

BLL VERSION 3.6.0

User Manual



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BLL (Basis Locon Laptop)

Basis Locon Laptop is a Windows Application that runs on laptops and allows the user to connect devices via local (USB) or remote (DOCSIS) interface. The remote connection requires a network connection and device equipped with a Technetix DOCSIS transponder. The application allows users to setup and configure all aspects of the device.

Two versions of the application are available:

- The LITE version provides functionality for basic control over devices
- The FULL version allows the user to freely change any aspect of the amplifier with enhanced functionality

The FULL version has enhanced functionality allowing the user to do the following:

- Change the amplifier type by setting the control module to 'free mode' using the unlock function
- Change the upstream slope point (Diplexer Type)
- Change the downstream EQ hinge point (End Frequency)
- Save custom defaults
- Unlock the control module

Prerequisites

Operating system:

- Microsoft .NET Framework 4.5.2
- Windows Vista (32 or 64 bit)
- Windows 7 (32 or 64 bit)
- Windows 8 (32 or 64 bit)
- Windows 10 (32 or 64 bit)

Hardware:

- USB interface

Supported devices

Amplifiers

- DBC-1200 (S)
- DBD-1200
- DBE-1200 (S)

Control modules

- DBDCM-C1: v1.06, v1.08, 1.09
- DBDCM-A1: v1.03, v1.04, v2.x
- DBDCM-B2: v2.22

Upstream modules

- DBUS-A1
- DBUS-C1
- DBUS-D1
- DBTX-A1

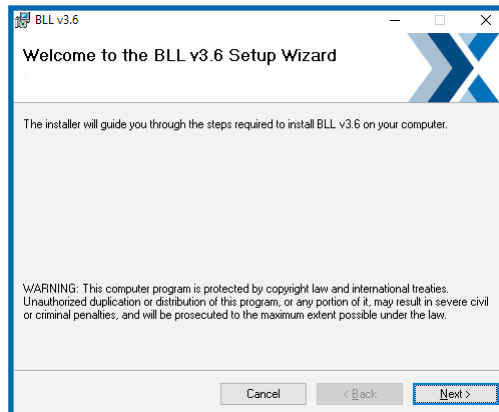
Downstream modules

- DBDS-A1
- DBDS-B2-x
- DBDS-B4-x
- DBDS-B5-1
- DBDS-B6-1
- DBDS-B7-x
- DBDS-D1
- DBDS-F1
- DBDS-F2
- DBDS-F5-1
- DBRX-A1

Installation process

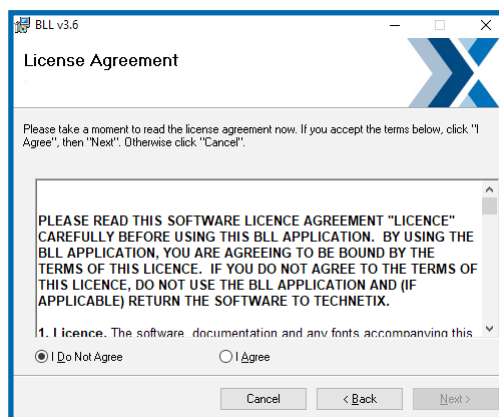
Using Windows Vista, 7 or a newer operating system (Windows 10) you will be prompted to allow the set-up process to use administration rights. This will have to be allowed for a successful installation. Simply click 'Yes' to allow the application to make changes on your computer.

1. Run Setup File



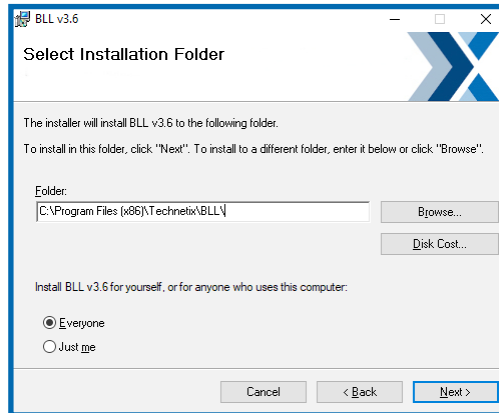
Click 'Next' on the welcome screen when ready to continue.

2. Agreeing to the End User License agreement



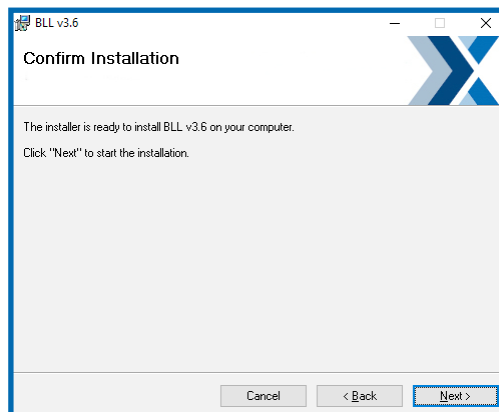
Once you have read and accepted the terms, select 'I Agree' and click 'Next'.

3. Select your installation folder



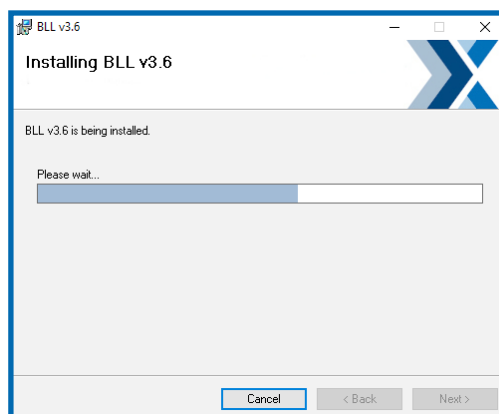
Change the folder and choose the options 'Just me' and click 'Next'

4. Confirmation of installation



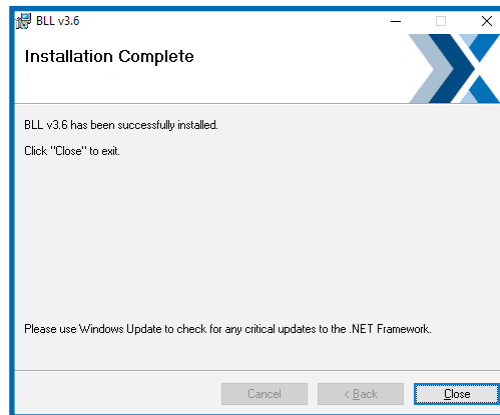
Once ready, click 'Next' to install.

5. Installation



Installation progress

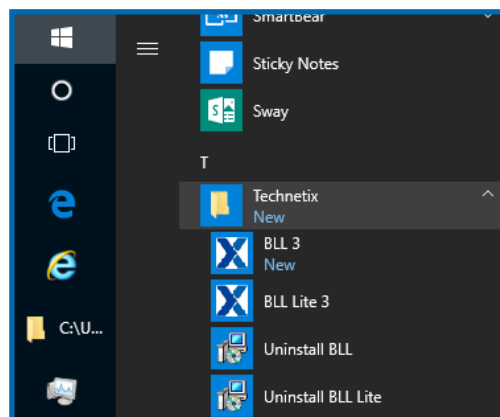
6. Installation complete



Once the software has been successfully installed, the 'Installation Complete' screen will appear. Click 'Close' to finish the process.

7. Start the application

Users can start the application by following the shortcut path below:
Start > All Programs > Technetix > BLL-> BLL 3 or BLL Lite 3



Select 'BLL 3' or 'BLL Lite 3' to run the application.

Application interface

The following layout shows the BLL application user interface when it is disconnected from the USB device.

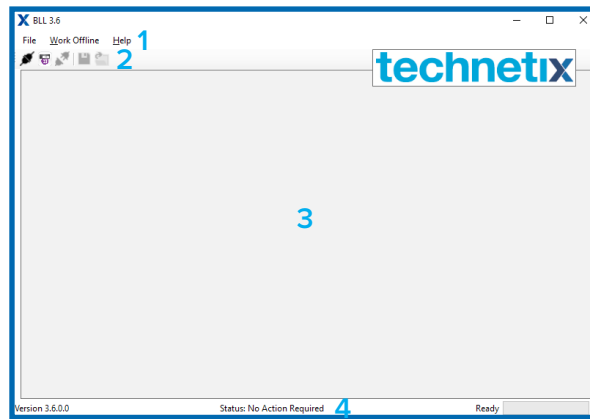


Figure 1, Main application widow

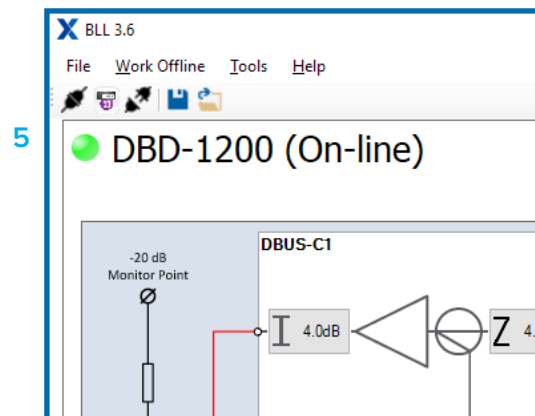
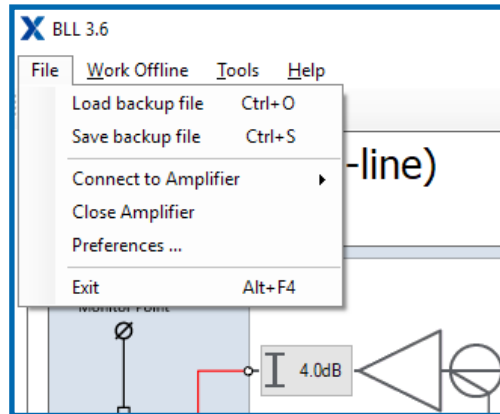


Figure 2, Menu changes when device is connected

- (1) Menu bar
- (2) Toolbar
- (3) Work area
- (4) Status bar
- (5) Device type and status (offline/online)

Menu and toolbar description

File menu



Load back up file

Loads the saved device settings from the back up file. The user can define the default back up file location in [Menu->Preferences]. This option is disabled when the device isn't loaded (online/offline).

Toolbar (2) icon:

Save new back up file

Allows the user to back up the device, the [Amplifier Name] must be filled. The user can define the default back up file location in [Menu->Preferences]. This option is disabled when device isn't loaded (online/offline).

Toolbar (2) icon:

Connect to amplifier

Establishes a connection with the device using the local (USB) or remote (DOCSIS) interface. The remote connection requires a network and the device to be equipped with a Technetix DOCSIS transponder. Please refer to the DOCSIS Control for more details.

Toolbar USB (2) icon:

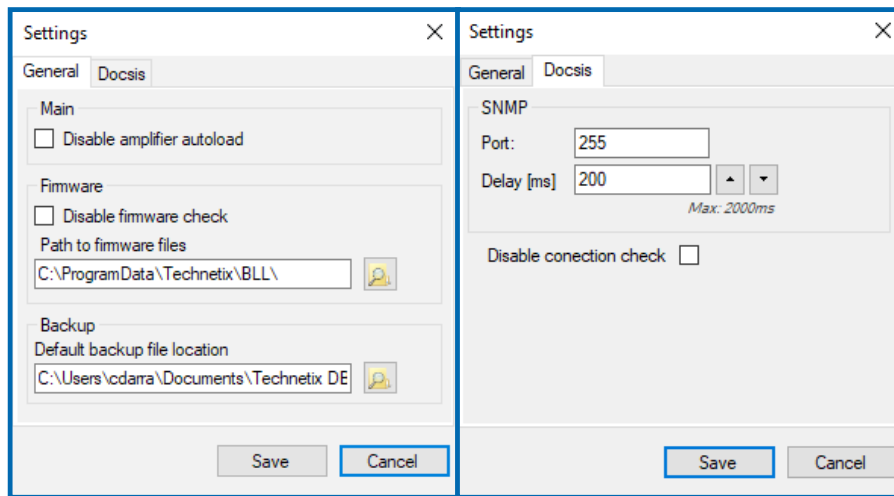
Toolbar DOCSIS (2) icon:

Close amplifier

Disconnect the application from any connected device.

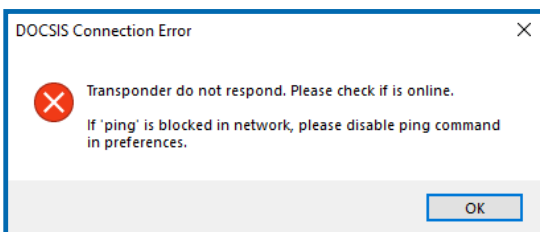
Toolbar (2) icon:

Preferences



Preferences contains optional settings

- Disable/enable autoload - disabling this will stop the application automatically detecting the amplifier when connected to the USB port.
- Disable/enable firmware check on connected device



- Path to firmware upgrade files.
- SNMP Port
- Disable Connection Check - In some cases, a network may have been configured to block 'ping' checks. This will lead BLL to assume the transponder is offline and displaying the following error. Tick this box to stop software running ping checks.

Exit

Closes all connections and exit from the application.

Work Offline menu

DBC-1200: DBUS-A1, DBDCM-C1, DBDS-A1
 DBUS-A1, DBDCM-A1, DBDS-A1
 DBUS-A1, DBDCM-C1, DBDS-B2
 DBUS-A1, DBDCM-A1, DBDS-B2
 DBUS-A1, DBDCM-A1, DBDS-B2ET
 DBUS-B2, DBDCM-A1, DBDS-B2ET

DBD-1200: DBUS-A1, DBDCM-C1, DBDS-A1, DBDS-D1
 DBUS-A1, DBDCM-A1, DBDS-A1, DBDS-D1
 DBUS-A1, DBDCM-C1, DBDS-B2, DBDS-F1
 DBUS-A1, DBDCM-A1, DBDS-B2, DBDS-F1
 DBUS-A1, DBDCM-A1, DBDS-B2ET, DBDS-F1
 DBUS-B2, DBDCM-A1, DBDS-B2ET, DBDS-F1

DBE-1200: DBUS-C1, DBUS-D1, DBDCM-A1,
 DBDS-B4, DBDS-F2, DBDS-F2

Tools

The tools menu is only accessible when the application is connected to the amplifier.

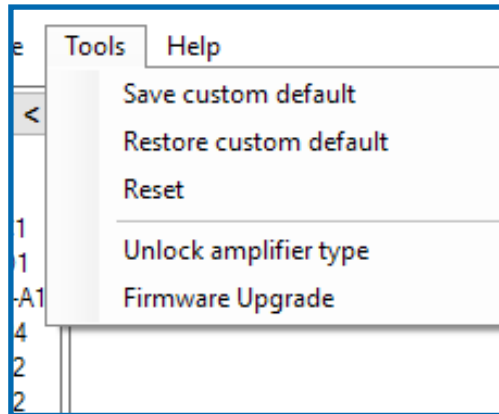


Figure 3, Tools menu

Save custom default

Save the current device settings into the device memory as a restore point (back up). This back up option will initially be set in production with the type defaults and will be used to restore the amplifier to factory defaults for its type.

Note: This option is not available in BLL Lite version.

Restore custom default

Restore the settings saved in the device back up memory of the connected amplifier to the user interface. To apply changes to the amplifier, press the 'Send to amp' button.

Reset

This option performs a software reset of the amplifier.

Unlock amplifier type

This option is for moving the Control Module to the new amplifier type, the [amplifier template] setting needs to be changed to '0: Free'. This can be done by changing the amplifier template from the dropdown control or alternatively via Tools -> 'Unlock amplifier type' in the BLL full version. As a result, in the BLL Lite version, the user can change the amplifier type in which control module is installed. Please refer to the 'Moving a control module' section of this user manual for further information.

Note: This option is not available in the Lite version of BLL.

Firmware Upgrade

Enables the user to upgrade the firmware installed in the amplifier to a newer version. Please refer to the 'Firmware Upgrade' section of this user manual for more information.

Note: This option is not available in the Lite version of BLL.

Help menu

This menu displays the 'About' detail with a link to the end-user license agreement (EULA) and the Supported Devices (please refer to the 'Supported Devices' section of this user manual).

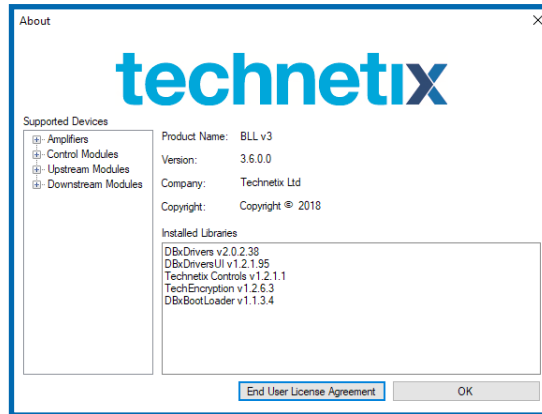


Figure 4, 'About' under Help menu

Working space

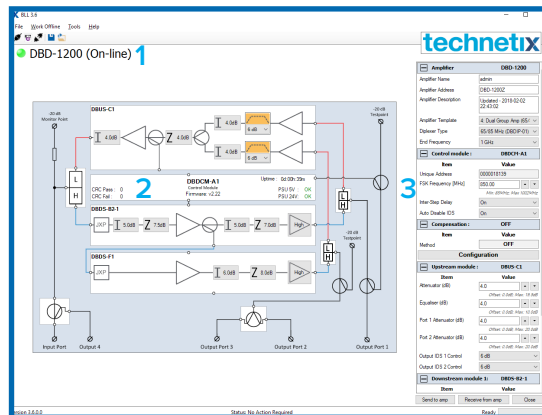


Figure 5, Application layout when device is connected

- (1) Device type and status
- (2) Device diagram (depends on device type)
- (3) Device details (depends on device type)

Device type and status

Provides an indication of device type and status. A green circle and text '(On-Line)' indicates a connected device, if circle is grey with '(Off-Line)' label, the application has lost its connection with the device or is in offline mode.

Device diagram

The diagram is shown when the device is connected or loaded in offline mode. The appearance of the diagram depends on the device type and configuration.

Device details panel (table)

The amplifier can be adjusted via the block diagram or the **device details** table. The controls on the diagram and panel are connected and a change on the panel is reflected on diagram and vice versa. The user can adjust any electronic controls based on specific amplifier configuration.

Table contains controls including:

- Amplifier – main amplifier information
- Control module
- Compensation – adjust and calibrate compensation parameters
- Upstream module settings
- Downstream module settings

Amplifier section

Amplifier	
Amplifier Name	DBC-1200S
Amplifier Address	DBC-1200S
Amplifier Description	DBC-1200S
Amplifier Template	4: Dual Group Amp (85/105) ▾
Diplexer Type	85/105 MHz (DBDIP-02) ▾
End Frequency	862 MHz ▾

Figure 6, Amplifier information

Amplifier Name

The amplifier name is for the user and can be used for any purpose.

The field specification:

- Is required for saving back up files
- Maximum length 20 characters
- Saved in device memory only for DBDCM-A1 and DBDCM-B2

Amplifier Address

The amplifier address (modem address) is used to store the user defined FSK address.

The field specification:

- Maximum length 16 characters
- Only available for firmware version 2.xx +

Amplifier Description

Amplifier description field allows the user to store any general customised information.

The field specification:

- Maximum length 42 characters
- Only available for DBDCM-A1 and DBDCM-B2

Amplifier Template

The device has several predefined 'templates' to match specific use case applications. Changing the device template, the values, the maximums and offsets are reset to new template default values. To apply the template, the user must click the 'Send to amp' button.

The field specification:

- Option is not available in BLL Lite version

Diplexer Type

Users can change the diplexer's type by clicking on the 'diplexer type' drop down box in the table and selecting the new type. The new type should match with the diplexer type installed in the amplifier. Due to physical limitations, the selected diplexer will affect the maximum achievable attenuation and gain. To apply the diplexer, the user must click the 'Send to amp' button.

The field specification:

- Available options:
DBDIP-01 (65/85MHz), DBDIP-02 (85/105MHz),
DBDIP-03 (204/258MHz), DBDIP-04 (42/54MHz),
DBDIP-05 (85/102MHz)
- Option is not available in BLL Lite version

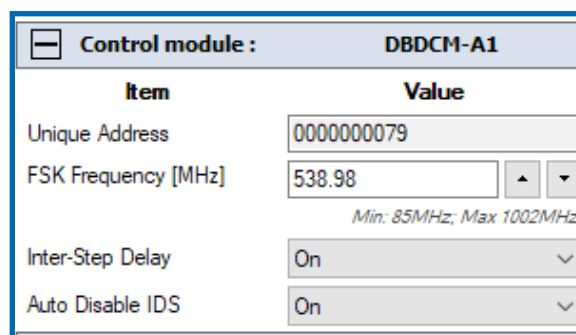
End Frequency

The end frequency indicates the 'downstream hinge point' and allows the user to select which end frequency to use (e.g.: 862 MHz or 1 GHz); this will ensure the appropriate attenuation correction is used when attenuation is adjusted by the user. Due to physical limitations, the selected end frequency will affect the maximum achievable attenuation and gain.

The field specification:

- Available options: 750MHz, 862MHz, 1GHz (1006MHz), 1.2GHz (1218MHz)
- Option is not available in BLL Lite version

Control module section



Control module : DBDCM-A1	
Item	Value
Unique Address	0000000079
FSK Frequency [MHz]	538.98 <small>Min: 85MHz; Max 1002MHz</small>
Inter-Step Delay	On
Auto Disable IDS	On

Figure 7, Control module parameters

Unique Address

Each DBDCM-A1 and DBDCM-B2 module has a unique ID.
The field specification:

- Available for DBDCM-A1 and DBDCM-B2
- The ID is used as device FSK address for DBDCM-A1. Please refer to DBDCM-A1 FSK control module for further detail

FSK Frequency

The FSK frequency is used to receive communication (commands) from the RF Gateway (PGR-121/122). It must be set to the same frequency as that of the PRG-121/122. Please refer to DBDCM-A1 FSK control module for further detail.

The field specification:

- Only available for DBDCM-A1

Inter-Step Delay

The inter-step delay is used to gradually move the attenuators and equalisers in 0.5 dB steps. When enabled and when an attenuator or equaliser's electronic control has been changed, the amplifier will move the electronic control in 0.5 dB steps to the new set value. If this is not enabled, the amplifier will set the control directly to the new value in one step.

The field specification:

- Delay between steps is 15 ms

Auto Disable IDS

Enable/disable IDS switch to auto return to default value (0 dB). This functionality only applies to local connection (USB).

The field specification:

- Default delay 15 min
- Not applicable for DBDCM-C1 firmware version 1.06

DOCSIS Section

DOCSIS section is only available for DBDCM-B2 control modules. There are two modes, the first one is the local connection through USB (Figure 6) and the second one is the remote connection (Figure 7)

DOCSIS Transponder : DBDDM-A1	
IP Address	0.0.0.0
MAC Address	00:00:00:00:00:00
Firmware	R000.000

Figure 8, Local connection (USB)

DOCSIS Transponder : DBDDM-X	
Upstream Frequency	32.98 MHz
Upstream Power	40.50 dBmV
Downstream Frequency	769.75 MHz
Downstream Power	10.60 dBmV
SNR	46.30 dB

Figure 9, Remote connection

Compensation section

Please refer to the ‘Compensation’ section of this user manual for further detail.

Compensation : ASLC	
Item	Value
Method	ASLC
Trigger Mode	Auto
Pilot Low Frequency	222.00 MHz
Pilot High Frequency	500.00 MHz
Port 1 Status	Not Adjusted
	Trigger Now

Configuration

Method

Compensation method OFF, ATC, AGC, ASLC (please see the ‘Compensation’ section).

Trigger Mode

Trigger mode: how the compensation is triggered.

Pilot (Low) Frequency

For AGC is Pilot Frequency
 For ASLC is Pilot Low Frequency

Pilot High Frequency

Is enabled\visible only for ASLC

Ports status

Number of ports is dependent on the amplifier type:

DBC-1200 and DBC-1200S is 1 port

DBD-1200 is 2 ports

DBE-1200S is 3 Ports

DBE-1200 is 3-4 ports

Start-Stop button

This starts a calibration process, and if successful, the button will change to display [Stop]. This indicates the Compensation is running. For details please see the 'Compensation' section.

Trigger Now button

The manual trigger allows the user to execute alignment.

Configuration button

Open the Compensation Settings Window, for details, please see the 'Compensation' section.

Upstream module section

The number of upstream module sections depends on a number of upstream modules installed in an individual amplifier, and the parameters depend on individual amplifier settings. The user can change the parameter values based on the specific amplifier settings by clicking the increase/decrease buttons and the change values in the drop down controls.

DBUS-A1

Upstream module :		DBUS-A1	
Item	Value		
Attenuator (dB)	11.0	▲	▼
	<i>Offset: 0.0dB; Max: 20.0dB</i>		
Equaliser (dB)	0.0	▲	▼
	<i>Offset: 0.0dB; Max: 15.0dB</i>		
Output IDS Control	0 dB ▼		

Figure 10, DBUS-A1 module

Supported by DBC-1200, DBC-1200S and DBD-1200.

DBUS-C1

Upstream module 1:		DBUS-C1	
Item	Value		
Attenuator (dB)	11.0	▲	▼
	<i>Offset: 0.0dB; Max: 19.0dB</i>		
Equaliser (dB)	0.0	▲	▼
	<i>Offset: 0.0dB; Max: 11.5dB</i>		
Port 1 Attenuator (dB)	0.0	▲	▼
	<i>Offset: 0.0dB; Max: 20.0dB</i>		
Port 2 Attenuator (dB)	0.0	▲	▼
	<i>Offset: 0.0dB; Max: 20.0dB</i>		
Output IDS 1 Control	0 dB ▼		
Output IDS 2 Control	0 dB ▼		
Port Status	Port 1 ON Port 2 ON		

Figure 11, DBUS-C1

Supported by all devices.
 Exception:

- DBC-1200, DBC-1200S – Output IDS 2 and ports switches are not available
- DBD-1200 - port 2 switch is not available

DBUS-D1

Upstream module 1: DBUS-C1	
Item	Value
Attenuator (dB)	11.0 <input type="text"/> ▲ ▼ <i>Offset: 0.0dB; Max: 19.0dB</i>
Equaliser (dB)	0.0 <input type="text"/> ▲ ▼ <i>Offset: 0.0dB; Max: 11.5dB</i>
Port 1 Attenuator (dB)	0.0 <input type="text"/> ▲ ▼ <i>Offset: 0.0dB; Max: 20.0dB</i>
Port 2 Attenuator (dB)	0.0 <input type="text"/> ▲ ▼ <i>Offset: 0.0dB; Max: 20.0dB</i>
Output IDS 1 Control	0 dB ▼
Output IDS 2 Control	0 dB ▼
Port Status	<input type="button" value="Port 1 ON"/> <input type="button" value="Port 2 ON"/>

Figure 12, DBUS-D1

Supported by DBE-1200, DBE-1200S
 Exception:

- DBE-1200S - Output IDS 2 and port 2 switch is not available

DBTX-A1

Upstream module : DBTX-A1	
Item	Value
Laser 1 Type	CWDM 1311nm 3dBm ▼
Laser 1 Status	<input type="button" value="0 mA"/>
Laser 2 Type	CWDM 1511nm 3dBm ▼
Laser 2 Status	<input type="button" value="0 mA"/>
Port 1 Attenuator (dB)	0.0 <input type="text"/> ▲ ▼ <i>Offset: 0.0dB; Max: 25.5dB</i>
Output IDS Control	0 dB ▼

Figure 13, DBTX-A1

Supported by all devices
 Exception:

- DBC-1200, DBC-1200S – laser 2 is a bypass board only, attenuation port 2 and output IDS 2 are not available
- DBE-1200S second upstream slot - laser 2 is a bypass board only, attenuation port 2 and output IDS 2 are not available

Downstream module section

The number of downstream module sections depends on the number of downstream modules installed in an individual amplifier, and the parameters depend on the individual amplifier settings. The user can change the parameter values based on the specific amplifier settings by clicking increase/decrease buttons and changing values in the drop-down controls.

DBDS-A1 and DBDS-Bx-x

Downstream module 1: DBDS-A1	
Item	Value
Pre-stage attenuator (dB)	12.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 20.0dB</small>
Pre-stage equaliser (dB)	11.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 24.0dB</small>
Inter-stage attenuator (dB)	4.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 16.0dB</small>
Inter-stage equaliser (dB)	3.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 15.0dB</small>
Power	High <input type="button" value="▼"/>

Figure 14, DBDS-A1 and DBDS-Bx-x modules family

- DBDS-A1 and DBDS-B2-x supported by DBC-1200, DBC-1200S, DBD-1200
- DBDS-B4-x, DBDS-B5-1, DBDS-B6-1, DBDS-B7-x supported by all devices

DBDS-Fx-x

Downstream module 2: DBDS-F1	
Item	Value
Inter-stage attenuator (dB)	0.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 24.5dB</small>
Inter-stage equaliser (dB)	0.0 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 14.0dB</small>
Power	High <input type="button" value="▼"/>

Figure 15, DBDS-Fx-x modules family

- DBDS-F1 supported only by DBD-1200
- DBDS-F2, DBDS-F5-1 supported by DBD-1200, DBE-1200 and DBE-1200S

DBRX-A1

Downstream module 1: DBRX-A1	
Item	Value
Receiver power	4.5 dBm
Inter-stage attenuator (dB)	9.5 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 28.5dB</small>
Inter-stage equaliser (dB)	5.5 <input type="button" value="▲"/> <input type="button" value="▼"/>
	<small>Offset: 0.0dB; Max: 12.5dB</small>
Power	High <input type="button" value="▼"/>


Figure 16, DBRX-A1

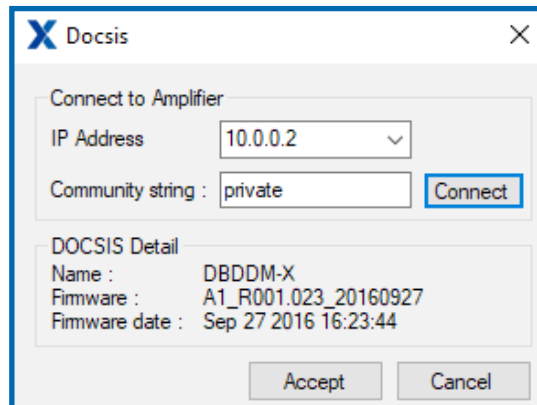
- Supported by all devices

DOCSIS Control

The BLL has the ability to remotely control device equipped with the Technetix DOCSIS transponder.

Connection

To connect the device with the DOCSIS transponder please use menu [File->Connect Amplifier->DOCSIS] or use the toolbar icon. 



IP Address

Technetix DOCSIS transponder IP address.

Community string

Text string that acts as a password and is used to authenticate messages sent between BLL and Technetix DOCSIS transponder. The community string is sent in every packet between the manager and the agent.

Connect button

Initiate connection with Technetix DOCSIS transponder. If successful, it will return DOCSIS detail containing transponder name, firmware version and date.

Accept button

After successful connection, the accept button allows connection to a device.

The device controls work exactly as for local connection.

DBDCM-A1 FSK control module

The DBDCM-A1 receives downstream FSK messages from the headend and has inbuilt ALSC and AGC compensation processes.

Key concept

The DBDCM-A1 has one tuner used for receiving the FSK messages and ALSC/AGC compensation processes. With ALSC/AGC and FSK messaging enabled, the system needs to synchronise when each amplifier runs the compensation and is available to receive FSK control messages. If the BLL application is connected to the DBDCM-A1 module, all FSK messaging will be ignored until the USB connection is removed.

FSK messaging

FSK messages are only sent downstream from the headend via a PRG-121/122 gateway. The following controls are currently used over FSK:

- Ingress control reduce upstream by 0 dB
- Ingress control reduce upstream by -6 dB
- Ingress control disconnect upstream -40 dB

When the compensation method is active the FSK controls are stopped.

Unique address

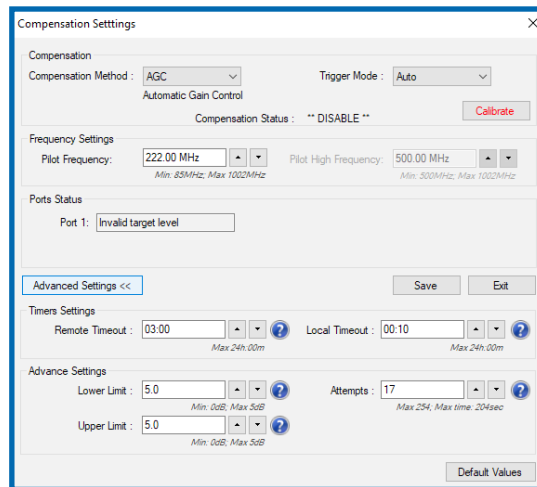
Each DBDCM-A1 is given a unique ID:

- This ID is used to address the device and send FSK commands to each individual device
- This ID should be recorded and entered in the TxNMS

FSK frequency

This should be set to the same frequency that the PRG-121/122 is transmitting on. FSK frequency settings available for DBDCM-A1 control modules only.

Compensation



Compensation settings

Compensation method

Possible choices:

- OFF compensation is off and the signal isn't adjusted
- ATC (Automatic Temperature Control) gain is adjusted according to temperature function
- AGC (Automatic Gain Control) gain is adjusted for selected pilot frequency
- ASLC (Automatic Slope Level Control) gain and slope is adjusted for selected low and high pilot's frequency

Trigger Method

Possible choices:

- **Local (preferred option)**
The compensation is triggered by internal timer (please see Local Timeout).
- **Remote**
The compensation is triggered only by remote command. (If this option is chosen the timers are disabled).
- **Auto**
This option will use the remote triggers unless the remote trigger was not detected for the time management period (Remote timeout), at which point it will fall back to locally trigger (Local timeout) itself until the remote triggers are detected again (please see Remote Timeout).

Note: This field is not available for OFF and ATC compensation method

Compensation status

This indicates the status of compensation, whether it is INACTIVE or ACTIVE.

Calibration button

Execute the calibration and resetting timers.

Note: This field is not available for OFF and ATC compensation method

Frequency settings

Pilot (Low) Frequency

Only available for AGC and ASLC.

- AGC (Pilot Frequency) min 85 MHz and Max 1002 MHz
- ASLC (Pilot Low Frequency) Min 85 MHz and Max 500 MHz

Note: Changing state will require the system to execute calibration.

Pilot (High) Frequency

Only available for ASLC

- Min 500 MHz and Max 1002 MHz

Note: Changing state will require the system to execute calibration.

Ports status

The number of ports depends on the device type and configuration. Please see Port Status Values.

DBC-1200 and DBC-1200S

Port 1 status

DBD-1200

Port 1 status

Port 2 & 3 status

DBE-1200S

Port 1 status

Port 2 status

Port 3 status

DBE-1200

Option 1

- Port 1 status
- Port 2 status
- Port 3 & 4 status

Option 2

- Port 1 status
- Port 2 status
- Port 3 status
- Port 4 status

Port status values

Port Status: Firmware version 1.03 and 1.04 (DBC and DBD amplifiers).

State	Description
Disabled	Adjusted but ASLC/AGC is not enabled
Not adjusted	The pilot has not been adjusted
Active	Busy with ASLC/AGC
Invalid target level measured	Target level is not stable for ASLC/AGC. It is not possible to take a valid measurement
Not aligned	Enabled and adjusted but not triggered yet
Invalid measurement	After three failed measurement attempts it is not possible to take a valid measurement
Not possible to align	One (or both) pilots are too far from the targets. Out of window
Active window reached	Not possible to align before active window is reached
Could not reach target	The required correction cannot be performed
Aligned	Pilots are successfully aligned

Port Status: Firmware version 2.00.

State	Description
Port OK	A3C successfully connected
Cannot reach value	The required correction cannot be made because of the switch limits
No switch detected	No switches are defined for A3C in the detected module
See port 1	Module 2, 3 and 4 cannot be adjusted because of the A2C status of module 1
Is adjusted but not enabled	A2C is adjusted (configured) but not enabled
Not adjusted	A2C is not (yet) adjusted (configured)
Align	A2C is active (align)
Not Align	A2C is adjusted (configured) and enabled but not yet triggered
Invalid target level	A2C cannot run a valid target level measurement. Signal not suitable for A2C
Invalid measurements	A2C cannot run a valid level measurement. Signal not stable
Pilot(s) out of window	A2C cannot align because one or both pilots are too far from the targets
Maximum attempts is reached	A2C cannot align before the maximum attempts is reached

A3C – refer to ATC, AGC and ASLC

A2C – refer to AGC and ASLC

Advanced settings

Local timeout

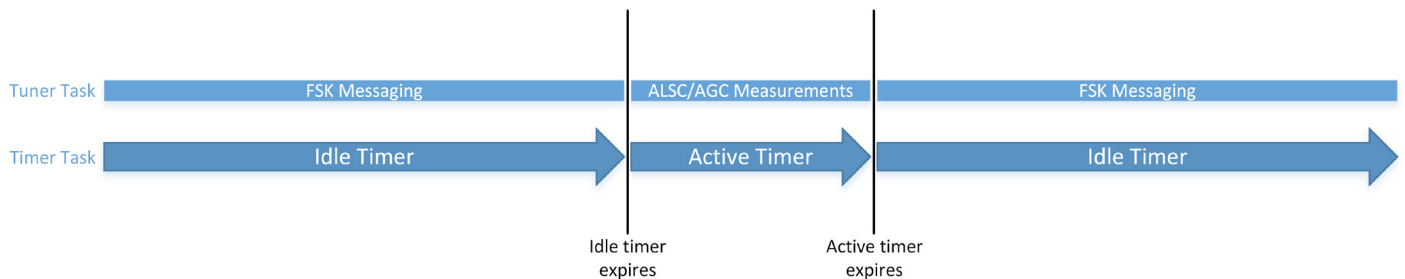
Used when the trigger mode is set to Local Mode (default) or the Remote Timeout has expired. A compensation cycle is started when the Local Timeout expires.

The default timeout is 10 minutes.

Remote timeout

Used when the Trigger Mode is set to Auto mode. The Remote Timeout is reset on each received FSK compensation trigger message. When the Remote timeout expires the Local Timeout is used to trigger the compensation cycle. As soon as an FSK trigger message is received, again the compensation cycles will be triggered by the central management system via the FSK trigger message.

The default management timeout is 3 hours.



Active Window (Attempts)

The active window defines the maximum number of correction attempts per compensation cycle. Each correction attempt consists of sampling the pilot(s) and correcting by 0, +0.5dB or -0.5dB. If on the first attempt the sampled pilot is more than the upper limit or less than the lower limit the attenuation and equalise setting from before the compensation cycle are restored and no correction is made for this cycle. One active attempt takes approximately 2 - 12 seconds, depending on compensation method and signal stability.

The default is 17 attempts (taking no more than 3 minutes).

Lower Limit

This defines the lower limit that the compensation can correct. On the first attempt of the compensation cycle the signal is checked to see if it is within the permitted limits. If the sampled pilot is outside the permitted range no compensation is applied.

The default lower limit is 5 dB

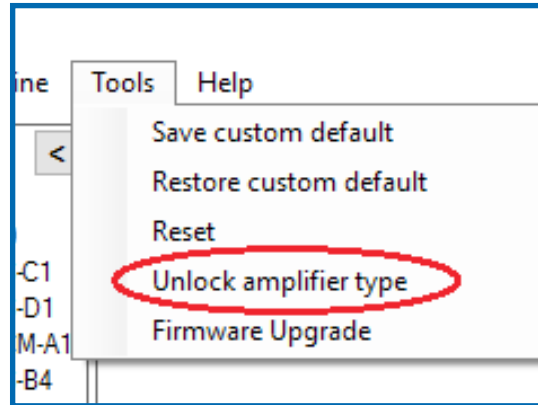
Upper Limit

This defines the upper limit that the compensation can correct. On the first attempt of the compensation cycle the signal is checked to see if it is within the permitted limits. If the sampled pilot is outside the permitted range no compensation is applied.

The default upper limit is 5 dB

Moving a control module

To allow a control module to be moved, the FULL version of the BLL software enables the type to be set to 'Type 0: Free'. This can be done via the drop-down type list or the 'Tools > Unlock amplifier type' command.



This will allow the LITE BLL version to then set the type of the amplifier in which the control module is now fitted.

Notes

- The LITE version of the BLL software will force the user to set the new type, which will reset the other settings of the amplifier.
- The FULL version user should not leave the amplifier in the 'Type 0' state. When a LITE user connects the amplifier next time, they will have to reset the type.

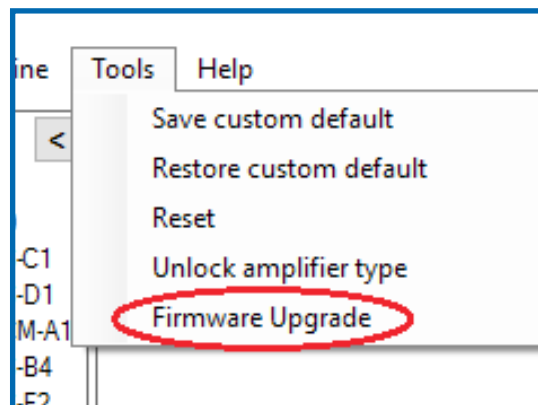
Firmware upgrade

Warning:

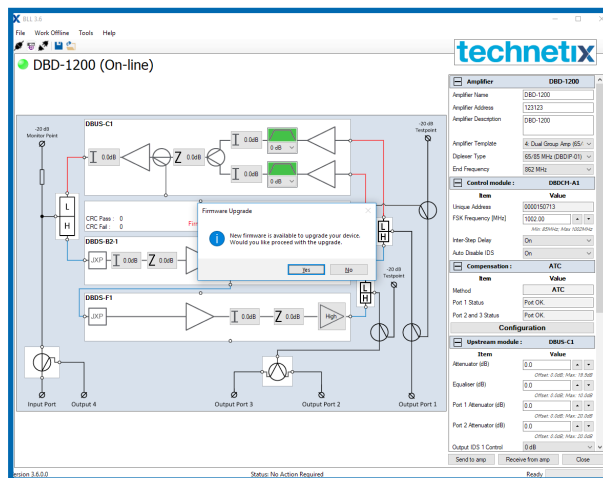
- The firmware upgrade process could damage your amplifier
- Do not disconnect the computer from the amplifier while running this upgrade
- Do not disconnect the power supply to any electronic device while running this upgrade
- Make sure you have a reliable power supply
- Make sure all devices are connected properly
- Do not interrupt the upgrade process under any circumstances
- Do not restart/shut down your computer while you are doing this upgrade
- Do not install any hardware or software while you are doing this upgrade

Manual method

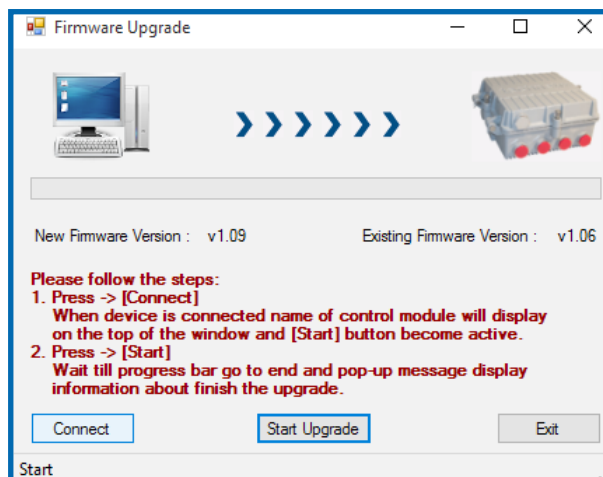
Connect the USB with the amplifier and run the BLL application. Once the application is loaded on the screen go to the Tools menu and select Firmware Upgrade.



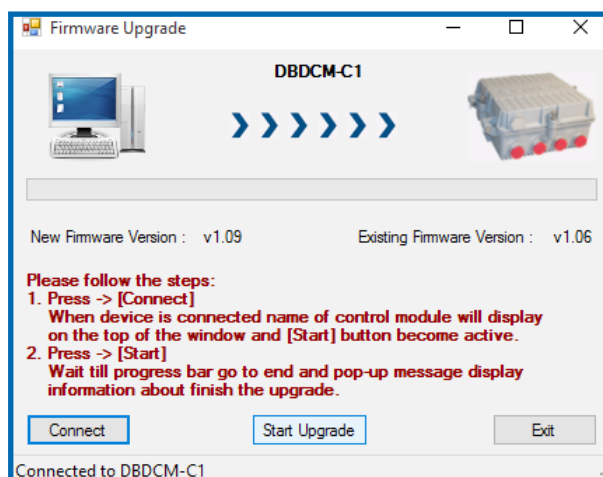
Select 'Yes' when you receive the upgrade confirmation message.



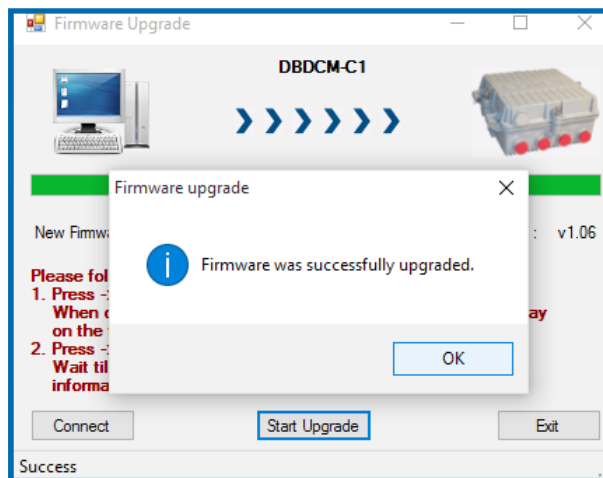
Select the 'Connect' button on the firmware upgrade window.



Once the 'Start Upgrade' button is enabled, click on it.

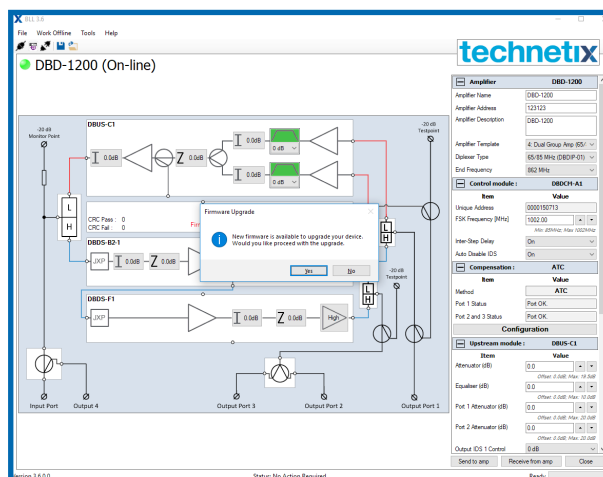


After successful completion of the upgrade process you will get a confirmation message:

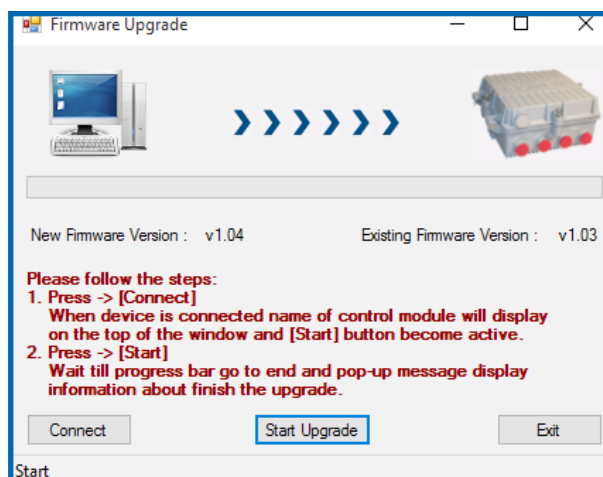


Automatic method:

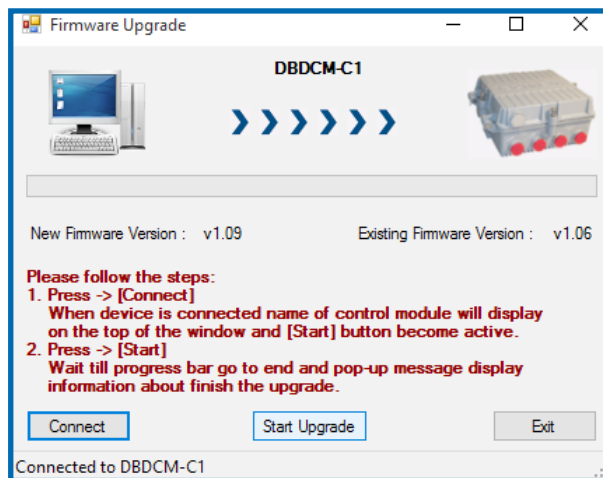
Connect the USB with the amplifier, run the BLL application and select 'Yes' on the upgrade confirmation message:



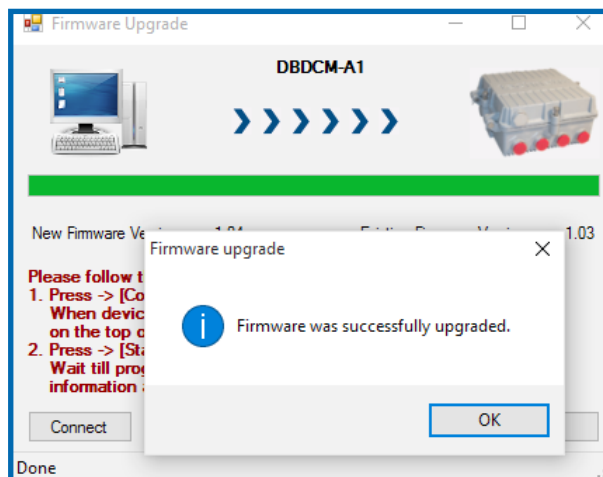
Select the 'Connect' button on the firmware upgrade form:



Once the 'Start Upgrade' button is enabled, click on it:



After a successful upgrade you will get a confirmation message:



The Technetix logo is displayed in a bold, blue, lowercase sans-serif font. A thin horizontal line is positioned directly below the logo.

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