Information

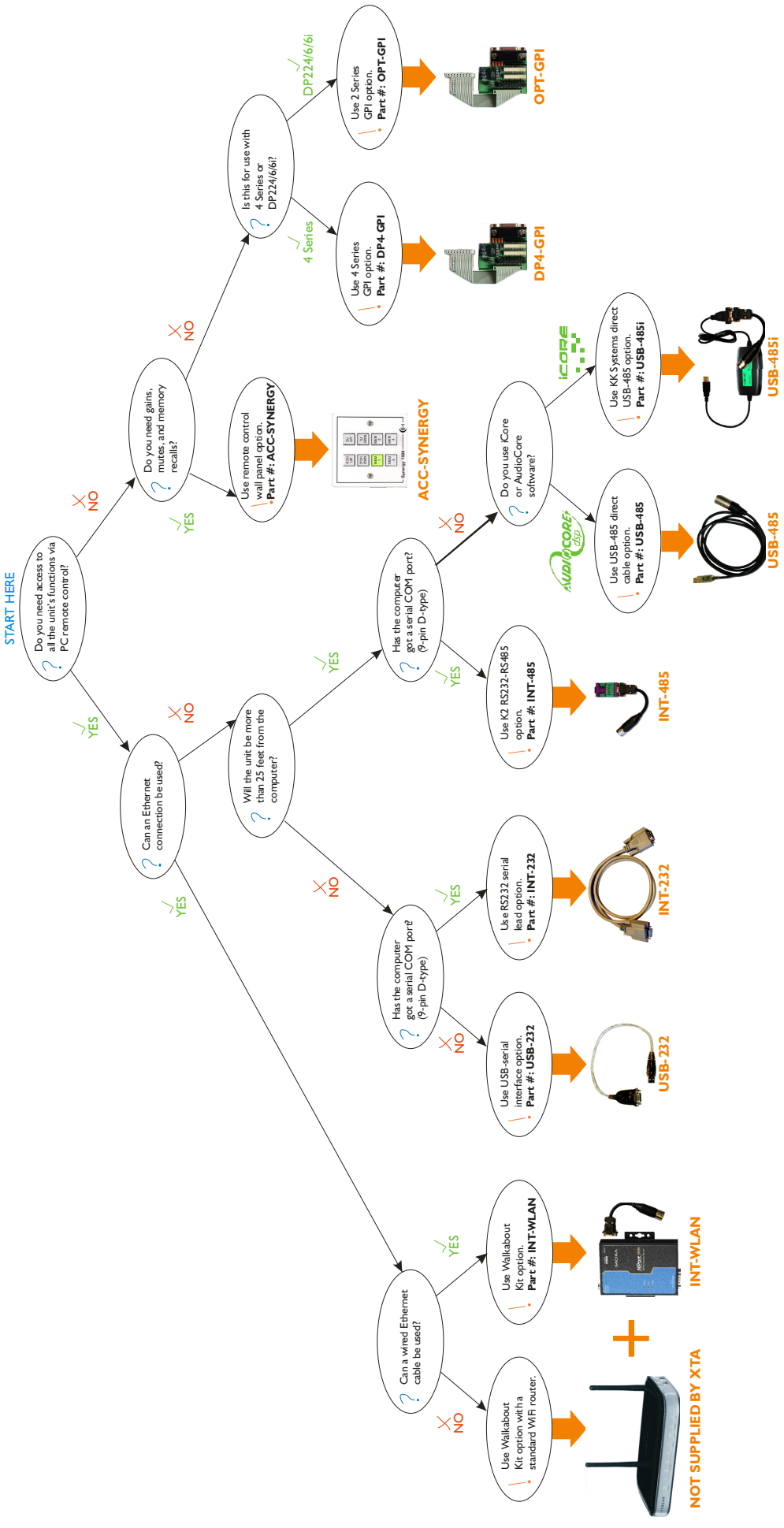
Remote Interface Guide

Rev 2.2 05/2015

This document outlines all the currently available interface combinations and options available for remote control of DP series processors.

Please use the decision tree on the next page to help you choose the correct interface for your application. If you would like to discuss the options with us, please feel free to email us.

XTA Electronics Ltd. Vale Business Park Worcester Road Stourport-on-Severn Worcs. DY13 9BZ England
Tel: 01299 879977 (Intl. +44 1299 879977) Fax: 01299 879969 (Intl. +44 1299 879969) www.xta.co.uk


START HERE
Do you need access to all the unit's functions via PC remote control?
YES
NO
Can an Ethernet connection be used?
YES
Can a wired Ethernet cable be used?
YES
Use Walkabout Kit option.
Part #: INT-WLAN
INT-WLAN
NO
Use Walkabout Kit option with a standard WiFi router.
NOT SUPPLIED BY XTA
NO
Will the unit be more than 25 feet from the computer?
YES
Has the computer got a serial COM port? (9-pin D-type)
YES
Use K2 RS232-RS485 option.
Part #: INT-485
INT-485
NO
Do you use iCore or AudioCore software?
iCORE
Use KK Systems direct USB-485 option.
Part #: USB-485i
USB-485i
AUDIOCORE DSP
Use USB-485 direct cable option.
Part #: USB-485
USB-485
NO
Has the computer got a serial COM port? (9-pin D-type)
YES
Use RS232 serial lead option.
Part #: INT-232
INT-232
NO
Use USB-serial interface option.
Part #: USB-232
USB-232
NO
Do you need gains, mutes, and memory recalls?
YES
Use remote control wall panel option.
Part #: ACC-SYNERGY
ACC-SYNERGY
NO
Is this for use with 4 Series or DP224/6/6i?
4 Series
Use 4 Series GPI option.
Part #: DP4-GPI
DP4-GPI
DP224/6/6i
Use 2 Series GPI option.
Part #: OPT-GPI
OPT-GPI

INT-232 – Serial Cable

What is it?

It is a lead to connect directly from the "External" port on the back of a unit to a 9-pin (Serial) port on a PC or laptop.

What is included?

One 9-pin male to female serial lead, approximately 2 metres long.

When should I use this?

If your first unit is no more than 25 feet (approx 7.5m) from the computer, and you have a spare 9-pin COM port available, this is the simplest and cheapest way to get connected.

What else should I know?

- The maximum cable length we recommend for RS232 is 25 feet (7.5 metres) running at 38400 baud.
- This cable MUST be a 1-1 serial connection – i.e. pin 1 to pin 1, 2 to 2 etc. A null modem cable will NOT work, as the "transmit" and "receive" connections are swapped.
- Units may be cascaded from this first one, using the RS485 ports on the rear of the unit and standard XLR mic leads.

Where do I get one?

This type of cable is generally available in most computer hardware stores, but do be sure to get a **one to one** cable as explained above. Alternatively, it can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: INT-232

For technical support on this product please email tech@xta.co.uk.

INT-485 – RS232 to RS485 Conversion Kit

What is it?

A kit to convert the standard 9-pin RS232 serial connection from a COM port on a PC into a balanced 2-wire + shield connection on male XLR.

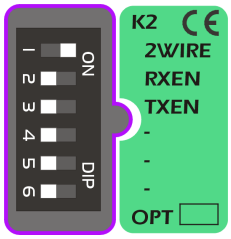
What is included?

1 x KK Systems "K2" RS232-RS485 converter;
1 x 9 pin D-type male to 3 pin XLR male adapter;

When should I use this?

If the first unit in the system cannot be placed closer than 25 feet from the PC/Laptop, it becomes necessary to use an RS485 serial connection. As this is a balanced system and uses higher voltages for signalling, it is more robust and can travel distances up to 1000 metres down simple balanced mic cables , or a multicore channel.

What else should I know?



The standard "K2" converter has a set of DIP switches to adapt the system for various uses. These are set correctly by XTA when leaving the factory and should not be adjusted. If for any reason they are different, the correct settings are shown in the diagram to the left.

The wiring for the 9 pin D-type to 3 pin XLR is as follows:

D-type	XLR
1	1
3	2
8	3

The wiring for the 3 pin XLR to RJ45 (for use with DP100/200/202) is as follows:

RJ45	XLR
1	1
2	2
3	3

The converter requires no external power and no drivers need to be installed. Remember DP100/200/202's are only compatible with older versions of AudioCore – the last version that supported them and DP224/6/6i was 6.0, still available on the website.

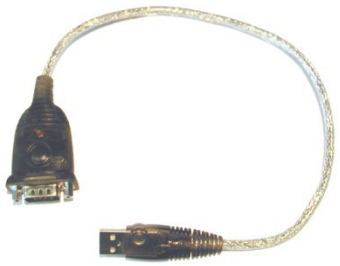
Where do I get one?

This kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: INT-485

For technical support on this product please email tech@xta.co.uk.

USB-232 – USB to Serial Converter



What is it?

An electronic adapter that intelligently converts a USB interface into a standard 9-pin serial COM port.

What is included?

1 x Aten "UC232a" USB to Serial adapter;
1 x INT-232 Serial Cable;
1 x Driver disk;
1 x Manual.

When should I use this?

Newer PCs and laptops tend to not include traditional 9 pin serial connections any longer, and AudioCore works through a serial port. Therefore one of these converters may be plugged in to provide a "virtual COM port" and RS232 serial output.

What else should I know?

- The converter requires no external power, but does require a driver to be installed from the disk supplied. It is compatible with Windows 98 onwards.
- The XTA Interface system has been optimised for use with this converter. It generally installs itself as a virtual COM port on the next available port number on your system. The easy way to check which COM port it is on is through Control Panel -↑ System -> Hardware -> Device Manager -> Ports.
- As this is a USB device designed for "hot swapping", remember that if the device is unplugged the virtual COM port will disappear, and depends on which USB port the device is plugged into. A different USB port may well install it on a different COM port.
- The maximum cable length from the output of the converter is 25 feet or approximately 7.5 metres.

Where do I get one?

There is a multitude of very similar looking USB to serial devices available in most computer stores but in our experience, they can prove unreliable due to timing of data through the converter, and inconsistencies between manufacturers. **It is highly recommended that the XTA converter be used!**

The converter can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: USB-232

For technical support on this product please email tech@xta.co.uk.

USB-485 – USB to RS485 Conversion Kit for use with AudioCore

What is it?

An integrated solution (replacing our previous solution of USB-232+K2-ADE converters) designed to plug directly into USB ports.

What is included?

1 xUSB- direct RS485 adapter and manual;

When should I use this?

This is our recommended interface to use with AudioCore, when the (first) unit to be controlled is more than 25 feet from the PC/laptop AND the computer doesn't have a standard 9-pin COM port (but does have a spare USB port!).

What else should I know?

New versions of Windows (7 and 8) should install this device automatically but if not, the drivers are also available on our website here: http://www.audiocore.co.uk/support/tech-notes/#remotes

Where do I get one?

There is a multitude of very similar looking USB to serial devices available in most computer stores but in our experience, they can prove unreliable due to timing of data through the converter, and inconsistencies between manufacturers. **It is highly recommended that the XTA converter be used!**

The kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: USB-485

For technical support on this product please email tech@xta.co.uk.

USB-485i – USB to RS485 Conversion Kit for use with iCore

What is it?

A combination of a direct USB to RS485 converter and a cable adapter to provide direct balanced 2 wire + shield connection.

What is included?

1 x KKSystems "USB-485" adapter with driver disk & manual;
1 x 9 pin D-type male to 3 pin XLR male adapter cable.

When should I use this?

This is our recommended interface to use with iCore software. When the (first) unit to be controlled is more than 25 feet from the PC/laptop AND the computer doesn't have a standard 9-pin COM port (but does have a spare USB port!).

What else should I know?

The driver for this interface has an advantage over standard USB-Serial interfaces because it won't swap COM ports if you plug it into a different USB port on your machine.

The quick way to find out what COM port it's installed on is press the "Windows" button on your keyboard PLUS the "Pause/Break" key – this displays the "System Properties" and from there it's "Device Manager" and then "Ports" – you should see your adapter listed with its COM port in brackets.

The wiring for the 9 pin D-type to 3 pin XLR is as follows:

D-type	XLR
4	1 (Ground)
3+7 (Join)	2
8+2 (Join)	3

Maximum cable length from the output of the converter is 1000 metres.

Where do I get one?

There is a multitude of USB to serial devices available in most computer stores but in our experience, they can prove unreliable due to timing of data through the converter, and inconsistencies between manufacturers. It is highly recommended that the XTA converter be used!

Similarly, many RS232 to RS485 converters are available through specialist suppliers, but the KK systems converter has been proven by XTA to work reliably in all cases and we recommend you use this device. The kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: USB-485i

For technical support on this product please email tech@xta.co.uk.

INT-WLAN – Walkabout Kit : WiFi Conversion Kit

What is it?

A wired Ethernet to Serial server using well established technology and with a direct RS485 output.

What is included?

1 x Moxa NPort 5150 Ethernet to serial converter;
Power supply for Moxa; Driver CD;
1 x 9 pin D-type female to 3 pin XLR male adapter cable;
"TechNote" configuration manual.

When should I use this?

If there is a requirement to send control data to remote locations using a standard Ethernet infrastructure, or to have remote access to a system from outside a venue. This provides a cost-effective solution and can be connected to a Wi-Fi router to provide wireless control, using AudioCore or "DP4Remote" – our recommended iPad app. Only one kit is required per system, as the Moxa connects to the standard RS485 port on the first unit in the system. All other units are cascaded via the RS485 as with a normal wired connection.

What else should I know?

The TechNote supplied with the kit explains how to configure the Moxa to work with your system – we'd love it to be true "plug and play" but of course when there's Ethernet involved, there will be some set up required. Please be sure to follow the instructions carefully.

This solution is designed for use with AudioCore only. If connected to a wireless router, ti cna also be used for iPad control which is convered in the TechNote supplied with the kit. This is also available online here: http://www.audiocore.co.uk/wp-content/uploads/2015/05/moxa_nport_config_14.pdf

There are virtual COM port drivers available for use with iCore, and they are included on driver CD if needed. Some additional set-up may be required to configure the system – please contact us if you would like more information.

Where do I get one?

This kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details. Please note we will only supply this kit in full – components cannot be supplied separately.

XTA Part Number: INT-WLAN

For technical support on this product please email tech@xta.co.uk.

ACC-SYNERGY – Ikon AVS "Synergy" Remote Wall Panel

What is it?

A UK single gang sized programmable intelligent panel that can be configured to adjust levels, mute channels and recall memories on all 4 Series, 5 Series, DC1048, and older DP224/6/6i units.

What is included?

1 x Ikon AVS "Synergy" 8 button panel;
PSU for remote panel; Ikon Set-up CD;
"TechNote" configuration manual.

When should I use this?

If adjustment of levels as well as memory recalls is required, then this panel can be programmed to address both individual outputs and inputs on specific devices as well as recall memories. It uses a Simple Remote Protocol built into all 4 Series, 5 Series, DC1048, and older DP224/6/6i units. Note that level adjustment on DP224/6/6i units is absolute levels only. All other units have provision for relative (trim) level adjustments.

What else should I know?

This device has an RS232 output only, so if it is required to operate over longer distances than approximately 7.5m from the first unit, an additional RS232-485 adapter must be plugged into the RS232 port. Our INT-485 kit is recommended for this purpose.

Proprietary software is provided to set up the panels' functions and program the command sequences (or strings) as required. We have added an XTA library to this software which covers the commands that are supported by our units via the Simple Remote Protocol.

Additionally, we have a spreadsheet available on our website that allows commands to be built for instances where the library functions may not have it covered, as obviously we can't show commands for every combination of unit/ID/command/parameter!

The software also has a built in labelling utility - the labels can be printed out and clipped into place under the caps of the buttons, ensuring a professional-looking finished panel.

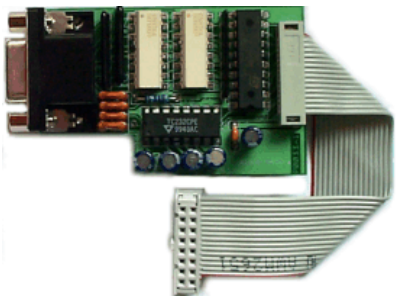
Where do I get one?

This kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: ACC-SYNERGY

For technical support on this product please email tech@xta.co.uk.

OPT-GPI/DP4-GPI – General Purpose Interface Kit



What is it?

An interface card that replaces the standard RS232 card for the DP224/6/6i or 4 Series to add closed contact memory recall facilities.

What is included?

1 x RS232/GPI interface card;
1 x 15 way D-type to 9 way D-type adapter;
1 x 15 way D-type plug & shell;
Manual and fitting instructions.

When should I use this?

If remote change of memories is required, without involving a PC or other electronic device. This interface allows memories to be recalled (input, crossover or both) via simple switch closure.

What else should I know?

The interface for the 4 Series is different to that for the DP224/6/6i – please note the two part numbers and make sure you order the appropriate kit!

The kit does not contain any external hardware for actually selecting and recalling memories – the switch arrangement has to be built by the user. Full instructions are supplied giving examples and details of how to connect a suitable device.

An RS232 interface is included on the GPI interface, so remote PC access and software updates are still possible via the supplied adapter cable.

Any connected slave units (on the RS485 bus) will also recall memories when the master unit is triggered, so only one GPI kit has to be fitted to the master unit.

This interface is unavailable for the DP324.

Where do I get one?

This kit can be purchased from your local XTA supplier or directly from XTA by credit card. See the end of this document for details.

XTA Part Number: OPT-GPI for DP224/6/6i OR DP4-GPI for 4 Series

For technical support on this product please email tech@xta.co.uk.

Hints and tips about using external interfaces

Always read the manual supplied with the unit for the most detailed information regarding the setup and use of external remote interfaces.

In the case of special or older interfaces such as MIDI or going wireless, please feel free to email tech@xta.co.uk.

A few things worth remembering about using the serial interfaces in general:

- Maximum recommended cable length for RS232 is 25 feet or 7.5 metres.
- Maximum recommended cable length for RS485 is 1000 metres – from the PC to the FINAL device – NOT in between devices.
- If a unit is at FOH or close to the computer, if can be used to perform the RS232 to RS485 conversion for you. The RS485 port from this local unit can then be used to connect to the other units that are not nearby.
- Ethernet does NOT an infinitely long connection capability! Connecting to an established network will probably be fine due to the inclusion of switches and router(s) on the network extending the transmission distance as required, but a direct Cat5 cable length should be limited to a maximum of 100m.

Purchasing any of these interfaces...

All of the interfaces can be ordered through your local distributor.

If you're not sure who that is, go to

http://www.audiocore.co.uk/distributors/

to find the one nearest you. Alternatively, you can buy one directly from us with a credit card. Just call us and we can arrange it all over the phone. You will then be sent receipt of purchase and credit card receipt with the interface and emailed the tracking number of the courier for the package.

XTA Electronics Ltd.
The Design House
Worcester Road
Stourport on Severn
Worcs.
England, UK.
DY13 9BZ

Tel: +44 (0) 1299 879977

Fax: +44 (0) 1299 879969

Web: www.xta.co.uk