# AMC-IP-Config_EN

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# IP Configuration of the AMC

## Using AmcIPConfig



## Starting the AmcIpConfig application

The application **AmcIpConfig.exe** finds and, if desired, configures AMC modules in the network. The names and/or IP Addresses of the AMCs are necessary to parametrize these devices in the access control system. AMCs can be password-protected to prevent unauthorized access.

**AmcIpConfig.exe** is launched differently, depending on the access control system:

### Access Personal Edition

**Start > Programs > Access Personal Edition** > **AMC IP-Configuration**

### Access Engine

In the **BIS Configuration Browser** the application can be found in the **Tools** menu under **ACE Configuration AMC IP Adresses**

The **AmcIpConfig.exe** executable can be copied to and started from any PC in the system in order to configure AMCs locally. A prerequisite is that **.NET 1.1** be installed on the PC.

After a standard installation the application will be found at the following locations:

***Access Personal Edition:***

**C:\Programs\BOSCH\Access Personal Edition\PE\bin**

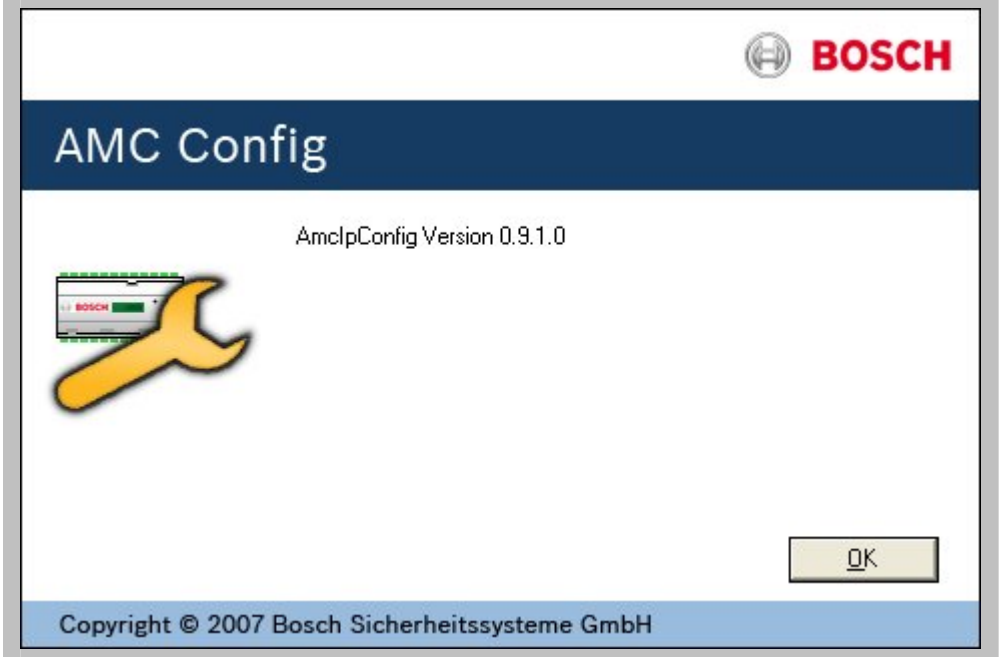
***Access Engine:***

**C:\MgtS\Access Engine\AC\bin**

## Menu and tool bar

The application makes its functions available via toolbar buttons and menus.

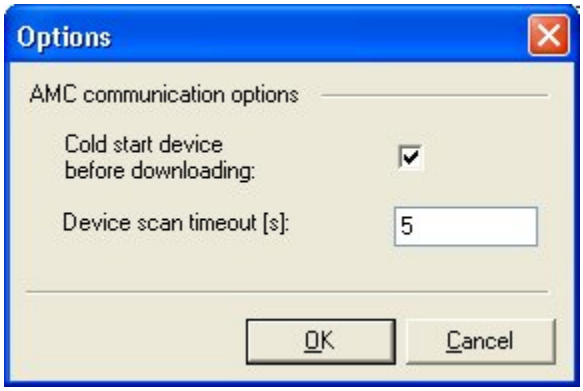
The following table gives an overview of the available functions.

| Menu > Function | Button | Description |
|---|---|---|
| File > Options | | To check or change the application settings. |
| File > Exit | | Stops the application and closes the window. |
| Devices > Scan | | Starts the network search for AMCs.<br><br>During the scan the icon changes to , which can be clicked to abort the scan. |
| Devices > Scan with password... | | After entering a password starts the network search .<br><br>During the scan the icon changes to , which can be clicked to abort the scan. |
| Devices > Set IP... | | This function is only available if exactly one non-protected list entry is selected.<br><br>Opens a dialog to set or change the network name and IP address of an AMC. |
| Devices > Upgrade firmware... | | This function is only available if at least one non-protected list entry is selected.<br><br>Opens a separate dialog to upgrade the firmware of the AMCs. |
| Help > Contents | | Opens this Online Help. |
| Help > About | | Opens an information box about the application version.<br><br>  |

## File > Options

This dialog provides two settings

- Cold start device before downloading
- Device scan timeout [s]




The **Cold start device before downloading** option makes sure the device is running the bootloader before downloading new firmware.

It is recommended that this option remain enabled.

The **Device scan timeout** option allows the user to select a scan timeout between 0.5 and 120 seconds (default = 5). Increasing this value enables the application to detect devices that respond slowly to requests, due to a busy network.

# Scanning

**IP Configuration of the AMC**

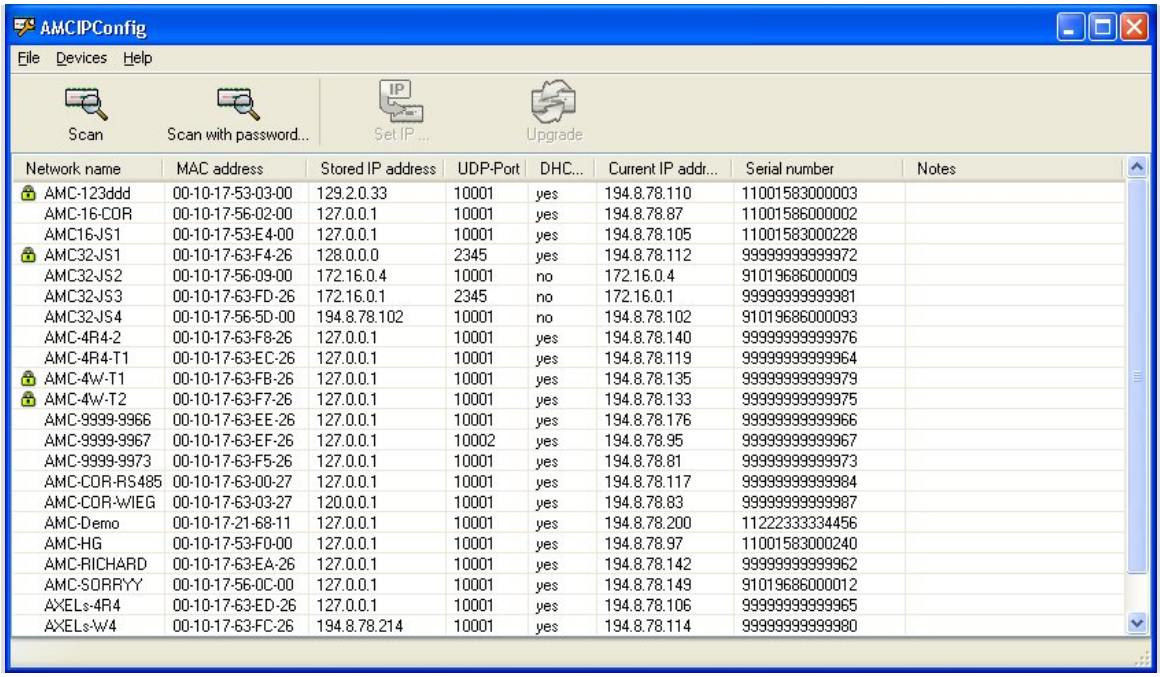
Hide all drop-down text | Print all text

Show all drop-down text | Print all text

## Scanning the Local Area Network for AMC Devices

To scan your local area network for available AMC devices, click the **Scan** symbol in the toolbar or select **Menu:Devices > Scan.** (For an explanation of **> Scan with Password...** see below).

***Show/Hide screen shot***




| Network name | MAC address | Stored IP address | UDP-Port | DHC... | Current IP addr... | Serial number | Notes |
|---|---|---|---|---|---|---|---|
| AMC-123ddd | 00-10-17-53-03-00 | 129.2.0.33 | 10001 | yes | 194.8.78.110 | 11001583000003 | |
| AMC-16-COR | 00-10-17-56-02-00 | 127.0.0.1 | 10001 | yes | 194.8.78.87 | 11001586000002 | |
| AMC16-JS1 | 00-10-17-53-E4-00 | 127.0.0.1 | 10001 | yes | 194.8.78.105 | 11001583000228 | |
| AMC32-JS1 | 00-10-17-63-F4-26 | 128.0.0.0 | 2345 | yes | 194.8.78.112 | 99999999999972 | |
| AMC32-JS2 | 00-10-17-56-09-00 | 172.16.0.4 | 10001 | no | 172.16.0.4 | 91019686000009 | |
| AMC32-JS3 | 00-10-17-63-FD-26 | 172.16.0.1 | 2345 | no | 172.16.0.1 | 99999999999981 | |
| AMC32-JS4 | 00-10-17-56-5D-00 | 194.8.78.102 | 10001 | no | 194.8.78.102 | 91019686000093 | |
| AMC-4R4-2 | 00-10-17-63-F8-26 | 127.0.0.1 | 10001 | yes | 194.8.78.140 | 99999999999976 | |
| AMC-4R4-T1 | 00-10-17-63-EC-26 | 127.0.0.1 | 10001 | yes | 194.8.78.119 | 99999999999964 | |
| AMC-4W-T1 | 00-10-17-63-FB-26 | 127.0.0.1 | 10001 | yes | 194.8.78.135 | 99999999999979 | |
| AMC-4W-T2 | 00-10-17-63-F7-26 | 127.0.0.1 | 10001 | yes | 194.8.78.133 | 99999999999975 | |
| AMC-9999-9966 | 00-10-17-63-EE-26 | 127.0.0.1 | 10001 | yes | 194.8.78.176 | 99999999999966 | |
| AMC-9999-9967 | 00-10-17-63-EF-26 | 127.0.0.1 | 10002 | yes | 194.8.78.95 | 99999999999967 | |
| AMC-9999-9973 | 00-10-17-63-F5-26 | 127.0.0.1 | 10001 | yes | 194.8.78.81 | 99999999999973 | |
| AMC-COR-RS485 | 00-10-17-63-00-27 | 127.0.0.1 | 10001 | yes | 194.8.78.117 | 99999999999984 | |
| AMC-COR-WIEG | 00-10-17-63-03-27 | 120.0.0.1 | 10001 | yes | 194.8.78.83 | 99999999999987 | |
| AMC-Demo | 00-10-17-21-68-11 | 127.0.0.1 | 10001 | yes | 194.8.78.200 | 11222333334456 | |
| AMC-HG | 00-10-17-53-F0-00 | 127.0.0.1 | 10001 | yes | 194.8.78.97 | 11001583000240 | |
| AMC-RICHARD | 00-10-17-63-EA-26 | 127.0.0.1 | 10001 | yes | 194.8.78.142 | 99999999999962 | |
| AMC-SORRYY | 00-10-17-56-0C-00 | 127.0.0.1 | 10001 | yes | 194.8.78.149 | 91019686000012 | |
| AXELs-4R4 | 00-10-17-63-ED-26 | 127.0.0.1 | 10001 | yes | 194.8.78.106 | 99999999999965 | |
| AXELs-W4 | 00-10-17-63-FC-26 | 194.8.78.214 | 10001 | yes | 194.8.78.114 | 99999999999980 | |

The application scans your local area network for all available AMC devices and displays their MAC addresses, stored IP addresses, DHCP status, IP address, device name, and serial number. Each AMC found is marked in the leftmost column in one of the following ways:

| | |
|---|---|
| <no mark> | password matched, or device not password-protected |
| | password-protected (see below) |
| | Device changed and requiring rescan |

## Scanning password-protected devices.

If you wish modify a password-protected AMC, click **Scan with password&ldots;** instead of **Scan**. You must then enter the password for the AMC.

Scans are limited to within a single subnet.

Hide all drop-down text | Print all text

Show all drop-down text | Print all text

# Configuring the AMC Ethernet Interface

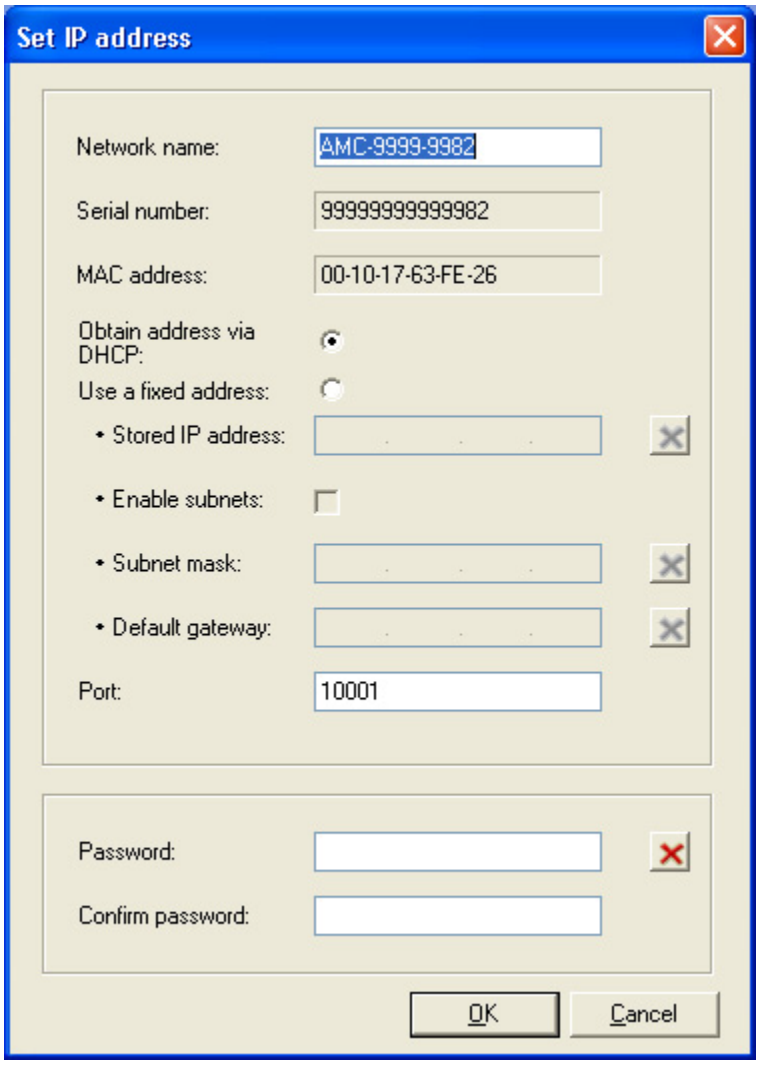
**IP Configuration of the AMC**

## Structure of the configuration dialog

AMCs which are not yet configured, or which require editing, can be selected (only singly) from the list.

The configuration dialog can be opened via the menu function **Devices > Set IP...** or via the

button (which becomes active when an AMC is selected) or by double-clicking the desired list entry.




**Network name**

The dialog gives each new devices in a standard name consisting of the device type (AMC) plus the last 8 digits of the serial number divided into two groups of four. [Version 00.44 or higher takes the last six digits of the MAC address.]

For more human-friendly identification the name can be replaced here by a unique string

of maximum 14 characters.

Use only alphanumeric characters plus the separator "-" (minus or dash)

**The network name has to start with a letter. Do not use special characters or spaces.**

The names are not case sensitive.

**Serial number** — Can not be modified

**MAC address** — Can not be modified

**Obtain address via DHCP** — If this box is checked an IP address can be obtained from a DHCP-Server, provided one is available in the network.
Depending on the network the assignment and display of a DHCP IP address can take some hours.

**Use a fixed address** — If static addresses are to be used instead, e.g. if no DHCP server is available, then this option should be checked.

**Stored IP address** — Enter the static address here. This text field is only writable when the option **Use a fixed address** has been checked. IP addresses consist of 4 decimal numbers between 0 and 255, separated by periods (".")

**Enable subnets** — This option activates the input fields **Subnet mask** and **Default gateway**.

This check box only becomes writable where the AMC's firmware permits these settings, otherwise it is marked with a

**Subnet mask** — Enter the subnet mask number here.

Like IP addresses subnet masks consist of 4 decimal numbers between 0 and 255, separated by periods (".") . However only the values 255 and 0 are used.

**Default gateway** — Enter the address of the default gateway here.

Gateways are routers in the same network. They serve to route data to other parts of the network or internet.

**Port** — 10001 (= default)

**Port** is an address component for assigning data to the correct protocol. Port numbers range between 1 and 65534

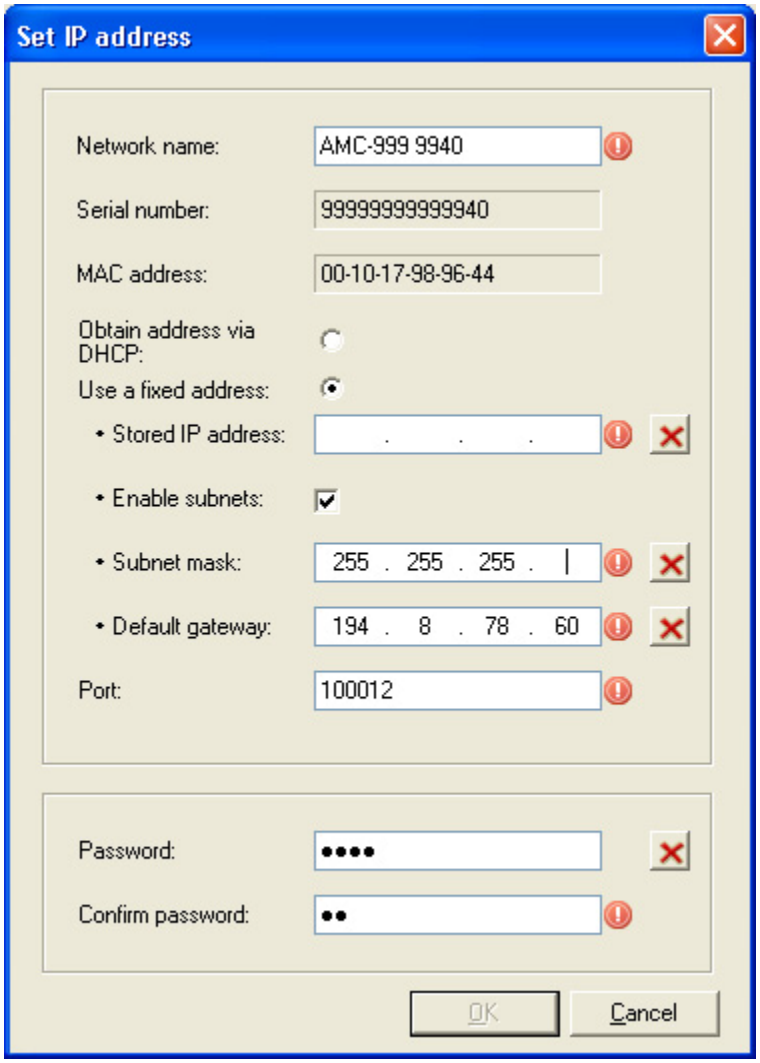
**Password** — Every configurable AMC can be protected by a password of max. 8 characters. If scanned without a valid password a password-protected AMC will become unreachable.

**Confirm password** — Confirm the chosen password here.

## Use of the configuration dialog

Existing entries can be removed from their respective fields using the buttons.

Invalid or incomplete entries are marked with a to the right of their respective fields




Mousing over these marking produces a "tooltip" which explains more fully the cause of the problem. The following table presents an overview of possible tooltips.

| | | |
|---|---|---|
| **Network name** | | The device name contains invalid characters. Only the characters 'A-Z', 'a-z', '0-9' and '-' may be used. |
| | | The device name must have between 1 and 14 characters. |
| **Stored IP** | | The given address is not complete. |

| | | |
|---|---|---|
| **address** | | The given address is reserved. |
| | | The given address is reserved in the given subnet. |
| **Enable subnets** | | Communication via a gateway/router is not supported by this device. Consider upgrading to a newer firmware. |
| **Subnet mask** | | The given address is not complete. |
| | | The given subnet mask does not conform with the Classless Inter-Domain Routing (CIDR) specification. |
| **Default gateway** | | The given address is not complete. |
| | | The gateway address is not in the same subnet as the device address. |
| **Port** | | The device port must be a number between 1 and 65534. |
| **Confirm password** | | The passwords do not match. |

The OK button will not become clickable until all entered data have been corrected.

A modified device is specially marked with a ✔. This marking remains in place until a subsequent scan verifies the correctness of the modifications and removes the marking. It is not possible to modify devices while the marking is shown.

# Upgrade

## Upgrading the firmware

The AmcIpConfig makes it possible to update the bootloader firmware of the AMC, change various device settings and secure access to the device.

Follow the steps described below to upgrade the AMC firmware.

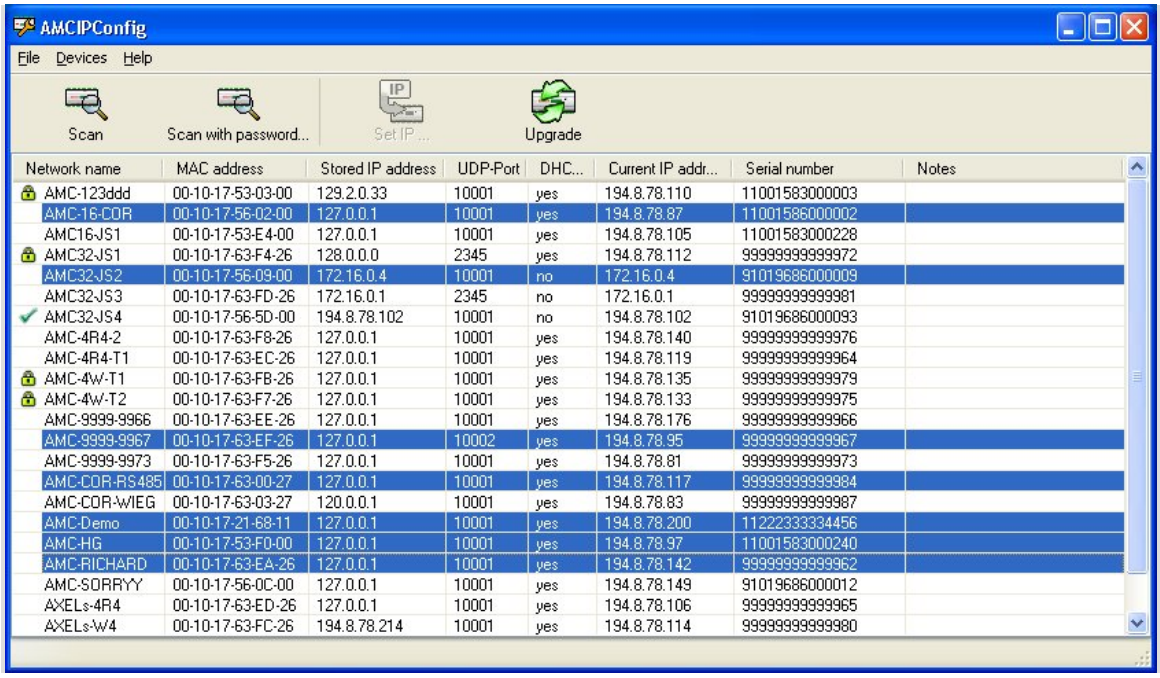
1. Before the firmware of a device can be changed, the user has to select the devices that need to be upgraded. By selecting the **Scan** button the application will start searching for AMC devices in the network. When the application detects AMCs, they will be added to the list of devices.

    a. The scan will end after a fixed amount of time (default: 5 seconds), but this value can be changed in the options dialog.

> Ensure that the option **Cold start device before downloading** is activated.

2. As soon as devices are available in the list, the user can select one or more non-protected devices for upgrading. When the appropriate devices have been marked, the button can be selected to start the upgrade.

***Show/Hide screen shot***

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| AXELs-W4 | 00-10-17-63-FC-26 | 194.8.78.214 | 10001 | yes | 194.8.78.114 | 99999999999980 | |

3. The upgrade dialog provides a wizard interface that will guide the user through the upgrade process.

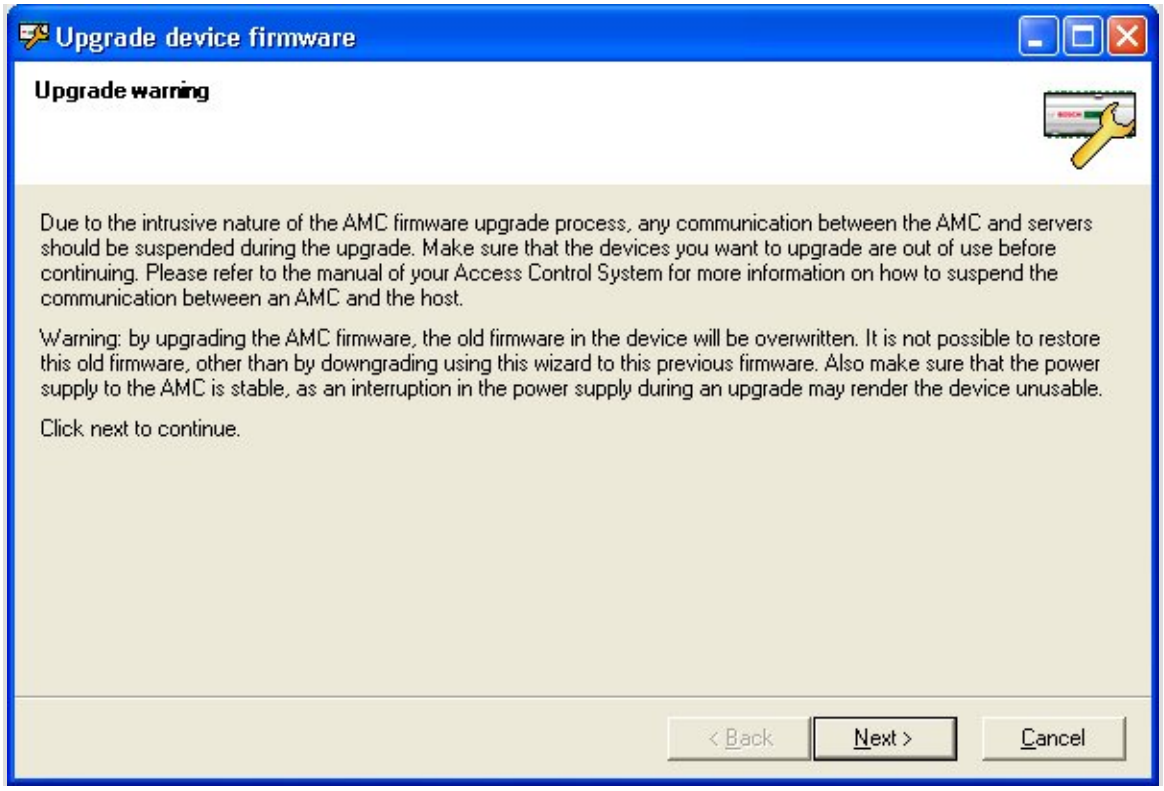
    a. The upgrade process can always be stopped by closing the dialog with the **x** button in the title bar or pressing **Cancel**.

    b. Pressing **Next** will always continue to the following upgrade step in the process

    c. Pressing **Back** will return to the previous step.

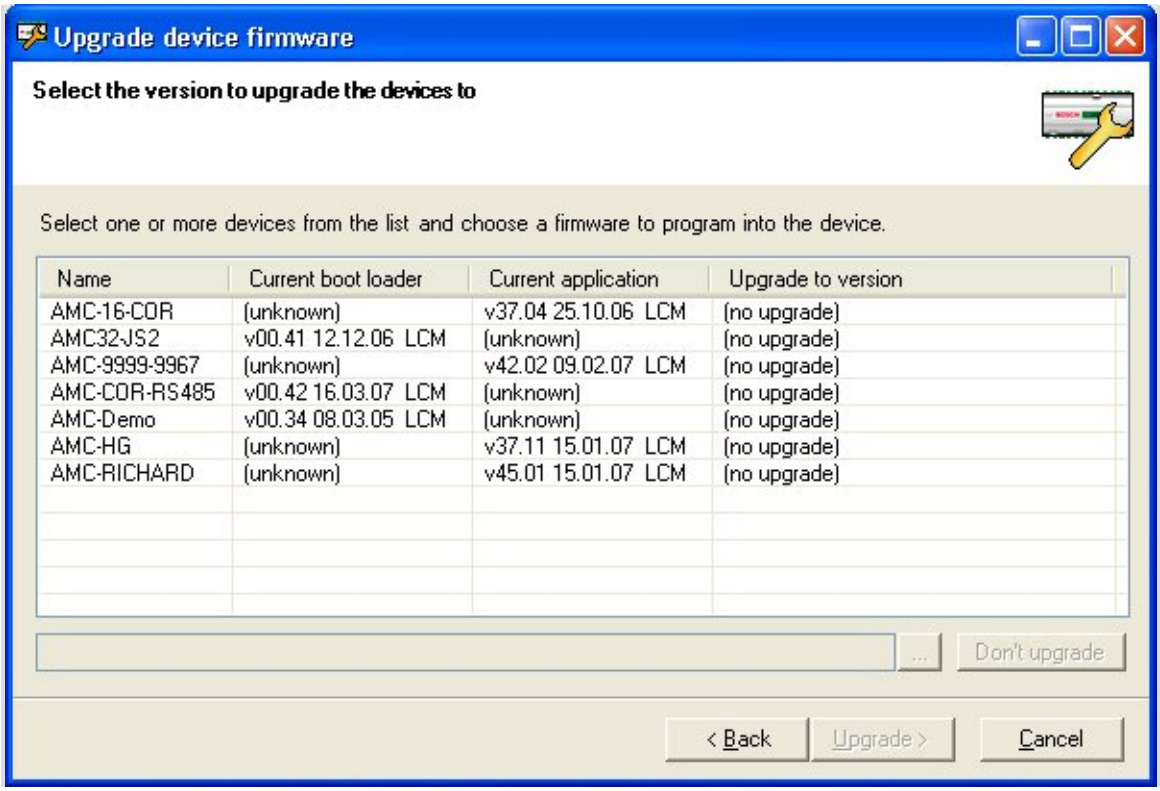
4. On the first page of the dialog, a warning is displayed to the effect that the device should be disconnected from the access control system during upgrade and that the upgrade should never be interrupted e.g. by loss of power supply, lest incomplete firmware render the device unusable.

***Show/Hide screen shot***



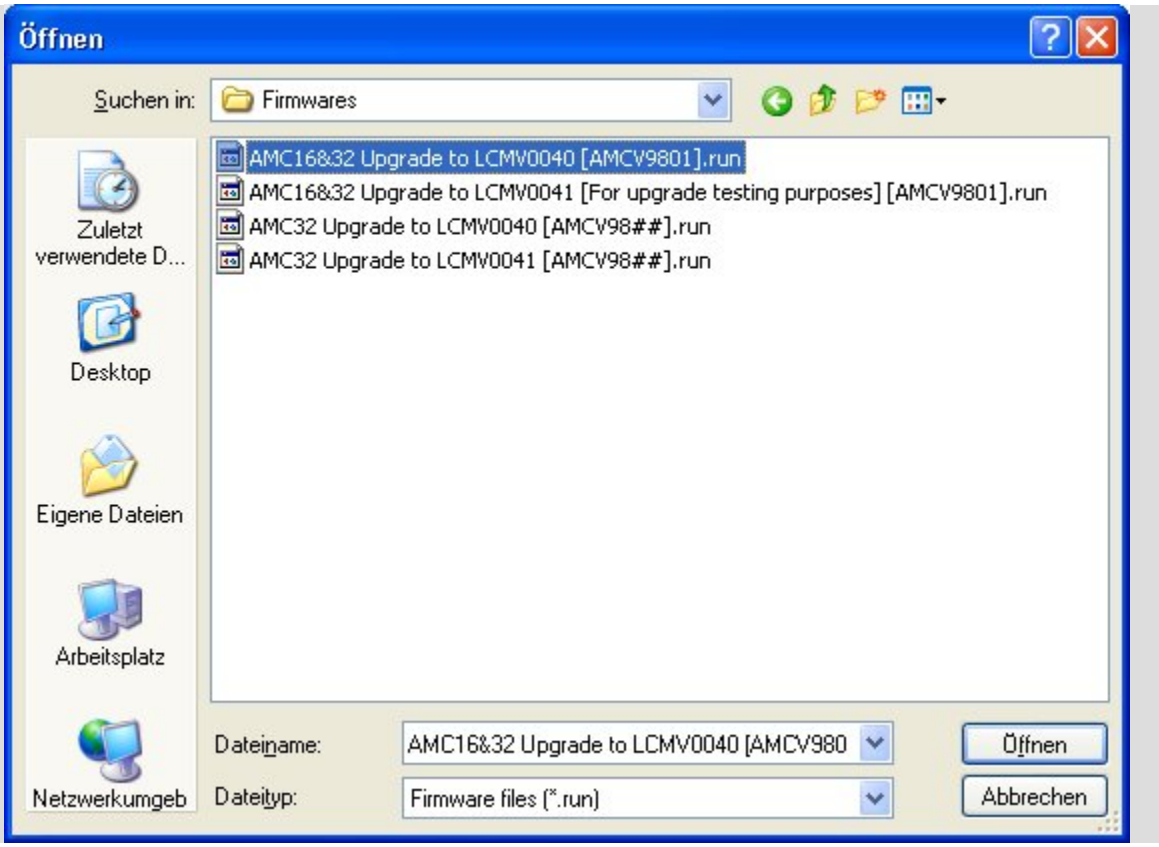

5. After clicking **Next**, the user can select the firmware to program into the device. A list is shown with the devices the user selected after the device scan. As far as the devices support it, their version is displayed. For older devices only the version of the currently active application can be shown. The last column displays the new firmware that will be programmed into the device (or **no upgrade**, if no firmware is selected).

***Show/Hide screen shot***




6. Select the device to upgrade, again.
7. Click the ellipsis button (**...**), select the firmware to upgrade and click **Open**.

***Show/Hide screen shot***

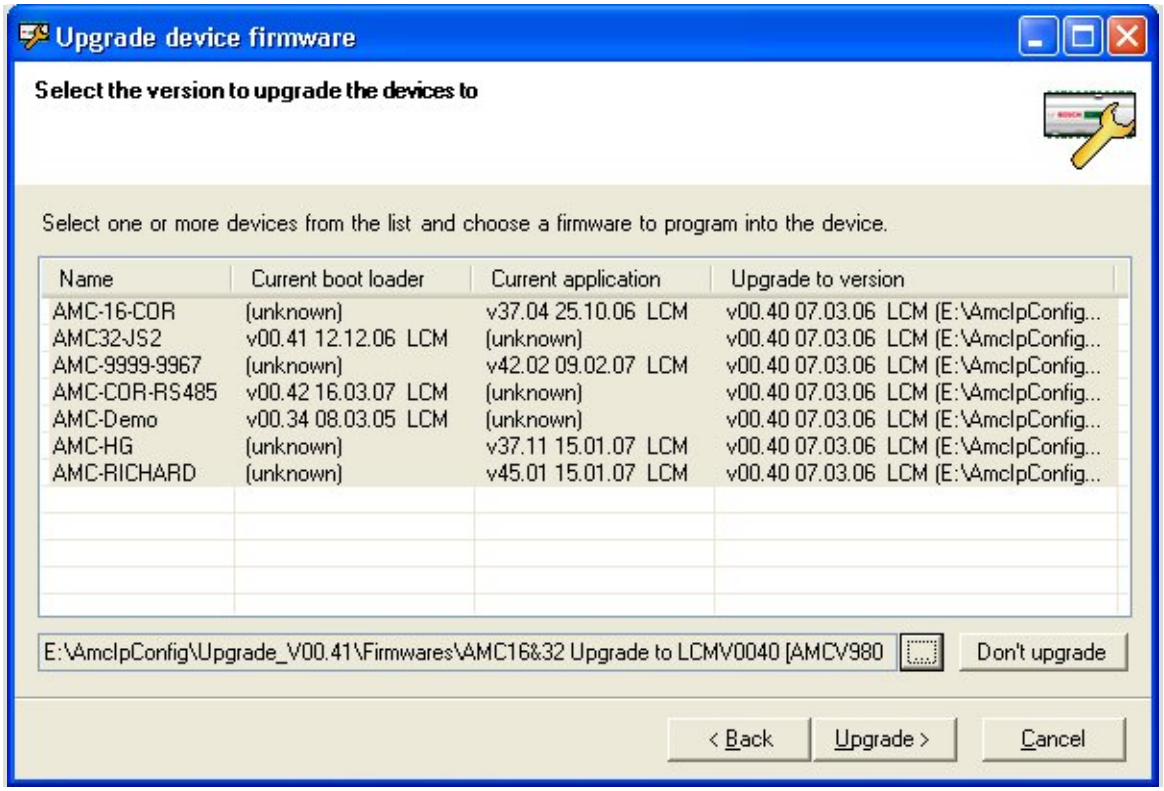



Upgrades overwrite the AMC software. If the upgrade fails, the device will no longer function and must be reset by a service engineer.

Different firmware versions can be installed on different devices if necessary. Repeat steps 6 and 7 for each device.

The upgrade for a device can be averted by selecting the device and pressing the **Don't upgrade** button. As long as an upgrade is selected for at least one device the **Upgrade** button will be enabled.

***Show/Hide screen shot***

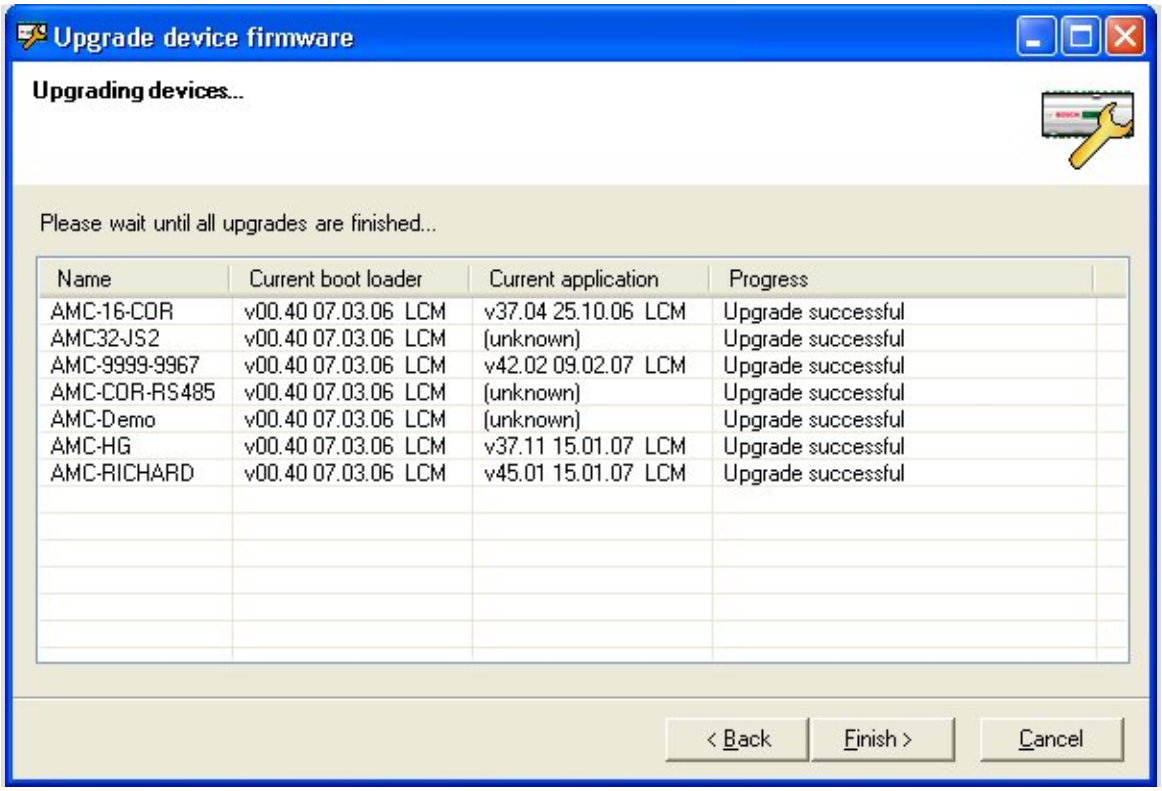



8. By pressing the **Upgrade** button, the update of the devices will start.

    a. The application will display the progress of the update for each device. The normal process steps are:

    - Device coldstart
    - Downloading
    - Verifying new version
    - Verifying communication
    - Upgrade successful

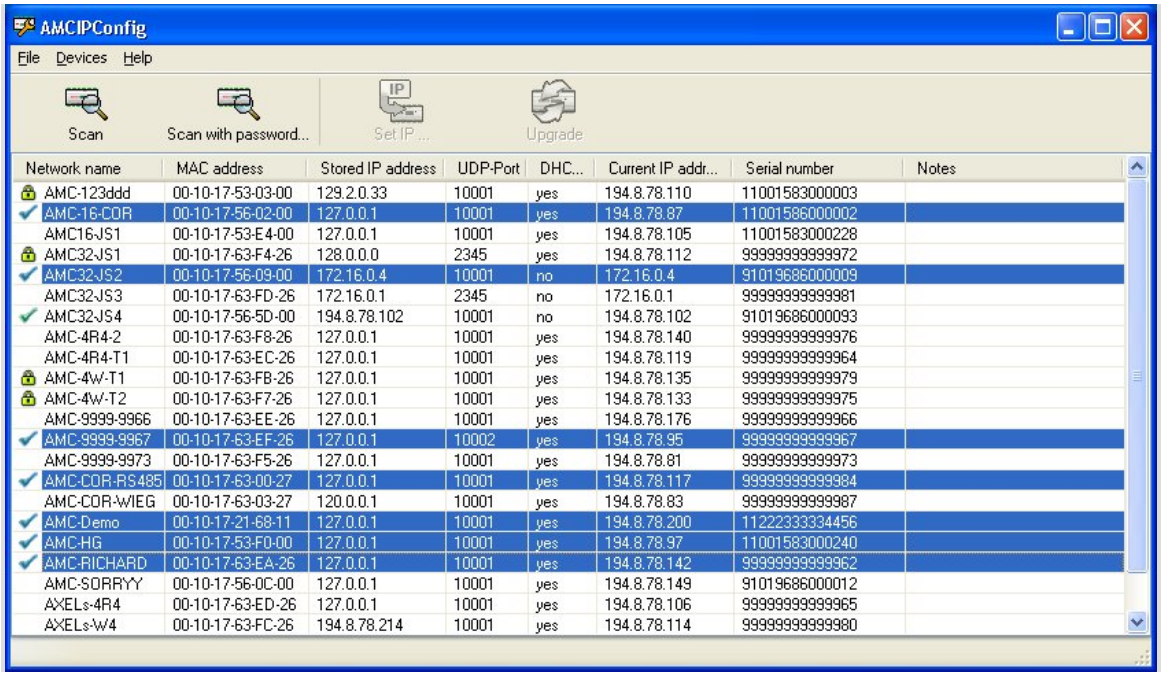
***Show/Hide screen shot***




9. By clicking **Finish** the dialog will be closed.

10. Changed devices are marked ✔

***Show/Hide screen shot***

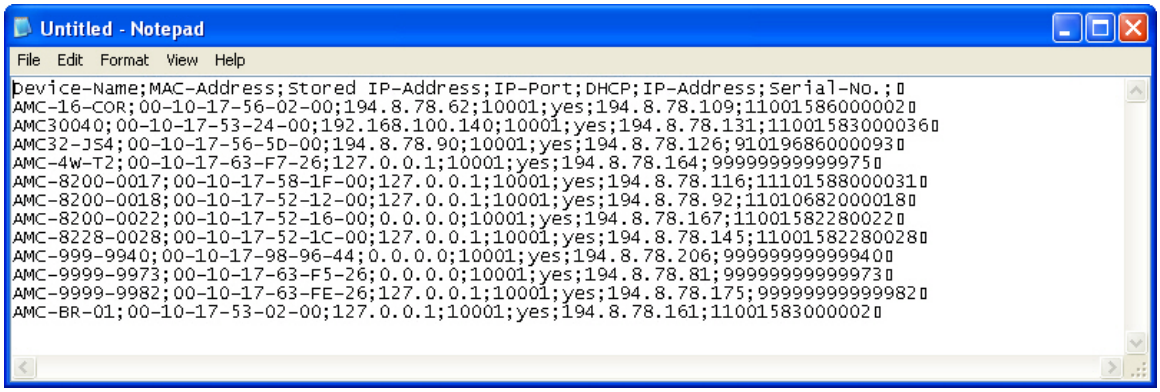



11. Devices marked as changed can not be re-edited. Rescan the AMCs to remove the change mark and thus enable further modification.

# Saving

## Saving list contents

Scan results can be saved for the purposes of documentation, editing, printing etc.  Use the key combination Ctrl+C to copy the list to the clipboard, and then Ctrl+V to paste the clipboard into a text editor.




If the text appears not as above but in one continuous line, then set your text editor to recognize line feeds. E.g. In the Notepad editor **Menu:Format > Word Wrap**.

IP Configuration of the AMC

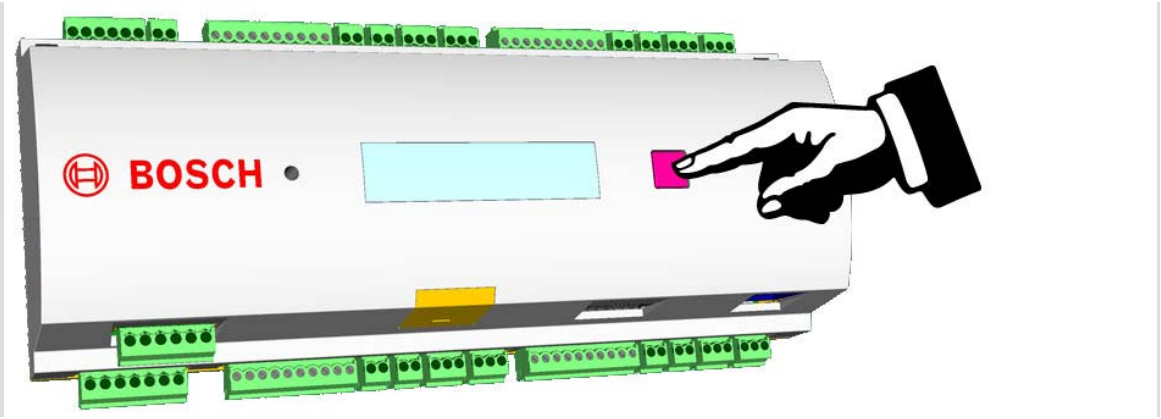
Hide all drop-down text | Print all text

Show all drop-down text | Print all text

# AMC Status Display

During operation, the LCD display shows information about the AMC's status. Push the **Dialog** button to switch between the different modes.

***Show/Hide button location***




The currently set display mode remains until the next operation of the **Dialog** button.

| Push | Display | Description |
|---|---|---|
| 0 | V00.35 02.05.05<br>or<br>WIEGAND or LBUS or | Software version and date of the downloader<br>every 5 sec. alternating with the display of the reader interface. |

| | | |
|---|---|---|
| | BG900 | (= default page) |
| 1 | 99999876543210 A | BOSCH serial number and bus address<br><br>A = address 1<br><br>B = address 2<br><br>C = address 3<br><br>D = address 4<br><br>E = address 5<br><br>F = address 6<br><br>G = address 7<br><br>H = address 8 |
| 2 | 02.05 15:35:15 (S) | Current date and time.<br><br>(S) = Summer time and (W) = Winter time |
| 3 | Dig. I0: ▪▪▪▪▪▪▪▪▪▪▪ | Display of the digital contacts: connected input signals will be shown as dots above the dotted mid-line, connected outputs as dots below. |
| 3a | Dig. I1: ▪▪▪▪▪▪▪▪▪▪▪ | If any extension boards are connected, their input and output signals will be displayed analogously on additional "pages". |
| 3b | Dig. I2: ▪▪▪▪▪▪▪▪▪▪▪ | |
| 3c | Dig. I3: ▪▪▪▪▪▪▪▪▪▪▪ | |
| 4 | MAC 0010174C8A0C | MAC address |
| 5 | N AMC-1234-5678 | Network name |
| 6 | I 192.168.10.18 | IP address of the AMC |
| 7 | G 192.168.10.255 | IP address of the gateway<br><br>(Version V 00.44 or higher) |
| 8 | M 255.255.255.0 | Subnet mask<br><br>(Version V 00.44 or higher) |
| 9 | H 192.168.10.10 | IP address of the host |
| 10 | DHCP 1 | DHCP<br>1 = on<br>0 = off |
| 11 | D 192.168.10.1 | IP address of the DNS server |
| 12 | Host: - "C" | Host activity,<br>+ = online<br>- = offline<br><br>"C" = Counter of the received data packages from the host interface. |

Hide all drop-down text | Print all text

Show all drop-down text | Print all text

# Index


## A

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