

# Cine-Tranz Film to Video/DVD Converter



## INTRODUCING THE CINE-TRANZ FILM TO VIDEO CONVERTER SYSTEM

The Cine-Tranz is a simple high quality optical device, specifically designed to assist in the conversion of 8mm and 16mm film to a digital format such as DVD. It works in conjunction with your film projector and digital camera (which are not included in the kit). Simply project your film onto the optical quality face coated mirror, which is then reflected onto the Cine-Tranz white screen. The reflected image is a very clear, high resolution projection of your film which can then be videotaped using your digital camcorder.

Once your film is in digital format, editing and output to DVD can be performed using very inexpensive computer equipment and capture programs. You will need to consult the user manual on transferring the image data from your particular camera to the computer.

## TRANSFER SYSTEMS USED DURING 1980 TO 2000

Developed to assist in the transfer of ageing 8mm and 16mm home movies, the Cine-Tranz bridges the gap between the older film transfer boxes produced in the 1980's and the professional level frame scanning telecine devices used by commercial Television studios.

During the transition between 8mm film cameras and the introduction of domestic video cameras in the mid 1980's many conversion boxes came onto the domestic market for the purposes of transferring film to the newly emerging medium of analogue video. These transfer devices were essentially the same in their design, using a mirror set at 45 degrees to reflect the projected image onto a ground glass or plastic screen.

For many years this was the excepted DIY method of domestic film transfer, which produced acceptable results when comparing with VHS quality camcorders. Today, digital cameras have made an enormous leap in image quality, which now highlights some of the inherent deficiencies with the materials used in transfer boxes of the VHS video era.



Figure 1

The Cine-Tranz set-up including an 8mm projector and digital camera



Figure 2



Figure 3

Figure 2 is an example of a high quality and very expensive Rank frame scanning telecine machine, while the example in Figure 3 is a 1980's style domestic transfer box used for the older VHS quality conversions.

## HOW THE TRANSFER SYSTEM WORKS

The workings of all transfer boxes are basically the same. The film is played through an 8mm or 16mm projector which displays the image onto a mirror within the transfer box. The image is then reflected onto a screen which is set at exactly 45 degrees to the mirror and the resulting image is recorded through a camcorder.

Some transfer kits work the opposite way with the image being projected onto the screen first with the image recorded off the mirror (Figure 4). Many of the older devices used a standard back coated mirror which introduced some distortion or ghosting of the image due to the projection angle and subsequent refraction of light as it passes through the glass. Also the screen material was constructed from etched or ground glass/plastic as a diffusing medium, to correctly spread the image for capture by the video camera. This screen material introduced a heavy grain pattern into the final image which was generally not noticeable when considering lower visual quality of VHS video. Digital cameras with a higher resolution now reveal much of the grain inherent in the actual screen material.

## CINE-TRANZ IMPROVEMENTS

The Cine-Tranz includes a front or face coated mirror that has the silvered surface on the face of the glass as opposed to the back of the glass. This optical quality mirror does not introduce ghosting or image distortion associated with its back coated counterpart. This type of optical mirror is used in all high quality photographic instruments such as scanners and optical measuring devices where image accuracy is essential.

The screen material that will display the projected image must also be of a very tight grain structure, so that very little noise or distortion is introduced into final image capture.

All screens will display a certain amount of grain which is inherent in most opaque plastics; however this must be kept to a minimum to maintain the highest image quality. The grain structure is essential as it evenly disperses the light eliminating central hotspots or darker outer perimeters of the projected image.



Figure 4

This transfer system required the film to be projected onto the screen first with the camera capturing the result directly off the internal mirror.

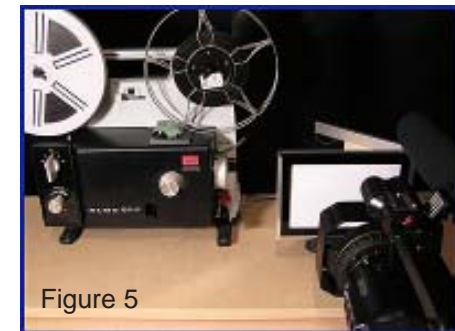


Figure 5

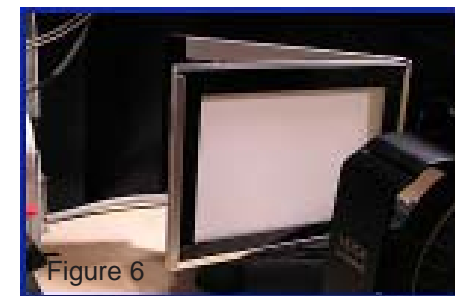


Figure 6

The screen material (Figure 6) is a very tight grained plastic producing clear image reproduction suitable for capture with any digital video camera.

## FINAL IMAGE QUALITY - IS IT ACCEPTABLE?

The highest quality film transfer technique obtainable today uses individual frame scanning equipment that scans each individual film frame as it passes through the projector. The mirror and screen are not required with frame scanning as each individual frame is captured directly off the film revealing only the detail present on the film itself. This type of equipment is expensive and is generally used by very large film studios and TV stations that need to be working with the very highest quality media (Figure 7). Documentaries such as war footage and Hollywood movies originally shot on film are frame scanned to digital media to transfer the very highest image quality.

The Cine-Tranz does not compare with this type of conversion process due to the fact that the image is first projected onto the small screen which introduces a slight grain to the final image. Transfer quality is excellent for all domestic transfer requirements, however if professional broadcast quality transfers are necessary then the Cine-Tranz will not be the most suitable device.

*The images displayed below are actual frame captures using different transfer devices. These images have not been altered in any way other than being cropped to fit our presentation.*



Figure 7

Figure 8



Figure 9



Figure 10



The three sample images show the difference between the Cine-Tranz and two of the most common older style transfer systems.

The image in Figure 9 displays a central hot-spot with darker outer perimeters due to the transparency of the screen.

In Figure 10 the image is very grainy, due to the heavily etched screen material.

While displaying some light grain, the Cine-Tranz can produce excellent results with even distribution of light (Figure 8).

### WHY PURCHASE A CINE-TRANZ?

Image quality is far superior to most of the aging transfer systems that have been around for more than 20 years. Due to their age these devices usually display marks and scratches on the mirror or screens that will show up on the final transfer. Also, as previously mentioned the materials used were not intended for today's digital cameras that will capture any mark or blemish that exists on the mirror or screen.

The Cine-Tranz is a brand new device made from high quality components that is able to deliver excellent image detail that is generally unattainable using the older telecine transfer systems.

### WHAT IS INCLUDED WITH THE CINE-TRANZ

The Cine-Tranz is shipped with instructions on how to care for the delicate mirror and screen. Instructions are also included on how to calibrate the white balance on your camera to ensure that the film colours are corrected for your specific camera and projection equipment.

Because the film transfer process includes working with 30 year-old technology, a comprehensive video tutorial has been included on DVD, covering everything to do with projector maintenance and film transfers. This tutorial discusses all aspects of setting up the Cine-Tranz to achieve a quality film transfer and also includes many useful hints on film care and editing. This can be an enormous help to those new to transferring film.

### WHERE TO PURCHASE THE CINE-TRANZ

The Cine-Tranz is a compact design to allow for economical shipment to anywhere in the world. The Cine-Tranz is distributed exclusively through eBay or by contacting us directly at the address listed below. More information on the Cine-Tranz is available on our online eBay store where you can also view other film related products that you may require. For additional information or placing an order, visit our eBay store by clicking the link below, or email us or write to the following address.



PURCHASE DIRECTLY FROM:

**Disthurst Pty. Ltd.**  
**P. O. Box 161**  
**Red Hill,**  
**Brisbane**  
**Queensland 4059**

Email: [mikebrow@tpg.com.au](mailto:mikebrow@tpg.com.au)

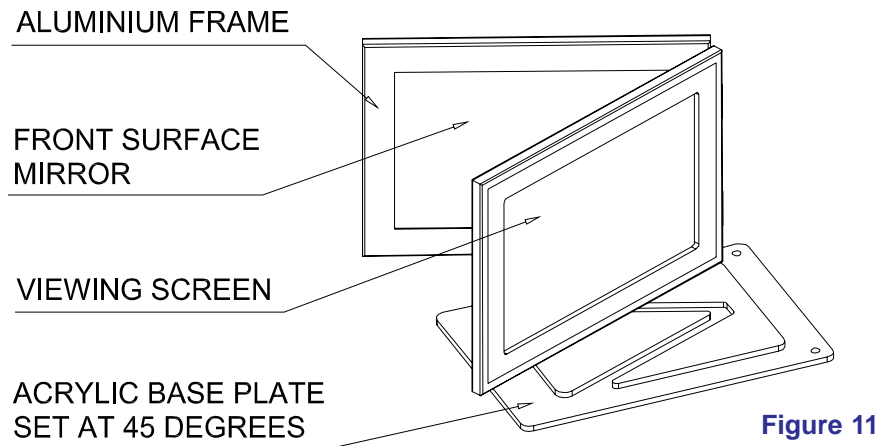
## CINE-TRANZ SPECIFICATIONS

The Cine-Tranz is a very simple device but utilizes high quality components that are essential for film conversions. The Cine-Tranz features the following:

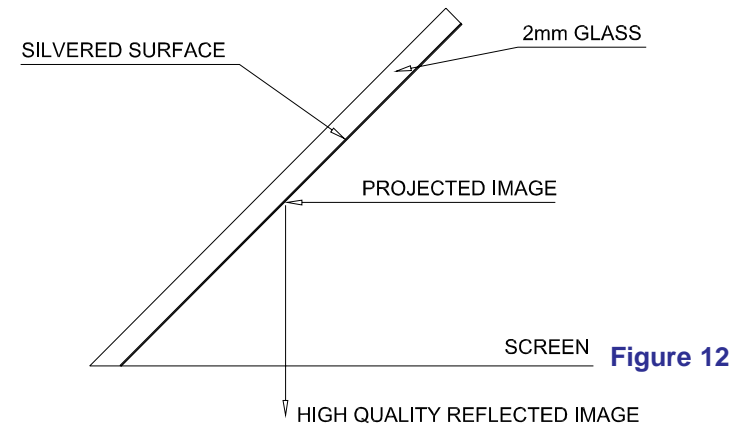
- \* Strong aluminium frame
- \* Optical quality front surface mirror
- \* Perspex base plate for setting projection angle
- \* High quality tight grained viewing screen

The front surface mirror is the most important component as normal domestic back surface mirrors will cause a ghosting of the projected image. With back coated mirror the image must first pass through 2 or 3mm of glass before hitting the reflective surface (Figure 13). Due to refraction, the image is bent very slightly as it passes through the glass and is bent yet again as the image is reflected back. This causes a double image or ghosting to occur which is not desirable for image transfer work.

With front surface mirror, there is no refraction of the image (Figure 12) so the reflected light is precisely what is projected onto it without distortion or ghosting.



## CINE-TRANZ FRONT SURFACE MIRROR



## REGULAR BACK COATED MIRROR

