



NOTE: This one-page document is intended **only as a quick reference for installation** – please read the following SP Controls Application Note for a complete description of this projector driver prior to installation.

I. Driver Features

1. Input Selection Mapping

Selection 1:	TV
Selection 2:	RGB1
Selection 3:	RGB2
Selection 4:	AV1

2. Hidden Function Mapping

Selection 1:	MUTE ON
Selection 2:	MUTE OFF
Selection 3:	ADJUST LEFT
Selection 4:	ADJUST RIGHT
Off:	DEGAUSS
Volume Up:	MENU +
Volume Down:	MENU -

3. Other Driver Features

Power Status Feedback Method	RS-232
Control Wiring Option	IR Emitter

II. Wiring Specifications

NOTE: For a wiring diagram, please see the SP Controls Application Note.

RS-232:

Wire the Panel RS-232 port to a female DB9 as follows:

RX to	2
TX to	3
GND to	5

Infrared Emitter:

Wire the Panel IR/Serial port to a female 1/8" Mini as follows:

IR/SER to	<i>tip</i>
GND to	<i>ring</i>

Attach to the IR-Emitter (included) and place on any IR window of the projector.



Projector Driver Application Note

Sampo SME-27FDL5

Revision A

This document describes the **SmartPanel** Projector Driver for the **Sampo SME-27FDL5** projector. For general information on configuring and using the Panel, see the *SmartPanel Configuration and Installation Guide*.

I. PROJECTOR CONTROL

A. Volume and Power Control

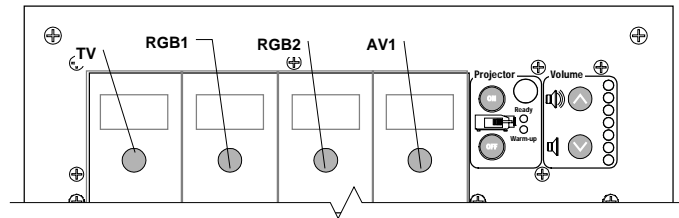
Volume control on the Sampo is **relative**. Absolute volume control for this model is possible with use of SP Controls' optional **Audio Follow Video Pre-Amplifier (SP3-AFVP+)**.

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.

Selection 1:	TV
Selection 2:	RGB1
Selection 3:	RGB2
Selection 4:	AV1

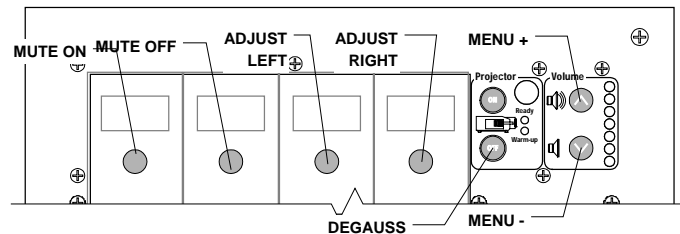
Input choices available for this Driver are TV, RGB1, RGB2, AV1, AV2, AV3, and Y/Cb/Cr.



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.

Selection 1:	MUTE ON
Selection 2:	MUTE OFF
Selection 3:	ADJUST LEFT
Selection 4:	ADJUST RIGHT
Off:	DEGAUSS
Volume Up:	MENU +
Volume Down:	MENU -



The hidden function names are based on the Sampo projector remote control functions.

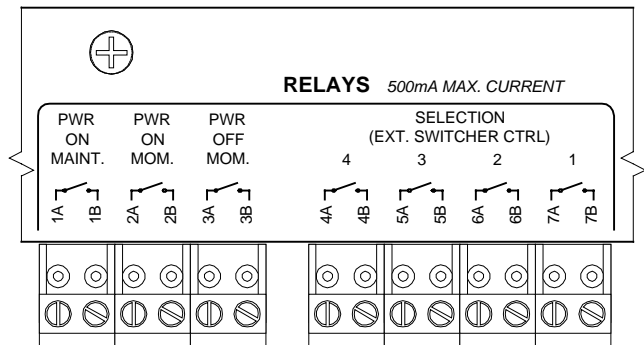
The hidden functions available for the Sampo with this Driver are as follows:

MENU +	ADJUST LEFT	MUTE OFF
MENU -	ADJUST RIGHT	MUTE ON
DEGAUSS		

D. Relays

The following table specifies the factory-preset settings for the low-current relays found on the rear of the **SmartPanel**. 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

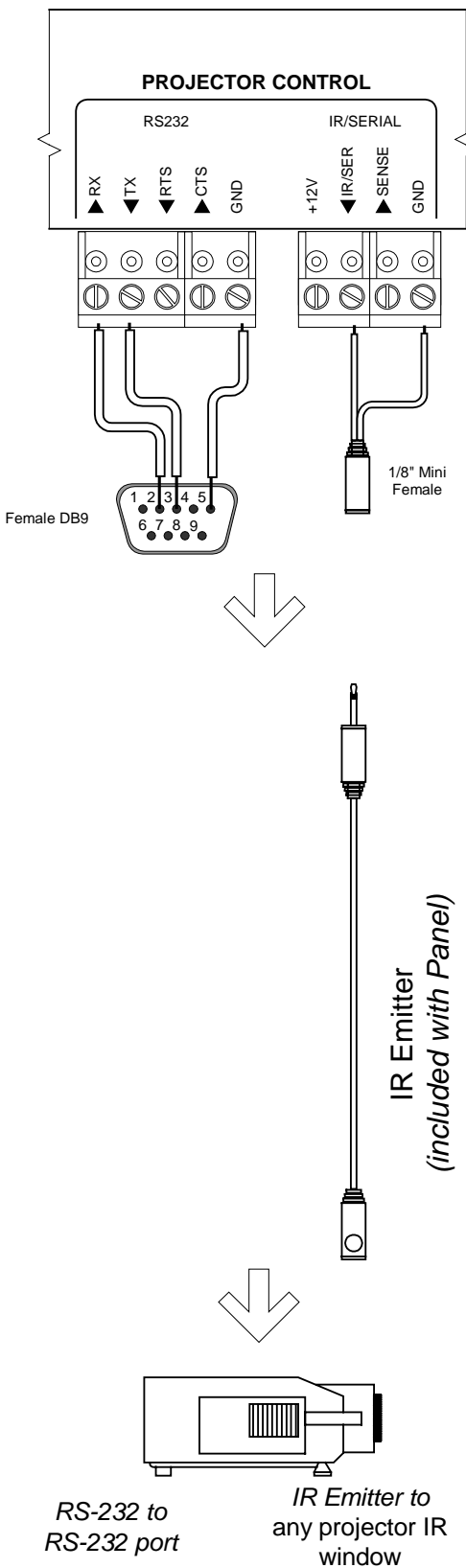
The following table specifies other default factory settings for this Driver that affect its control of the Projector.

<i>Power Status Feedback Method</i>	RS-232 (see note 1)
<i>Control Wiring Option</i>	IR Emitter (see note 2)

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 *SmartPanel Configuration and Installation Guide*.

Lockout Timer	10 seconds (see note 3)
Inactivity Shutdown	Disabled

II. CONTROL WIRING



This section specifies how RS-232 and the IR Emitter should be wired to the SAMPO projector.

A. RS-232 should be connected to Sampo control port labeled RS-232. Connection should be as follows:

1. Wire the Panel to a female DB9 as shown.
TX – 3
RX – 2
GND – 5
2. Connect this female DB9 to the projector.

B. The Infrared Emitter should be wired to the infrared port. 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 the IR Emitter is not recommended as it makes removal of the Panel for service more difficult.
2. Attach to any projector IR port using the Panel's IR Emitter (included with the Panel).

Note that the emitter glows red when IR is emitted so wiring can be verified.

III. TROUBLESHOOTING

Additional troubleshooting tips can be found in the *SmartPanel 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.

If the Panel is configured for use with a current sensor, it will turn itself off when the current sensor indicates that the projector is off. Check to make sure the current sensor connection is correctly wired.

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

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

The projector remote control doesn't work.

If the Panel is wired into the Control S port of the SAMPO projector, the infrared remote control is automatically disabled. If this is unacceptable, the projector should be controlled with the IR Emitter instead. For more information see *Section II, Control Wiring* section above, and the *SmartPanel Configuration and Installation Guide*.

IV. TECHNICAL NOTES

1. By default, projector power is verified by polling every few seconds via the RS-232 port. Power polling can be suspended by depressing and holding the **On** key; polling will be restored when the key is released. Should the projector power off, the Panel will usually detect this condition and power off within thirty seconds. Should the projector power on, the Panel will usually detecting this condition and power on within ten seconds.
2. With this Driver, the SAMPO is controlled via RS-232 and IR-Emitter. A discussion of Wired Remote, IR and RS-232 can be found in the *SmartPanel Configuration and Installation Guide*.
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 projector 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 (November, 2003)