

GBO-RS232 (shown with cover removed)

Description

The GBO-RS232 Interface allows up to 8 *GRAFIK Eye* Control Units to be interfaced with your *Bang & Olufsen® Avant™* Television. The GBO-RS232 enables your Home Theater to execute “**ON**” & “**OFF**” commands.

Note: Only one GBO-RS232 can be installed on the same MUX Link.

Features

The GBO-RS232 can send RS232 commands from the *Bang & Olufsen Avant* Television to a maximum of 8 *GRAFIK Eye Bang & Olufsen* Series Control Units. The following commands are available:

Home Theater “ON”. The *Avant* Television turns [OFF] and the projection system turns [ON]. This scene is predefined on the *GRAFIK Eye* Control Unit as scene 14.

Home Theater “OFF”. The *Avant* Television turns [ON] and the projection system turns [OFF]. This scene is predefined on the *GRAFIK Eye* Control Unit as scene 13.

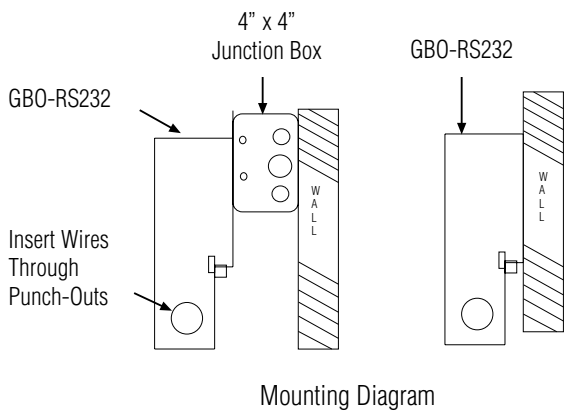
Installation

Important Notes

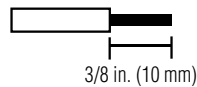
- Install in accordance with all applicable regulations.
- Do not connect line voltage/mains power to device. Improper wiring can result in personal injury or damage to the device or to other equipment.
- This control can use Class 2/PELV wiring methods. Check with your local electrical inspector for compliance with national and local codes and wiring practices.

Mounting

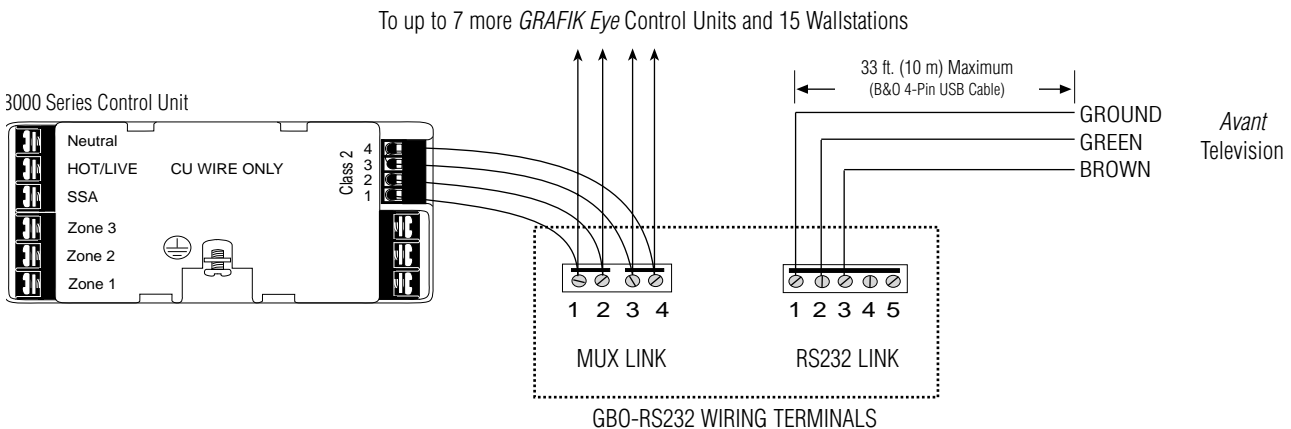
1. Mount the GBO-RS232 on a 4"x 4" junction box or directly on a wall as shown in the Mounting Diagram. If metal conduit is not being used, ensure proper earth/grounding of the metal casing by connecting an earth/ground wire to the earth/ground screw. Remove front enclosure cover to expose terminal blocks, DIP switches, and output status LEDs.



2. Strip 3/8 in. (10 mm) of insulation from wires. Each terminal will accept up to two #18 AWG (1.0 mm²) wires.

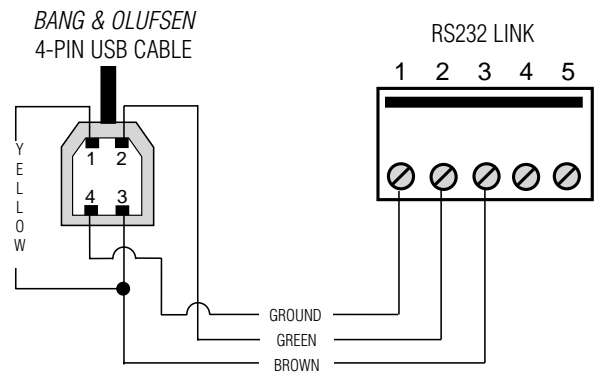


Wiring Diagram



3. Connect wiring as shown in the Wiring Diagram. LED 1 will be lit when the MUX Link is properly installed. Wires should be inserted through the circular punch-outs in the white metal enclosure so that the enclosure cover can be replaced after installation.

4. **Wiring to your *Avant* Television.** For the RS232 Link, use the cable provided with the *Avant* Television, *Bang & Olufsen* 4-pin USB cable (P/N 6270788). Wire as shown below.



5. **Addressing *GRAFIK Eye* Control Units.** Control Units and Wallstations must be uniquely addressed for use with the GBO-RS232. For addressing, see the *GRAFIK Eye* Installer's Guide included with the Control Units.

DIP Switches

The DIP switches determine which *GRAFIK Eye* Control Unit(s) the GBO-RS232 will communicate with.

When:

Dip Switch 1 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A1".

Dip Switch 2 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A2".

Dip Switch 3 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A3".

Dip Switch 4 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A4".

Dip Switch 5 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A5".

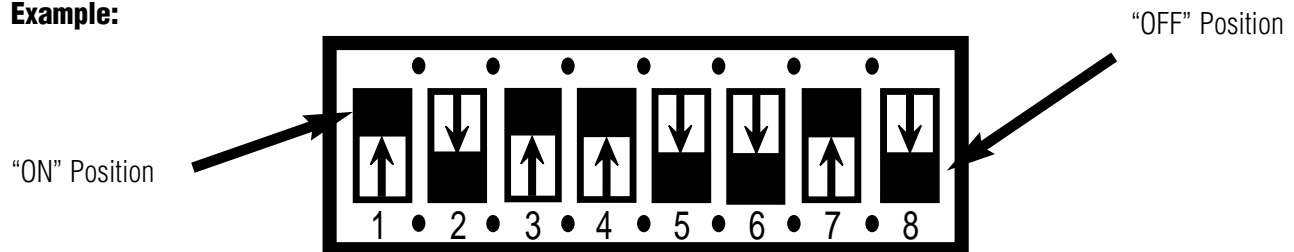
Dip Switch 6 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A6".

Dip Switch 7 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A7".

Dip Switch 8 is "ON"- Unit will communicate with the *GRAFIK Eye* Control Unit addressed "A8".

Note: The GBO-RS232 allows communication with up to 8 *Grafik Eye* Control Units.

Example:



In this example, DIP switches 1, 3, 4 and 7 are in the [ON] position. DIP switches 2, 5, 6 and 8 are in the [OFF] position. The GBO-RS232 will communicate with *GRAFIK Eye* Control Units addressed A1, A3, A4, and A7.

RS232 Operation

The unit will communicate between an *Avant* Television and a *GRAFIK Eye* GBO Series Control Unit in a full duplex manner at 9600 baud.

It will understand the following RS232 commands:

:ON<LF> = Command will select scene 13 on the Control Unit addresses that correspond to the DIP switches that are in the [ON] position.

Note: <LF> = \$0A

:OFF<LF> = Command will select scene 14 on the Control Unit addresses that correspond to the DIP switches that are in the [ON] position.

These commands are then acknowledged on the RS232 link as either ~on<LF> or ~off<LF>.

It also listens to scene selects on the GRX link that come from both control and wallstation units. If it hears a scene select of a Home Theater scene (scene 13 or 14) that is going to a Control Unit whose address matches an [ON] DIP switch, it will issue a command out of the RS232 port.

SCENE 13 produces: ON<LF>

SCENE 14 produces: OFF<LF>

The *Avant* Television has two seconds to send back the appropriate acknowledgement, or the message will be repeated two more times, each having a two-second acknowledgement period. If there is no acknowledgement after three messages, the unit will give up. A different message can be sent to the RS232 device before an acknowledgement is received. In this case, the first message will not require an acknowledgement and will **NOT** repeat.

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