

TRIPLEX

user manual

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CONTENTS

1 WELCOME!	4
2 TRIPLEX OVERVIEW	5
2.1 The Front	5
2.2 The back	6
2.3 Navigating with the TRIPLEX.....	6
2.4 Setting up and cabling your projectors.....	7
2.5 Initial Configuration	7
2.6 Power up.....	8
2.7 Signal Select.....	8
2.8 Address Selection.....	8
2.9 Configure Ports.....	9
2.10 Save configuration.....	10
2.11 Focussing and Alignment.....	10
2.12 Home	10
2.13 Reset	10
2.14 Large Installations	11
3 MENU ARCHITECTURE	12
3.1 Status Display (_ _ _ 0 0 0).....	13
3.1.1 Alignment routine	13
3.2 INPUT SELECT	14
3.3 SIGNAL SELECT	15
3.4 ADDRESS SELECT	16
3.4.1 Devices: Projectors and Aux-Relais.....	16
3.5 OUTPUT SELECT	18
3.6 CONFIG PORTS.....	19
3.7 SAVE CONFIGS.....	21
3.8 READ CONFIGS	21
3.9 DIAGNOSTICS	22

3.10 ADVANCED FUNCT.	24
3.11 INFRARED REMOTE	30
3.12 The timer functions	30
3.13 MEMORY FUNCTIONS	31
4 PLAYBACK WITH TRIPLEX	32
4.1 Standard Playback	33
4.1.1 Analog Playback.....	33
4.1.2 Digital Playback.....	33
4.1.3 KODAK P-COM Playback	34
4.2 Timecode-based Playback	34
4.2.1 Analog Playback with timecode	34
4.2.2 Digital Playback with timecode.....	34
4.3 Memory-based Playback	35
4.3.1 Memory Playback.....	35
4.3.2 Cancelling Memory Playback.....	35
4.3.3 Memory Playback with Timecode	35
4.3.4 Memory Playback Loop (Endless Playback).....	36
4.3.5 Live Playback	36
4.3.6 IMAGIX and TRIPLEX.....	37
4.4 Controlling External Devices: AUX-Relays	39
5 LIVE PRESENTATIONS („SPEAKER SUPPORT“)	40
5.1 Programming a live presentation	40
5.2 Triggering sequences	40
5.3 Recovering from a power outage: When the lights come on again	41
5.4 Planning a live presentation	41
5.5 Going live	41
5.5.1 Timecode and Memory Upgrade.....	41
5.5.2 Formating timecode.....	43
5.5.3 Playing back with timecode	44
5.5.4 Recording PlusTrac.....	45
5.5.5 Internal Memory	46
6 INFORMATION ON THE INFRARED FUNCTIONS TRIPLEX	47
7 TECHNICAL APPENDIX	50
8 MENU IN SERVEY	51

1 Welcome!

The TRIPLEX is Bässgen's unique synergy of a large number of important functions in a single unit. With the TRIPLEX the question is no longer „which control units will be necessary“ but rather „which TRIPLEX configuration will best satisfy the task at hand“.

Universality and easy-of-use are two hallmarks of the TRIPLEX. Its menu-based editing system and configurable output ports allow you to adapt the TRIPLEX to practically any imaginable presentation need. Its non-volatile memory allows you to build a library of configurations for each new challenge.

The TRIPLEX also understands a multitude of control signals. Whether it be PlusTrac (or compatible signals), Freetrac, Dataton Syncode, Leitz DU24, Simda F101, Imatronic, Kindermann, Kodak P-Bus or the signals of earlier Bässgen units, the TRIPLEX handles with ease the control languages of the past and present while opening fascinating possibilities for future developments. What's more, the TRIPLEX can accept these control signals in analog as well as digitally-encoded form.

Here's how this works: the TRIPLEX identifies the incoming signal and optimizes the data for a set of virtual projectors inside. It then creates and sends out the commands executable by the actual projectors attached to it.

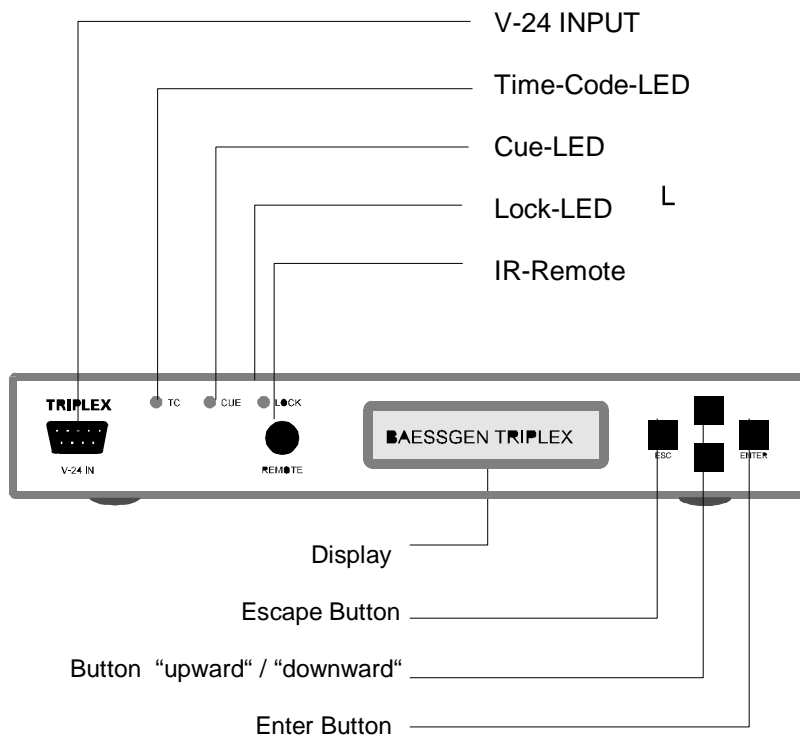
The built-in Timecode Upgrade (available via keycodes) opens you to the multi-faceted world of timecode programming using Bässgen's state-of-the-bit IMAGIX software. Imagine being able to load your productions into the TRIPLEX and leave your computer at home. Even upgrading the TRIPLEX's operating system for future enhancements is a snap with TRIPLEX.

2 TRIPLEX Overview

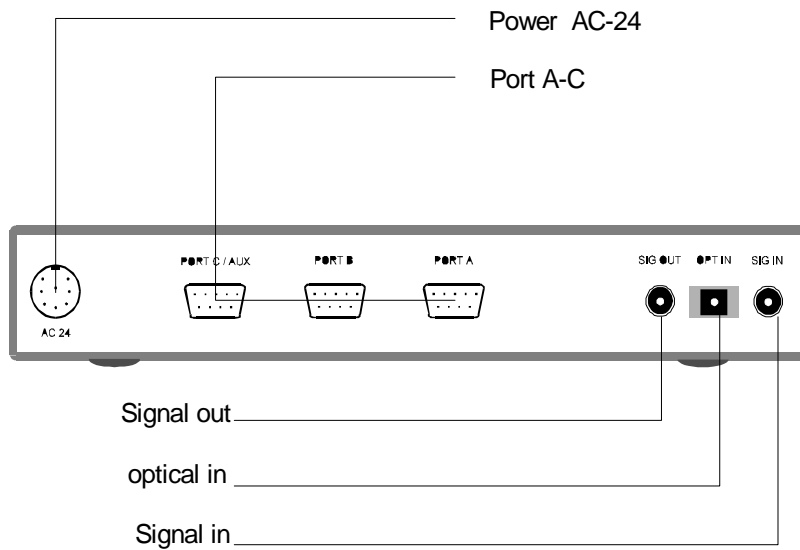
This chapter walks you through setting up and operating your TRIPLEX. It is intended for both novices and experienced users. Simply follow these steps and you should master the TRIPLEX in no time at all.

The TRIPLEX is a highly versatile control unit which can control up to three projectors of practically any type, as well as relays and other devices — and it can read and translate a number of control signals in various formats.

2.1 The Front

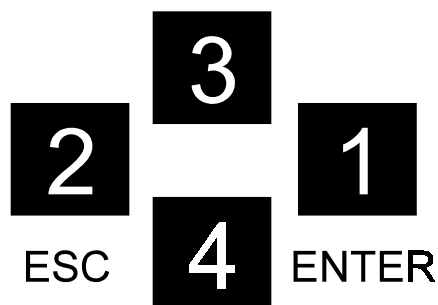


2.2 The back



2.3 Navigating with the TRIPLEX

To the right of the TRIPLEX's LCD display are four buttons used for programming and for navigating through the TRIPLEX's menus:



ENTER button two functions:

enter next menu level;
mark (at times „unmark“) a menu item as selected.

ESC button

Return to previous menu level

Upper Scroll button

Navigate (scroll) up list (be it a menu, a list of values, etc.)

Lower Scroll button

Navigate (scroll) down list (be it a menu, a list of values, etc.)

The two outer buttons are labeled „ESC“ and „ENTER“; they function much in the same manner as their counterparts on a computer keyboard. The two inner buttons serve as up- and down-arrow keys; they are the Scroll buttons used for stepping up and down through the menu lists and items viewed in the display. The TRIPLEX's display shows one menu item at a time.

2.4 Setting up and cabling your projectors

Set up your projectors according to the manufacturer's recommendation. Practically all dissolvable projectors can be used with the TRIPLEX. (The TRIPLEX's focussing and alignment feature will be covered in a moment.)

Tray-magazine projectors with built-in triacs are connected using Projector Cable Q-1 by connecting the 10/14-pole plug into the projector and the other end into the desired A - C port on the TRIPLEX.

Round-magazine projectors with 12-pole sockets (Kodak S-AV, Simda, Elmo, Hasselblad) require an additional Triac Adapter TA-4001 since these projectors do not have triacs for controlling the lamps. Use Cable Q-5 to connect the Triac Adapter to the desired A - C port on the TRIPLEX.

For **digitally-controlled** projectors use Cable Q-3 for Kodak Ektapro and Cable Q-4 for Simda 3262/3462 and Reflecta Profiline 7000/8000 AV projectors.

Digitally-controlled projectors with an addressing feature (Kodak Ektapro 7000/7010/7020 and 9000/9010/9020, for instance) must be set to Address 0.

Power to the unit! The TRIPLEX, of course, needs power in order to operate. It can detect automatically a 24V AC current on any of its ports. Should the connected projectors not deliver this current, connect the TRIPLEX's external power supply to its AC-24 socket on the back of the unit.

2.5 Initial Configuration

Using the buttons on the front panel, let us configure the TRIPLEX to match your setup. You only need to do this once since you can save this setup (and other setups) in the TRIPLEX's non-volatile memory; configurations can be changed individually at any time.

For purposes of illustration let us assume that you want use a PlusTrac signal to control three Kodak Ektapro projectors as projectors A B C. If your purposes differ from this example, consult the enclosed menu diagram and the chapter „Menu Architecture“ for alternative settings.

2.6 Power up

Turn on your projectors (and if necessary TRIPLEX's external power supply). As soon as the TRIPLEX receives power, it will display „BAESSGEN TRIPLEX“ and then switch over to

— — 0 0 0

which is the Status Display as well as the first line of the Main Menu.

2.7 Signal Select

- Scroll through the Main Menu until „SIGNAL SELECT“ appears in the display.
To scroll through a menu, simply press a Scroll button; the Scroll buttons are the two upper and lower buttons on the front panel.
- Press ENTER to access the list of the available control-signal interpreters.
- Scroll through until „AUTO FT/PT/SY“ appears in the display.
This setting means „search automatically for control signals in Freetrac, PlusTrac or Syncode format“ — a practical one-step solution to a multitude of possible configurations.
- Select this by pressing ENTER; an asterisk „*“ will appear, indicating that this menu item has been selected.
If you are configuring the TRIPLEX straight out of the box, then an asterisk is probably already set.
- Press ESC to return to „SIGNAL SELECT“.

2.8 Address Selection

- Scroll through the Main Menu until „ADDRESS SELECT“ appears.
- Press ENTER to access the extensive port-addressing section.
- Scroll until „PLUSTRAC/FT/PCOM“ appears.
Signals in PlusTrac, FreeTrac or Kodak P-COM use the same addressing scheme.
- Press ENTER to access the port-configuration section.
- Scroll until „PROJECTORS<xxx>“ appears whereby „xxx“ refers to the current address setting of Ports A-C. For instance, if „PROJECTORS <ABC>“ appears, then the TRIPLEX's ports are configured as follows:

TRIPLEX Port	Projector Address
A	A
B	B
C	C

If the current setting is „PROJECTORS <ABC>“ then press ESC („ADDRESS SELECT“ appears again) and skip to the heading „Configure Ports“ below; otherwise:

- Press ENTER to access the port-address section; „PORT x“ appears whereby „x“ refers to the output socket on the TRIPLEX (and not to a Projector „x“ in a setup).

Setting the port addresses

- Scroll until „PORT A“ appears.
- Press ENTER to access Port A's setting; „PORT A ADR = x“ appears whereby „x“ is the current address assigned to Port A.
- Scroll until „PORT A ADR = A“ appears.
- Press ENTER to set „A“ as Port A's address; an asterisk confirms this.
- Press ESC to return to „PORT A“.
- Press the lower Scroll button once; „PORT B“ appears.
- Repeat the above procedure for Ports B and C, setting them to B and C, respectively.

Check the port configuration

- Press ESC again; „PROJECTORS <ABC>“ should appear now.
- If this is so, then press ESC repeatedly until „ADDRESS SELECT“ appears. If not, then repeat the above procedure.

2.9 Configure Ports

- Scroll through the Main Menu until „CONFIG PORTS“ appears.
- Press ENTER to access the port configuration section; „PORT x“ appears whereby „x“ refers to the output socket on the TRIPLEX.
- Scroll until „PORT A“ appears.
- Press ENTER to access Port A's device configuration.
- Scroll until the desired port configuration appears; in our example here you would want „EKTAPRO“ to appear in the display.

The following table lists the possible settings available at this writing and which devices belong each which category:

STANDARD1	Braun Paximat, Kindermann, Leitz, Rolleivision 66 AV
STANDARD2	Elmo, Hasselblad, Kodak S-AV, Simda (via TA-4001)
STANDARD3	Zeiss, Zett
STANDARD4	(reserved for future developments)
EKTAPRO	Kodak Ektapro via serial connection
EKTAPRO HI	Highlight operation for compatible projectors (eg., Ektapro 7010 and 9010)
AUX PORT	The selected port serves as an output for Aux-Relays
ROLLEI DUAL	66P
ROLLEI MSC	300 P
TA-4002	Special auto-zero Adapter
SIMDA V3.3	Simda via serial connection

- Press ENTER to confirm the port configuration selection.
- Press ESC to return to „PORT A“.

Copy function

Since we want to have all of the ports configured for Ektapro projectors, we can use the TRIPLEX's copy function to duplicate Port A's setting to the other two ports:

- Scroll until „COPY PORT A->BC“ appears.
- Press ENTER to start the copy procedure. Once Port A's setting has been duplicated, the display will return to „CONFIG PORTS“.

The TRIPLEX is so fast that the copy procedure may seem instantaneous.

2.10 Save configuration

Save your configuration as the startup configuration using this procedure:

- Scroll through the Main Menu until „SAVE CONFIGS“ appears.
- Press ENTER to access the list of storage addresses.
- Scroll until the storage address „CONFIG MEMORY 0“ appears.
- Press ENTER to save your configuration as Configuration 0 which is what the TRIPLEX will load into memory at subsequent power-ups..

Once the configuration has been saved, the display will return to the Status Display („_ _ _ 0 0 0“).

2.11 Focussing and Alignment

The TRIPLEX's focussing and alignment feature is available when no control signal is present at the TRIPLEX's inputs (that is, the CUE-LED on the front of the TRIPLEX is not lit).

- Scroll through the Main Menu until the Status Display (_ _ _ 0 0 0) appears.
- Press ENTER to cycle through each step of the eight-step alignment routine.

The TRIPLEX will first bring up the lamps one at a time for purposes of focussing each individual projector. Next, the TRIPLEX will bring up the lamps two at a time, using the projector on Port A as a reference. Finally, the TRIPLEX will turn on all the lamps. The bargraph in the TRIPLEX's display shows the current brightness as well.

- Press ESC at any time to exit the routine.

2.12 Home

To send the projectors back to their home positions,

- Press and hold the ENTER button on the TRIPLEX for at least one second.

Alternatively, when the Status Display is visible,

- Press and hold the ESC button for at least one second.

2.13 Reset

To reset the TRIPLEX itself,

- Press and hold the ESC button, and then while still holding it,
- Press the ENTER button.

The TRIPLEX will load the configuration stored in „CONFIG MEMORY 0“ (cf. „Save Configuration“ above).

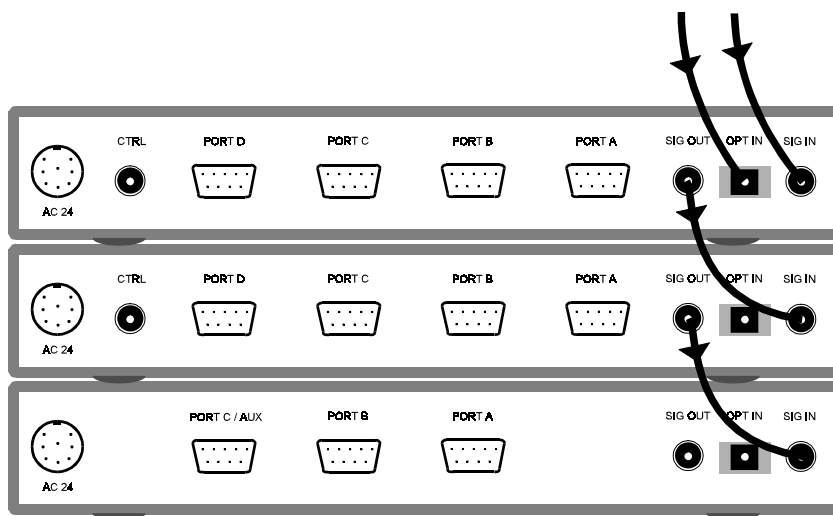
The Reset function is equivalent to switching the TRIPLEX's power off and then back on again. With the configuration for the productions stored in „CONFIG MEMORY 0“, simply reset the TRIPLEX after each production.

Furthermore, you can use the Reset function to erase a configuration which you temporarily programmed.

2.14 Large Installations

When one TRIPLEX is not enough for controlling projectors, auxiliary relays, etc., then a number of TRIPLEXes can be daisy-chained via the SIG OUT and SIG IN sockets on the rear panels. Configure each TRIPLEX for the specific devices connected to it (hint: follow the „Quick Start“ procedure for each TRIPLEX). Each TRIPLEX will then read out of the control signal only those commands which pertain to the devices configured and connected to it.

Important: Set the menu item „OUTPUT SELECT“ of each TRIPLEX to „INPUT -> OUTPUT“ so that a 1:1 copy of the control signal will be set through each unit.



3 Menu Architecture

This chapter guides you step by step through the TRIPLEX's menu architecture. As soon as the TRIPLEX receives power, it will display „BAESSGEN TRIPLEX“ and then switch over to

___ 000

which is the Status Display as well as the first line of the Main Menu.

___ 000 INPUT SELECT SIGNAL SELECT ADDRESS SELECT OUTPUT SELECT CONFIG PORTS SAVE CONFIGS READ CONFIGS DIAGNOSTICS ADVANCED FUNCT. INFRARED REMOTE TIMER FUNCTIONS MEMORY FUNCT.
--

The Main Menu

The Main Menu is the gateway to the heart of the TRIPLEX. Through it you have access to the configuration areas, read/write routines, diagnostics, advanced features, and memory functions. The Scroll buttons (between the ESC and ENTER buttons) are used for stepping up and down through the Main Menu. Once the desired Main Menu item appears in the display, press ENTER button in order to gain access to further settings or to select the setting currently visible.

The Main Menu groups the TRIPLEX's diverse features under specific topics, each containing a number of submenus and selections:

- Status Display (___ 000) : Display projector status; Alignment routine
- INPUT SELECT : Monitor specific input sockets for control signals
- SIGNAL SELECT : Specify input signal type(s)
- ADDRESS SELECT : Set Port addresses
- OUTPUT SELECT : Specify output signal type
- CONFIG PORTS : Specify device type(s)
- SAVE CONFIGS : Store user configurations
- READ CONFIGS : Load user or factory configurations
- DIAGNOSTICS : Test routines; Version number; Keycode

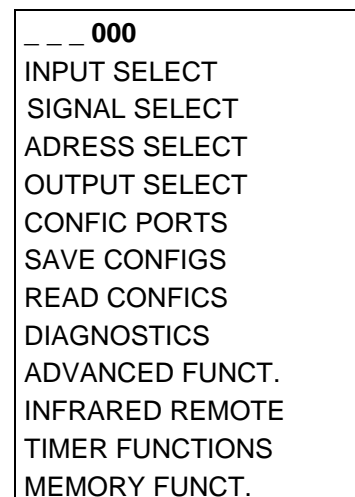
- ADVANCED FUNCT. : Functions for power users
- INFRARED REMOTE : IR-remote control
- TIMER FUNCTIONS : A timer function puts Triplex in effect
- MEMORY FUNCTIONS : Stand-alone functions

3.1 Status Display (_ _ _ 0 0 0)

The first item in the Main Menu is the Status Display, which is also the first item displayed after power-up.

Its first three positions (_ _ _) show in realtime the current status of the TRIPLEX's three ports:

- A straight line indicates a „zero level“; that is, lamp off, no blinking, shutter open;
- A bar-graph indicator shows the current lamp level;
- A blinking indicator shows that the projector is in blink (pulse) mode;
- A small bargraph shows that the projector's shutter is closed (only on projectors having this feature).



The three digits to the right of the indicators (0 0 0) show the current position of each projector's tray. At power-up the digits are set to zero, indicating that the tray of each projector is currently in its Home (zero) position.

3.1.1 Alignment routine

When no control signal is present at the TRIPLEX's inputs (that is, the „CUE“ LED on the front of the TRIPLEX is not lit), the ENTER button can be pressed to bring up the lamps of connected projectors individually and in groups:

- Press ENTER to cycle through each step of the eight-step alignment routine.
 - The TRIPLEX will first bring up the lamps one at a time for purposes of focussing each individual projector. Next, the TRIPLEX will bring up the lamps two at a time, using the projector on Port A as a reference. Finally, the TRIPLEX will turn on all the lamps. The bargraph in the TRIPLEX's display shows the brightness as well.
- Press ESC at any time to exit the routine.

Alternatively, double clicking the ENTER button will turn on all the lamps (the last step of the cycle).

3.2 INPUT SELECT

The second item in the Main Menu is titled „INPUT SELECT“ and is used for determining the type of input signal being feed into the TRIPLEX.

- Press ENTER to access the list of possible input signal types.
- Press the Scroll buttons until the desired input signal type appears in the display.

There are a number of possible input selections:

INP AUTOSENSE

TRIPLEX monitors the selected inputs for signals.

INP DIGITAL

TRIPLEX monitors the SIG IN and OPT IN sockets for digitally-coded control signals.

INP COAXIAL

TRIPLEX monitors the SIG IN socket for a digitally-coded electrical control signal.

INP OPTICAL

TRIPLEX monitors the OPT IN socket for a digitally-coded optical control signal.

INP ANALOG

TRIPLEX monitors the SIG IN socket for an analog control signal.

- Press ENTER to confirm the selection with an asterisk.
- Press ESC to return to the Main Menu.

```
___000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

3.3 SIGNAL SELECT

The TRIPLEX understands a multitude of control signals. „INPUT SELECT“ is used for setting the format of input signal being feed into the TRIPLEX.

- Press ENTER to access the list of possible input signal formats.
- Press the Scroll buttons until the desired input signal format appears in the display.

There are a number of possible format selections:

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADDRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFICS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

AUTO FT/PT/SY : TRIPLEX monitors the selected inputs for signals in FreeTrac, PlusTrac and Dataton Syncode format.

PLUSTRAC : TRIPLEX monitors the selected inputs for signals in PlusTrac format.

FREETRAC : TRIPLEX monitors the selected inputs for signals in FreeTrac format.

SYNCODE : TRIPLEX monitors the selected inputs for signals in Dataton Syncode format.

KINDERMANN : TRIPLEX monitors the selected inputs for signals in KINDERMANN format.

LEITZ DU 24 : TRIPLEX monitors the selected inputs for signals in LEITZ DU 24 format.

SIMDA F 101 : TRIPLEX monitors the selected inputs for signals in SIMDA F 101 format.

UD-2000 : TRIPLEX monitors the selected inputs for signals in UD-2000 format.

UX-2000 : TRIPLEX monitors the selected inputs for signals in UX-2000 format.

KODAK P-COM : TRIPLEX monitors the „V-24 in“ sockets for a KODAK P-COM control signal.

- Press ENTER to confirm the selection with an asterisk.
- Press ESC to return to the Main Menu.

3.4 ADDRESS SELECT

Each port on a TRIPLEX can be set as need be — that is, independent of traditional bank addressing. This means that you are not longer confined to the bank addressing of traditional control units. This opens fascinating possibilities for flexibly combining relays, projectors and other devices in an installation.

When the TRIPLEX monitors a control signal, it picks out the commands assigned to the addresses configured for each port; commands for other ports are ignored. „ADDRESS SELECT“ is used for setting the actual address of each port on a TRIPLEX.

___ 000
INPUT SELECT
SIGNAL SELECT
ADDRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.

There are currently two addressing schemes in use: **letters** (A-P) used with the PlusTrac, FreeTrac, and Kodak P-Bus control signals, and **numbers** (10-77) used with Dataton Syncode.

The address selection for other control signals has been preconfigured for immediate use and need not be configured separately. These signals include Leitz DU 24, Simda F101, Imatronic, Kindermann, and the signals of earlier Bässgen units (for instance, UX2000).

- Press ENTER to access the Address Selection section.
- Use the Scroll buttons to choose between the „PLUSTRAC/FT/P-COM“ and „SYNCODE“ addressing systems.
- Press ENTER to confirm your selection.

This will bring you into separate sections, one for PLUSTRAC/FT/P-COM signals and one for SYNCODE signals. Since these sections are nonetheless very similar, let us handle them together.

3.4.1 Devices: Projectors and Aux-Relais

The Devices list groups devices into two categories:

- 1) Projectors
- 2) Auxiliary relays.

1) Projectors

To configure the ports for use with projectors,

- Scroll until „**PROJECTORS<xxx>**“ or „**PROJECTORS**“ appears.

With PLUSTRAC/FT/P-COM signals, the „xxx“ refers to the current address setting of Ports A-C. If, for instance, „PROJECTORS <ABC>“ is displayed, then the TRIPLEX's ports are configured as follows:

Port A Address A
Port B Address B
Port C Address C

- Press ENTER to access the port-address section.
„PORT x“ appears whereby „x“ is the name of the specific port on the TRIPLEX. („Port A“, for instance, refers to the output socket on the TRIPLEX and not necessarily to „Projector A“ in a setup.)
- Scroll until the desired port appears (eg., „PORT A“)
- Press ENTER to access the port's setting.
„PORT x ADR = y“ appears whereby „x“ is the name of the port and „y“ is the current address assigned to the port.
- Scroll until the desired port address appears in the display.

Examples:

PLUSTRAC/FT/P-COM signals: If, for instance, Port A is connected to Projector A, then the setting would be „PORT A ADR = A“.

SYNCODE signals: If, for instance, Port A is connected to Projector 10, then the setting would be „PORT A ADR = 10“.

- Press ENTER to confirm the selected address with an asterisk.
- Press ESC to exit this particular port configuration.
- Scroll to the next port to be configure.
- Repeat the above procedure for the other ports.

When you are finished,

- Press ESC again; „PROJECTORS<xxx>“ or „PROJECTORS“ appears.

With PLUSTRAC/FT/P-COM signals, the „xxx“ refers to the new address setting of Ports A-C. If the configuration is not correct, then repeat the above procedure.

- Press ESC to exit this section; „PLUSTRAC/FT/P-COM“ or „SYNCODE“ appears.

2) Aux Relays

The TRIPLEX's three ports can control up to three auxiliary relays each.

- Scroll until „AUX RELAYS“ appears.
- Press ENTER to access the Aux Relays section.
„REL PORTx“ will appear whereby „x“ is the port address A-C.
- Scroll until the desired port address appears in the display.
- Press ENTER to access the port's addressing section.
- Scroll until the desired address for that port appears in the display.

With PLUSTRAC/FT/P-COM signals, the addresses ABC, EFG, IJK, and MNO are available. They refer to the auxiliary-relay addresses used for controlling the auxiliary relays and **not** to the projector addresses.

With SYNCODE signals, the usual Syncode address numbering scheme is available

- Press ENTER to confirm the new setting with an asterisk.

- Press ESC to return to exit this section.
- Repeat the above procedure for any other auxiliary relays.

When you are finished,

- Press ESC once to return to „AUX RELAYS“ or three times to return to the Main Menu (four times brings you to the Status Display).

3.5 OUTPUT SELECT

This function is only activated when the TRIPLEX is in stand-alone mode. With it you can indicate in which form an input signal (SIG IN, OPT IN) will appear at the output (SIG OUT).

When „OUTPUT SELECT“ is visible in the display,

- Press the Enter button to access the list of possible output configurations.
- Scroll until the desired output configuration appears in the display.

```

_ _ _ 000
INPUT SELECT
SIGNAL SELECT
ADDRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.

```

There are three possible output configurations:

INPUT -> OUTPUT — This setting sends an 1:1 copy to the output. A digital audio input signal appears as a digital audio signal at the output. An analog input signal appears as an analog signal at the output. When a number of TRIPLEXes are daisy-chained, each will read the commands from the passing signal for the ports as assigned under ADDRESS SELECT.

DIGITAL -> CUE — The incoming digital audio signal will be analysed for cues; the cues will be passed out the output as an analog signal (SIG OUT). At the same time the control data will be processed and sent to the appropriate ports.

DIGITAL -> TC — The incoming digital audio signal will be analysed for timecode; the timecode will be passed out the output as an analog timecode (SIG OUT). At the same time the control data will be processed and sent to the appropriate ports.

- Press ENTER to confirm the selection with an asterisk.
- Press ESC to return to the Main Menu.

3.6 CONFIG PORTS

In this section, the TRIPLEX's three ports can be configured individually for specific devices. These include analog and digital projectors as well as devices controlled as auxiliary relays. In addition to setting specific devices to a port, a number of copy functions are available for duplicating the settings on other ports.

- Press the Enter button to access the Port Configuration section.
- Scroll until the desired device or copy function appears.

There are three port addresses and two copy functions available:

PORT A — Select this for configuring Port A.

PORT B — Select this for configuring Port B.

PORT C — Select this for configuring Port C.

COPY PORT A->BC — Selecting this item copies the configuration for Port A to Ports B and C.

COPY PORT B>C — Selecting this item copies the configuration for Port B to Port C.

Port device configuration

Projector or Aux Relay selection

A TRIPLEX port can be configured for a specific projector or for auxiliary relays. With the desired port visible in the display (for instance, „PORT A“),

- Press ENTER to access that port's device configuration.

„<port address> = <device>“ will appear whereby „<port address>“ is the port address on the TRIPLEX (A-C) and „<device>“ is the device assigned to that port.

- Scroll until the desired device appears.

The following table lists the various categories of device available at this writing:

STANDARD1	Braun Paximat, Kindermann, Leitz, Rolleivision 66 AV
STANDARD2	Elmo, Hasselblad, Kodak S-AV, Simda (via TA-4001)
STANDARD3	Zeiss, Zett
STANDARD4	(reserved for future developments)
EKTAPRO	Kodak Ektapro via serial connection
EKTAPRO HI	Highlight operation for compatible projectors (eg., Ektapro 7010 and 9010)
AUX PORT	The selected port serves as an output for Aux-Relays
ROLLEI DUAL	66P
ROLLEI MSC	300 P
TA-4002	Special auto-zero Adapter
SIMDA V3.3	Simda via serial connection

___ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIG PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.

- Press ENTER to confirm the selection with an asterisk.

If you have selected SIMDA V3.3 or AUX PORT as the configuration for this port, then

- press ESC once to return to the list of ports or twice to return to the Main Menu;

otherwise:

- Press ENTER to access the Cycle-Time or Auto-Standby configuration sections, depending on the device selected. With standard projectors, the Cycle-Time configuration will appear. With projectors such as the Kodak Ektapro, the Auto-Standby configuration will appear

Cycle-Time setting

With standard projectors, „x CYCTIME=y“ will appear whereby „x“ is the port address and „y“ is the transport speed in seconds. There are twenty time intervals between 0.5 and 4.0 seconds available.

Scroll until the desired time interval appears. Consult your projector’s handbook for the recommended setting. You may wish to add a tenth of a second or so to the recommended value in order to compensate for possible deviations in tolerance.

- Press ENTER to confirm the setting with an asterisk.
- Press ESC twice to return to the port selection.

Auto-Standby setting

With projectors such as the Kodak Ektapro, „x AUTO-STBY=y“ will appear whereby „x“ is the port address and „y“ is the time interval after which the projector will switch into standby mode. There are nine time intervals between 2 seconds and 10 minutes available plus an „OFF“ setting which you can set when you do not wish to use the auto-standby mode. If you choose to use the auto-standby mode, the projector will „sleep“ once the time interval since the last command has elapsed. When the projector receives a command, it will be activated again.

- Scroll until the desired setting appears.
- Press ENTER to confirm the setting with an asterisk.
- Press ESC twice to return to the port selection.

If the remaining ports will have the same type of device connected to them, then use a copy function to duplicate the current port’s setting to the remaining ports. Otherwise, once all the ports have been configured,

- Press ESC to return to the Main Menu.

Copy Functions

If you want to copy the present configuration to the remaining ports,

- Press ENTER to use the copy function you have selected in the display.

Once setting has been copied (this happens instantaneously), the display will return to „CONFIG PORTS“ in the Main Menu.

3.7 SAVE CONFIGS

The TRIPLEX can save six separate configurations in its non-volatile memory. Each storage position can be overwritten with a new configuration at any time using the following procedure.

To save a configuration for future use,

- Scroll until „SAVE CONFIGS“ appears in the Main Menu.
- Press ENTER to access the Save Configurations section.

„CONFIG MEMORY x“ with appear whereby „x“ indicates the storage position.

- Scroll until the desired storage position appears.
- Press ENTER to save the current configuration at that memory position.

After saving, the TRIPLEX will return to the Status Display.

Note: Save the desired startup configuration at storage position zero („CONFIG MEMORY 0“).

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFICS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

3.8 READ CONFIGS

Any of seven separate configurations can be called up from the TRIPLEX's non-volatile memory. The first six configurations (numbered from 0 to 5) are user defined while the seventh („FACTORY DEFAULTS“) contains default settings.

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFICS
READ CONFICS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

Loading user configurations („CONFIG MEMORY x“)

To load a user configuration for immediate use,

- Scroll until „READ CONFICS“ appears in the Main Menu.
- Press ENTER to access the Read Configurations section.

„CONFIG MEMORY x“ or „FACTORY DEFAULTS“ appears whereby „x“ indicates the storage number.

- Scroll until the desired „CONFIG MEMORY x“ storage number appears.

- Press ENTER to load the configuration stored at that position number.

After loading, the TRIPLEX will return to the Status Display.

Note: Memory position zero („CONFIG MEMORY 0“) will be loaded automatically when the TRIPLEX is powered up.

Caution: Be sure to save changes to the present configuration before loading a different one, otherwise the changes will be lost.

Loading the factory configuration („FACTORY DEFAULTS“)

To load the factory configuration for immediate use,

- Scroll until „READ CONFIGS“ appears in the Main Menu.
- Press ENTER to access the Read Configurations section.

„CONFIG MEMORY x“ or „FACTORY DEFAULTS“ appears whereby „x“ indicates the storage number.

- Scroll until „FACTORY DEFAULTS“ appears.
- Press ENTER to load the factory configuration into memory.

After loading, the TRIPLEX will return to the Status Display.

The factory configuration contains the default settings for Elmo, Hasselblad, Kodak S-AV, and Simda projectors. The cycle time is 1.5 seconds. The ports A-C are addressed for projectors A-C (or 10-13).

3.9 DIAGNOSTICS

This area holds the TRIPLEX's version and serial number as well as functions which transform the TRIPLEX into a testing instrument:

- Scroll until „DIAGNOSTICS“ appears in the Main Menu.
- Press ENTER to access the Diagnostics section.

The Diagnostics section houses a host of useful routines.

- Scroll until the desired routine or information appears.

__ _ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.

Version Number and Date

The TRIPLEX's version number and version date can be viewed in this display. The display has the form „Vx.xx dd-mmm-yy“ whereby „xx“ is the version number and „dd-mmm-yy“ is the version date expressed as day-month-year.

ID Number

Each individual TRIPLEX has its own serial number which can be used for identifying the TRIPLEX for purposes of upgrading your unit. It is recommended that you write down your TRIPLEX's serial

number and keep it handy, because if your TRIPLEX becomes lost or stolen, it can then be unequivocally identified when found.

Keycode

When you purchase an upgrade, enter its keycode here. If the code number is correct, the upgrade will be unlocked and ready for use.

Before entering the keycode,

- Scroll until „KEY IMX / TRI / MEM XXXXXXXX“ appears.
- Press ENTER to access the Set Keycode routine.
- Use the Scroll buttons to set the proper letter or number in each position in the display;
- Use ENTER to advance to the next position.

At the end of the keycode, „SAVE keycode ?“ will appear whereby „keycode“ is the code number you entered.

Compare the keycode you received with the keycode you entered.

If the keycode was correctly entered,

- Press ENTER to confirm the entry; the TRIPLEX will reset itself and return to the Status Display.

If the keycode was incorrectly entered,

- Press ESC to exit the routine.

AC Line Frequency display

The TRIPLEX displays here the current line frequencies in Hertz on each individual port.

S/PDIF display

The TRIPLEX displays here the sampling rate of the digital audio signal entering the OPT IN or SIG IN socket. At the same time the yellow „LOCK“ LCD on the front panel will glow. Should no digital audio signal be detected, the TRIPLEX will display „S/PDIF= no lock“.

Tray Position display (POS: 0 0 0)

This menu item displays the current position of each projector's tray.

MEMORY CONTENTS

With the Timecode and Memory Upgrade, the TRIPLEX can store four complete IMAGIX productions in its non-volatile memory. Information about each production can be read in the „MEMORY CONTENTS“ section.

- Press ENTER to access the „MEMORY CONTENTS“ section.

„Mx name #####“ appears whereby „x“ is the memory storage position, „name“ is the name of the IMAGIX production (the name of the production was loaded along with the production itself), and „#####“ is the number of program steps in the production.

If no production is stored in a particular memory position, „Mx NONAME 0000“ will appear whereby „x“ is the memory storage position.

Use the Scroll buttons to step through the four memory positions.

- Press ESC to exit the routine.

3.10 ADVANCED FUNCT.

The extensive advanced functions housed here are intended for power users and not for experimentation.

AC LINE SYNC

This section is important when using conventional projectors; when serial projectors are being used, no changes must be made here.

When controlling lamps on conventional projectors via triacs, a synchronization with the mains frequency is necessary. The TRIPLEX's AC Line Sync feature can alleviate this restriction.

Each of the TRIPLEX's ports has its own mains frequency synchronization unit. This means that the projectors delivering 24 volts AC to the TRIPLEX can be plugged into any mains socket of any phase. Besides that, deviations from 40Hz to 70Hz in the mains frequency are tolerated. This feature offers your installations even more operational security.

As already mentioned, the projector must deliver 24 volts AC to the TRIPLEX. If this is not so, TRIPLEX cannot recognize the mains' phase. In this case, each projector can use the synchronization of another when they are plugged into the same mains socket.

Let us take the example of a projector connected to Port B not delivering the 24 volts AC to the TRIPLEX. Since the projector connected to Port A is delivering the 24 volts AC, it can „share“ its synchronization with Port B:

- Scroll until „AC LINE SYNC“ appears.
- Press ENTER to access this section.
- Scroll until „PORT B“ appears. (We want Port B to receive Port A's synchronization.)
- Press ENTER to access this section.
„PORT B FROM x“ appears whereby „x“ is the other port's name.
- Scroll until „PORT B FROM A“ appears; that is, „Port B receives its synchronization from Port A“.
- Press ENTER to confirm this with an asterisk.
- Press ESC twice to exit this section.

PT STEPDELAY

Use this feature for overriding the step delay programmed into the PlusTrac signal. This feature allows you to change the step delay (which is set at one second in the PlusTrac signal) to a different time interval ranging from 0.0 to 3.0 seconds. This feature can be useful, for example, when fast animations are desired. Caution, though: A compatibility with standard PlusTrac cannot be guaranteed when using this feature. Also: very short time intervals may cause the slide to change while the lamp is on.

To access this section,

- Scroll until „PT STEPDELAY“ appears.
- Press ENTER to access this section.
„PT SDELAY=x.x“ appears whereby „x.x“ is the time interval in seconds.

__ __ 000 INPUT SELECT SIGNAL SELECT ADDRESS SELECT OUTPUT SELECT CONFIC PORTS SAVE CONFIGS READ CONFIGS DIAGNOSTICS ADVANCED FUNCT. INFRARED REMOTE TIMER FUNCTIONS MEMORY FUNCT.

- Scroll until the desired time interval appears in the display.
- Press ENTER to confirm this with an asterisk.
- Press ESC to exit this section.

NOCUE → AUXOFF

This feature governs the handling of a relay when no cue signal is present. Selected relay groups can be released automatically after a time interval specified in „AUX HOLD TIME“ expires while the other relays remain on.

To access this section,

- Scroll until „NOCUE → AUXOFF“ appears.
- Press ENTER to access this section.
„RELS x-x-x-x“ appears whereby „x-x-x-x“ refers to the relay group.
- Scroll to access the relay groups.
- Press ENTER to set an asterisk to that group; an asterisk indicates that the group should release when the cue signal is not present and the AUX HOLD TIME has expired.
- Press ENTER again to remove an asterisk from a group; a group having no asterisk will not release when the cue signal is not present and the AUX HOLD TIME has expired.
- Press ESC to exit this section.

NOCUE → NOLAMP

This feature governs the handling of a projector's lamp when no cue signal is present. The lamps on selected ports can be shut off automatically when no cue signal is present while the lamps of the other projectors remain on.

To access this section,

- Scroll until „NOCUE → NOLAMP“ appears.
- Press ENTER to access this section.
„PORT x“ appears whereby „x“ indicates the port on the TRIPLEX.
- Scroll until the desired port appears in the display.
- Press ENTER to set an asterisk to that port; an asterisk indicates that the lamp on that port should shut off automatically when the cue signal is not present.
- Press ENTER again to remove an asterisk from a port; a port having no asterisk will not shut off the lamp when the cue signal is not present.
- Press ESC to exit this section.

AUX HOLD TIME

The „AUX HOLD TIME“ determines the time interval to be used with the „NOCUE → AUXOFF“ and „NOCUE → NOLAMP“ features described above. This function can be quite useful in installations. For instance, a hold time of two minutes can be used for shutting off the house lighting two minutes after the end of a production. The possible time intervals range from one second to 10 minutes.

To access this section,

- Scroll until „AUX HOLD TIME“ appears.
- Press ENTER to access this section.
„HOLD AUX x“ appears whereby „x“ indicates the time interval.
- Scroll until the desired time interval (1'-10") appears in the display.
- Press ENTER to select the interval; an asterisk marks the selection.
- Press ESC to exit this section.

SYNCODE AUX MODE

This section allows you to determine which three of Syncode's four possible auxiliary relays (W, Y, EW, EY) will be controlled by the TRIPLEX. The factory setting is EW, EY, W.

To access this section,

- Scroll until „SYNCODE AUX MODE“ appears.
- Press ENTER to access this section.
„AUX a b c“ appears whereby „a b c“ indicates the possible combinations of Syncode auxiliary relays available on the TRIPLEX.
- Scroll until the desired combination appears in the display.
- Press ENTER to select the combination; an asterisk marks the selection.
- Press ESC to exit this section.

DIG. CH. TOGGLE

A timecode and a control signal can be encoded in a digital audio signal as two separate additional channels. The „DIG. CH. TOGGLE“ feature allows you to interchange these two additional channel, thus putting the timecode on the control-signal channel and vice versa.

To access this section,

- Scroll until „DIG. CH. TOGGLE“ appears.
- Press ENTER to access this section.
„NORMAL CHANNELS“ denotes the original timecode and control-signal channels.
„INVERS CHANNELS“ denotes interchanged timecode and control-signal channels.
- Scroll until the desired setting appears in the display.
- Press ENTER to select the setting; an asterisk marks the selection.
- Press ESC to exit this section.

FT PROJ. GROUP

The governs the projector groups for a FreeTrac signal: Groups 0-15 and Groups 16-31.

To access this section,

- Scroll until „FT PROJ. GROUP“ appears.
- Press ENTER to access this section.
„FT PROJ 00...15“ denotes projector group 0-15.
„FT PROJ 16...15“ denotes projector group 16-31.
- Scroll until the desired group appears in the display.
- Press ENTER to confirm the selection with an asterisk.
- Press ESC to exit this section.

PCOM IN BAUDRATE

This section allows you to set the baud rate for an incoming Kodak P-COM signal from a computer.

To access this section,

- Scroll until „PCOM IN BAUDRATE“ appears.
- Press ENTER to access this section.
„x BAUD“ appears whereby „x“ indicates the baud rate.
- Scroll until the desired baud rate appears in the display.
- Press ENTER to select the baud rate; an asterisk marks the selection.
- Press ESC to exit this section.

CUE PLAY OFFSET

This feature allows you to offset the starting position for the trays of a production. The number set here will be added to the tray positions in the original cue signal. This feature can be useful when the trays hold a number of productions where each production begins at the same position in each tray. Instead of programming a tray offset in IMAGIX, the offset can be „programmed“ after the fact in the TRIPLEX.

To access this section,

- Scroll until „CUE PLAY OFFSET“ appears.
- Press ENTER to access this section.
„TRAY OFFSET x“ appears whereby „x“ indicates the desired offset position for the trays.
- Scroll until the desired offset position (0-80) appears in the display.
- Press ENTER to select the starting position; an asterisk marks the selection.
- Press ESC to exit this section.

NOTE: if there is not „0“, slide-number in display is flashing.

MEMORY END MODE

This section allows you to determine what the TRIPLEX should do (wait or exit) after a production played from memory is finished.

To access this section,

- Scroll until „MEMORY END MODE“ appears.
- Press ENTER to access this section.
„WAIT AT END“ allows you to step back through the production once it has ended.
„EXIT AT END“ allows a completed running to be started from the beginning again. This can be useful when triggering productions using an external control pad. When using the „Mx IF NO CUELED“ function, the external control pad will be enabled once the CUE LED extinguishes.
- Scroll until the desired mode appears in the display.
- Press ENTER to select the mode; an asterisk marks the selection.
- Press ESC to exit this section.

TA - 4002 AUTOZERO

If the projectors are controlled by the autoreset function and Ta-4002 Triacs, you can decide if a tray is being transported FORWARD or BACKWARD to zero.

POWER ON MODE

This mode is only available with the Timecode and Memory Update. This section allows you to determine in which mode the TRIPLEX should set itself on power-up. This feature can be useful in installations where a production should start running when the installation itself is powered up.

To access this section,

- Scroll until „POWER ON MODE“ appears.
- Scroll until the desired mode appears in the display.
There are a number of possible modes:
STANDARD MODE : Upon power-up the TRIPLEX enters its basic mode.

TIMER MODE: Upon power up the TRIPLEX starts its internal timer.

RUN MEMORY 1 : Upon power-up the TRIPLEX automatically commences playback of the production saved in Memory 1.

RUN MEMORY 2 : Cf. RUN MEMORY 1.

RUN MEMORY 3 : Cf. RUN MEMORY 1.

RUN MEMORY 4 : Cf. RUN MEMORY 1.

- Press ENTER to confirm the selection with an asterisk.
- Press ESC to exit this section.

MIN VOLT LEVEL

The TRIPLEX can exert an additional control over the voltage of lamps on triac-controlled slide projectors. The various levels are explained below.

To access this section,

- Scroll until „MIN VOLT LEVEL“ appears.
- Press ENTER to access this section.

A list of possible settings appears:

STANDARD LEVEL: With this setting, no additional control is exerted over the projector lamps.

LOWER LEVEL: The voltage level will be lowered.

LOWEST LEVEL: The voltage level will be lowered one more step.

- Scroll until the desired voltage level setting appears in the display.
- Press ENTER to select the voltage level setting; an asterisk marks the selection.
- Press ESC to exit this section.

MAX VOLT LEVEL

The TRIPLEX can exert an additional control over the voltage of lamps on triac-controlled slide projectors. The various levels are explained below.

To access this section,

- Scroll until „MAX VOLT LEVEL“ appears.
- Press ENTER to access this section.

A list of possible settings appears:

STANDARD LEVEL : With this setting, no additional control is exerted over the projector lamps.

HI VOLT LEVEL : A small amount of voltage will be added to the current voltage (Highlight function).

ECONOMY LEVEL : The voltage level will be lowered in order to save the lamp resulting, though, in less luminance.

- Scroll until the desired voltage level setting appears in the display.
- Press ENTER to select the voltage level setting; an asterisk marks the selection.
- Press ESC to exit this section.

SLIDE ADV. MODE

Although the plus-trac signal is a world wide standard, there could be interferences with other signals. The function SMOOTH prevents those unwanted effects.

REMOTE PR. COUNT

TRIPLEX recognizes automatically the number of projectors. Sometimes it is helpful to reduce the number of projectors in connection with the IR remote control. If under ADVANCED FUNC. the item 'Remote Proj. Count' has less projectors than there actually are, then the upper projectors can be faded in and out, as well as stepped forward and backward separately by the buttons A,B,C and ADV and REV.

Example: Two projectors show slides in standard dissolve, titles or maps are to be faded in manually by the third projector: Parameter 'Remote Proj. Count' = 2, the button C allows the fading in and out.

IR FUNCTION KEYS

FX KEY DISABLED

All IR signals are ignored.

RUN MEMORY X

starts the according memory. Clicking this button starts the corresponding memory. If the corresponding menu already is being activated, then this memory will be left.

MX IF NO CUELED

The corresponding memory will only be started, if the CUE-LED does not light up or blink.

DEF.DIS.RATE

is the dissolving speed. Under this function you can define the standard dissolving rate in connection with the IR remote control.

MEMORY FUNCTIONS

If the TRIPLEX is in the memory mode, only the buttons ENTER, ESC, F+, F- are activated (also F1 to F4, as far as they have been activated in a separate menu).

3.11 INFRARED REMOTE

The main operating mode of the IR-remote control is chosen in the menu 'INFRARED REMOTE' which is available since the operation software q110.exe.

This menu is the main menu. There are six settings:

IR STANDARD

Basis function.

RANDOM ACCESS

Operating mode for a direct access of slides.

PARALLEL ACCESS

Operating mode for a direct access of slides. The projectors project next to each other, the lamps can be triggered independently.

SPEAKER SUPPORT

makes a live presentation a lot easier.

IR F1...F4

Only the four buttons F1 to F4 and the focus buttons are activated.

IR DISABLED

All IR signals are ignored. This operating mode is necessary in case there are several Triplex devices in one room, but not all of them are to be operated.

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

3.12 The timer functions

A timer function puts Triplex in effect:

The parameters of the timer are three values found under the menu TIMER FUNCTIONS in the main menu.

TIMER START /TIMER STOP

This command starts/stops the timer operating mode. The timer can also be activated by the menu MEMORY FUNCTION or it can be configurated in ADVANCED FUNC. Under 'Power On mode` as a standard mode. (For example for windows displays.)

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFIGS
READ CONFIGS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

TIME PER SLIDE

is the time the slide is shown without the dissolving phases. Possible time period: 1-60 sec.

SLIDE PER PROJ

is the amount of slides in each tray. After the last slide the counter sets automatically back to zero. This allows endless productions without programming. However, there will be no setting back, if the parameter is ALL (=0).

3.13 MEMORY FUNCTIONS

This section is only available with the Timecode and Memory Update. It allows you to call up and run a production stored in the TRIPLEX's memory. This means that you can have up to four complete productions available at your fingertips at any time.

To select a production for instant playback,

- Scroll until „MEMORY FUNCTIONS“ appears.
- Press ENTER to access the playback list.
- Scroll until the desired memory location appears in the display.

The playback list includes:

STANDARD MODE

Selecting this mode cancels playback from memory and returns the TRIPLEX to its basic operating mode.

RUN MEMORY 1 : Play back the production saved in Memory 1.

RUN MEMORY 2 : Cf. RUN MEMORY 1.

RUN MEMORY 3 : Cf. RUN MEMORY 1.

RUN MEMORY 4 : Cf. RUN MEMORY 1.

TIMER MODE: starts timer

- Press ENTER to start playback of your selection immediately.

To cancel playback, select“STANDARD MODE“.

Note that this section can be quickly accessed from the Status Display by pressing the upper Scroll button once.

```
___ 000
INPUT SELECT
SIGNAL SELECT
ADDRESS SELECT
OUTPUT SELECT
CONFIC PORTS
SAVE CONFICS
READ CONFICS
DIAGNOSTICS
ADVANCED FUNCT.
INFRARED REMOTE
TIMER FUNCTIONS
MEMORY FUNCT.
```

4 Playback with TRIPLEX

The TRIPLEX is the solution to practically any playback need. The numerous built-in solutions can be grouped into three categories. They include:

Standard Playback

- Analog Playback
- Digital Playback
- KODAK P-COM Playback

Timecode-based Playback

- Analog Playback with timecode
- Digital Playback with timecode

Memory-based Playback

- Memory Playback
- Cancelling Memory Playback
- Memory Playback with Timecode
 - Analog Memory Playback with timecode
 - Digital Memory Playback with timecode
- Memory Playback Loop (Endless Playback)
- Live Playback (Speaker Support)
- IMAGIX and TRIPLEX

Before playback, be sure that the TRIPLEX has been properly configured. Four items in the Main Menu are critical:

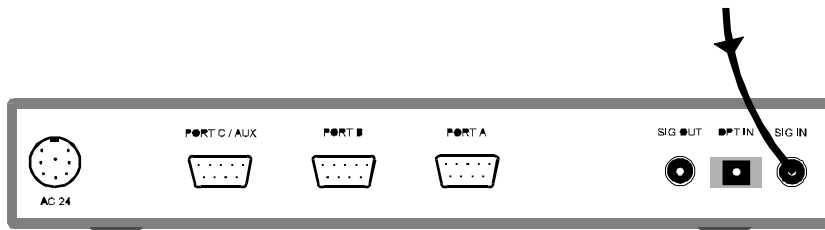
INPUT SELECT	set „AUTOSENSE“ (or in special situations a more specific setting)
SIGNAL SELECT	set the input control signal type
ADDRESS SELECT	set the proper addressing for the projectors
CONFIG PORTS	set the proper projector types

4.1 Standard Playback

Standard Playback includes all presentation situations where the control signal originates from a multitrack deck, a CD or DAT player, or a computer, with or without music and speech.

4.1.1 Analog Playback

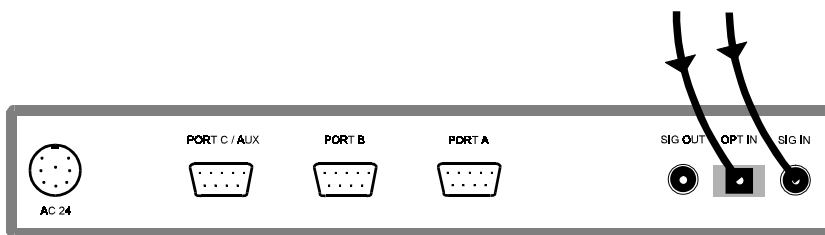
Control signals recorded on multitrack decks are feed into the TRIPLEX via the SIG IN socket. Simply start your multitrack to run the production. The green „CUE“ LCD will light when the control signal is detected. The incoming commands will be sent onto the projectors. The TRIPLEX's Status Display will show the status of the projectors' trays, lamps, and shutters.



4.1.2 Digital Playback

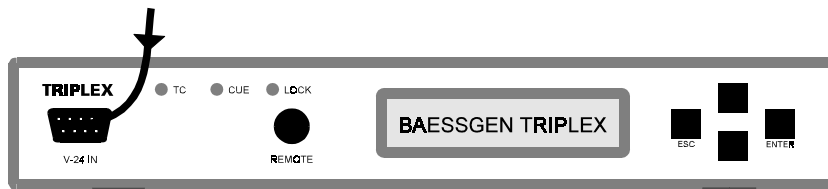
Control signals coded into the digital audio signal (eg., DAT or CD) are feed into the TRIPLEX via the SIG IN or OPT IN sockets.

Simply start your playback device to run the production. The yellow „LOCK“ LED will light when the digital audio signal is detected and the green CUE LED will light when the control signal is detected. The incoming commands will be sent onto the projectors. The TRIPLEX's Status Display will show the status of the projectors' trays, lamps, and shutters.



4.1.3 KODAK P-COM Playback

Kodak's P-COM protocol is used for controlling Ektapro projectors directly from a computer. Until now, only Kodak Ektapro models 7000, 7010, 9000, and 9010 were capable of being daisy-chained for use with this protocol. The TRIPLEX changes this: now practically any projector can be used. The computer is connected to the first TRIPLEX via the V-24 IN socket. A total of four TRIPLEXes can be daisy-chained via the V-24 sockets; use cable Q-3.



4.2 Timecode-based Playback

Timecode-based Playback includes all presentation situations where timecode is used to synchronize a music or speech source (eg., a multitrack deck, CD, DAT) to a computer running Bässgen IMAGIX.

4.2.1 Analog Playback with timecode

Timecode on your multitrack can be played back into the TRIPLEX.

- Connect your gear according to the following schematic:
- Play-enable your multitrack deck for playing back the timecode (usually track 3 on 4-tracks).
- Set IMAGIX into play mode with timecode („sYnc“+“Play“+“ext“).
- Start your multitrack; the timecode will be read into the TRIPLEX and passed onto IMAGIX; IMAGIX's external clock will run.

You may start and stop your multitrack at any position where there is timecode. IMAGIX will follow that position instantly.

4.2.2 Digital Playback with timecode

Timecode which has been coded into the digital audio signal can be played back into the TRIPLEX.

- Connect your gear according to the following schematic (be sure to connect your CD, DAT, or other digital playback device to the appropriate SIG IN or OPT IN socket):
- Set IMAGIX into play mode with timecode („sYnc“+“Play“+“ext“).

- Start your CD, DAT, or other digital playback device; the timecode will be read into the TRIPLEX and passed onto IMAGIX; IMAGIX's external clock will run.

You may start and stop your playback device at any position where there is timecode is encoded. IMAGIX will follow that position instantly.

4.3 Memory-based Playback

Memory-based Playback is available with the Timecode and Internal Memory Update. It includes all presentation situations where the TRIPLEX's internal memory is used for playing back the production's IMAGIX cues.

4.3.1 Memory Playback

To play a production from the TRIPLEX's memory,

- Scroll through the Main Menu until „MEMORY FUNCTIONS“ appears.

If you start from the Status Display, then just press the upper Scroll button once.

- Press ENTER to access the Memory Function area.
- Scroll through until you locate the desired memory number (RUN MEMORY 1/2/3/4).
- Press ENTER to start running the production.

The TRIPLEX will enter Memory Playback mode and start playing the cues in memory. When it reaches the end of memory (the last cue), it will then switch to the Status Display which will show

__ __ __ Mx END zzzz

whereby „x“ is the memory number and „zzzz“ is the last IMAGIX step to be executed.

4.3.2 Cancelling Memory Playback

To escape the Memory Playback mode,

- Press the upper Scroll button once; „MEMORY FUNCTIONS“ appears.
- Press ENTER to access the Memory Function area; „STANDARD MODE“ appears.
- Press ENTER to enter Standard Mode and thus cancel running the production.

4.3.3 Memory Playback with Timecode

Productions in the TRIPLEX's memory can be played back in perfect synchronization with a multitrack or other playback medium (eg., CD, DAT).

To do so, be sure that the following items are set in IMAGIX before the production is loaded into the TRIPLEX:

- Set the Timecode Tolerance (Menu „Options“) to the desired value. This defines the length of time that the TRIPLEX will tolerate a timecode dropout.
- The IMAGIX Clock must be set to „ext“ so that the TRIPLEX will look for an external clock (i.e., incoming timecode) when the production is started.

Note: The IMAGIX Clock setting cannot be changed when it is stored in the TRIPLEX; it must be set before the production is loaded.

Analog Memory Playback with timecode. The timecode track of a multitrack deck is connected to the SIG IN socket; follow the instructions in „Playback with timecode (analog)“ above.

Digital Memory Playback with timecode. When timecode is encoded in the digital signal, connect the signal to the SIG IN or OPT IN sockets; follow the instructions in „Playback with timecode (digital)“ above.

4.3.4 Memory Playback Loop (Endless Playback)

The TRIPLEX can play a production in an endless loop. This can be particularly interesting with installations in museums and at trade shows.

To do so, be sure that the following items are set in IMAGIX before the production is loaded into the TRIPLEX:

- The IMAGIX Clock must be set to „int“ so that the TRIPLEX will generate its own clock when the production is started.

Note: The IMAGIX Clock setting cannot be changed when it is stored in the TRIPLEX; it must be set before the production is loaded.

- At the end of the IMAGIX production, set a TRAY 0 (zero) command to send the tray back to their home positions.
- Program a HOME command just after the interval of time necessary for the trays to return.

When the production being played back with the TRIPLEX reaches the end, the TRIPLEX will send the trays back as programmed, „home“ itself (as programmed with IMAGIX) and run the production from the top.

Cancel endless operation using the procedure under „Cancelling Memory Playback“ above.

4.3.5 Live Playback

TRIPLEX is ideal for use in Speaker Support situations. IMAGIX productions programmed for live presentations can be loaded and run with the TRIPLEX using a remote-control device, allowing you to trigger single events/slides as well as complete sequences. Anything which can be programmed with IMAGIX can be played back using the TRIPLEX.

See the chapter „Live Presentations (Speaker Support)“.

4.3.6 IMAGIX and TRIPLEX

To accomplish this, let us use features found in IMAGIX and TRIPLEX:

1. IMAGIX's „X“ feature allows you to mark specific command lines in the production. When the program reaches a line marked with an „X“, it will halt if no external timecode is being fed into the system. The TRIPLEX will resume running the production when it receives a trigger from the forward button on the remote control.
2. Timecode entering the system will override the TRIPLEX's internal clock. As soon as the external timecode stops, the TRIPLEX's internal clock will continue with the next frame from that timecode. When external timecode reappears, the TRIPLEX will follow it; when the external timecode ceases, the TRIPLEX's internal clock will continue with the next frame, and so on.
3. With this in mind, there are then two possibilities for resuming playback when an „X“ is encountered: via the forward button on the remote control and by reintroducing an external timecode into the system.
4. The time readout in IMAGIX can be switched from hours:minutes:seconds to seconds-only display („Options“ menu, „Time Display Format“). This unusual format has the advantage of allowing time units of up to 24 hours to be programmed (don't worry: we're not pushing eight-hour productions).

Program Structure

Program the show using IMAGIX. Mark the lines where the production should halt with an „X“.

For passages where music is to be synchronized via timecode, use this trick: Assuming you have ten such passages which begin with music from tape or CD, format the first passage with timecode starting at 0000.0 (using the seconds-only display in IMAGIX; see above), format the second passage starting at 2000.0, the next at 4000.0, and so on. Next, program the sections using these unusual start times (0000.0, 2000.0, 4000.0, 6000.0,...); be sure to allow a number of seconds of timecode to elapse before the first command is executed so that the TRIPLEX has sufficient time to lock into the timecode. After the end of each music segment, program an „X“ and then continue programming the live portion of your presentation. Continue this procedure for the other sections.

When the timecode for the first section enters the system, the TRIPLEX will start playing that segment synchronized to the music. When the music is finished and the timecode drops off, the TRIPLEX will continue with the internal clock until the „X“ marking the next live section is encountered. You can simply erase any remaining timecode from the tape.

Run the live portion as usual, triggering each segment using the forward button on the remote control unit. Start the next music section from tape. The TRIPLEX, receiving the new timecode, will jump to the corresponding segment in the show and run it in perfect synchronization to the music. When the music is finished and the timecode drops off, the TRIPLEX will continue until the „X“ marking the next live section is encountered.

Of course, the 2000 seconds (ca. 33 minutes) in our example is just a value which allows plenty of „breathing room“ in programming the production; any other value could have been used. The idea is to show that timecode can be used creatively in planning a live presentation. Just be sure that the timecode drops out (i.e., is erased) between music sections so that it can retrigger the TRIPLEX later. This way you can make use of the advantages of both internal and external clocks.

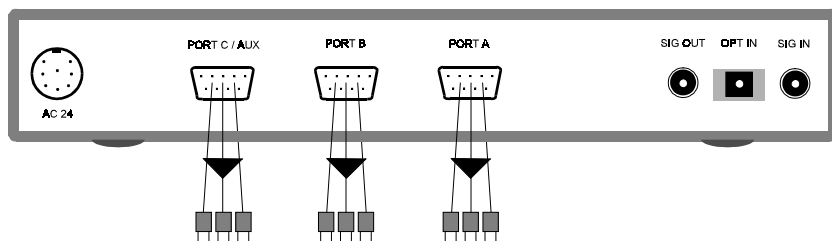
With IMAGIX you can check each section while programming. In this case, use the Return button on the computer keyboard as a temporary substitute for the forward button of the remote control unit you will later use.

Before loading the production into the TRIPLEX, be sure that IMAGIX's clock is set to „int“. (We want the show to run on the internal clock; the external timecode will then automatically override the internal clock when we need it.)

4.4 Controlling External Devices: AUX-Relays

The TRIPLEX can control up to nine auxiliary relays: three each for its Ports A-C. These relays can carry a load of maximum 24V/100mA. (Cf. Technical Appendix.)

The relays are programmed using the REL command in the Bässgen IMAGIX programming software and are coded into the PlusTrac signal using the first three positions of each PlusTrac bank (ABC, EFG, IJK, MNO).



Important: Be sure that the auxiliary relays have been properly configured in ADDRESS SELECT.

Additional control can be found in the ADVANCED FUNCTIONS section for setting when and how a relay will be handled once the control signal has ceased:

„NOCUE → AUXOFF“

Selected relay groups can be released automatically after a time interval specified in

„AUX HOLD TIME“

expires while the other relays remain unchanged.

„AUX HOLD TIME“

Release selected relay groups after this time interval. The possible time intervals range from one second to 10 minutes.

5 Live Presentations („Speaker Support“)

The TRIPLEX's Timecode and Memory Upgrade opens a multitude of possibilities for live presentations. Any succession of single steps or entire sequences can be programmed with IMAGIX into a single production. A remote control (infrared or cable) can be used to trigger each portion of the production. The numerous playback scenarios are listed in the chapter „Playback with TRIPLEX“.

5.1 Programming a live presentation

Bässgen's AV programming software IMAGIX is used for programming live and interactive productions. The key to calling up single steps or entire sequences from within a single production is the use of IMAGIX's „X“ feature: any command line in an IMAGIX production can be marked with an „X“ which causes the TRIPLEX to halt at that line while running the production. With the „X“ it is possible therefore to break a production up into several sections of varying lengths; each time the TRIPLEX reaches an „X“, it halts playback the production. Running the production can be resumed via remote control. It is clear that this simple yet powerful feature can find a wide variety of uses. Programming details can be found in the IMAGIX Handbook.

Before loading a production into the TRIPLEX,

- Set the timecode tolerance in IMAGIX („Options“ menu) to the desired value.
- Set IMAGIX's clock to „int“.

Productions are loaded using IMAGIX's „F10 – Memory-Fkt.“ command. They are called up via the TRIPLEX's „MEMORY FUNCTIONS“ menu.

5.2 Triggering sequences

A remote control can be used for triggering single steps or entire sequences from within a single IMAGIX production. See the chapter „Total Control“ for details. The commands possible with a remote control include:

Forward button	Start running the production from the current position.
Reverse button	Stop running the production; further clicks step the production back a line at a time.
Focus button	Focus the lit projector (Ektapro only).

Using the buttons on the TRIPLEX it is possible to shuffle back and forth through the production. This is especially useful after the lights go off.

5.3 Recovering from a power outage: When the lights come on again

A power outage can spell doom for a live presentation. Not so with the TRIPLEX! When the power is restored, the TRIPLEX will automatically reset itself. If the projectors do not reset themselves automatically, reset the trays by hand.

With all devices in their „home“ positions,

- Press simultaneously the ESC button and the lower Scroll button on the TRIPLEX.

The TRIPLEX will fast forward through the production at a rate of ten steps per second. The actual position can be read in the TRIPLEX's display. The projectors, of course, will automatically follow your actions. Conversely, pressing the ESC button and the upper Scroll button will set the TRIPLEX back to the beginning of the production.

5.4 Planning a live presentation

There is no single method for planning a live presentation. An efficient method, though, can be shown. Let us assume that you are planning a live presentation involving more than two projectors, music, sequencing from tape or CD, and live spoken texts. In addition, let us assume that short passages of the presentation must be triggered at the touch of a button.

5.5 Going live

At the presentation, call up the appropriate production from the TRIPLEX's memory (RUN MEMORY 1/2/3/4), start your tape or CD, and away you go. If everything is set up correctly, the timecode will enter the SIG IN or OPT IN socket and call up the appropriate sequences. When the timecode drops out, the TRIPLEX's internal clock will take over. After the live portion, simply start the tape or CD playback again. This way you can make a live presentation using any playback device with perfectly synchronized music. The TRIPLEX will handle the rest with you triggering it with the remote control.

5.5.1 Timecode and Memory Upgrade

The built-in Timecode Upgrade (available via keycodes) opens you to the multi-faceted world of timecode programming using Bässgen's state-of-the-bit IMAGIX software. This feature allows you to load your productions into the TRIPLEX and leave your computer at home. Upgrading is a snap with TRIPLEX: simply send us your TRIPLEX's serial number with your order. To find the serial number, see „ID Number“ under „DIAGNOSTICS“ in the chapter „Menu Architecture“.

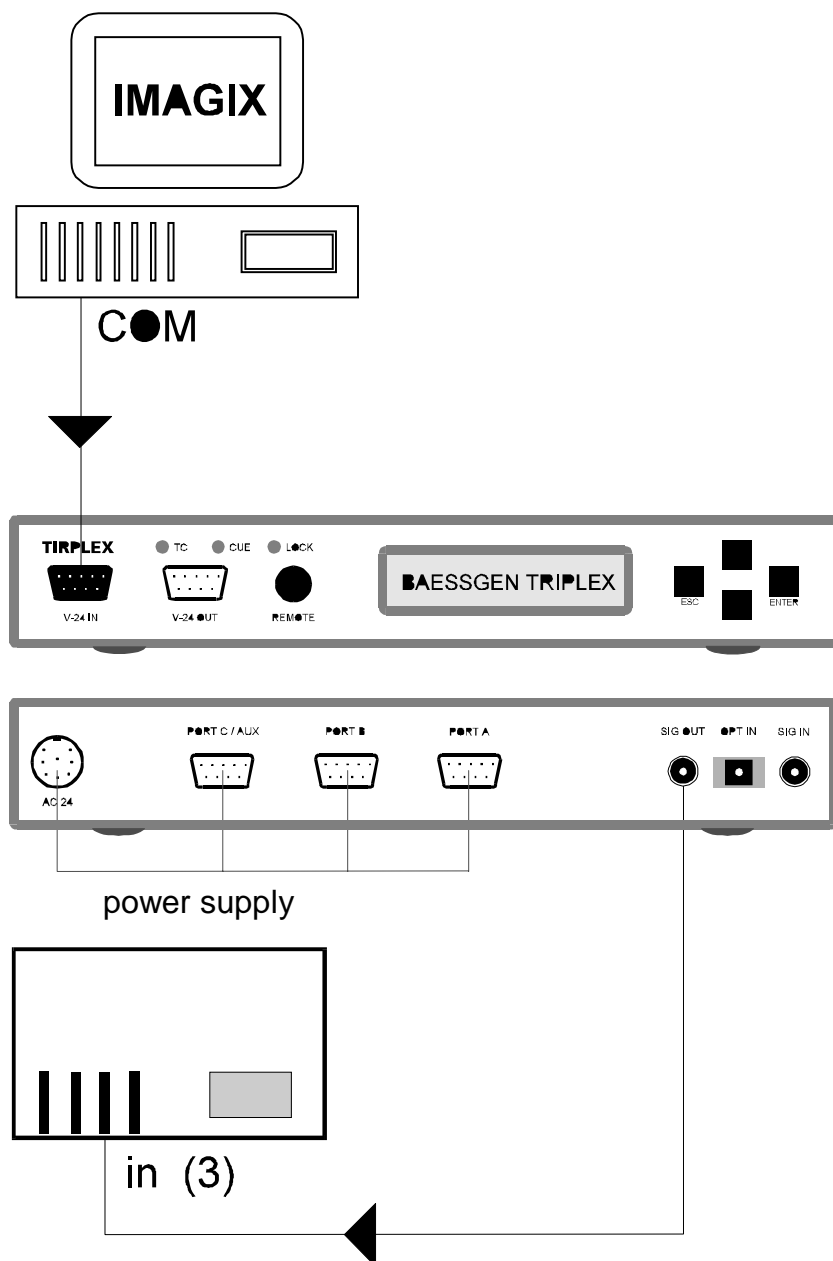
With the Timecode Upgrade, the TRIPLEX becomes a state-of-the-art timecode interface for reading and, in conjunction with the Bässgen IMAGIX programming software, writing timecode. With the Memory Upgrade (included with the Timecode Upgrade), you can store up to four IMAGIX productions in your TRIPLEX and play them back without need of a computer. This can be particularly useful for live presentations („Speaker Support“), for installations, and for interactive media.

When IMAGIX is controlling the TRIPLEX via the „sYnc“ feature in IMAGIX, only the up and down Scroll buttons are functional on the TRIPLEX. The TRIPLEX's display shows the current timecode reading.

5.5.2 Formating timecode

Formating timecode is accomplished by connecting IMAGIX to the TRIPLEX via the V 24 IN socket and the TRIPLEX to track 3 of your multitrack deck via the SIG OUT socket.

- Connect your gear according to the following schematic:
- Record-enable your multitrack deck for recording timecode (usually track 3 on 4-tracks).
- Set IMAGIX into „sYnc“ mode.
- Start formating timecode with IMAGIX.
- Set your multitrack into record mode (record the timecode at +/- 0 db).
- Stop IMAGIX with the ESC button when finished.



5.5.3 Playing back with timecode

Playing back with timecode is accomplished in a number of ways. See the following heading in the chapter „Playback with TRIPLEX“:

PT-based Playback

- Analog Playback with PT

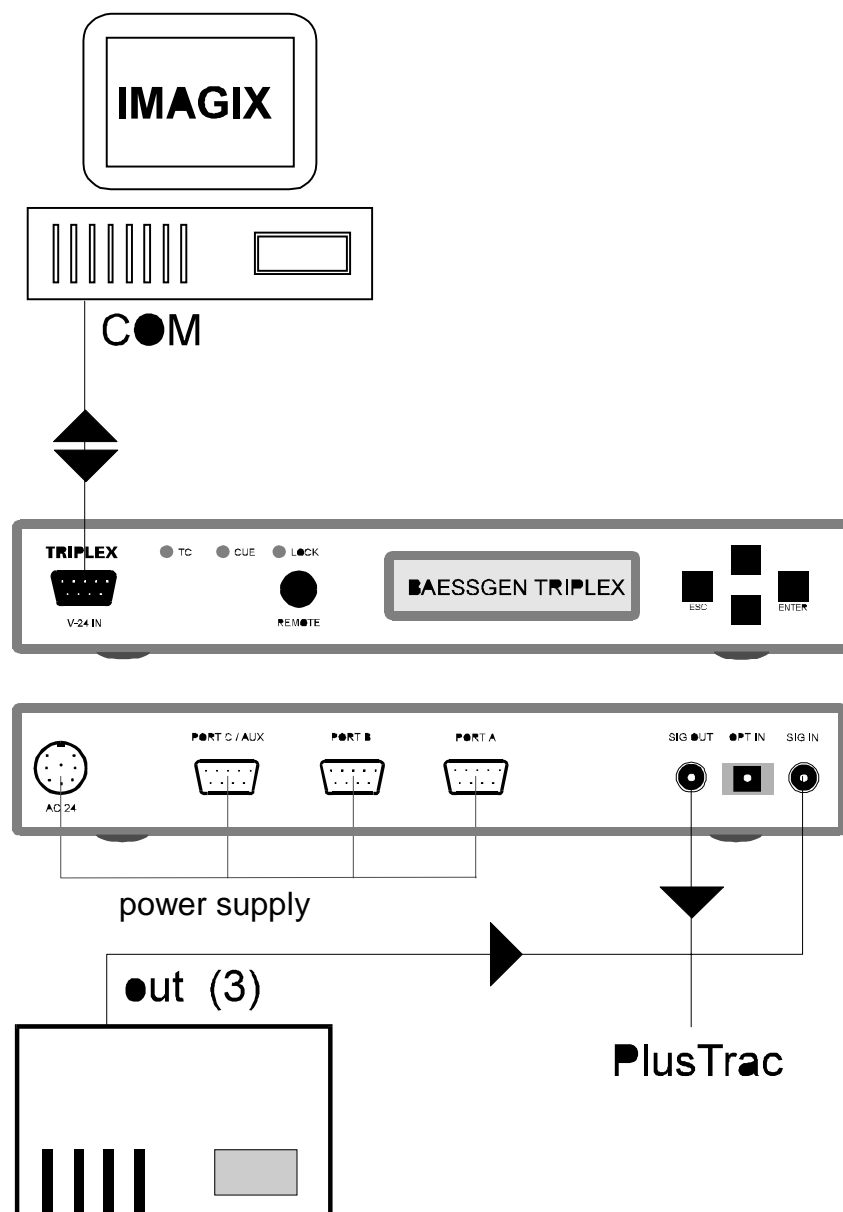
- Digital Playback with PT

Memory-based Playback

- Memory Playback with Timecode

 - Analog Memory Playback with timecode

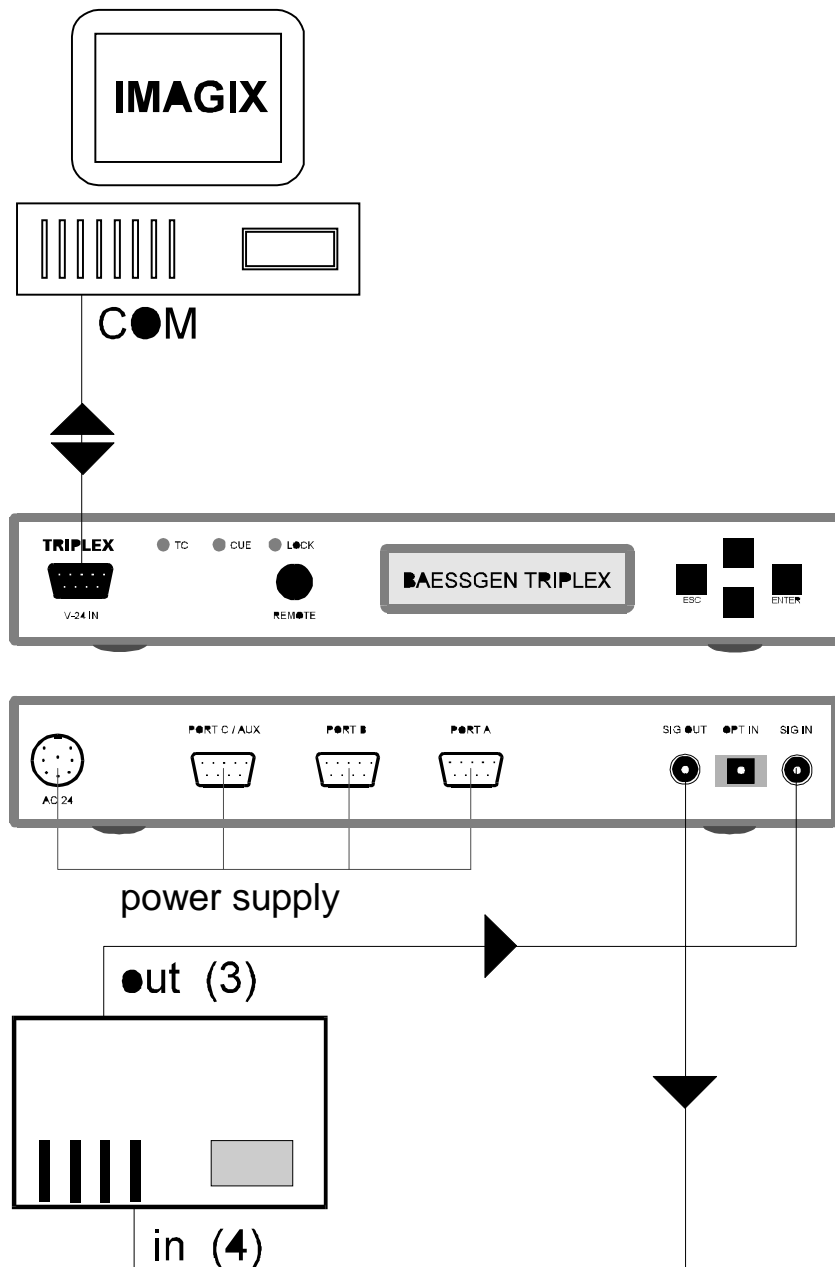
 - Digital Memory Playback with timecode



5.5.4 Recording PlusTrac

Recording PlusTrac allows you to play your IMAGIX productions from a multitrack deck without need of the computer or of memory content. With the TRIPLEX and the Timecode and Memory Upgrade, you need not record the PlusTrac signal onto the multitrack at all: simply load the production into the TRIPLEX's memory and run it from there. The TRIPLEX can store up to four productions in its internal memory. Should you need to present more than four productions in one session, then using a multitrack deck is a viable alternative.

- Connect your gear according to the following schematic with the TRIPLEX's SIG OUT socket connected to track 4 of your multitrack:
- Record-enable your multitrack deck for recording PlusTrac (usually track 4 on 4-tracks).
- Set IMAGIX into „sYnc“ mode.
- Set your multitrack into record mode (record PlusTrac at +/- 0 db).
- Stop your multitrack when finished.



5.5.5 Internal Memory

The internal memory included in the Timecode and Memory Update allows you to store four complete IMAGIX productions in your TRIPLEX. Each production can have up to 2000 IMAGIX programming steps. Each of the memory locations can be used over again simply by overwriting a production with another production.

To **load** productions into the TRIPLEX, use IMAGIX's „F10 – Memory-Fkt.“ command. They are called up via the TRIPLEX's „MEMORY FUNCTIONS“ menu.

To **play** a production from the TRIPLEX's memory,

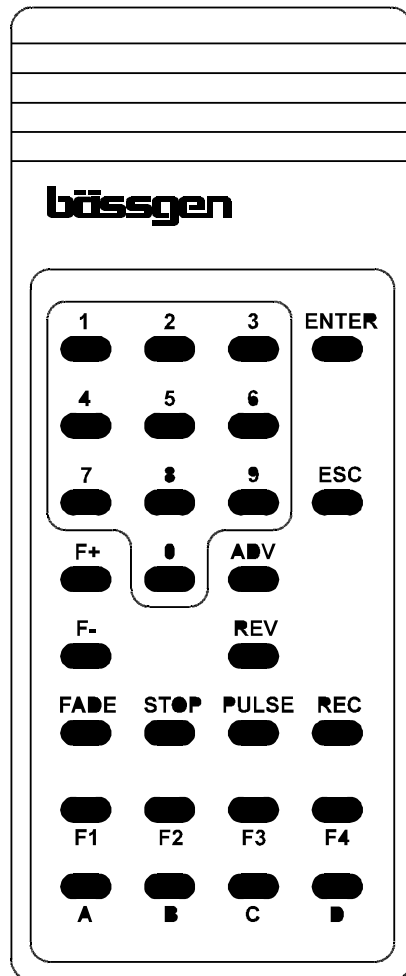
- Scroll through the Main Menu until „MEMORY FUNCTIONS“ appears.
If you start from the Status Display, then just press the upper Scroll button once.
- Press ENTER to access the Memory Function area.
- Scroll through until you locate the desired memory number (RUN MEMORY 1/2/3/4).
- Press ENTER to start running the production.

To **cancel** Memory Playback,

- Press the upper Scroll button once; „MEMORY FUNCTIONS“ appears.
- Press ENTER to access the Memory Function area.
- Scroll through until „STANDARD MODE“ appears.
- Press ENTER to enter Standard Mode and thus cancel running the production.

Of course, productions can be played back in perfect synchronization with a multitrack or other playback medium (eg., CD, DAT) using both the TRIPLEX's memory and its timecode capability. See the chapter „Playback with TRIPLEX“ for details.

6 Information on the infrared functions TRIPLEX



The main operating mode of the IR-remote control is chosen in the new menu 'INFRARED REMOTE' which is available since the operation software q110.exe. This menu is in the main menu. There are 6 settings:

IR STANDARD

Basis function - the buttons have the following functions:

0...9

Direct dissolve with one of the ten dissolve rates: 0,1,2,3,4,6,8,12,16,20 sec.

ENTER

Direct dissolve with the standard dissolve rate (1 sec.) that is adjusted in the timer function menu.

ESC

Dissolve is reversed.

F+, F-

Focus, as far as only one projector is bright (only Ektapro and Simda serial).

A...C

The selected (dark) projector lights up, or darkens respectively.

F1...F4

See own menu.

ADV + A...C

Transports the tray of the selected projector one step forward.

REV + A...C

Transports the tray of the selected projector one step back. Pressing the REV button three times (home issue) sets the projector back into initial position.

REC

This command turns on the plus trac production (real time recording). The following three buttons work only in the RECORD mode (plus trac production).

STOP

Freezing of all brightness levels.

PULSE

Pressing PULSE and then a button A...C the selected projector will start blinking at a rate of 0,3 sec. Using the sequence PULSE, 0...9, A...C the selected projector will start blinking at a rate of 0,05 to 0,9 sec. Issuing the 'PULSE' command anew stops the blinking.

FADE

Pressing FADE and then a button A...C the selected projector will be faded to a brightness of 50%. Using the sequence FADE, 0...9, A...C the selected projector will be faded to a brightness of 10...100% (0=100%).

RANDOM ACCESS

Operating mode for a direct access of slides.

REC, FADE, STOP, PULSE

No function.

F+, F-

Focus of the bright projector (only Ektapro and Simda serial)

0...9

Input of numerals (maximum 3-figure number) is read by TRIPLEX and used with the next command.

A...C

The input of the number and the selection of a projector sets the tray of the selected projector to the position defined by the number. The lamp of the projector is faded to 100%, all other projectors stay dark.

ADV, REV

Transports the tray of the bright projector one step forward or one step backward.

ENTER

The number 0...240 put in last is used to select a projector and project the corresponding picture. Pictures 1 to 80 are in projector A, 81 to 160 in B etc. If all projectors are dark, the one used last will fade in again.

ESC

All projectors will darken. Pressing ESC again sets all projectors into the home position.

PARALLEL ACCESS

Operating mode for a direct access of slides. The projectors project next to each other, the lamps can be triggered independently.

REC, FADE, STOP, PULSE

No function.

F+, F-

Focus, if there is only one bright projector (only Ektapro and Simda serial).

0...9

Input of numerals (maximum 2-figure number) is read by TRIPLEX and used for the next command.

A...C

The input of the number and the selection of a projector sets the tray of the selected projector to the position defined by the number. The brightness level of all lamps stays unchanged. Issuing A...C without a preceding input of numerals fades the lamps of the selected projector in or out.

ENTER, ADV

The trays of all bright projectors advance simultaneously one position. If all projectors are dark, the status before pressing ESC will be reestablished.

REV

The trays of all bright projectors are transported simultaneously one step backward.

ESC

All projectors darken. Issuing ESC again sets all projectors into the home position. Therefore all kinds of parallel accesses are practically possible.

SPEAKER SUPPORT

In this mode only the following buttons can be used: ENTER, ESC, F+, F-, 0...9. Those buttons have the same functions as they have in STANDARD MODE. (This makes a live presentation a lot easier.) If under ADVANCED FUNC. the item 'Remote Proj. Count' has less projectors than there actually are, then the upper projectors can be faded in and out, as well as stepped forward or backward separately by the buttons A...C and ADV, REV.

Example: 2 projectors show slides in standard dissolve, titles or maps are to be faded in manually by the third projector: Parameter 'Remote Proj. Count' = 2, the button C allows the fading in and out.

IR F1...F4 ONLY

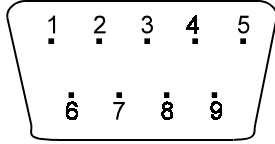
Only the 4 buttons F1 to F4 and the focus buttons are activated. F1...F4 have an own menu under ADVANCED FUNC.. A description follows.

IR DISABLED

All IR signals are ignored. This operating mode is necessary in case there are several TRIPLEX devices in one room, but not all of them are to be operated.

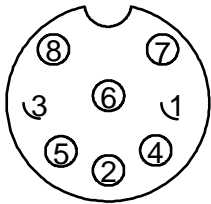
7 Technical Appendix

PORT A-C



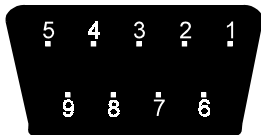
- | | |
|-----------------------|------------------------------|
| 1 Snap Relais (Rel 3) | 6 Relais/ Transport |
| 2 RxD (Data Input) | 7 24 V AC Input |
| 3 TxD (Data Output) | 8 Transport forward (Rel 1) |
| 4 Gate Triac | 9 Transport backward (Rel 2) |
| 5 mass TRIPLEX | |

AC 24 POWER SUPPLY



- | | |
|----------------|-----------------|
| 1 free | 5 24 V AC INPUT |
| 2 mass TRIPLEX | 6 free |
| 3 free | 7 free |
| 4 free | 8 free |

V-24 IN



- | | |
|----------------|--------|
| 1 free | 6 free |
| 2 TxD | 7 free |
| 3 RxD | 8 free |
| 4 free | 9 free |
| 5 mass TRIPLEX | |

8 Menu in servey