PART 1: Loading the most recent firmware on a CineSlide:

Firmware loading may not be required but is recommended if the CineSlide was purchased or built prior to the latest firmware listed on the CineSlide website (www.cineslide.com, download section).

The internal operating system of the CineSlide is designed to accommodate field updates or changes via a "firmware" update. To update the firmware on a CineSlide device the installer will need:
1. A Microsoft Windows PC running XP (other operating systems may work but are untested (i.e. Vista))
2. An RS232 port, or USB to Serial port adapter, you must know which COM port it is assigned to (e.g. COM10)
3. The appropriate special cable (see cable section of this document),
4. The firmware loader software
5. A firmware binary file for loading

CAUTION: DO NOT USE A LAPTOP ON BATTERY POWER WHEN PERFORMING A FIRMWARE UPDATE. Ensure all power connections to the device are firm. INTERRUPTIONS TO THE FIRMWARE MAY RENDER THE DEVICE INOPERABLE REQUIRING FACTORY SERVICE. THIS UPDATE SHOULD ONLY BE PERFORMED BY A QUALIFIED INSTALLER OR SERVICE PERSONNEL.

Steps to update the firmware:

1. Download the CineSlide firmware loader software (CineSlideFirmwareLoader.exe)
2. Download the appropriate firmware binary file (e.g. V728A220A260c4.bin)
   (Copy both files to a known location on the PC, e.g. c:\temp)
3. In "my computer navigate to and run the CineSlideFirmwareLoader.exe program. You will get this window.
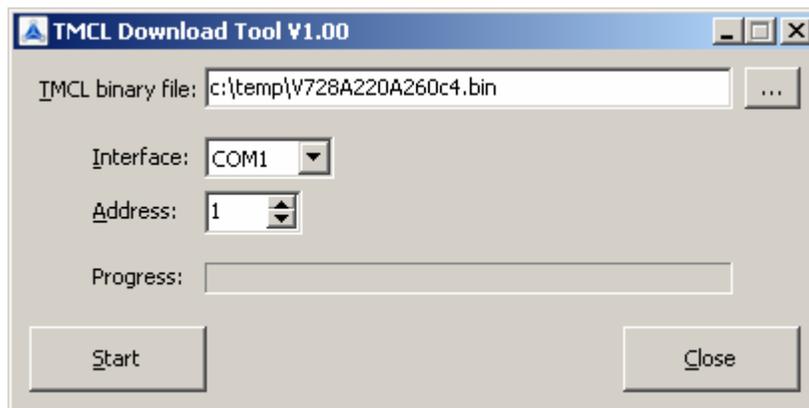
4. Click on the "…" button, navigate to, and select the binary firmware file.
5. Choose the COMx port that matches your serial RS232 port.
6. Connect the SPECIAL firmware loader cable to the PC and CineSlide.
7. DO NOT Change the Address field, leave it at "1"
8. Click on "Start"
9. WAIT until the progress bar completes, the choose "Close"
10. Unplug the CineSlide, <u>wait 10 seconds (important)</u>, plug it back in.
11. Power on and execute a lens move command.

Firmware is updated

PART 2: Changing the "Home" position on a CineSlide, and Initiating a self-calibration:

STOP, READ the User Manual Section: "Planning for the Mount Location Relative to the Projector - "Home" Side" BEFORE CONTINUING.

If you need to change the "Home" side behavior of a CineSlide, or initiate a self-calibration, follow these instructions.

You will need:

1. A Microsoft Windows PC running XP (other operating systems may work but are untested (i.e. Vista))
2. A RS232 port, or USB to Serial port adapter, you must know which COM port it is assigned to (i.e. COM10)
3. The appropriate "Firmware special cable" (see cable section of this document),
4. The CineSlide Configuration Utility software (cs_cfg_[ver].exe)

Changing the home side on a CineSlide is a simple operation. The same cable is used for both configuration changes and firmware loading operations.

Steps to change the home side:

1. Download the latest CineSlide configuration utility (cs_cfg_[ver].exe)

   (Copy both files to a known location on the PC, e.g. c:\temp)

2. Attach the special firmware cable from the PC to the CineSlide

3. In "my computer" navigate to and run the CineSlide Config program. You will get this window:
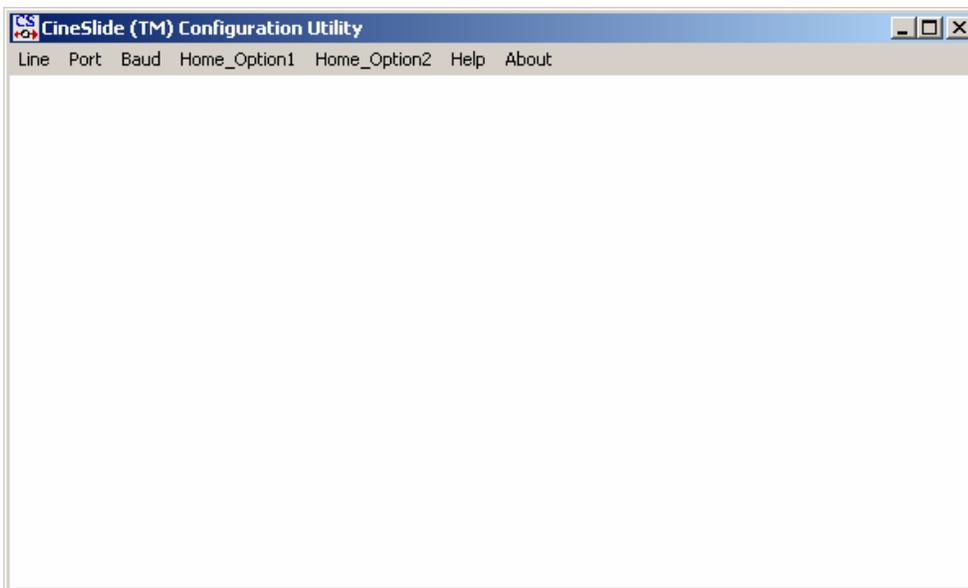
4. From the menu bar choose: Port, then select your correct serial port, i.e. COM10
5. From the menubar choose Line, On-Line

6. From the Menubar choose Home_option1.
7. You will get a pause, some information, and then a reply from the device. The "reply" will be in "high ASCII" character (smiley faces etc). If you do not get a reply, the device is not communicating properly. Check you cable, wiring, serial port, etc.
8. Issue a power off command to the CineSlide (or unplug it). Wait 10 seconds.
9. MANUALLY MOVE the Lens just slightly off it's current position (approximately 1 inch is enough)
10. Plug it back up (if unplugged), issue a Power on command.

NOTE: With current firmware loaded, the CineSlide will execute an auto-calibrate routine after any configuration change made with this utility. During this routine it will move slowly to one side, then back to the other side.

11. After self-calibration, the CineSlide will rehome
12. If it does not rehome to the desired side, repeat steps 6-9, choosing "Home_Option2" this time.
13. The CineSlide should now home to the desired side. The device is ready for use.

PART 3. Firmware and Configuration Special Cable

The CineSlide™ has a single RJ45 modular plug that supports multiple communication interfaces. It is NOT an ethernet connection. The end-user interface uses 2 pins of this 8 pin modular connector. The firmware loader interface uses 3 different pins of this interface. This connector is labeled "COMM" on the CineSlide case.

To interface to the RS232 based firmware loader interface, the installer may build a custom cable using a RJ45 crimper tool and a suitable cable, or a standard ethernet patch cable and a configurable RJ45 to serial (9 pin) adapter.

For the firmware interface, we recommend the use of a standard twisted pair cat5 network cable.

Alternatively, the installer may order the optional TechHT RJ45 to 9-pin adapter and a standard "Cat 5 Ethernet patch cable" (not included).

For users who need to custom or field-wire the firmware loader interface cable, follow the pinout diagrams below for building the cable or adapter. DO NOT make any connections or wire to the pins marked as "**Restricted, Leave Empty**". Those connect internally to other interfaces and could damage the internal electronics if incorrectly connected to the Firmware loader RS232 inputs.

**Modular RJ45 connector
that plugs into the CineSlide device:**
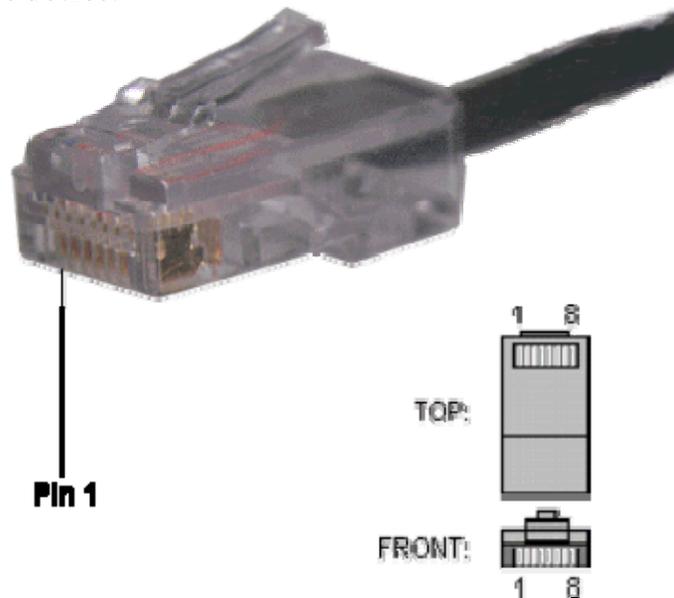
Connections for FIRMWARE LOADER ONLY:
    Pin 1: Receive FROM PC (connects to DB-9 pin #3)
    Pin 2: Send data TO PC (connects to DB-9 pin #2)
    Pin 3: Unused
    Pin 4: RS232 Signal Ground (cnnects to DB-9 pin #5)
    Pin 5: **Restricted, Leave Empty - DO NOT connect**
    Pin 6: Unused
    Pin 7: Unused
    Pin 8: **Restricted, Leave Empty - DO NOT connect**

Typical 9 Pin RS232 PC interface:

Looking into PC, or into back of DB-9 cable head at the PC end
(look for physically numbered holes on the DB-9 connector)
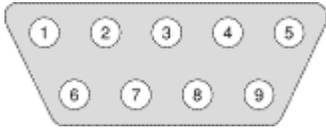
DB-9 (DE-9) Connector Pin Out :

Only pins used with the CineSlide are listed:

Pin #   Signal Name   Signal Description
1
2   RXD   Receive Data (From CineSlide pin 2)
3   TXD   Transmit Data (To CineSlide pin 1)
4
5   GND   Signal Ground / Common (CineSlide pin 4)
6
7
8
9