

## VT-100 Terminal Control

The ILA-12K projector was designed to use the VT-100 terminal for control of the projector. The VT-100 is connected to TERMINAL-IN (RS-232 #1).

### PC emulation of the VT-100 Terminal:

While the ILA-12K projector was designed using the VT-100 terminal, any communications program that includes a VT-100 terminal emulation can be used with a PC to control the projector. This document includes the procedures to set up a PC to emulate the VT-100 terminal using Windows or ProComm Plus communications software.

### Hardware/Software Requirements

Personal Computer                      XT or AT PC with available Serial port  
COM1 or COM2

PC Communications Software:        Windows 3.1 or Windows 95 plus  
ProComm Plus.

Serial Cable:                              Female DB9 connector (to projector) to  
Female/Male DB9 connector (to source)  
wired as RS-232 Null Modem

ILA-12K Projector

Software:                                    Version 5.1.0

### MS Windows 3.1 Setup (Vt-100 Emulation)

The parameters shown in this procedure duplicate the format in the Windows software displayed on the monitor. VT-100 emulation with the PC Windows 3.1 Software is accomplished as follows:

1. In Window Accessories, select the Terminal Icon.
2. From the menu bar, select SETTINGS. From the SETTINGS menu, select
3. TERMINAL EMULATION and click on DEC VT-100[ANSI] (if not already selected).

### Terminal Preferences

1. Select SETTINGS again from the menu bar.
2. Select Terminal Preferences.
3. Set the following Modes:

Line Wrap:	<b>Yes</b>	CR → CR/LF	
Local Echo:	<b>No</b>	Inbound:	<b>No</b>
Sound:	<b>Yes</b>	Outbound:	<b>No</b>
Columns		Cursor	
80:	<b>Yes</b>	Block:	<b>Yes</b>
132:	<b>No</b>	Underline:	<b>No</b>

Terminal Font	<b>Courier 12</b>	Blink:	<b>Yes</b>
Show Scroll Bars	<b>Yes</b>	Translations	<b>NONE</b>
Use Function Arrow, and Ctrl Keys for Windows	<b>No</b>	<u>IBM to ANSI</u>	<b>No</b>
		<u>Buffer Lines:</u>	<b>100</b>

### Communications Protocol

1. Select **Settings** using the menu bar, then select **Communications**.
2. Set the following communications parameters and modes:

Baud Rate	<b>9600</b>	Stop Bits	<b>1</b>
Data Bits	<b>8</b>	Flow Control	<b>Xon/Xoff</b>
Parity	<b>None</b>	Carrier Detect	<b>No</b>
Parity Check	<b>No</b>		
Connector:	<b>Com1</b> (This is PC configuration dependent)		

3. Select File from the menu bar and select New. Under File Name enter VT-
4. 100.TRM. This will allow the user to select the file VT-100.TRM with the above parameters saved for ease in future use.

### MS Windows 95 and ProComm Setup (VT100 Emulation)

The parameters format shown in this procedure duplicate the format in the ProComm software displayed on the monitor. VT-100 emulation with the PC using ProComm software is accomplished as follows:

1. In ProComm press ALT+Z to display **COMMAND MENU**.
2. Strike ALT+S to display **SETUP UTILITY**.
3. Select **Terminal Options** and set the following modes:

A- Terminal emulation	VT100
B- Duplex	FULL
C- Soft flow ctrl (XON/XOFF)	ON
D- Hard flow ctrl (RTS/CTS)	OFF
E- Line Wrap	ON
F- Screen scroll	ON
G- CR Translation	CR
H- RS Translation	DESTRUCTIVE
I - Break length (msecs)	350
J - Enquire (ENQ)	OFF
K- EGA/VGA true underline	OFF
L- Terminal width	80
M- ANSI 7 or 8 bit commands	8 BIT

4. Strike ALT+D to display the DIALING DIRECTORY.
5. Setup next available entry in the directory; strike A (Add Entry):

Name: VT-100 Terminal  
Number:  
Baud: 9600  
Parity: None  
Data Bits: 8  
Stop Bits: 1  
Duplex: Full  
PORT: COM1 (**NOTE:** PC Configuration dependent)  
  
Script:  
Protocol: ASCII  
Terminal: VT100  
Mode: direct  
Password:  
Meta file:  
Kbd file:  
Note file:

### **Export Channel Data to a PC using MS windows.**

The following describes the procedural sequence for exporting Model 340SC channel data to a PC (and disc).

1. Connect VT-100 Terminal or PC (set up to emulate the VT-100) to RS-232 #1 port (TERMINAL-IN) using the RS-232 Null Modem Cable.
2. Start VT-100 terminal emulation from the PC. Select File from the menu bar and select Open. Use filename VT-100 TRM.  
**NOTE 1** The PC will now act as a controller to the projector and all commands are now keyboard characters. A menu list outside the rectangular box will appear on the monitor screen.  
**NOTE 2** The Software will timeout in 10 seconds if actions are not complete.
3. Select an active Projector channel from the channel list to be exported.
4. To export channel data to the PC, select CHANNEL MENU from the MAIN MENU and select EXPORT CHAN, DATA. Enter channel number to be exported when the Projector displays the message: ENTER CHANNEL #.
5. The projector will display the message: PREPARE HOST TO RECEIVE DATA. ENTER TO START ESC TO ABORT.
6. At the PC, select Transfers from the main menu bar and select Receive Text File. Enter the name of the channel to save, i.e., CH2.TXT. Strike

the Enter key twice to begin Transfer. Transfer is in progress when ASCII data scrolls across the PC's screen.

7. The Projector displays the message: TRANSFERRING ESC TO ABORT.
8. Terminate transfer when the Projector displays the following message: TRANSFER COMPLETE WHEN TERMINAL READY FOR NORMAL OPERATION. PRESS ANY KEY. At the PC select Transfers from the menu bar and select stop.

## **Import Channel Data from a PC Using MS Windows**

The following describes the procedural sequence for importing channel data from a PC (or disc) to the ILA-12K projector.

1. Select an active Projector channel from the channel list.
2. To import channel data to the Projector, select CHANNEL MENU from the MAIN MENU and select IMPORT CHAN. DATA (projector automatically switches to internal sync. Enter channel number to be imported when the Projector displays the message ENTER CHANNEL #.  
**NOTE:** Import Data cannot be performed to the current active channel.
3. The projector will display the following message: READY TO RECEIVE BEGIN UPLOAD NOW ESC TO ABORT.
4. At the PC, select Transfers from the menu bar and select Send Text File. Select the drive letter where the floppy disc is located. Select the file name of the channel to send. Press Enter to begin Transfer.
5. The PC will display send rate at bottom of screen and the message: SENDING CHAN#. TXT.
6. Terminate transfer when the Projector displays the following message: TRANSFER COMPLETE CHANNEL BANK XFER SUCCESSFUL PRESS ESC. Strike the ESC key to terminate transfer.

## **Export Channel Data to a PC using MS Windows 95 and ProComm Communications Software.**

The following is the procedure for exporting ILA-12K channel data to a PC (and disc). This assumes PC has been set up to emulate the VT-100.

1. Connect the RS-232 null modem cable from the PC serial comm. port connector to the projector RS-232 port #1 (**TERMINAL-IN**) connector.
2. Start ProComm at the MS DOS prompt.
3. Select ALT=D from the DIALING DIRECTOR. Use file name VT-100 Terminal.

**NOTE 1:** PC will now act as a controller to the Projector and all commands are now keyboard characters. A menu list outside of the rectangle box will appear on the PC's screen.

**NOTE 2:** Software will time-out in 10 seconds if actions are not completed

4. Select an active Projector channel from the channel list to be exported. From the MAIN MENU select the STATUS MENU and set projector to internal sync by toggling 5.
5. To Export channel data to the PC, select CHANNEL MENU from the MAIN MENU and select EXPORT CHAN.DATA. Enter channel number to be exported when the Projector displays the message: ENTER CHANNEL#.
6. The Projector will display the message: PREPARE HOST TO RECEIVE DATA.. ENTER TO START ESC...TO ABORT.
7. At the PC, strike the Pg Dn key for the DOWNLOAD menu and select Receive Text File. Enter the name of the channel to save, i.e.; CH2.TXT. Press the Enter key twice to begin transfer.
8. Transfer is in progress when ASCII data scrolls across the PC's screen. The Projector displays the message: TRANSFERRING ESC TO ABORT. Terminate transfer when the Projector displays the following message:
9. TRANSFER COMPLETE WHEN TERMINAL READY FOR NORMAL OPERATION. PRESS ANY KEY. At the PC strike the ESC key twice.

## **Import Channel Data From A PC Using Windows 95 and Procomm**

The following is the procedure for importing channel data from a PC (and disc) to the ILA-12K projector.

1. Select an active Projector channel from the channel list. From the **MAIN MENU** select the **STATUS MENU** and set projector to internal sync by toggling 5.
2. To import channel data to the Projector, select CHANNEL MENU from the MAIN MENU and select IMPORT CHAN.DATA. Enter channel number to be imported when the projector displays the message: ENTER CHANNEL #. Note: Import Data cannot be performed to the current active channel.
3. The projector will display the following message: READY TO RECEIVE BEGIN UPLOAD NOW ESC TO ABORT.
4. At the PC, select Pg Up from the menu bar and select ASCII. Enter the file name of the channel to send. Strike the Enter key to begin Transfer.
5. The PC will display send rate at bottom of screen and the message: UPLOAD IN PROGRESS....
6. Terminate transfer when the Projector displays the following message:

7. TRANSFER COMPLETE CHANNEL/BLANK XFER SUCCESSFUL  
PRESS ESC]. Strike the ESC key to terminate transfer.