

SCALA

ECHO EE100

English
manual

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Scala Echo EE100

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WELCOME TO SCALA ECHO

HOW THIS MANUAL IS ORGANIZED

This manual is designed for you, whether you are familiar with the Scala products or not.

However, a certain knowledge of the Scala main program is recommended for full benefit of this manual.

The main chapters in this manual follow each other in the same order as you'll need them, if you are a typical user.

The chapter **LANC CONTROLLER** deals with the video camera (camcorder) used as a player. In this mode you set the in- and out-points, using Scala Echo. You can also produce and distribute your titles, graphics and sound effects, using the Scala main program in combination with Echo.

The chapter **INFRARED TRAINER** tells you how to instruct the software to handle your specific VCR, a prerequisite for the recording.

The chapter **INFRARED CONTROLLER** then tells you how to do the actual recording of your edits and titles.

Note on some of the terms used in this manual:

Controls and settings are written with capital initials. The terms 'select' and 'click on' notify instructions given to the software, while the word 'press' is reserved for hardware.

WELCOME TO SCALA ECHO

Overview

Scala Echo EE100 consists of the following.

- ▶ A cable unit which connects to the computer's serial port. The unit has two cables; One connects to the source deck (typically your video camera), while the other one has an infrared sensor which exchanges signals with the VCR used for recording.
- ▶ A disk containing:
Scala EX software modules, to control the play-back and record functions respectively. Can also be used with other equipment controlled by infrared signals. Infrared Trainer software. You use this to 'teach' the software to accept the commands from your VCR. Can also be used with other equipment controlled by infrared signals.
- ▶ Scala clip-art library with ready made graphics and Echo demos.

Requirements

Computer: Any Commodore Amiga with 3 MBytes RAM, Hard Drive.

Software: Scala MultiMedia MM300 (or higher), or InfoChannel IC500.

Source deck:A video camera (camcorder) or VCR with an LANC outlet for editing. This is also known as Control-L. Adaptors are available for some older cameras with other outlets. LANC is used by Video8/Hi8 cameras from Sony, Canon, Grundig, Kyocera, Nikon, and others. It is also used by VHS and Video8/Hi8 VCRs from Sony.

Record deck:A VCR that has a remote control with an infrared sensor.

Genlock:A genlock is necessary if you want to add titles and graphics to your video sequences.

WELCOME TO SCALA ECHO

Scala HumanTouch - the interface that puts you in control

Since the Scala Echo is an add-on product to Scala MultiMedia MM300 and Scala InfoChannel, we recommend that you make yourself familiar with one of these main programs before you start work with Scala Echo. In this way you'll get much more out of the editing and titling work.

Scala Echo EE100 and the Scala main programs share the user-friendly HumanTouch interface. Once you have installed Scala Echo EE100 you have total control of the editing and titling process from HumanTouch, with no need to go in and out of many programs.

GETTING STARTED

Connections and cables

The Scala Echo unit is connected to the serial port of your Amiga.

Important note: Turn off the Amiga before you connect the cable unit.

The cable with the minijack connects to the LANC outlet of your source deck.

The cable with the infrared sensor is placed in front of the VCR used for recording.

Installing the Echo EX modules

In order to work with the Scala Echo EE100 you must install the appropriate Echo EX modules. This must be done before you start the Scala main program. Insert the Echo disk, double click on the icon that appears, and follow the instructions.

When this is done you'll find that LANC and Infrared appear as column in the Main menu. If you cannot find them, you must rearrange the order of the columns in the System menu. Select User interface under Configuration and then click and drag the buttons to arrange them in the desired order. Back in the Main menu you adjust the size of each column by clicking with the left mouse button in the space between the columns.

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LANC CONTROLLER

THE LANC (Control-L) CONTROLLER



Purpose

The purpose of this EX module is to control a video camera through the LANC/Control-L protocol, in order to play a sequence as part of a presentation or to include it in an edit list. Through the Scala main program you can edit your video by setting in- and out-points. You can also add text and graphics if you have a genlock.

Controlling the camera

Select one of the buttons in the LANC column in the Scala Main menu. A special menu, called the LANC Controller, now appears. By using the available buttons you can now control the videotape in the camera. Just click on the LANC Controller's symbols (<, >, >>, etc.) equivalent to those on the camera.

This menu contains a counter that keeps track of your position on the tape.

Please observe that some camera models do not feature all functions in this menu. For instance, frame-by-frame playback may be available only in the forward direction.

Recalibrate the source tape

Recalibrate the tape in the video camera by rewinding to the beginning and resetting the counter. This should be done:

- Before setting in- and out-points.
- When previously designated points don't seem to line up.
- Whenever you change tapes. (Changing tapes resets the counter.)

LANC CONTROLLER

Prepare the edit list

Play back the tape by selecting the symbol for Play in the Controller and locate the editing start point. Then you select Set in, and you'll see your in-point displayed on the button's right hand side. You may find it useful to set the camera to the playback pause mode while you do this.

Continue to play back the tape, or use fast-forward, until you reach the point where you want the scene to end. Then select Set out in the LANC Controller and your out-point is now displayed. Set the camera to pause mode if desired.

Just click Show if you want to view the scene before you continue editing.

Scala titles and graphics

If you have a genlock and want to add text or graphics to your sequence, you may now load a page from Scala by double clicking in the Pagename column. To get a blank background, just click OK instead of selecting a background. In most cases you'll prefer to set Overscan to Video. Now the Edit menu appears, and you just type the desired text before clicking OK.

To add symbols, sound, wipes, etc., you follow the same procedure and load the desired page or effect like you normally do in Scala.

To retain the title on the screen throughout the sequence you must select Wait at the bottom of the LANC Controller. "Wait" will then appear as a separate line in your script, following the line representing the title. If you don't click Wait, the playback of the sequence and the title will start simultaneously and Scala then goes on to the next line in your script without waiting for the out-point of the sequence on the first line.

Please note:

If you have a genlock, you may view your video clips in the background when you load Scala titles and graphics. Go to Configuration in the Scala System and select Genlock mode under User interface.

LANC CONTROLLER

Continue editing

To continue editing just click on the Direct Access Line in the Main menu and repeat the procedure for each scene you want to include. Each sequence is displayed in the main menu with its in- and out-points, making up a script.

The command selector

In the upper left corner of the LANC Controller you find the command selector. Use the arrows to toggle between the following commands.

Play



This command is used for playback. With the command selector in this position you can select your in- and out-points.



Play to

With this command you play back the tape to a desired position. Use Set out to decide where to stop the tape.

Turn on the Wait button and the sequence will be played back in its full length. If the Wait button is turned off the sequence can be stopped where you desire.

LANC CONTROLLER

Go to

With this command you wind the tape backward or forward to a desired position, selected with the Set in button. This function is handy when you must rewind or advance the tape before playback can start. For instance, you may want to display Scala pages or play back sound before a video sequence. Then select Go to and set the desired in-point to make Echo find the correct position while you perform the other tasks.

Sync



This command is used to synchronize text, graphics or sound to the tape. Let's say you have a title that should appear at a specific point in a video sequence. Then select Sync and set the desired counter position.

Rewind



Use this command to rewind the source tape. Turn on the Wait button and the tape will rewind to the very beginning. If the Wait button is turned off you can stop the tape with the Stop or Pause button.

LANC CONTROLLER

Fast forward

By selecting this command the tape will be advanced rapidly without displaying the pictures. Turn on the Wait button and the tape will go all the way to the end. If the Wait button is turned off you can stop the tape with the Stop or Pause button.

Pause



This command sets the camera to the Pause mode.

Stop

This command stops the camera.

Record

This command is used if you should want the camera to perform recording.

Wait



By selecting Wait in the Echo menu you can add graphics, text or sound through Scala when you play back the tape.

None

Use this command to delete lines in your script.

LANC CONTROLLER

Counter

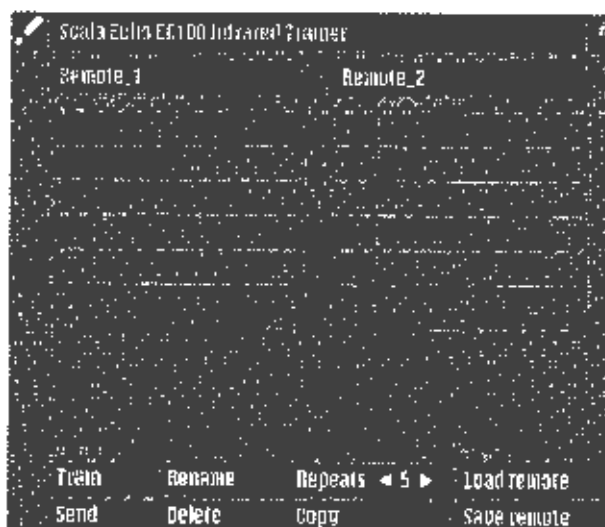
The Echo counter displays the current position of the camera's counter. Reset the counter by clicking the Counter button.

If the camera has RCTC time code it cannot be reset since the time code is stored on the tape.

To the right of the Set in- and Set out-buttons, you'll find the counter values displayed. These values can be changed by entering new figures manually from the keyboard, if you do not want to go the actual point on the tape. If you choose this procedure, make sure that you do not touch the Set in- and Set out-buttons. In that case the values will be changed to the tape's actual position.

Wait

The Wait button at the very bottom of the LANC Controller must be turned on whenever you want to keep a title/graphic page until the end of the current video sequence. If the Wait button is turned off, the script will continue.



Purpose

VCRs use different kinds of infrared signals. In order to control your VCR from Scala Echo you must first 'teach' the software to accept the correct commands.

Using the Trainer

The Infrared Trainer software is used to "teach" Scala to exchange infrared signals with your VCR. It can also be used to include other devices in a Scala presentation. This could be a TV, CD player or music system.

To perform the "teaching" put the Echo infrared cable on the table with the sensor facing your remote control.

Go to Scala's System menu and select Scala Echo under Utilities. The Infrared Trainer menu appears. Select "Train" in the Echo menu.

INFRARED TRAINER

It's up to you to decide which of the commands on the remote control Scala Echo shall perform. For recording purposes the Record and Pause commands are instrumental. (If you work with different VCRs you should be aware that the procedure for switching between Pause and Record may vary from one manufacturer to another.)

1. Select Train.
2. Direct your remote control towards the sensor, and keep it fairly close to it while you press the desired button on the remote control. For instance, you press Record.
3. The screen turns blank while Scala records the signal.
4. As Scala has accepted the signal, you will see its graphic representation in the Trainer menu. Scala automatically gives the command a name. (Function 1, Function 2, etc.) To change this just type the new name on the button! If you later want to change it, just click on the Rename button and enter the new name.
5. If Scala cannot accept the signal, you will get an Error message. Retry while holding the remote control in another position.
6. You can test the command by directing the sensor towards the VCR while you select Send in the Trainer menu or double-click the button.

Repeat the procedure until you have made Scala accept all the desired commands.

INFRARED TRAINER

How to obtain optimum performance

It is important to keep the remote control at a certain distance from the sensor, not too near and not too far. You may want to try various positions depending on your VCR. Normally you'll find the ideal distance to be 20 - 30 cm (8 - 12 inches), but in most cases the unit will also record at a shorter range.

A well trained command will work from very close to the VCR to several feet away. A poorly trained command may only work in a very narrow range. Retrain and test to achieve the best possible performance.

Issues that may affect training are: the method the manufacturer uses to send and receive infrared (i.e. strength of emission, method of encoding, wavelength of infrared signal). Also ambient light and other infrared sources such as heat can affect training. Sometimes it is helpful to try recording at an angle.

Other buttons in the Trainer menu

Repeats

To make sure that the signal is accepted by the VCR it is normally sent more than once. Default setting is five. You can increase the number of repeats if this is not sufficient, or decrease it to save time.

Copy

Use this function to copy a command from one list to the other.

Save remote

You must use this function in order to save the set of commands you have just programmed. These are saved as a file. Let's call it a Remote control file. Put all such files in the Remote drawer in the Scala drawer.

Load remote

Use this function to load a Remote control file.

Controlling other infrared equipment

Through the Infrared Control column (described in a separate chapter) your Scala main program can be used to control any other piece of infrared equipment, such as laserdisc, CD players, TV, etc. For instance, it is possible to play a CD track together with a video sequence. In this case, use the remote control to "teach" Scala the necessary commands as described with the VCR above.

ECHO INFRARED CONTROLLER



Purpose:

This is an EX that controls the record deck in an editing and tiling process. Through the Infrared column in the Scala main program you can control a VCR which has a remote control with an infrared sensor.

Load the "Infrared command file"

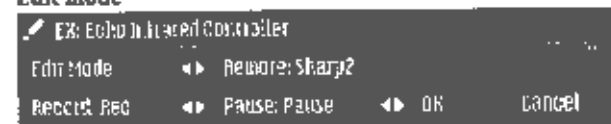
When you have "trained" Scala Echo to accept infrared signals (described in the Infrared Trainer chapter) you can select a button in the Infrared column in the Main menu. The Echo Infrared Controller now appears.

Click the Load Remote button and select the file containing Infrared commands which you have previously saved in the Remote drawer. There should be one such Infrared command file for each Infrared controllable device you want to use.

The command selector

In the left corner of the Infrared Controller you find the command selector, with Transmit as default setting. Use the arrows to switch to Edit mode or None.

Edit mode



The Edit mode has the following function only: You decide which command to send when the Infrared Controller instructs the VCR to Record, and which command to send when the Pause mode is activated.

Controlling other infrared equipment

Through the Infrared Control column (described in a separate chapter) your Scala main program can be used to control any other piece of infrared equipment, such as laserdisc, CD players, TV, etc. For instance, it is possible to play a CD track together with a video sequence. In this case, use the remote control to "teach" Scala the necessary commands as described with the VCR above.

ECHO INFRARED CONTROLLER



Purpose

This is an EX that controls the record deck in an editing and titling process. Through the Infrared column in the Scala main program you can control a VCR which has a remote control with an infrared sensor.

Load the "Infrared command file"

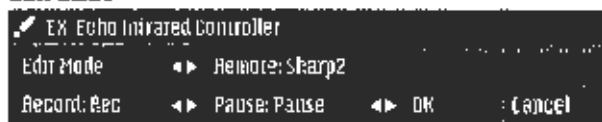
When you have "trained" Scala Echo to accept infrared signals (described in the Infrared Trainer chapter) you can select a button in the Infrared column in the Main menu. The Echo Infrared Controller now appears.

Click the Load Remote button and select the file containing Infrared commands which you have previously saved in the Remote drawer. There should be one such Infrared command file for each infrared controllable device you want to use.

The command selector

In the left corner of the Infrared Controller you find the command selector, with Transmit as default setting. Use the arrows to switch to Edit mode or None.

Edit mode



The Edit mode has the following function only: You decide which command to send when the Infrared Controller instructs the VCR to Record, and which command to send when the Pause mode is activated.

ECHO INFRARED CONTROLLER

Let's say that you called the record function "Record" when you used the Infrared Trainer, and you called the pause mode "Pause". Then the correct commands will automatically be attached to these buttons, and you'll see the settings "Record: Record" and "Pause: Pause". In this case you need not worry about the Edit mode at all.

If you used another language when you named your commands - or if you called them something other than Record or Pause, you now need to enter the names of the desired commands.

Your chosen Record command will be sent to the VCR every time there is an in-point in your script, and the Pause command will be sent at every out-point.

The settings are saved by clicking OK, and you return to the Main menu.

Transmit

The command selector must be in the Transmit mode (default setting) when you perform the recording.

None

With the command selector in this position you can delete commands and settings.

Prepare for recording

Now go to the System menu and find the Recorder button under User interface. Use the arrows to toggle this button to Infrared. Click OK and return to the Main menu. You'll now see that the Run button in the lower right corner has arrows, and it can be toggled to Record.

Record your edits

If you have already prepared your edit list you can now load the script containing the desired list. If not, turn to the LANC Controller and set your in- and out-points.

When everything is prepared just click Record - and all selected video sequences plus the titles and effects contained in the LANC script will be recorded by the VCR!

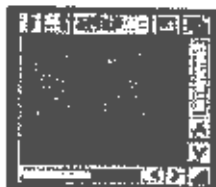
ECHO INFRARED CONTROLLER

Accurate recording

You may discover small variations in your video clips scrolling in sequences starting or ending slightly before or after the desired point. A number of reasons can cause such variations, some of which are related to the video equipment. Non-professional camcorders and VCRs are never one hundred per cent accurate. A VCR normally needs some time from a record command is received to the actual recording begins. The same delay applies when it stops or pauses. However this causes no problem if the commands are sent slightly before the camera has reached the desired position. Please note that different cameras have different "delay times". The best results are obtained using a camera that accepts RCTC time code, such as some of Sony's models. If you find that the delay time is more or less constant you may change some of the parameters in Scala Echo. Follow this procedure:

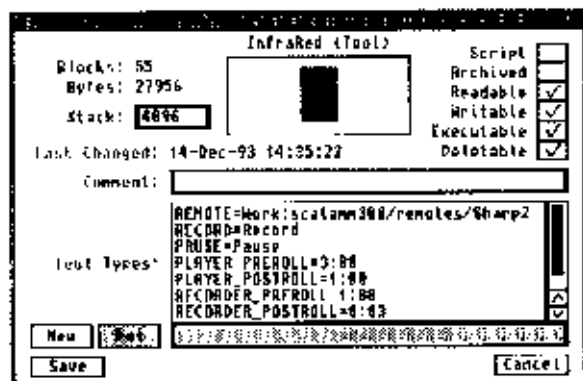
1. Check how much the commands are delayed. This can be done by doing a trial edit with the camera counter being displayed on the screen. (Most cameras have a Data screen button for this function.) Make an edit list with Scala. When you play back the clips you can check the delay time.

2. Find the Infrared EX in the Scala startup drawer. Click the icon with left mouse button and press the left Amiga key + I. Information about Scala Echo appears. In the text window you'll find



PLAYER_PREROLL',
PLAYER_POSTROLL', 'RECORDER_PREROLL', and
'RECORDER_POSTROLL'. 'RECORDER_PREROLL' is the most interesting of these. Click on it, and the text moves to a position where you can change the value. If the clips start with a one second delay you should change 'RECORDER_PREROLL' to 2:00. The VCR will then be started one second earlier compared to the default setting. Even if you do not have a camera with time code, the value can be entered in seconds and frames.

ECHO INFRARED CONTROLLER

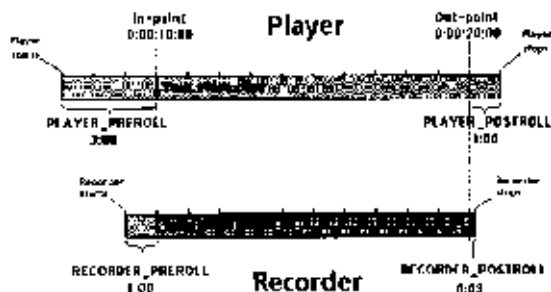


'PLAYER_PREROLL' denotes how long before each clip the camera should start playing back. It is often advisable to start a few seconds to get a stable video signal at the beginning of the sequence.

'PLAYER_POSTROLL' denotes how long after each clip the camera should continue to play back. This is advisable in order to retain a stable video signal when the VCR goes to Pause mode.

'RECORDER_PREROLL' denotes how long it takes for the VCR to actually start recording. By increasing the value you make the recording start earlier.

'RECORDER_POSTROLL' denotes how long the VCR should continue to record at the end of the edit. The VCR may return slightly when going to Pause mode, causing the end of your edit to be lost.



PROBLEM DETECTION

"I cannot display the video picture on the same screen as the Scala menus."

Go to the System menu. Find the button Genlock mode under Configuration and User interface. Turn on the Genlock mode button by clicking on it and return to the Main menu. Now the video picture should appear, if your genlock has been properly installed.

"I cannot record the video clips even if they are played back."

Go to the System menu. Find the button Record under Configuration and User interface, and make sure it's in the position Infrared. You should also check the settings in the Infrared control menu.

"The video picture is distorted when I use genlock."

The quality of genlocks vary greatly, and some may distort the picture when winding the tape. This is normal. When you start a script before the first video clip, the picture may turn black and white. This is caused by the genlock not receiving a video signal. You can solve this problem by starting the camera before the script, and set it to pause mode. A Time Base Corrector (known as TBC) may also be useful.

"The LANC Controller loads wrong clips."

Are you sure you are using the right video cassette? It could also be that the camera uses a time code, and some of the tape could have been recorded with RCTC, while the rest has normal time code. These two are not compatible, because Scala Echo only works with the time code in function as you start the program. Please note that you cannot switch the camera from RCTC mode to normal time code without restarting Scala.

