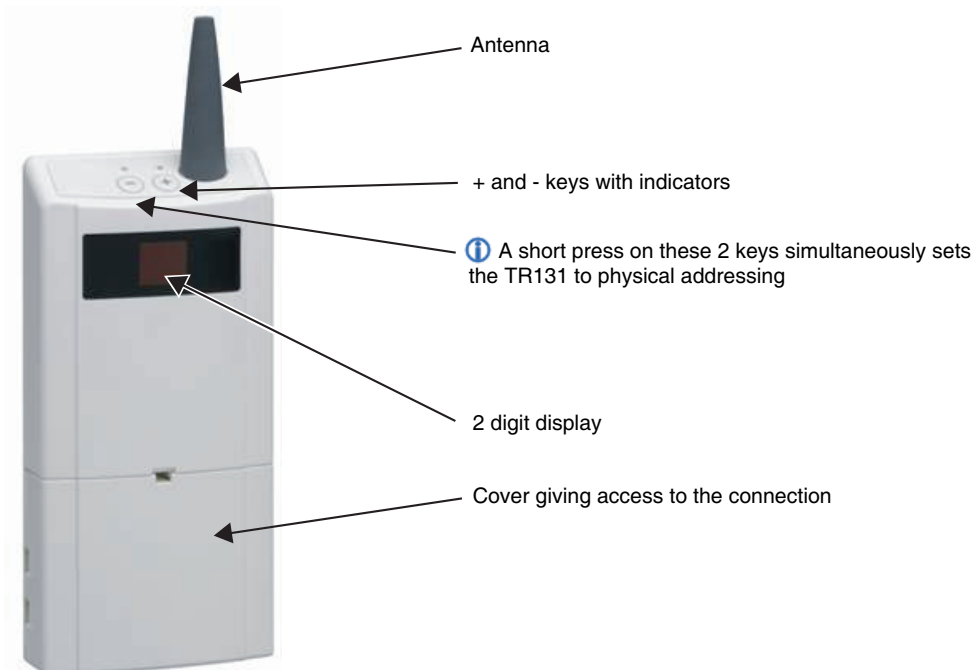
**Entirely TP:** All the products in the installation are connected to the bus by TP cable.

**RF / TP mixed:** The installation includes both RF and TP products. In a KNX ETS mixed installation, a TR131 media coupler is essential.



## 1.2 Media coupler TR131

### ■ Overview of the TR131



## ■ Applications of the TR131

The TR131 allows you to:

- Configure the radio products for a KNX RF or mixed RF / TP installation with ETS,
- Add radio products to an existing ETS TP installation programmed with ETS,
- Reconfigure a TX100 installation with ETS.

### ■ Implementation recommendations

1. The TR131 must remain in place after configuration. It sends the commands between the radio products and the wired products in auto mode.
2. The coupler must be at the head of the line: **x.y.0** type physical address.
3. The coupler must be in a different line than the USB / series / IP interface.
4. Use of old generation media couplers (TR130A / B) is not authorised in an installation containing a new media coupler (TR131A / B).
5. Separate the radio and TP lines:
  - The radio line must not contain TP products: the views of the line in ETS and in the plug-in would contain inconsistencies.
  - The TP lines must not contain radio products: it would be impossible to configure these radio products.
6. Only use the plug-in to program the physical addresses and download the products. As ETS cannot program radio products, it is not possible to use the usual configuration menus.
7. The product copy function must not be used in ETS for radio products. This would result in inconsistencies in the projects which would lead to plug-in malfunctions.
8. Copying a project which already contains a configured TR131 leads to plug-in malfunctions.
9. The use of the "default" button in the ETS parameter setting window is not recommended. This results in:
  - The loss of the parameters of a product which has already been configured.
  - Desynchronisation between the plug-in data and the radio products which have already been configured.
10. During the physical addressing, the download or the factory reset procedures of unidirectional radio products, several attempts may be needed for a successful completion of the procedure.

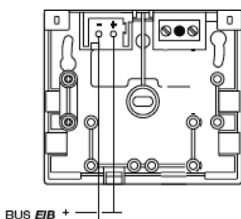
## ■ Hardware and software required depending on the type of KNX installation

Installation type KNX ETS	Hardware and software required for configuration
TP installation	ETS3 0.f or higher / ETS4 0.2 or higher + TH101
RF installation	ETS3 0.f or higher / ETS4 0.2 or higher + Media coupler TR131 + TH101
Mixed installation	ETS3 0.f or higher / ETS4 0.2 or higher + Media coupler TR131 + TH101

The RF products and the TR131 are in the ETS data bases. A plug-in allowing the RF products to be configured is automatically installed when the TR131 parameters are set after an import into the project.

## ■ Connection of the TR131 to the KNX bus

Remove the cover and connect the product to the bus with the KNX connector. No other connection is required:



## 2. Configuration of a KNX ETS radio installation with the TR131

### 2.1 Checks to be performed prior to configuration

Before starting a configuration, check the following points:

- The ETS version required is 3.0f or higher or 4.0.2 or higher. Download and install the update if necessary.
- Check that you have administrator rights under Windows, otherwise you will not be able to install the TR131 plug-in.

### 2.2 Configuration steps

Steps	Comments
Launch ETS then open or create a project.	A version 3.0f or higher or 4.0.2 or higher is required.
Create an <b>RF line</b> in the ETS project	Follow the usual ETS procedure.
Add the TR131 and the other devices in the RF line	Follow the usual ETS procedure: <ul style="list-style-type: none"> <li>- Import the vd5 files from the ETS data base and add the desired devices in the RF line.</li> <li>-  All the RF products must be on the same line as the TR131, otherwise it will not be possible to configure them or control them.</li> </ul>
Program and edit the parameters and links of all the installation's RF products (other than the TR131)	Follow the usual ETS procedure: <ul style="list-style-type: none"> <li>- For the parameters: Right-click on the product in the ETS tree structure and click on <b>Edit parameters</b>.</li> <li>- For group addresses: Right-click on the object to connect and click on <b>Link with</b>.</li> </ul>
Give the TR131 a physical address and download the address in the TR131	Follow the usual ETS procedure: <ul style="list-style-type: none"> <li>- Right-click on the TR131 in the ETS tree structure and click on <b>Download</b>.</li> <li>-  The physical address can be modified but must always end in 0, e.g. 3.2.0.</li> </ul>
Launch the TR131 plug-in to configure the radio products	The plug-in is used to detect and configure the radio products. <ul style="list-style-type: none"> <li>- To launch the program: Right-click on the TR131 in the ETS tree structure and click on <b>Edit Parameters</b>. The plug-in is launched.</li> <li>-  When it is launched for the first time, the plug-in is installed first. This operation requires that the Windows session has administrator rights to authorise installation.</li> </ul>
Give the physical addresses of the radio products and download the addresses into the products	This procedure is performed from the plug-in's <b>Physical addressing</b> screen: <ul style="list-style-type: none"> <li>- Click on the <b>Addressing</b> button in the screen's upper bar. The plug-in guides the user according to the type of radio product (unidirectional or bidirectional).</li> </ul>
Download the parameters and links into the RF products	This procedure is performed from the plug-in's <b>Download</b> screen. The unidirectional radio products must be brought close to the TR131.

## 2.3 Detailed description of the different configuration steps

### ■ Start ETS

The version must be 3.0f or higher or 4.0.2 or higher. Download the latest version if necessary.

### ■ Create an RF line in the ETS project and add all the radio devices

Use the usual procedures to create the RF line and add the devices.

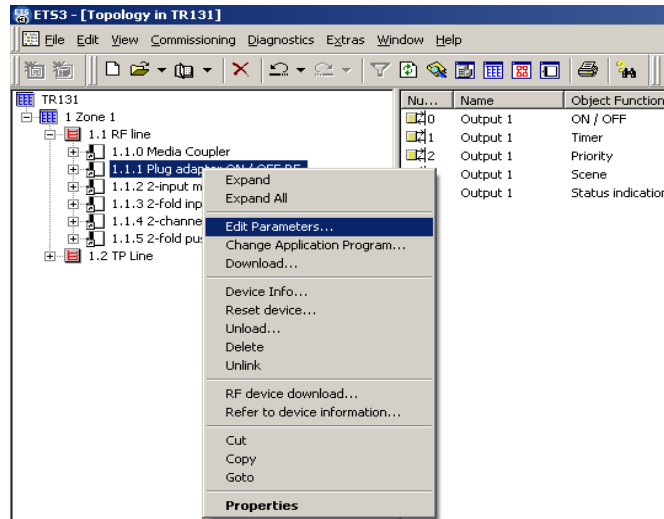


Group the TR131 and all the radio products in the same line. Do not add TP products in this line.

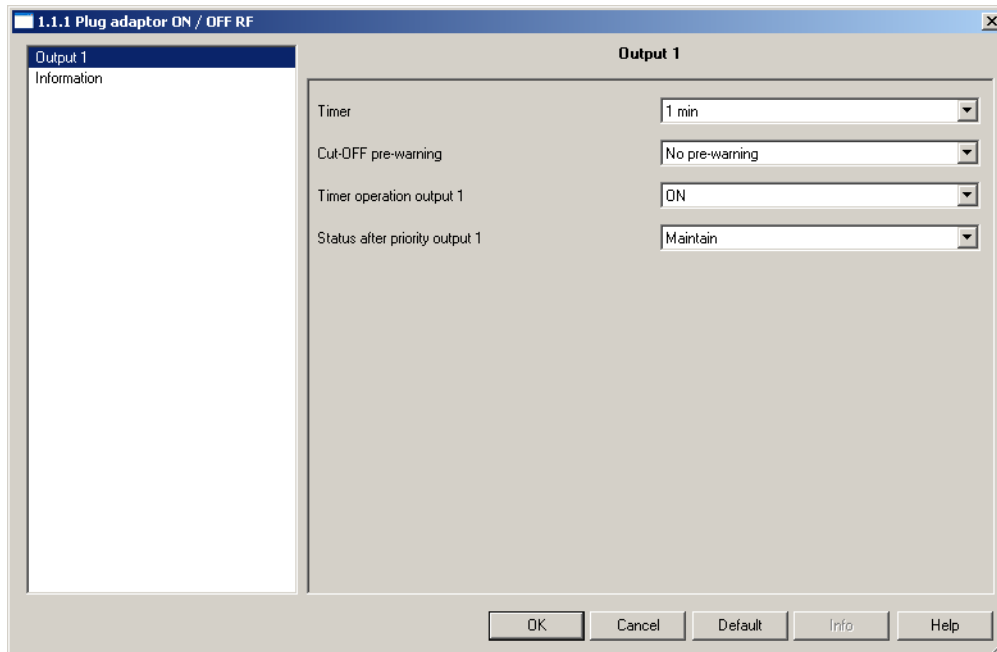
### ■ Edit the parameters of the RF products other than the TR131

Right-click in the ETS product tree structure on the RF product to be configured and click on **Edit parameters**.

For example:




The product parameter setting window opens. For example:

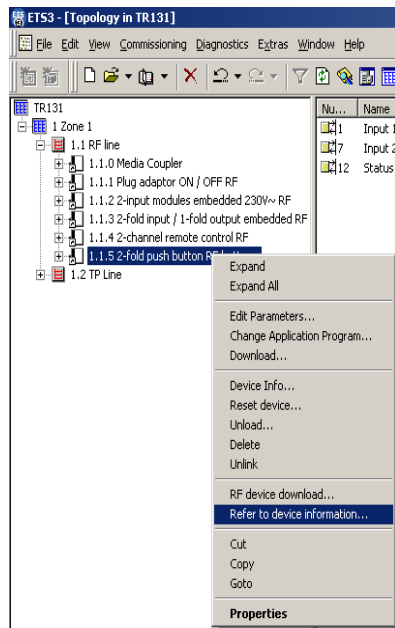


Screen 1

Follow the usual ETS procedure to set the parameters of the product.

 The documentation for the product to be configured can be consulted directly.

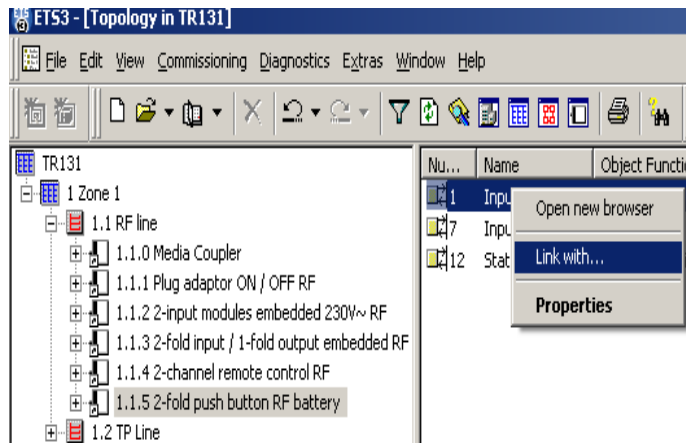
Right click in the ETS tree structure on the RF product for which the parameters are to be set and click on **Refer to device information**.



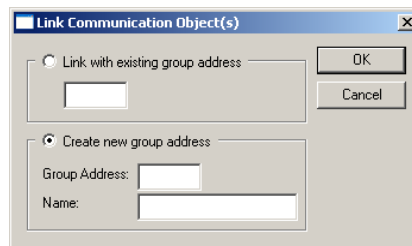
The device information is displayed in pdf format.

**■ Create the links and edit the groups' addresses**

Select a product from the RF line and then a communication object in the list. Right-click on the object to connect and click on **Link with**. For example:

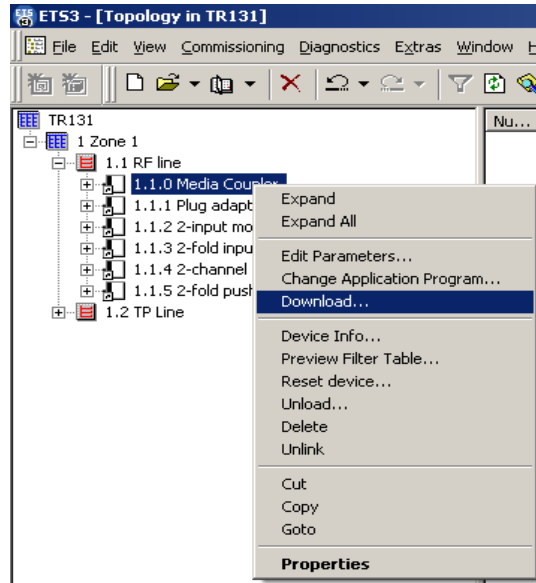


The following window allows you to define a group address according to the usual procedure:



■ Assign and download a physical address in the TR131

Set the TR131 to **Physical addressing** mode with a short press on the product's 2 upper + and - buttons. Right-click on the coupler in the ETS product tree structure and click on **Download**.

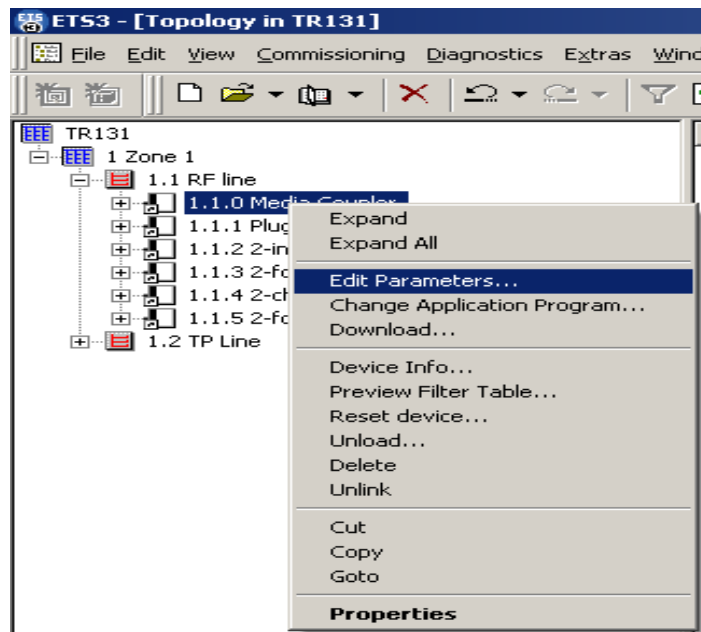


⚠ The physical address of the TR131 can be modified according to the usual procedure but **must always end in 0** i.e. it must be of the x.y.0 type. For example: 1.2.0.

■ Launch the TR131 plug-in

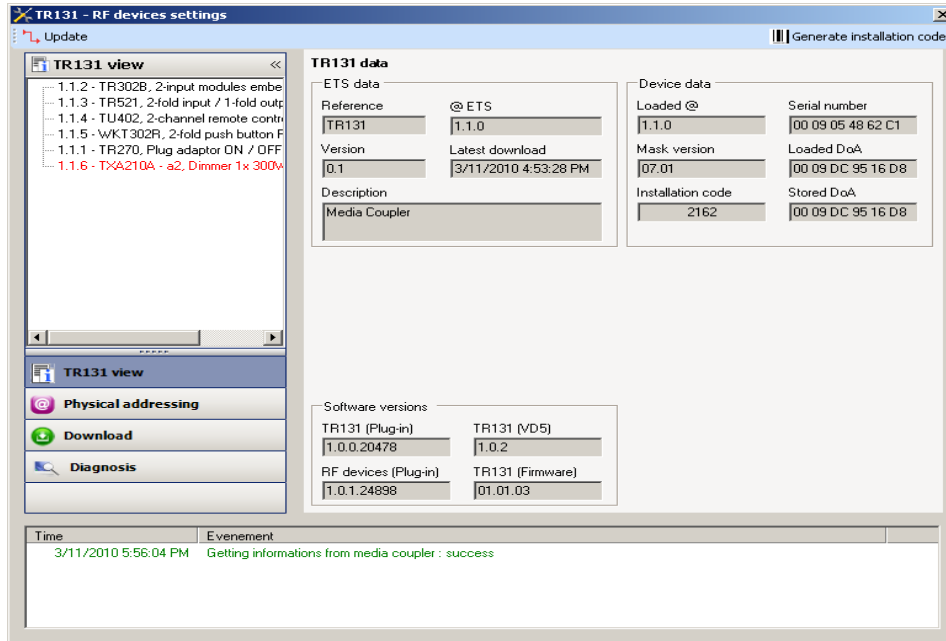
The plug-in is a program specific to the TR131 used to configure radio products in ETS mode.

Right-click on the TR131 in the RF line product tree structure (here 1.1.0 Media Coupler) and click on **Edit Parameters** to launch the plug-in.



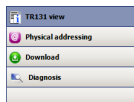
⚠ When it is started up for the first time, the plug-in installation programme is launched. This operation requires that the Windows session has administrator rights to authorise installation.

After launching, the following window opens:



The ETS tree structure for the products in the RF line managed by the TR131 appears in the left-hand window:

- The radio products in black
- The TP products in red

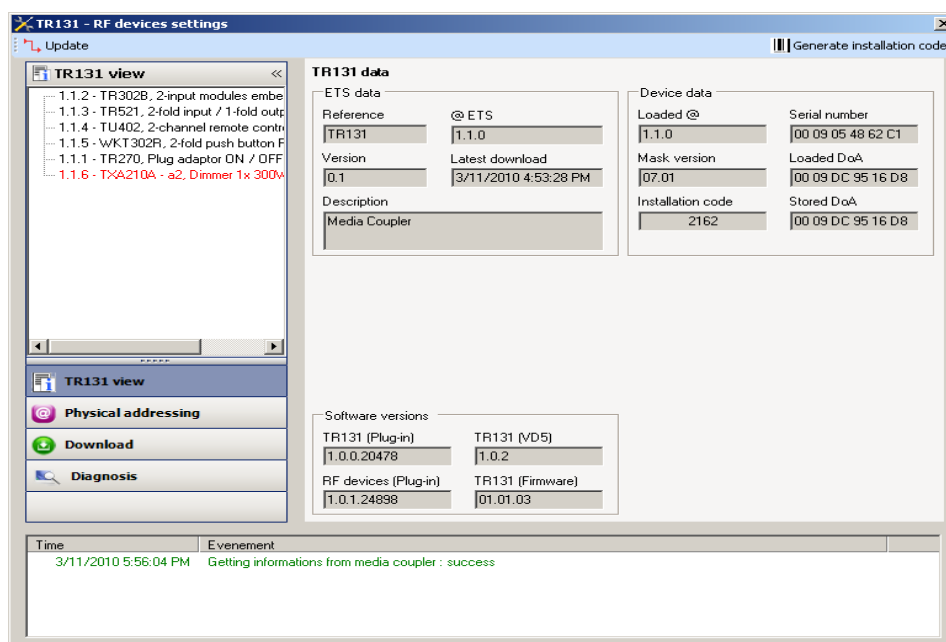


The menu located at the bottom left of the window allows you to:

- Display the TR131 parameters (enabled by default): Click on **TR131 view**,
- Give a physical address to the radio products: Click on **Physical addressing**,
- Download the parameters and links into the RF products: Click on **Download**,
- Perform diagnosis: Click on **Diagnosis**

■ TR131 view screen

Click on **TR131 view**. The following screen is displayed:



The left-hand window displays the RF line tree structure. It is identical to that displayed in ETS.

The right-hand part gives information about the TR131 and its configuration. Pressing on the **Read / Write TR131** buttons allows you to retrieve / update the media coupler data online. (Radio address, Version of the mask, Serial number, Domain address).

→ NB: The coupler data can only be retrieved if the media coupler has a physical address.

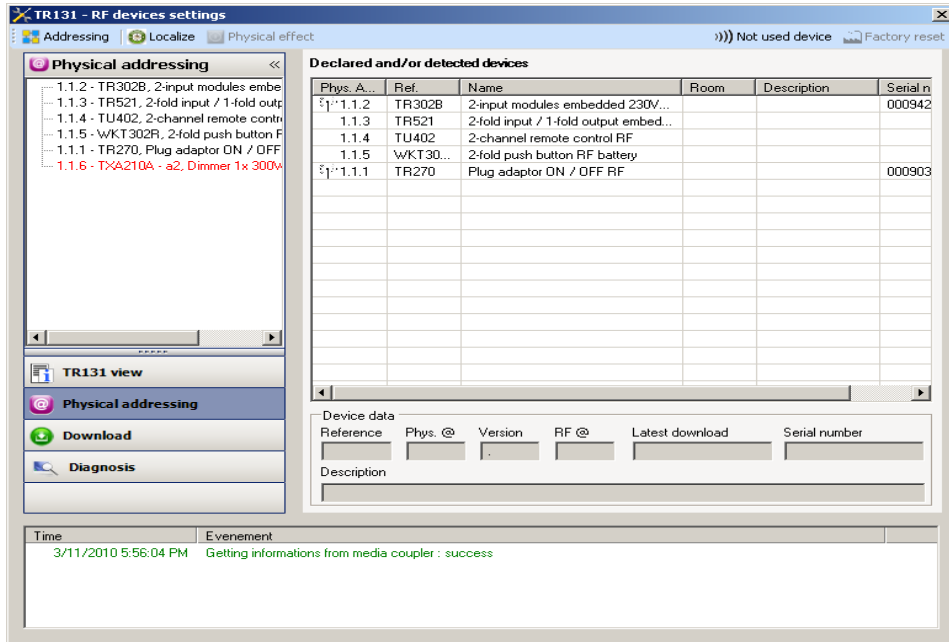
■ **Generate an installation code**

A new installation code must be generated for each new installation so that the installation is disconnected from any other installation. **Warning**, pressing this button and then validating the installation code will prevent the products already configured from being further programmed.

■ **Radio product physical addressing screen**

This screen launches the detection of the installation's radio products and gives them a physical address.

Click on the **Physical addressing** button in the menu. The following screen is displayed:



The left-hand window displays the RF line tree structure (the TXA210A is a TP product. It is displayed in red). It is identical to that displayed in ETS.

The right-hand window displays:

- a list of compatible radio products which can be programmed by the plug-in,
- detailed information and a description of the selected product.

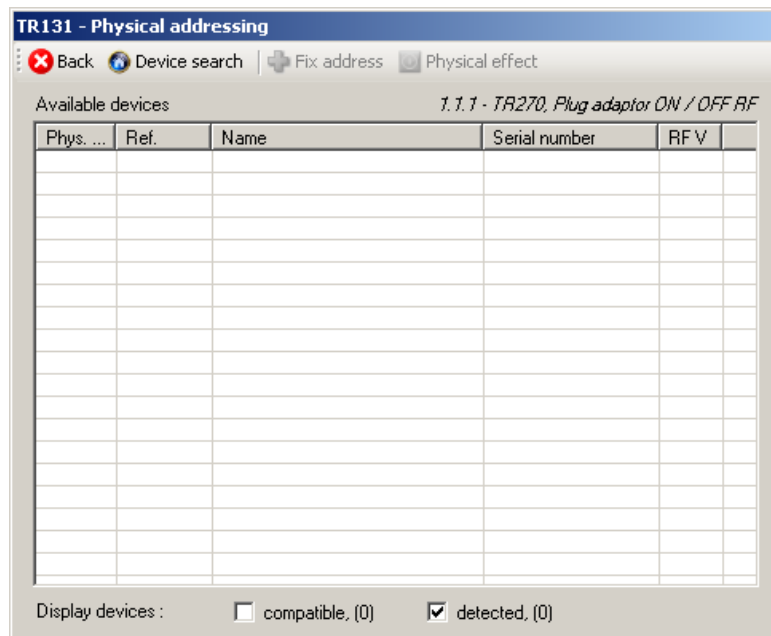
→ NB: if the physical address of a product is preceded by the  symbol, this means that the product is recognised by the media coupler and that a physical address has been assigned to it.

■ **Localise**

This function is used to localise a product which transmits. Follow the instructions displayed on the screen to localise the product in the list.

## 2.4 Downloading the physical address in a bidirectional radio product

- Select a bidirectional product from the list of products declared and / or detected.
- Click on the **Addressing** button in the upper bar. The following screen opens:

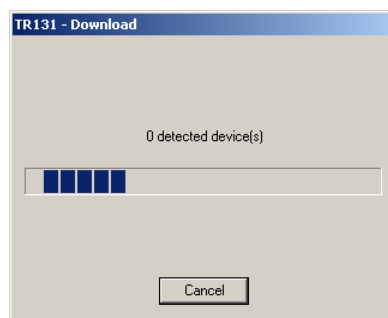


→ NB: Pressing the **Back** button returns you to the previous screen.

Pressing the **Device search** button detects all the bidirectional radio products within range in factory reset mode.

The **Display devices compatible** option filters the list of products so that only products with the same reference as the selected product are displayed.

- Click on the **Device search** button. The following search screen opens:

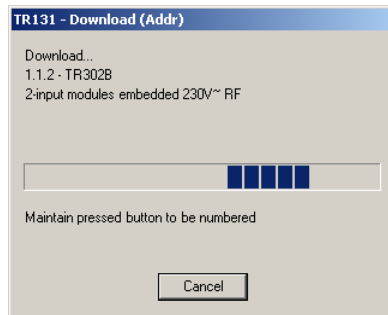


At the end of the procedure, the search screen closes

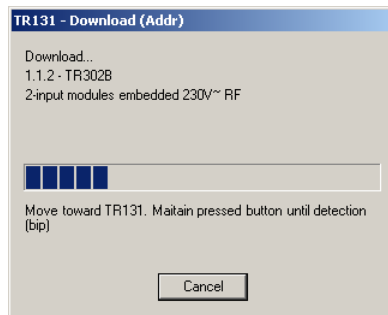
- The list of compatible products within range is displayed,
- Use the **Physical effect** button to localise the desired product,
- Select the desired product,
- Click on the **Fix address** button. The physical addressing of the product is performed. The product is now part of the installation.


## 2.5 Downloading the physical address in a unidirectional radio product

- Select a unidirectional product in the list of products declared and / or detected,
- Click on the **Addressing** button in the upper bar. The following screen opens. The plug-in invites the user to press a key on the product to be configured:



- The following screen is displayed. The plug-in now prompts the user to hold down the button until a sound is heard.



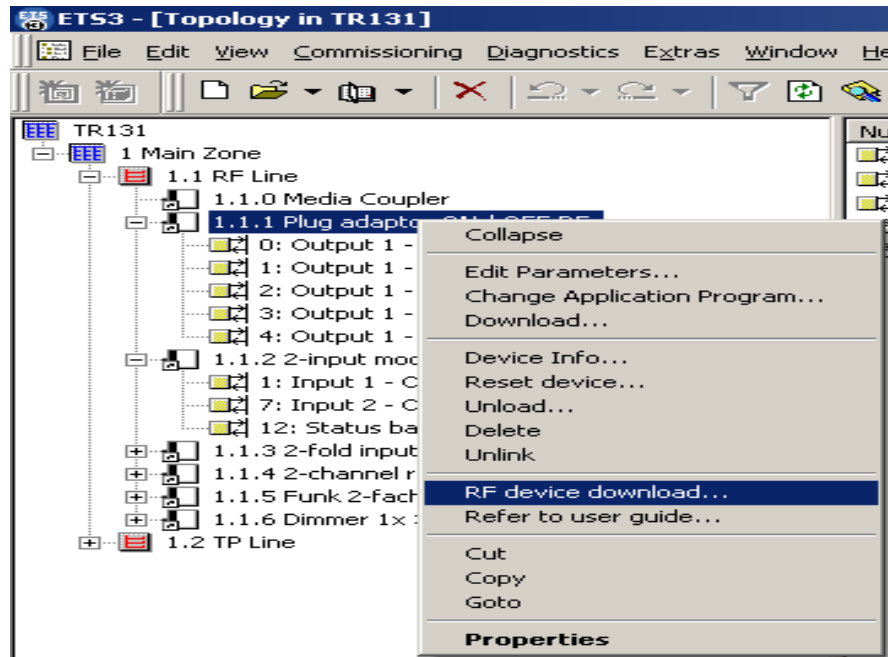
- The physical addressing of the product is performed. The product is now part of the installation.
- After downloading the physical address, the  symbol appears in front of the product.

When a product with a physical address is selected, it can be located in the installation by clicking on the **Physical effect** button in the upper bar (this button is not visible if the physical address has not been downloaded).

■ Parameters and links Download screen

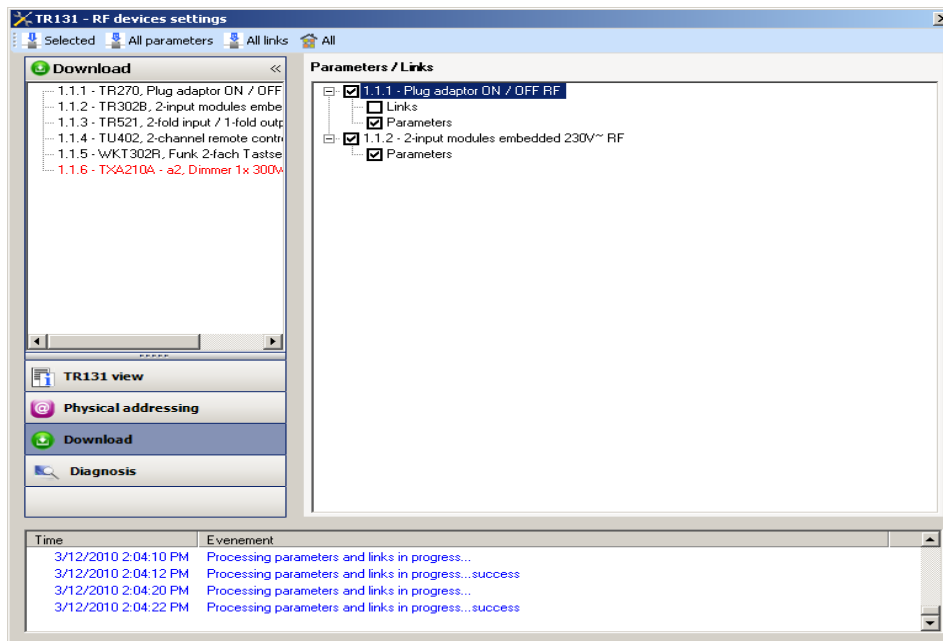
There are two ways to access the **Download parameters** and links into the RF products screen:

- Right-click on the product in the product tree structure and click on **RF device download**:



- From the plug-in: Click on the **Download** button in the menu.

The following screen is displayed:



The right-hand window allows you to select the parameters and / or links to be downloaded for each product.

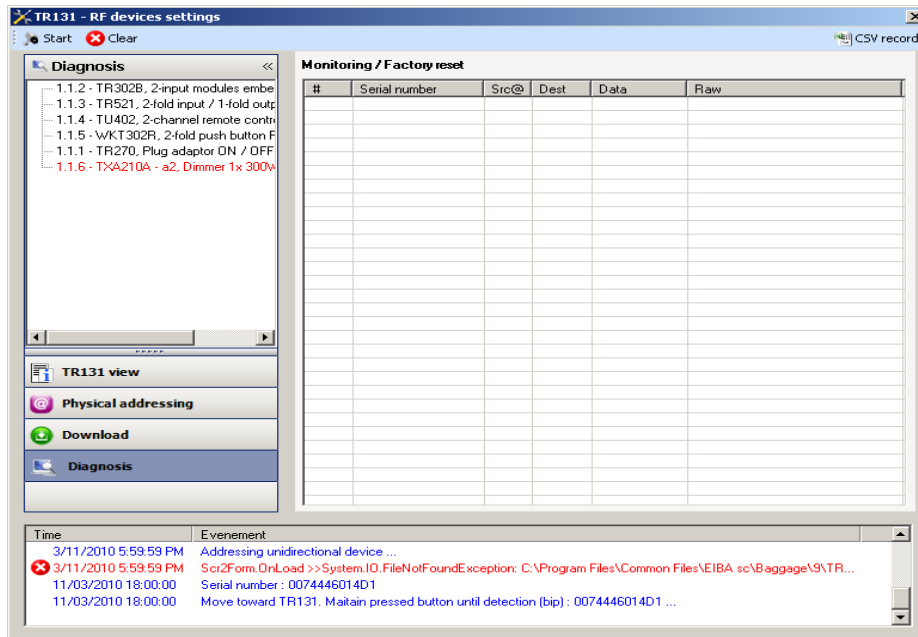
Finalise the download by selecting the type of download in the upper bar:

- **Selected** to download the selected parameters and links,
- **All parameters** to download all the parameters of all the products displayed,
- **All links** to download all the links for all the products displayed,
- **All** to download all the parameters and all the links of all the products displayed.

→ **NB:** When this tab opens, the plug-in informs the user of the actions to be performed to update the installation the user (enabled by default).

## 2.6 Diagnosis screen

Click on **Diagnosis** to activate the screen.  
 The Diagnosis screen allows you to monitor the traffic on the radio media:



Click on **Start** to launch the diagnosis : the radio telegrams are listed in the right-hand window.

- Click on **Stop** to stop the recording,
- Click on **Clear** to delete the list,
- Click on **CSV record** to save the telegrams in a CSV file.

To save the radio telegrams in a CSV file, proceed as follows:

1. Click on **CSV record** and select the name and destination of the CSV file,
2. Click on **Start**,
3. Click on **Stop**,
4. Open the CSV file to view the radio telegrams

## 3. Main characteristics

Max. number of TP / RF translations	2048
Max. number of group addresses	254

