



I. Driver Features

1. Command Format

This device is controlled through a combination of RS-232 and IR commands; both are necessary for full control of the device.

2. RS-232 Commands IR Commands

Power On	Volume Up	Magnify Up
Power Off	Volume Down	Magnify Down
Source: VIDEO	Menu	Magnify Off
Source: S-VIDEO	Adj Up	Reveal
Source: VGA	Adj Down	
Source: DVI	Adj Left	
Freeze	Adj Right	
Blank	Right Click	
Mute	Timer	

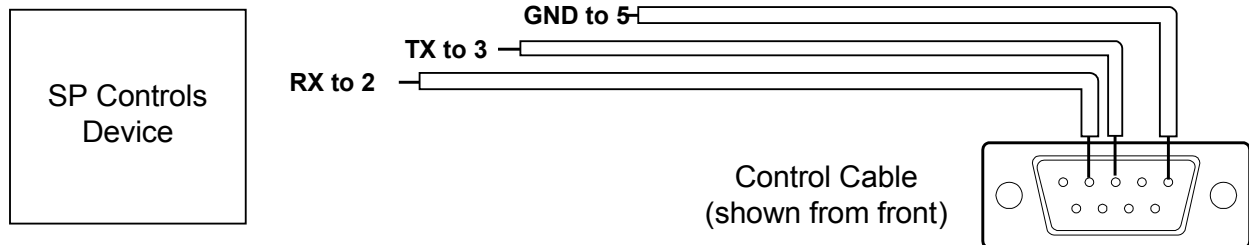
3. Other Driver Features

Default Power Status Feedback: RS-232 Polling
Projector Restart Lockout Timer (Default): 119 Seconds

II. RS-232 Control Wiring

For IR wiring, see product manual for the SP Controls device.

Wire RS-232 control to a male DB9 as follows:



Connect female DB9 to projector port labeled *SERIAL*.
Serial Adapters (for NRC only): Converter A and B

III. Projector Configuration

Early production runs of the 3M Wall Display with Firmware Version 4A7.3 are known to contain a bug that may impact 3M installations. 3M technicians report that they have solved the problem, and units produced March, 2002 or later should be unaffected.

The problem is characterized by **complete freezing** and control failure of the Wall Display when the RS-232 port on the unit is active. Units in the problem-state will not respond to any control, including their own remote and settop controls. Control can only be restored by physically power-cycling (unplugging) the projector.



SP Controls Application Note

3M Wall Display

Revision C

RS-232 Power Polling queries the Wall Display power state. It is **extremely likely** that units with the problem firmware will freeze if Power Polling is active. For that reason, Power Polling is defeated by default.

Because of the design of the Wall Display, there is a significant likelihood that it will be powered off by a user directly without powering off the control system, so power status feedback is important. Units manufactured after March, 2002 should be completely unaffected. In those installations, we **strongly suggest** that RS- 232 Power Polling be enabled during configuration. We strongly recommend that installations using units manufactured prior to March, 2002 use a third-party Power Current Sensor (about \$100US).

If you have any experience of this control failure using a Wall Display that you believe to be manufactured after March, 2002, please contact SP Controls Technical Support immediately at toll-free (877) 367-8444 ext. 302.

Note: If the FACTORY RESET option is selected from the menu, it will restore these features to their factory default and **they may need to be disabled again**. Please be sure that the users are aware of this.