



TFX4 Time Effects

OWNER'S MANUAL

Originally written by ADA SIGNAL PROCESSORS, INC. Scanned and edited by Jur at 12th of october 2002.
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Release No.1 for <http://www.adadepot.com>

Thank you for purchasing the TFX4 TIME EFFECTS. By doing so, you have qualified yourself as an innovative user of state-of-the-art technology. Since analog delay technology first came to the consumer market in the early seventies, design engineers and manufacturers have steadily increased the performance and features available in signal processing equipment. We feel the TFX4 represents the very latest in application of electronics to live performance time effects processing.

To properly set-up and familiarize yourself with the TFX4, read and follow these operating instructions completely. However, please take this time to fill-out and return your enclosed WARRANTY CARD.

We look forward to hearing your comments as you put the TFX4 into everyday use.

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1.0 FEATURES

- Separate group of controls for each effect: Ranger, Chorus, Doubler, and Echo
- Logic-controlled FET switching for selection of any one effect in any sequence
- Remote switching of effect with TFX4 CONTROLLER
- Multi-colored LED's on TFX4 indicate effect mode and phase inversion
- INPUT/OUTPUT LEVEL controls for maximum signal-to-noise
- Studio quiet, 90db minimum dynamic range

1.1 TFX4 SYSTEM PARTS LIST

- TFX4 TIME EFFECTS Processor
- TFX4 CONTROLLER
- 20-foot STEREO CORD
- WARRANTY CARD

1.2 WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

2.0 INITIAL SETUP

The TFX4 is equipped to interface with a wide variety of input sources including high level microphones, electric instruments, and mixing consoles. Since the INPUT is high impedance, it will function properly with both low or high impedance sources.

- A.** To prepare the TFX4 for first use, set the front panel controls as shown below:



- B.** Connect your input source to the INPUT jack on the rear panel.
- C.** Connect the EFFECT OUTPUT to your amplifier input or mixing console effects receive input. The DIRECT OUTPUT would be used with a second amplifier for stereo effects.
- D.** Connect the REMOTE IN jack to the TFX4 CONTROLLER with the 1/4-inch STEREO CORD (included).
- E.** With the INPUT and OUTPUT jacks properly terminated, apply power to the unit by connecting the A.C. CORD to a grounded outlet and select the ON position of the rear panel POWER SWITCH. Make sure your amplifier's input level is set at minimum before selecting the ON position of the TFX4 to prevent turn-on "thump."

2.1 INPUT/OUTPUT LEVEL ADJUSTMENT

1. As your instrument or signal source is applied to the TFX4, slowly turn the INPUT LEVEL control clockwise until the CLIP LED *begins* to flicker. The LED should flicker only on the strongest notes or signals. Never set the INPUT LEVEL control so the LED is constantly on.
2. The OUTPUT LEVEL control can be set to suit your needs. In general, guitar level signals will have the control set in its mid-scale or higher. Line level signals will generally require positioning the control in a counterclockwise position.



You can use the TFX4 as a pre-amp for your instrument in either a selected effect mode or in the bypass mode. It can also boost your signal to overdrive a guitar amp. *Remember*, proper setting of the INPUT/OUTPUT LEVELS is necessary to achieve maximum performance with the least amount of noise and distortion.

3.1 TFX4 CONTROLLER

The TFX4 CONTROLLER provides remote footswitch control of the effect mode and BYPASS function. The 20-foot long, 1/4-inch STEREO CORD allows convenient placement of the CONTROLLER on-stage for live performances. Should a longer cord be necessary, use a high-quality stereo headphone extension cord with a female jack. The logic controlled switching circuitry in the TFX4 rack unit permits cable lengths up to 500-feet without any loss of switching ability.

When one of the effect modes is remotely selected with the smooth operating momentary footswitch, the effect is accessed and its corresponding LED is illuminated on the TFX4 rack unit.

3.2 SELECT SECTION

The six SELECT pushbuttons on the front panel are used to switch between the delay modes or bypass them and also change the phase of the delayed signal with the INVERT switch.

BYPASS MODE The straight signal is passed and no effect mode LED's are illuminated. The output is free from any processing other than the interaction of the INPUT and OUTPUT LEVEL controls.

EFFECT MODES When any one of the effect modes is selected: FLANGER, CHORUS, DOUBLER or ECHO—its corresponding section is now processing the input source and its corresponding LED is illuminated.

Figure 3.2

<u>EFFECT MODE LED COLOR CHART</u>	
EFFECT MODE	LED COLOR
FLANGER	YELLOW
CHORUS	RED
DOUBLER	GREEN
ECHO	ORANGE

INVERT When the button is engaged, the delayed signals phase is reversed. Inversion of the delayed signal results in altered phase cancellations, especially useful in the FLANGER mode with regeneration.

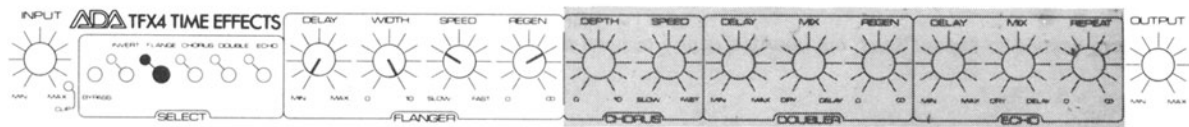


3.3 FLANGER

CONTROLS

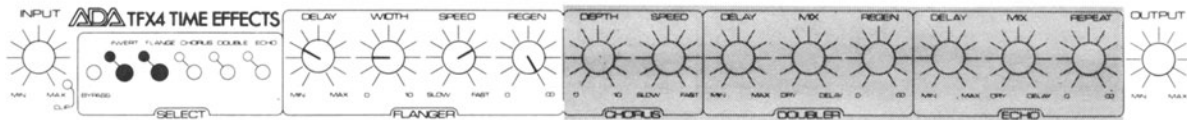
- DELAY** Sets the static delay time.
- WIDTH** Determines the mix between the DELAY control and the SPEED control. As the WIDTH control is turned clockwise, the SPEED is swept over a wider range.
- SPEED** Sets the rate at which the FLANGER sweeps up and down.
- HEGEN** Determines the amount of the delayed signal feedback to the delay line input. Increasing the REGEN level setting from 0 to infinity tends to sustain sounds and create resonant effects.

SETTINGS



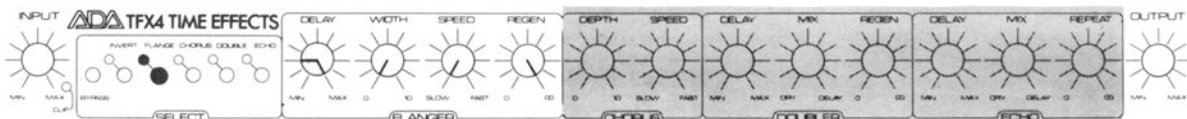
CLASSIC FLANGE

(From initial set-up) This demonstrates the maximum sweep range of the FLANGER. By varying the amount of REGEN, more (or Less) dramatic effects are produced.



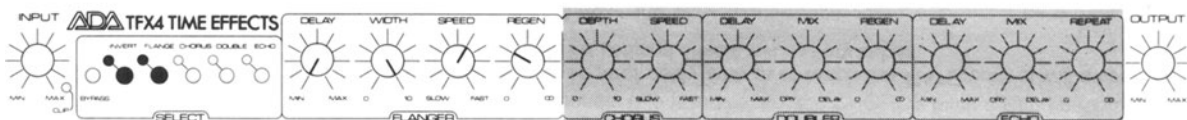
WAH FILTER

This produces an automatic wah-wah pedal effect. Adjust the SPEED control to the desired rate then vary the DELAY control to select the desired resonant frequency band.



EVEN/ODD HARMONIC

At minimum DELAY control settings, switch between in-phase and out-of-phase settings with the INVERT switch. Inverted delay signals will cancel lower-frequencies thereby apparently emphasizing treble content.



SUBTLE FLANGER

This is similar to the CLASSIC FLANGE but offers more subtle effect colorations. Adjust the SPEED control to a medium sweep speed.



3.4 CHORUS

CONTROLS

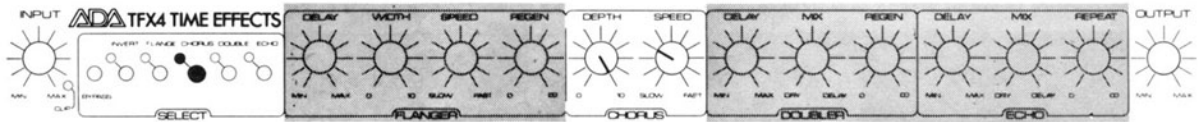
DEPTH

Determines the range of delay time over which the RATE control will sweep. At minimum DEPTH settings effects will be very subtle.

RATE

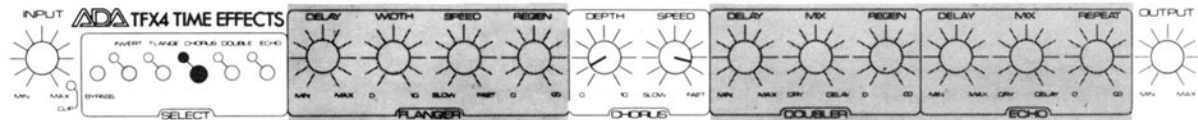
Sets the speed at which the CHORUS sweeps.

SETTINGS



THICK CHORUS

(From initial set-up) This demonstrates the greatest amount of CHORUS effect. Adjust the RATE control for the desired speed.



LESLIE CHORUS

This produces the popular rotating speaker effect.



LESLIE CHORALE

This setting will produce chorale or slow rotating speaker effects. It is more dramatic than the LESLIE CHORUS since it sweeps slower over a wider delay range.



CHORUS DETUNE

As the SPEED controls rate is increased, the CHORUS pitch shifting becomes more dramatic.



3.5 DOUBLER

CONTROLS

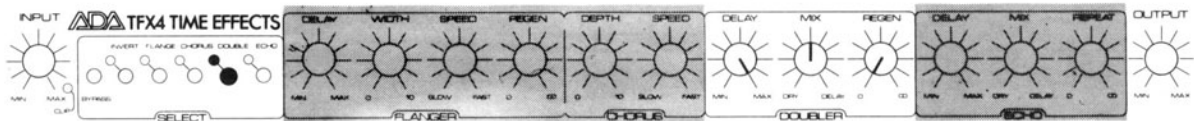
DELAY

Adjusts the length of the delay time.

REGEN

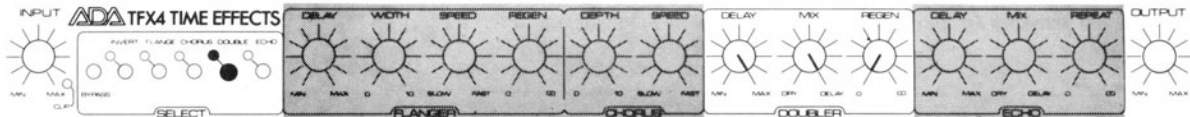
MIX Mixes between the DOUBLER delay signal and dry input signal.
Determines the amount of the delayed signal feedback to the delay line input. Increasing DOUBLER regeneration adds sustain and produces "hard" reverb effects.

SETTINGS



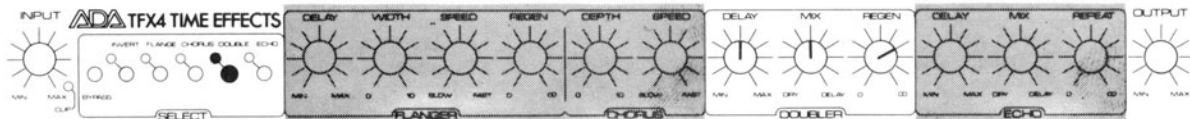
DOUBLING

This effect produces a single short repeat of a note or chord for added thickness.



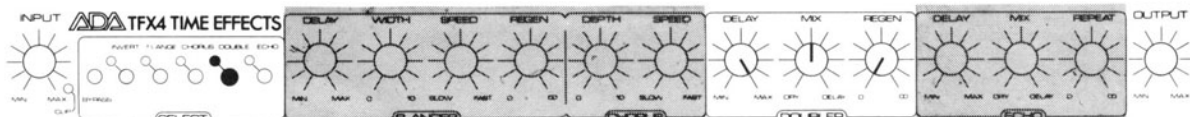
STEREO DOUBLING

When using the DIRECT OUTPUT (on the rear panel) and the EFFECT OUTPUT in a stereo PA or recording system, the MIX control is set at full delay to simulate another performer.



BATHTUB REVERB

This produces a "hard," "bathtub-type" reverb. By mixing a higher percentage of dry, the reverb will be placed more in the background.



WARP

By *slowly* turning the DELAY control, the pitch of the delayed signal will increase as the delay time is increased. This effect is great for studio and PA special effects.



3.6 ECHO CONTROLS

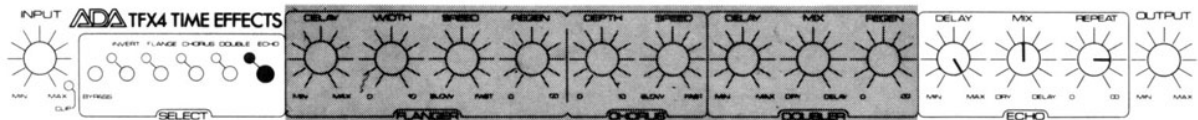
DELAY

Adjusts the length of the delay time. MIX Mixes between the ECHO delay signal and dry input signal.

REGEN

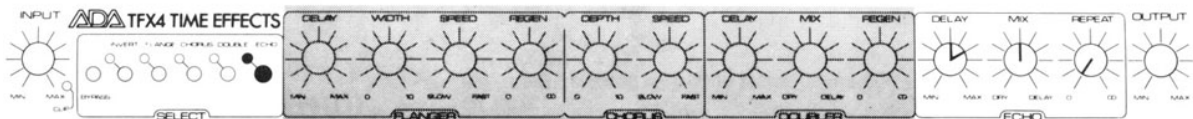
Determines the amount of the delayed signal feedback to the delay line input. Increasing ECHO regeneration produces reverb at shorter delay settings and repeat echoes at longer delay settings.

SETTINGS



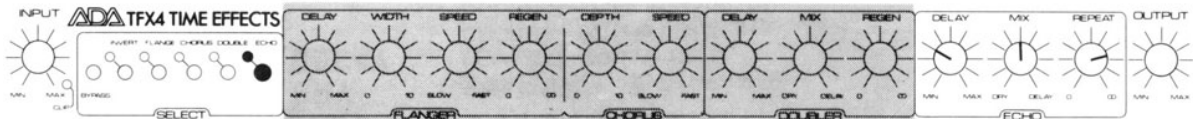
REPEAT ECHO

This produces multiple echoes from a single note or chord. By carefully adjusting the REGEN level, you can select from 0 to infinite repeats.



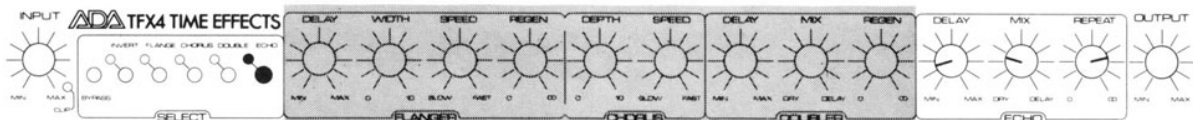
SLAPBACK ECHO

This produces a single repeat echo longer than that available from the DOUBLER mode. Adjust the delay time to fit in with the meter of your music.



CONCERT HALL REVERB

A "hard" reverb which simulates a large confined area.



BACKGROUND REVERB

Excellent for adding spaciousness to the sound source.



4.0 specifications

BACKGROUND REVERB excellent for adding spaciousness to the sound source.

DYNAMIC RANGE 90db minimum, unweighted

BANDWIDTH, DRY 10hz to 20khz
DELAY flanger 20hz to 15khz
chorus 20hz to 13khz
doubler 20hz to 12khz
echo 20hz to 3.5khz

DELAY RANGE FLANGER .21 to 4.3ms
chorus 11.4 to 30ms
doubler 30 to 70ms
echo 50 to 200ms

SWEEP SPEED 0.1 sec to 25 sec

DISTORTION (THD) @ 1khz
dry, 0dbv 0.1%
wet, 0dbv 1.1%
dry, +4dbv 0.13%
wet, +4dbv 1.4%

INPUT 1 megohm, single ended, 1/4" phone jack, handles instrument and single ended line level signals.

OUTPUT two, single ended, 1/4" phone jacks, drives 600 ohms

MAX. INPUT LEVEL +20dbv (ref. .775vrms)

MAX. OUTPUT +20dbv (ref. .775vrms)

GAIN -20db to +24db

POWER CONSUMPTION 12 watts

POWER 120 vac, 50/60hz

DIMENSIONS TFX4 L-10.5" X W-19" X H-1.75"

CONTROLLER L-4" X W-11.75" X H-2"

WEIGHT TFX4 6.33 LBS

CONTROLLER 2.5 LBS (with cord)

ACCESSORIES 20-foot, 1/4" STEREO CORD

OPTIONS 220/240 VAC, 50/60hz

5.0 WARRANTY

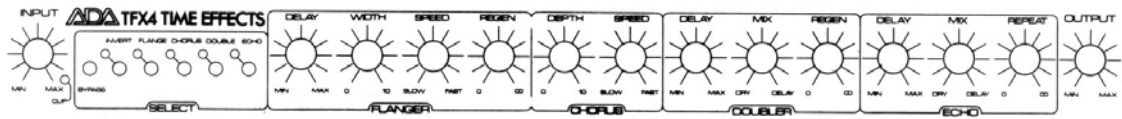
FULL WARRANTY

All ada products are warranted against defects in material and workmanship for a period of one year from date of purchase. Ada will replace defective parts and make necessary repairs at no charge if factory inspection reveals faulty workmanship or material. This warranty does not cover damage due to misuse, accident or neglect. Ada retains the exclusive right to make such determination on the basis of factory inspection. Products returned to the factory must first receive return authorization from ada and must be shipped prepaid. The return authorization "number" must be printed on outside of container or shipment will not be accepted by ada. this warranty remains valid only if repairs are performed by ada, and provided that the serial number on the unit has not been defaced or removed. This warranty is expressly in lieu of all other warranties either expressed or implied.

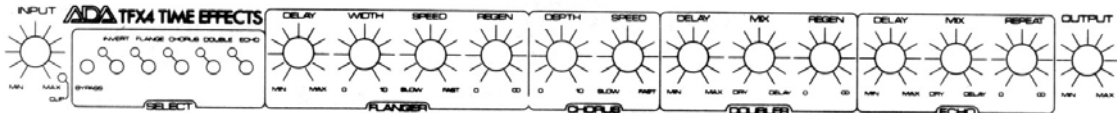
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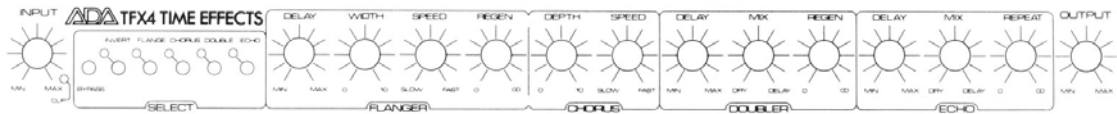
6.0 BLANK PATCH SHEETS



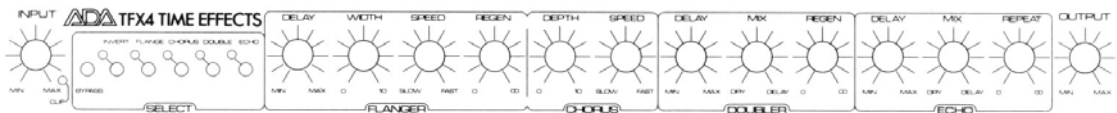
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