



User guide

891079A

| GB |

2 x CI module - 492070



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Disposal



Within in the European Union this label indicates that the product cannot be disposed of with the general household waste. Neither the headend nor the input and output modules can be disposed of with the general household waste.

For proper treatment and recycling of old products, please take them to designated collection points in accordance with your national legislation.

Box content

A new output module is wrapped in antistatic bubble wrap and packed in a cardboard box when you receive it.

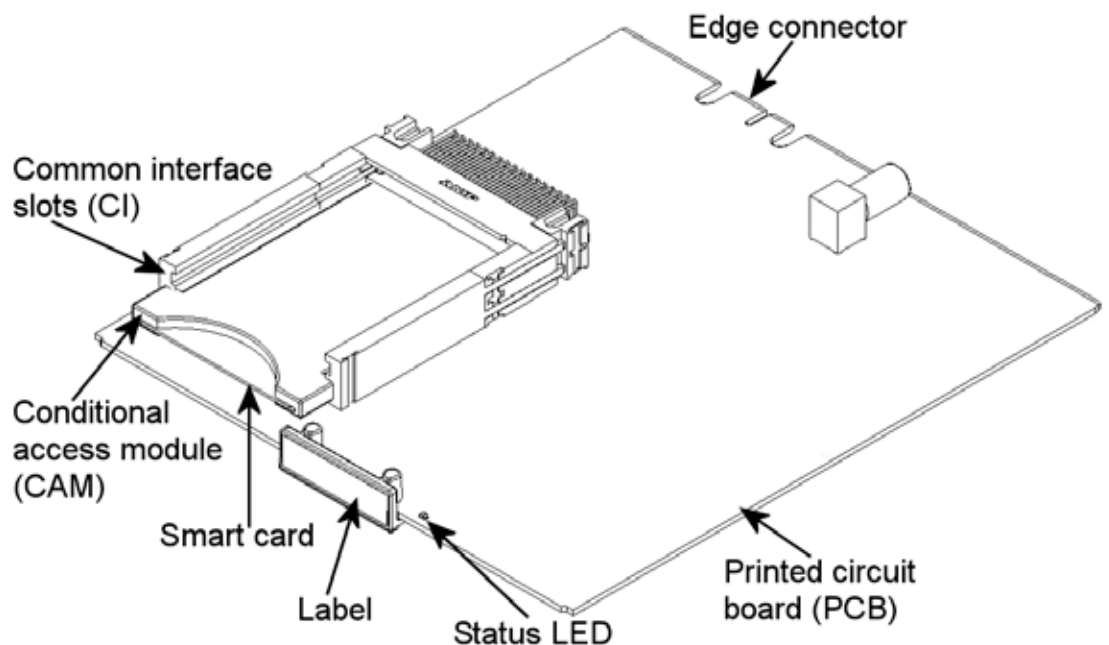
Included in the box is a user guide instructing you in how to use the TDX Service Tool to configure the module.

CI module

The CI module is one of the modules that you can install in the output section of your TDX headend unit.

You can use the CI module to descramble services that are scrambled or scramble services that you want to scramble using the PanAccess scrambling system.

Below you can see an illustrated description of a CI module with two CI slots.



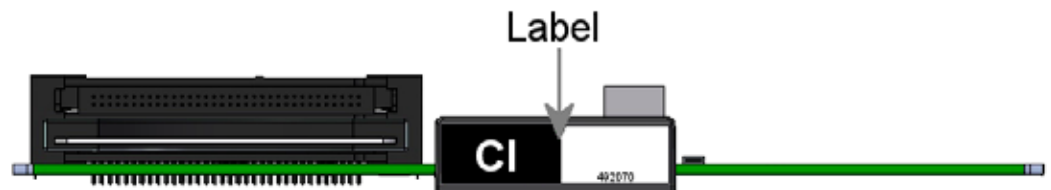
Basics

Labels

A label is placed on the module where you can write the information regarding the configuration of the module.

Besides the information that you write on the label, the module type and part number are also displayed on the label.

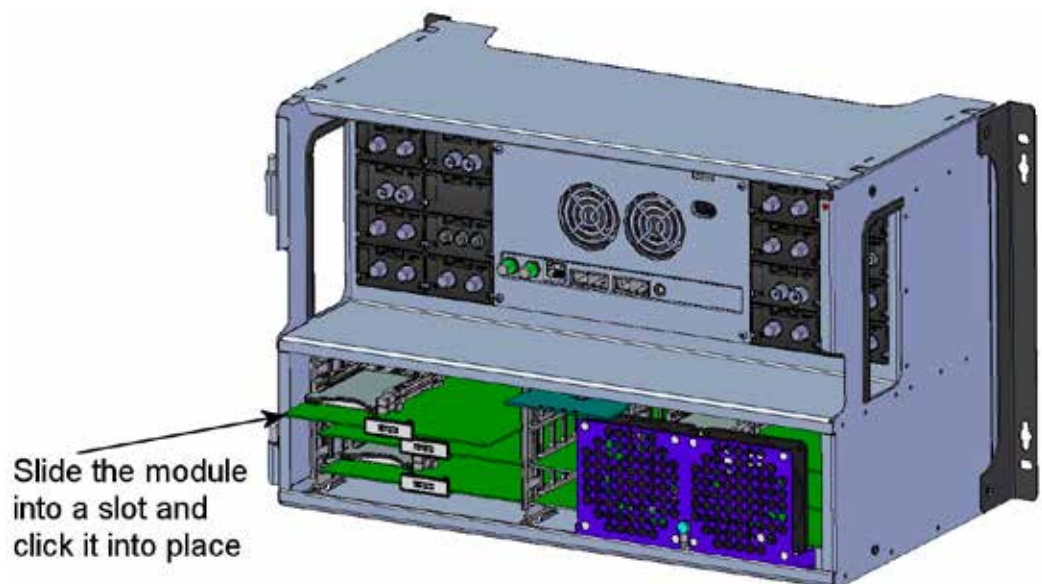
Note The coloured part of the label informs you of the module type. Each type of module is allocated a unique coloured label.



On the bottom of the module you will find a label with the bar code and a serial number printed on it.

Module installation

You install a CI module by sliding the module into a module slot in the lower section of the headend unit and click it into place.

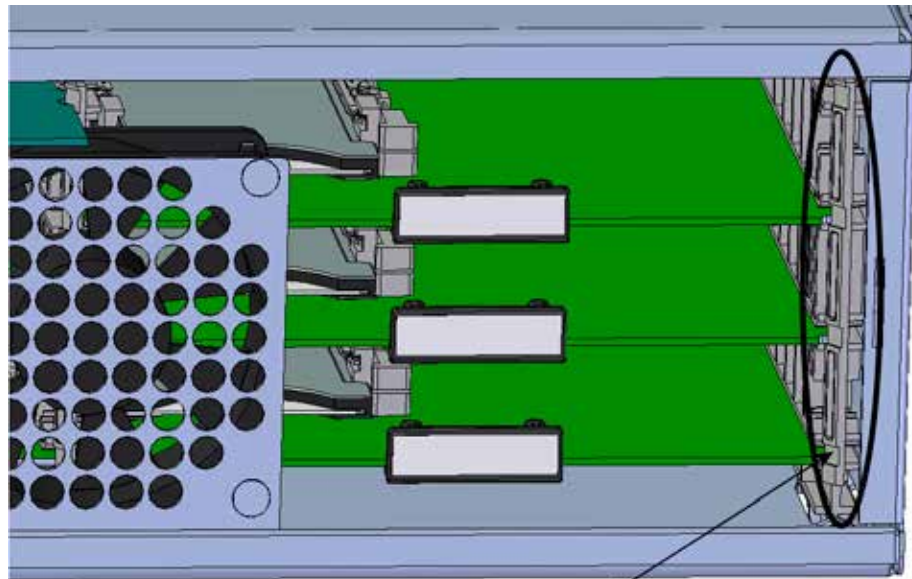


Note You can use hot swapping when you insert a module into or remove a module from the TDX system.

Module removal

You release an output module from a slot by using the lock mechanism that is placed to the right of the modules in the output section.

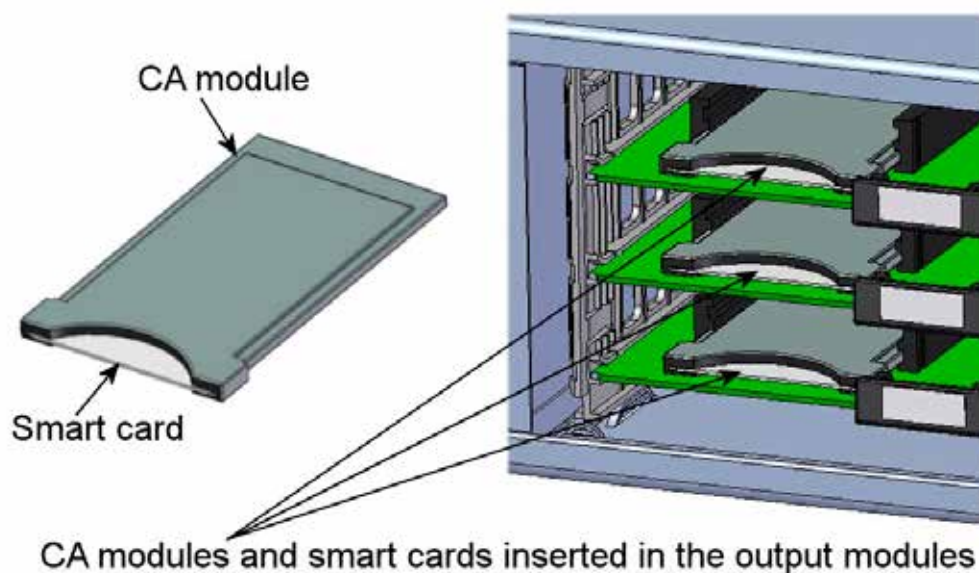
Move the lock mechanism slightly to release the module.



To take a module out of a slot in the output section, tip the lock mechanism and then pull the module out

CAM/Smart card

You can insert 2 Conditional Access modules (CA) into each CI module. Each CA module is able to descramble at least one or more services. Which services depend on the service provider of the CA module and smart card.



CA modules and smart cards inserted in the output modules

Status LED

There is a status LED on the front of each module. The LED indicates whether the module functions according to its purpose or fails.

Basics

Green - flashing	The CI module receives data.
Green - constant on	The CI module receives valid services.
Red	When starting the TDX system the CI module and the system controller negotiate connection speed. If the LED continues to be red either the CI module or the system controller has not been inserted correctly.
No colour	The CI module has not been configured yet or the module has not been inserted correctly.



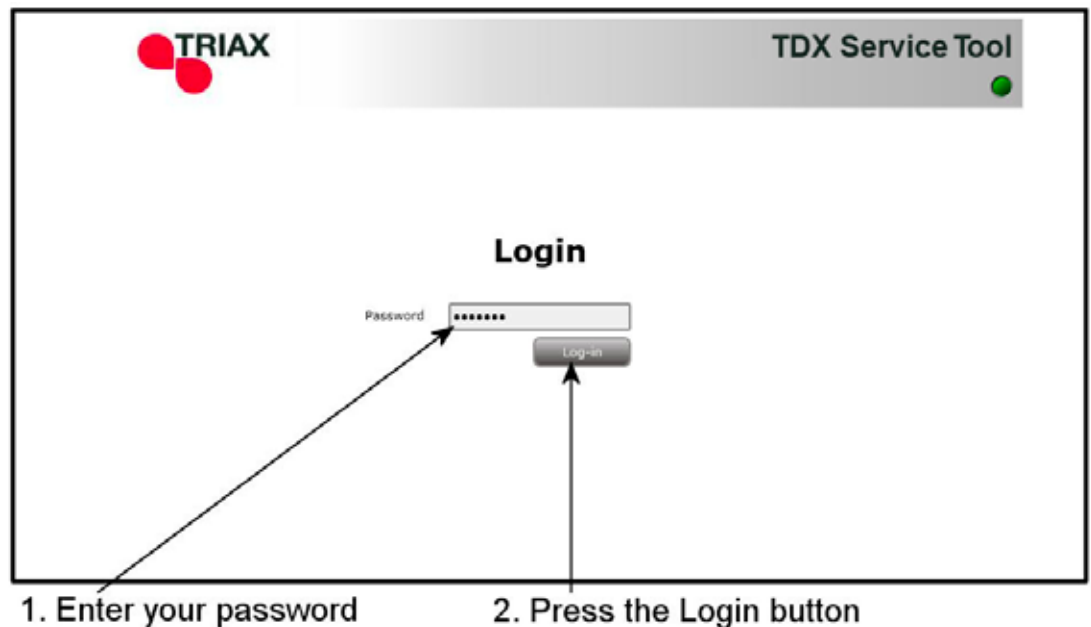
When you update the software of a module the status LED provides you with information about the updating process.

Orange	Boot loader state.
Temporary off	Initiation of the software update.
Temporary green	Every time the modules receives a valid data package. Repeated until the update is completed without errors.
Red	Software update failed.

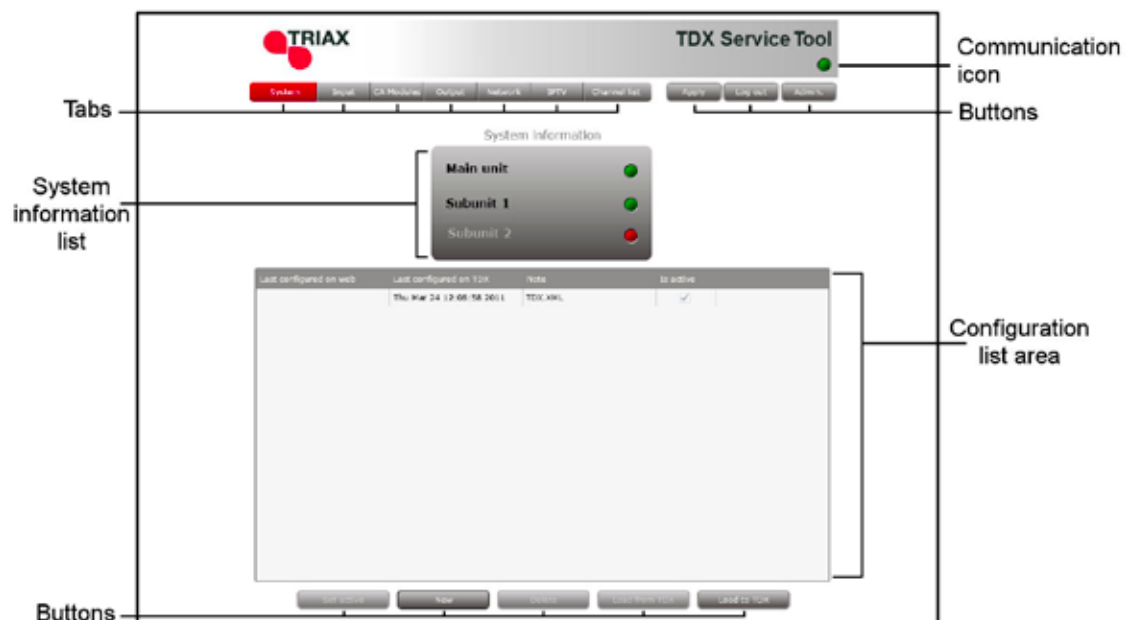
TDX Service Tool

Log in

When you have loaded the TDX Service Tool from the TDX headend system to your laptop/computer the Login window of TDX Service Tool is displayed.



When you have pressed the Log in button the System window is displayed.



TDX Service Tool

CA Modules window

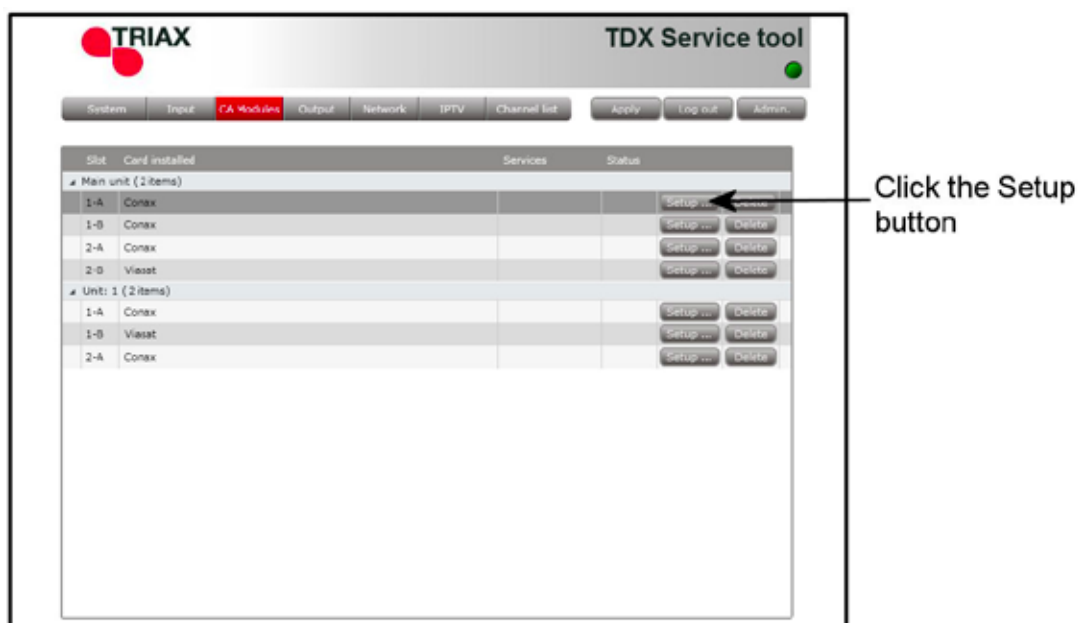
Click the CA Modules tab in the TDX Service Tool to display the CA Modules window.

The first time you display the CA Modules window in a new configuration the module list only displays the number and type of the CA modules that you have inserted in the main and subunits.



You have to configure the CA modules individually.

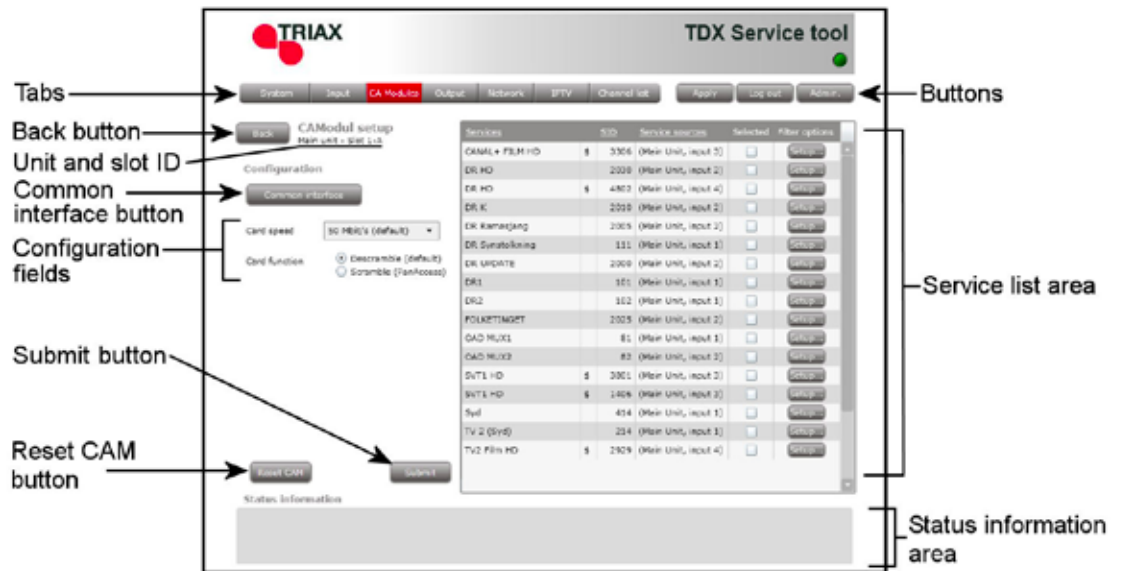
To display the Configuration window, click the Setup button of the CA module you want to configure.



TDX Service Tool

CA Modules configuration window

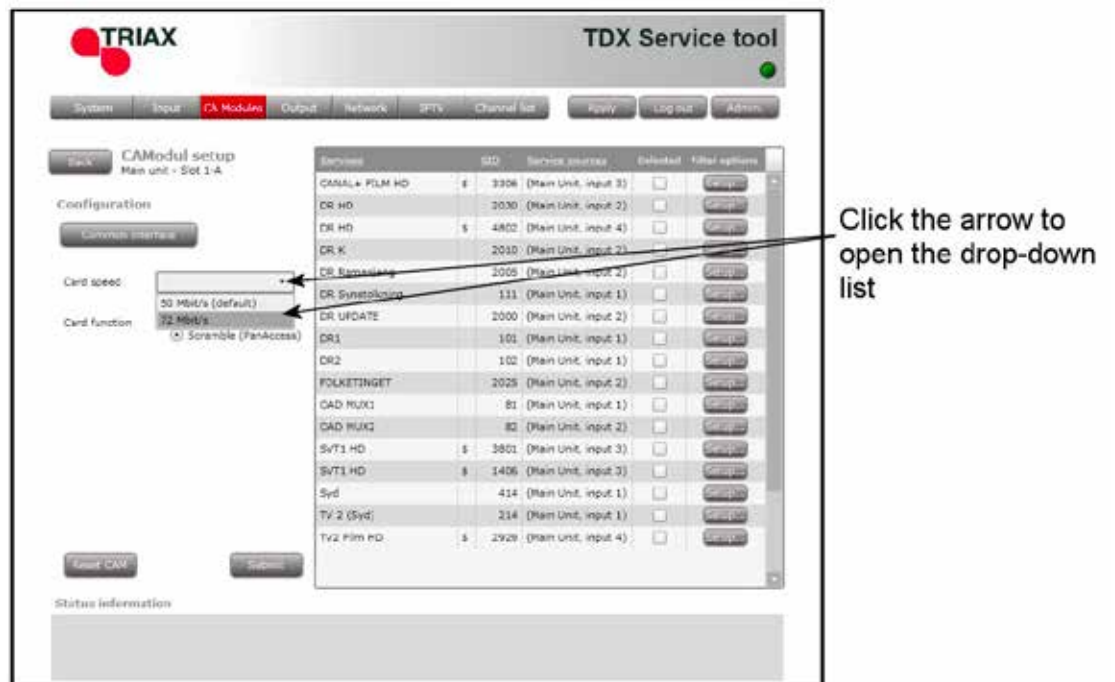
The first time the TDX Service Tool displays the Configuration window for a CA module in a new configuration the fields and radio buttons display default values and nothing is selected in the service list area.



Card speed

If your smart card is able to use a higher card speed than the default card speed, open the drop-down list with the card speeds you can choose from.

Select the card speed you want to use.



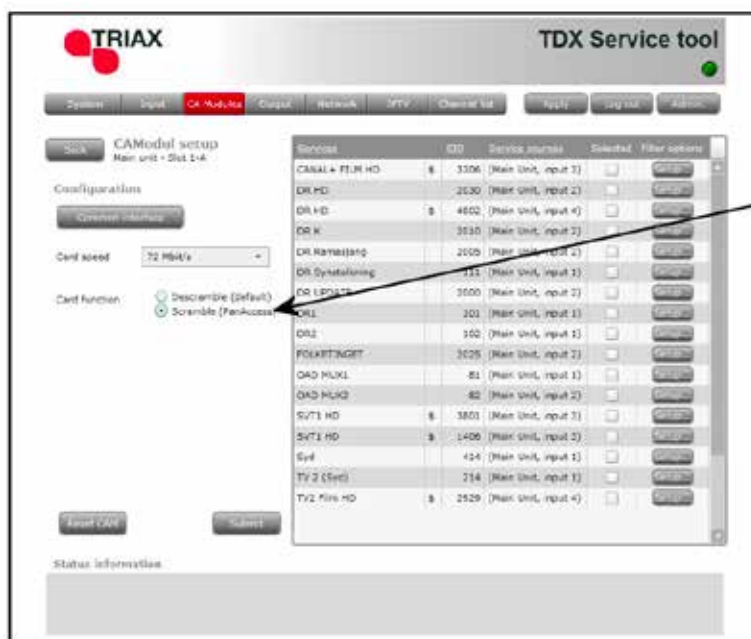
TDX Service Tool

Card function

You can use the Card function radio buttons to determine whether you want the CA module to descramble services that are scrambled or you want the module to scramble services that are not scrambled .

Click the Descramble (default) button if you want to descramble services .

Click the Scramble (PanAccess) button if you want to scramble services using the PanAccess Scrambler.



To scramble services click the Scramble (Pan-Access) radio button

In the Service list area you can select the service or services that you want to descramble and you can set up individual filter options for each service. The services that are scrambled are marked with a dollar sign - \$.

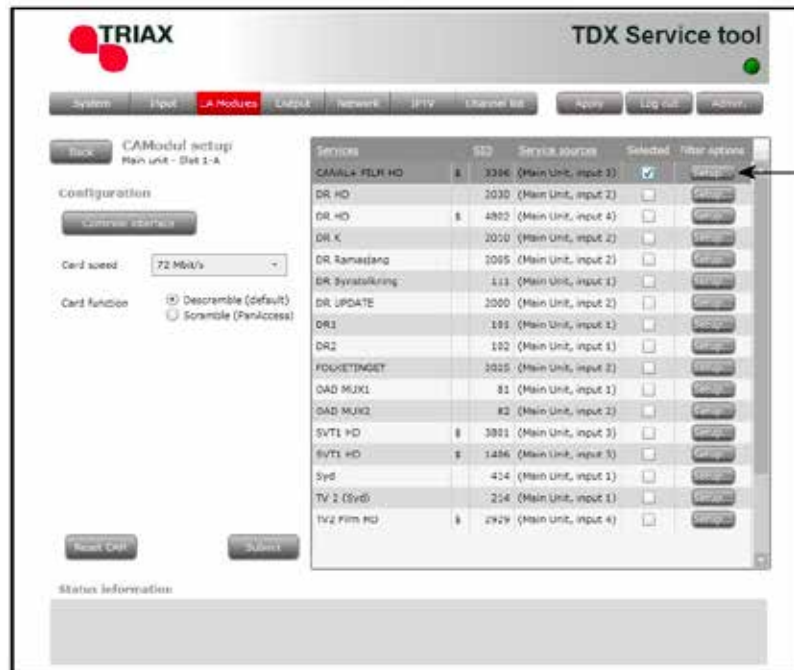


Click the square to select the service

TDX Service Tool

To select a service, click the check box (square) to the right of the service in question.

If you want to change the filter options for a service, click the Setup button of the service in question to open the Filter options window.



Click the Setup button to open the Filter options window

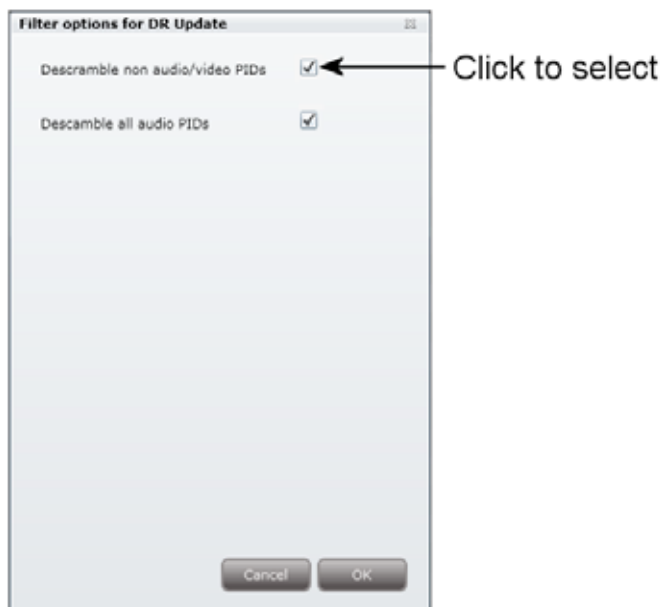
The first time you open the Filter options window the default value Descramble all audio PIDs has been selected.



Default value

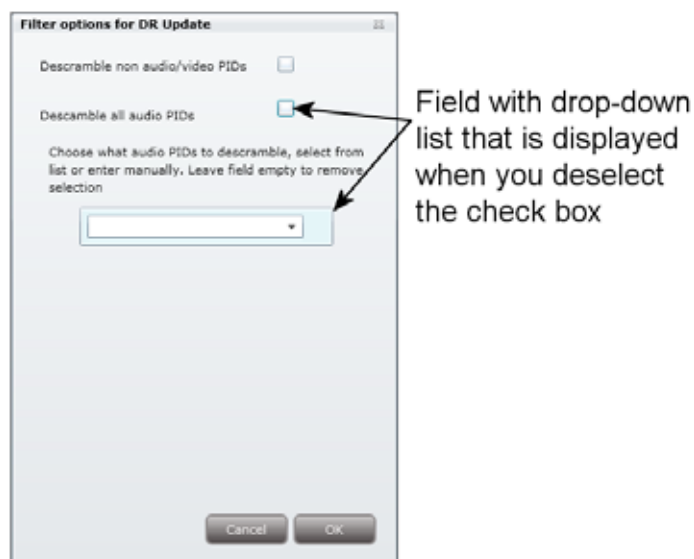
TDX Service Tool

If you want to descramble PIDs (Packet Identifier) that are not audio or video PIDs, click the Descramble non audio/video PIDs check box.



In case you do not want to descramble all audio PIDs you can select which audio PIDs you want to descramble.

To descramble only selected audio PIDs you have to deselect the Descramble all audio PIDs check box.

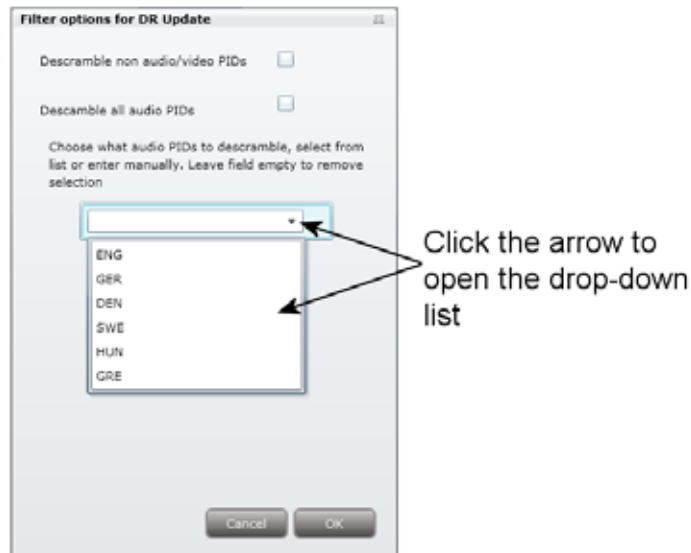


When you have deselected the Descramble all audio PIDs check box a field with a drop-down list is displayed below the check box.

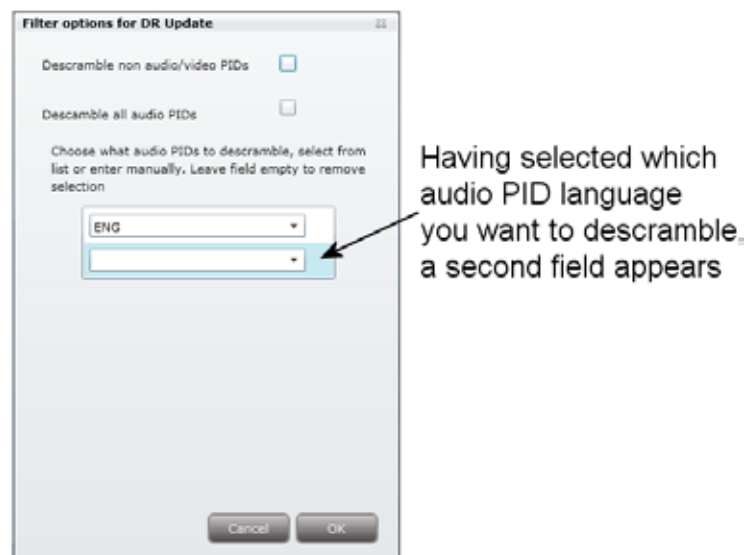
To select which audio PID you want to descramble, open the drop-down list with the languages you can choose from.

TDX Service Tool

Select the language of the audio PID you want to descramble.



When you have selected the required language, a second field is displayed below the first field so you can descramble another audio PID. You can descramble as many audio PIDs as you need.



If the language of the audio PID you want to descramble is not displayed in the list you can enter a three letter string signifying the language you need. To remove your selection leave the field empty.

Click OK to return to the Configuration window.

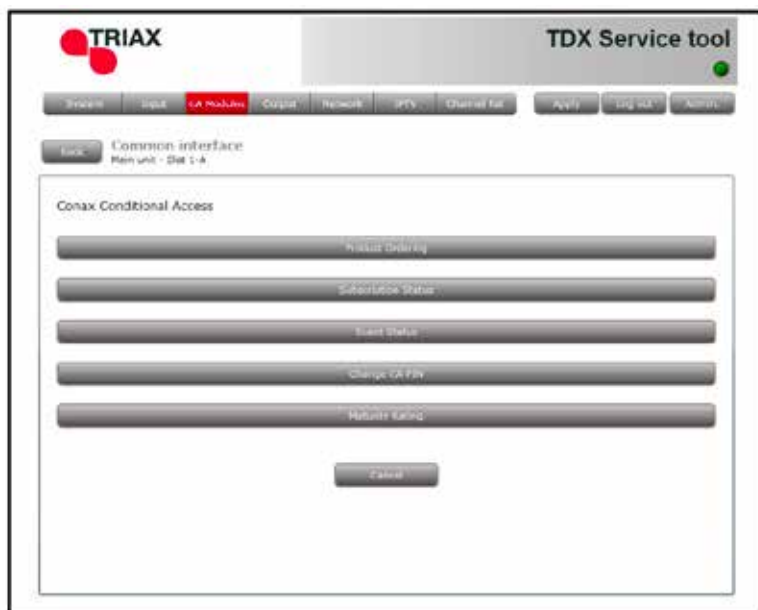
When you have selected the services you want to descramble and changed the filter options you want to change, you have to click the Submit button to save this information in the headend system and return to the CA Modules window.

TDX Service Tool

You use the Common interface button to open the common interface menu.

Clicking the Common interface button gives you access to information from the smart card inserted in the CA module. The type of information provided by the smart card depends on the card itself and its make.

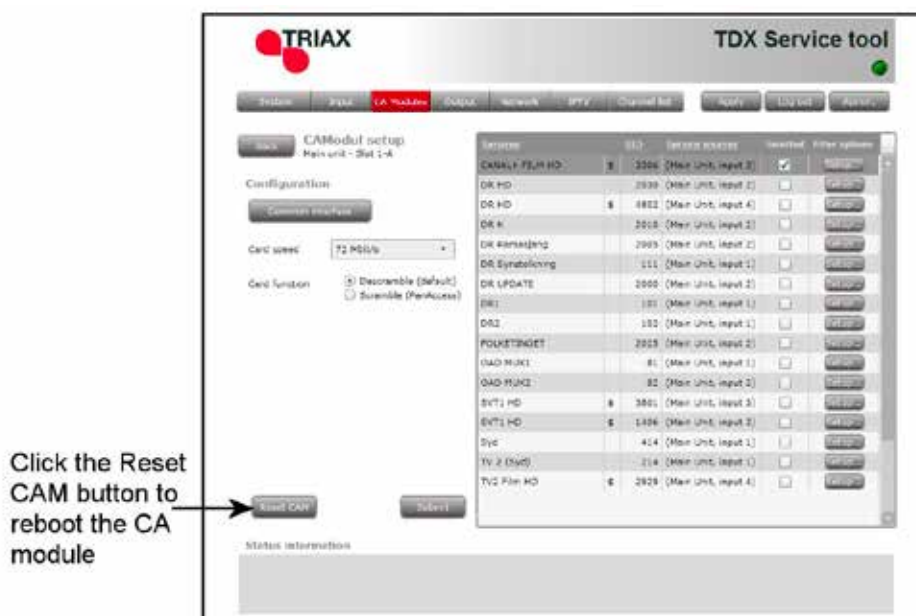
Below is an example of the interface of a Conax card.



Please refer to the user guides of the CA modules and smart cards you have inserted in the output modules for further information.

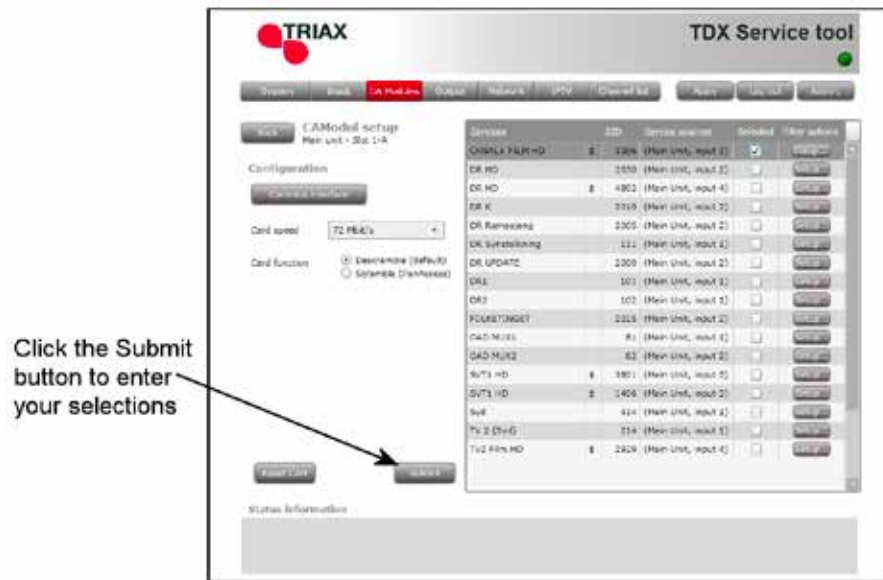
If you need to reboot the CA module you can use the Reset CAM button.

Click the Reset CAM button to reboot the TDX headend system.

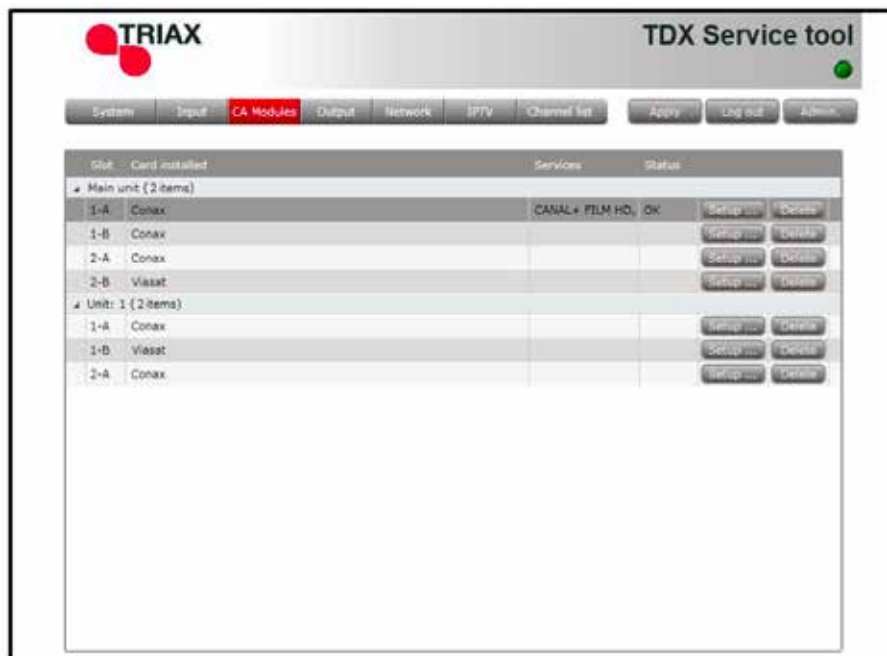


TDX Service Tool

When you have selected the services you want to descramble or scramble you have to click the Submit button to enter this information into the head-end system and return to the CA Modules window.



When you return to the CA Modules window the descrambled services will be displayed next to the CA module you have configured.



Remember to click the Apply button in the upper right-hand corner to save new settings in the configuration.

Status information

To be implemented later.

TDX Service Tool

Save configuration

An **important button** when you change your configuration of the headend system is the **Apply** button placed in the upper right-hand corner of the TDX Service Tool window.



Click the Apply button to save the changes

Apply

Whenever you have made changes in your configuration, “Apply” on the Apply button turns red to tell you that you have unsaved changes that need to be saved.

Click the Apply button to **save** the changes. When changes have been saved the “Apply” text loses the red colour.

WARNING - All unsaved changes will be lost in case of a power cut

Manufacturer

Dear Customer,

Should you require technical assistance in the event that your expert dealer is unable to help you, please contact us at:

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