

SPHYNX II & RS-422 Connectivity

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RS-422 Industrial port of Sphynx II

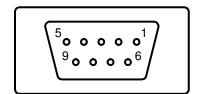
Sphynx II is fitted with an industrial RS-422 port. This industrial RS-422 carries different wiring than a regular "broadcast" RS-422. Most often, Sphynx II is delivered with a USB to RS-422 adapter and accompanying cable fully compatible with RS-422 industrial port and we recommend you to favor this solution for computer connection. However, should you wish to use other means of connecting Sphynx II to a computer for remote control purposes, please refer to the following guidelines:

- RS-422 is a serial connection typically found on "industrial" electronic product
- RS-422 is mostly found on "broadcast" products, such as VTRs.
- RS-232 is the standard serial connection found on most computers.

As you will see below, all three serial connections are very similar; they all are achieved through the same 9pin connector and only wiring conventions slightly differ.

Pinout of RS-422 industrial port used on Sphynx II is defined as follows:

Pinout	RS-422
	Signal
1	Rx -
2	Rx+
3	Tx+
4	Tx -
5	GND



All other pins (6 to 9) are left unconnected.

How to connect a unit equipped with a RS-232 port to the RS-422 industrial port of the Sphynx II?

Sphynx II's industrial RS-422 port is fully voltage compatible with the RS-232 signaling voltage system, which may swing from -15V to +15V. The only noticeable difference is the pinout.

RS-232 standard defines the RS-232 signals as follows:

Pinout	RS-232
	signals
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI



Please refer to the following table for connecting a Sphynx II to a unit equipped with a RS-232 port:

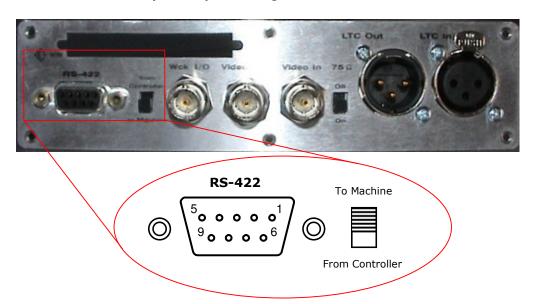
Sphynx II	RS-232
1 - Rx -	3 - Tx
2 - NC	-
3 - NC	-
4 - Tx -	2 - Rx
5 - GND	5 - GND

(All other RS-232 pins are left unconnected.)

How to connect a Merging AV chassis using the MTCHIO rear connection panel to a Sphynx II?

The MTCHIO (Merging Technologies Chassis Inputs and Outputs), located on the rear panel of Merging AV chassis, offers a RS-422 Sony 9Pin compatible port.

Please see below for precise positioning of RS-422 connector:



Pinout of RS-422 port changes according to the mode selected on the MTCHIO module: These modes are labeled "To Machine" or "From Controller" and will make the AV chassis unit act respectively as a master or a slave unit on an RS-422 chain.

Merging recommends using the "To Machine" mode.

Please, refer to the following table for connecting a Sphynx II to a Merging AV chassis:

Sphynx II	RS-422
	(Machine)
1 - Rx -	8 - Tx -
2 - Rx+	3 - Tx+
3 - Tx+	7 - Rx+
4 - Tx -	2 - Rx -
5 - GND	1 - GND