



This document describes the **Smart Panel** Projector Driver for the **Sharp XG-NV3U** projector. For more information on configuring and using the Panel see the *Smart Panel Configuration and Installation Guide*.

I. PROJECTOR CONTROL

A. Volume and Power Control

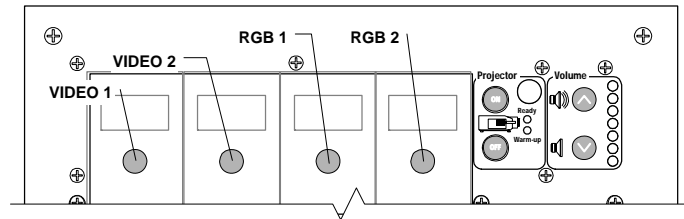
Volume control on this Sharp is **relative**; however, the Sharp onscreen display indicates absolute volume level. Absolute volume control for this Sharp models is only possible with use of SP Controls' optional **Audio Follow Video Pre-Amplifier**. See note 1 for more information.

B. Input Selection Mapping

The following table specifies the factory preset input mapping for this Driver. The **Configuration Utility** can be used to customize these settings your installation.

<i>Selection 1:</i>	VIDEO 1
<i>Selection 2:</i>	VIDEO 2
<i>Selection 3:</i>	RGB 1
<i>Selection 4:</i>	RGB 2

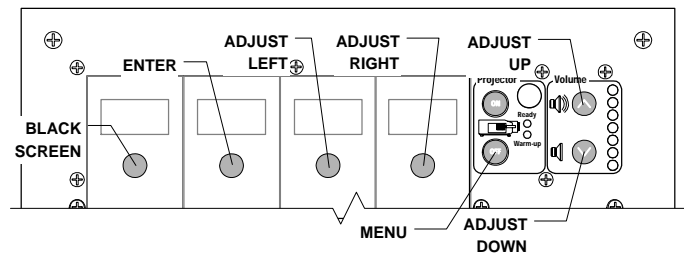
Input choices available for the Sharp with this Driver are VIDEO 1, VIDEO 2, RGB 1 and RGB 2.



C. Hidden Function Mapping

The following table specifies the factory preset hidden function mapping for this Driver. The **Configuration Utility** can be used to customize these settings your installation.

<i>Selection 1:</i>	BLACK SCREEN
<i>Selection 2:</i>	ENTER
<i>Selection 3:</i>	ADJUST LEFT
<i>Selection 4:</i>	ADJUST RIGHT
<i>Off:</i>	MENU
<i>Volume Up:</i>	ADJUST UP
<i>Volume Down:</i>	ADJUST DOWN



Hidden functions names are based on the Sharp remote and controls on top of the projector. *Adjust* controls navigate through onscreen menus. Hidden functions are accessed by pressing the indicated key while the holding the **On** key down. Note that *Black Screen* is a toggle.

The hidden functions available for the Sharp with this Driver are as follows:

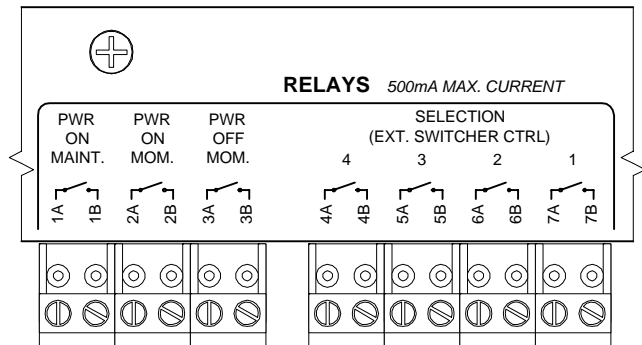
- | | |
|--------------|--------------|
| MENU | LENS FOCUS + |
| ADJUST LEFT | LENS FOCUS - |
| ADJUST RIGHT | LENS ZOOM + |
| ADJUST UP | LENS ZOOM - |
| ADJUST DOWN | BLACK SCREEN |

ENTER

D. Relays

The following table specifies the factory preset settings for the low-current relays found on the rear of the **Smart Panel**. The **Configuration Utility** can be used to customize these settings your installation.

Relay 1	ON Maintained
Relay 2	ON Momentary
Relay 3	OFF Momentary
Selection	Momentary; not Binary



E. Other Presets

The following table specifies other default factory settings for this Driver that affect its control of the Projector.

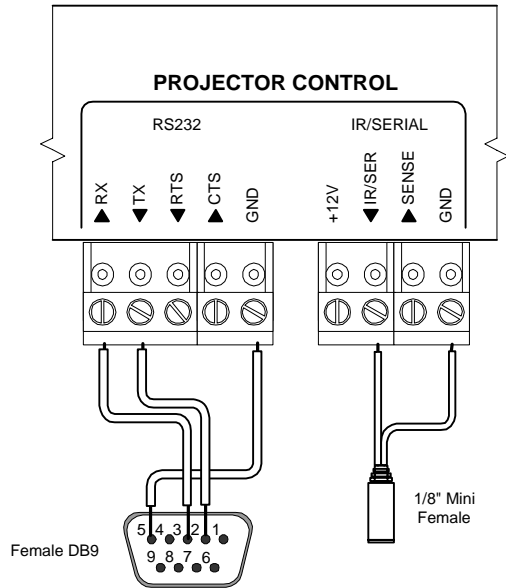
<i>Power Status Feedback Method</i>	None (see note 1)
<i>Control Wiring Option</i>	Wired Remote (see note 2)

Control for the Sharp with this Driver is via IR/Wired Remote. We recommend wiring for the Wired Remote but the included IR emitter may also be used.

The following table specifies settings for the Panel's configurable timers. For more information on the inactivity shutdown feature and the lockout timer see the *Smart Panel Configuration and Installation Guide*.

Lockout Timer	65 seconds (see note 3)
Inactivity Shutdown	Disabled

II. CONTROL WIRING



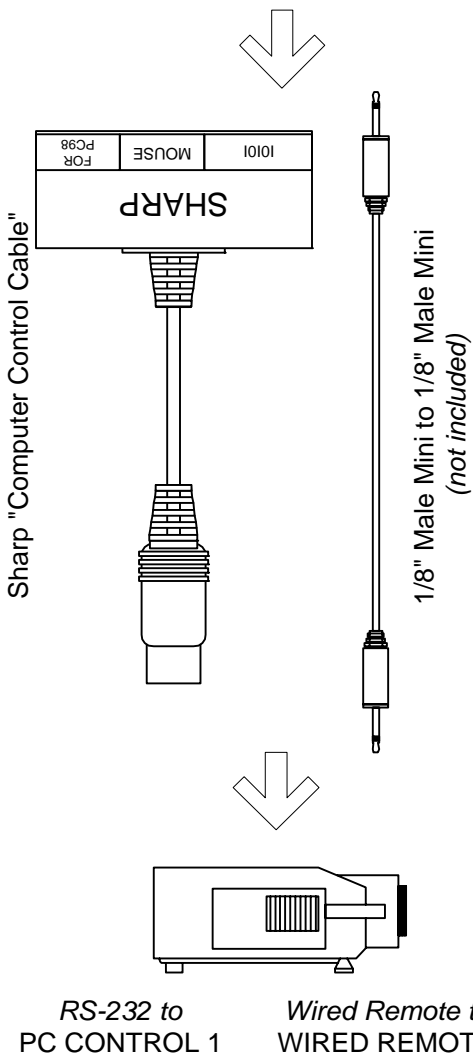
This section specifies how RS-232 and Wired Remote should be wired to the Sharp projector.

A. RS-232 should be connected to the Sharp control port labeled **PC Control 1**. Connection should be as follows:

1. Wire the Panel to a female DB9 as shown.
2. Connect this female DB9 to the Sharp custom cable labeled *COMPUTER CONTROL CABLE* at the male DB9 port labeled *I/O101*.
3. Connect the Sharp custom cable to the projector port labeled *PC CONTROL 1*.
4. Optionally, an intermediate cable (female DB9 to male DB9) may be used to facilitate service to the projector or Panel.

B. The Wired Remote should be connected to the Sharp port labeled **Wired Remote**. Connection should be as follows:

1. Wire the Panel to a female 1/8" Mini as shown; wire *IR/SER* to *tip* and *GND* to *ring*. Direct wiring to male 1/8" is not recommended as it makes removal of the Panel for service more difficult.
2. Attach to the projector port labeled *Wired Remote* using a male 1/8" mini to male 1/8" mini (not included).
3. Alternately, replace the male to male cable with the included the IR Emitter and attach it to one of the IR windows on the projector. The emitter glows red when IR is emitted so wiring can be verified.



III. TROUBLESHOOTING

Additional tips can be found in the *Smart Panel Configuration and Installation Guide*.

The Panel does not do anything at all.

When power is applied to the Panel it should run through a brief power on self-test, during which all of the Panel lights will turn on and off in sequence. If you do not see this self test, make sure power is connected correctly and that polarity is correct.

The Panel keeps turning itself off even though the projector is on.

The Panel turns itself off when power verification indicates that the projector is off. Check to make sure any third party power current sensor is correctly wired and calibrated.

When I try to turn the projector on, the warming indicator (red LED) blink.

The projector is in the default configured *lockout state*, and the Panel is waiting for its internal lockout timer to expire. This feature protects the projector's bulb. Be sure to let your client know about this behavior.

IV. TECHNICAL NOTES

1. At present, absolute volume control (without the Audio Follow Video Pre-Amp accessory) and projector power verification via Power Polling are not available for this Sharp model. In rare cases, the projector is known to drop RS-232 communication. For reasons of reliability, we cannot provide any RS-232 communications until this issue is resolved (both Power Polling and Absolute Volume control are only possible via RS-232).
2. This Sharp is controlled via IR/Wired Remote only (see note 1 above). We recommend Wired Remote control as it is generally more robust. However, use of the Wired Remote will prevent use of the Sharp's remote control (a discussion of the relative advantages of IR vs. Wired Remote can be found in the *Smart Panel Configuration and Installation Guide*). We recommend wiring both RS-232 and Wired Remote/IR in case the Driver or projector specifications change.
3. The lockout timer specifies the amount of time allowed between sending *POWER OFF* and *POWER ON* to the projector (the delay allows the projector bulb to cool before re-powering). This delay can be configured using the **Configuration Utility**; however, adjusting the lockout timer delay is **strongly discouraged** as rapid re-powering causes undue wear on the projector's bulb. Also, the Sharp will **not** allow power to be restored before a minimum delay has expired. Therefore, **disabling the lockout delay will cause potentially confusing Panel behavior**.

V. REVISION HISTORY

1. Revision A (June, 1998)
2. Revision B (July, 2006) – Changed *POWER OFF* command so SmartPanel sends it multiple times. This enables the projector to be switched off with a single button press from the user.