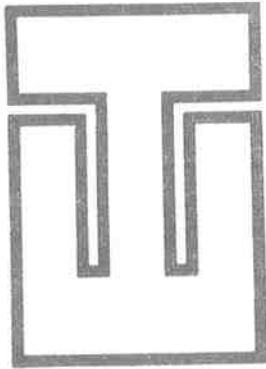


I N S T A N T R E P L A Y

INSTRUCTIONS



ELECTRO HARMONIX



ELECTRO  HARMONIX
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MADE IN USA

The INSTANT REPLAY records any sound up to 2 seconds in duration, stores it in its digital memory, and lets you immediately replay it, either as a repeating loop or one shot at a time at the player's discretion. The replay can be triggered by the EXTERNAL TRIGGER drum pad which comes with your INSTANT REPLAY, or by some other source of pulses such as an electronic metronome or rhythm machine.

HOW TO SETUP:

1. Plug the AC cord into any 110-volt AC outlet. your INSTANT REPLAY is automatically turned on.
2. Connect the OUTPUT jack to your amplifier using any standard guitar-type cord with $\frac{1}{4}$ " plugs and shielded cable. This type of cord is used to make all other connections.
3. Plug any electric instrument (guitar, bass, keyboard) or high impedance microphone into the MIC INPUT jack. The INSTANT REPLAY will record any sound, whether it is musical (which may be either one note or whole chords), or simply random sounds picked up by the microphone--handclaps, or singing, or a dog barking!
4. Connect the EXTERNAL TRIGGER drum pad or other pulse source to the EXT TRIG jack. This will be used to trigger the replay once the sound has been recorded.

HOW TO RECORD:

Before you actually record the sound, try a few test runs and adjust the MIC LEVEL control so that the OVERLOAD light just comes on for the loudest sound. Set the PITCH control at about 12 o'clock (white indicator straight up). Now press the RECORD button. The RECORDING light will stay on until the first sound starts recording, and then flicker for the second or two during which the recording is actually done.

REMEMBER--You only have a maximum of 2 seconds of time in which to record. You will find that the frequency response improves with shorter time settings. The length of time is determined by the position of the PITCH control.

The EXTERNAL TRIGGER is an auxiliary sensor unit which may be used to trigger any electronic percussion device, such as Syndrum, Synare, CrashPad, ClapTrack and many more, which already has provision for external triggering built in. Simply connect the EXTERNAL TRIGGER to the jack marked EXT TRIG IN (or some similar name) on your electronic percussion unit. Use any standard guitar-type cord for this.

The pad is touch-sensitive, so that a heavier beat produces a stronger signal, and lighter stroke produces less signal. It may be struck with drum sticks, hands, feet, or anything else you may have handy! All the necessary hardware to mount the unit on RotoTom stands and most brands of cymbal stands is provided.

WARRANTY INFORMATION

Consult the enclosed Warranty/Registration card for full details of your warranty. Should it ever become necessary to return your EXTERNAL TRIGGER to us for service, please pack it very securely and send it by either UPS or insured mail to: Electro-Harmonix, 27 W. 23rd St., New York, NY, 10011, ATTN: Repair Dept. Please include a check or money order for \$7.00 to cover handling and return shipping.

The sound is now locked in the digital memory of your INSTANT REPLAY and will remain there until a new sound is recorded or until the AC power is disconnected.

HOW TO REPLAY:

If the slide switch is in the REPEAT ON position (to the right) you will hear a continuously looping replay immediately after you record the sound. In this position, the EXT TRIG and EXT FREQ jacks are inoperative. The pitch of the sound may be changed while it is replaying by varying the PITCH control.

With the slide switch in the OFF position (to the left) the INSTANT REPLAY will wait for a signal coming into either the EXT TRIG or EXT FREQ jack to trigger the replay.

With the EXTERNAL TRIGGER drum pad connected to the EXT TRIG jack, just hit the pad to trigger the replay. The loudness of the reproduced sound is proportional to the strength of the triggering signal, so you should adjust the TRIG LEVEL control to get the best dynamic range. If it is set too low, you will have to hit the pad very hard to get any sound; and if it is set too high, you will find that a heavy stroke produces the same level of sound as a light stroke. You may again change the frequency of the reproduced sound by varying the PITCH control.

You may also use almost any other signal source, either audio or pulses to trigger the replay. For instance, you can connect the clock out of a rhythm machine, or even use another electric instrument.

ALTERNATE METHOD TO REPLAY:

It is sometimes possible to trigger the replay of the recorded sound by using an external source of pure tones connected to the EXT FREQ jack. A sine, square or sawtooth wave from some makes of synthesizers works the best, although not all synthesizers are compatible. The pitch of these controlling tones should run from about 500Hz to 2,000Hz, or one to three octaves above middle C.

If you are going to try this method for triggering the replay, you must supply tone of 1,000Hz into the EXT FREQ jack while you are recording. Do this by holding down the note C two octaves above middle C at the same time you are recording.

If the sound you intend recording is from the synthesizer, you will need another synthesizer or source for the 1,000Hz tone.

Before triggering the replay, you MUST turn the PITCH control fully counterclockwise! Make sure the slide switch is to the left. As with the drum pad trigger, the loudness of the reproduced sound depends on the strength of the triggering signal, so the TRIG LEVEL control should be adjusted properly. The sound in the digital memory of your INSTANT REPLAY can now be reproduced at any pitch within a two octave range by playing the keyboard.

NOTE: You will get only the sound you have recorded, and not the sound of the keyboard being used as the trigger. You can use only one triggering system at a time; that is, only the drum pad, or only the synthesizer. If you have both connected at the same time, the synthesizer will over-ride the drum pad.

SPECIFICATIONS

- Audio Bandwidth @ 1sec storage: 30Hz to 6kHz
- T.H.D. @ max input level: less than .5%
- Output Noise, not triggered: better than -90dBV
- Sound Storage Time: .5sec to 2sec
- Sampling Rate: 8000Hz - 32000Hz
- (depending on replay pitch)
- Input Impedance - all inputs: 100K Ohm
- Mic Input Level Range: 25mV - 1.6V rms
- Trig Input Level Range: 20mV - 5V rms
- Pitch Control Input Level Range: 20mV - 5V rms
- Pitch Control Range: 500Hz - 2kHz
- Output Impedance: 150 Ohm
- Output Level: 2.5V p-p max

WARRANTY INFORMATION

Consult the enclosed Warranty/Registration Card for complete details of your warranty. Should you have to return your INSTANT REPLAY to the factory for service, please pack it very securely, send it by either UPS or insured mail, and include a check or money order for \$14.00 to cover the cost of handling and return shipping.

I- OPNAME MET DE INSTANT REPLAY BIJ GEBRUIK MET MONO-SYNTH.

- 1) Sluit de audio uitgang van de synthesizer aan op de EXT
FREQ ingang van de Instant Replay. REPEAT-schakelaar OFF.
- 2) Sluit een microfoon of andere geluidsbron aan op de MIC
INPUT en regel het opnameniveau in m.b.v. de MIC LEVEL
regelaar. Het OVERLOAD-ledje moet net oplichten bij een
hard ingangssignaal.
- 3) Zet de PITCH-regelaar in de middelste stand.
- 4) Druk op de RECORD knop. Het RECORDING-ledje gaat nu aan
en begint te knipperen zodra een signaal aan de MIC-ingang
wordt aangeboden. Dit is het teken dat de Instant Replay
automatisch in opname is gegaan.
De klank is nu hoorbaar als de REPEAT-schakelaar op ON
wordt gezet.
- 5) Draai nu de MIC LEVEL en PITCH regelaars geheel naar links.
Draai de TRIG LEVEL regelaar naar links, en daarna geleide-
lijk zover naar rechts tot het opgenomen geluid hoorbaar is.
Draai de knop dan weer een fractie terug zodat het geluid
ophoudt. Zet de REPEAT schakelaar weer op OFF.
- 6) Sla een toets aan op de synthesizer met een toonhoogte tussen
ongeveer 500 Hz en 2000 Hz. (Dat is tussen 1 en 3 octaaf
boven midden-C.
De Instant Replay speelt nu de opgenomen klank af met een
toonhoogte die bestuurd wordt door het keyboard, en de VCO-
modulatie (pitch-bend, vibrato, portamento, etc.)

N.B.: Gebruik van de synthesizer slechts EEN VCO!

De geluidsterkte is afhankelijk van het uitgangs-
volume van de synth, en de VCA-envelope!

De externe trigger mag niet aangesloten zijn!

II-MODIFICATIE VAN EEN SYNTHESIZER VOOR OPTIMAAL GEBRUIK MET DE I.R.

Door een eenvoudige modificatie toe te passen kunnen de klank-
mogelijkheden van de Instant Replay worden vergroot, indien de
opgenomen klank via het synthesizer-filter kan worden bewerkt.

Het door Synton ontwikkelde printje kan m.b.v. het Jack chassis-
deel in de synthesizer worden gemonteerd. Hiertoe is het nodig
een gat te boren van 11 mm.

AANSLUITINGEN: De paarse draad moet worden gesoldeerd aan de uit-
gang van een VCO, bij voorkeur vóór de potmeter
die het VCO signaal naar de filtersectie stuurt.

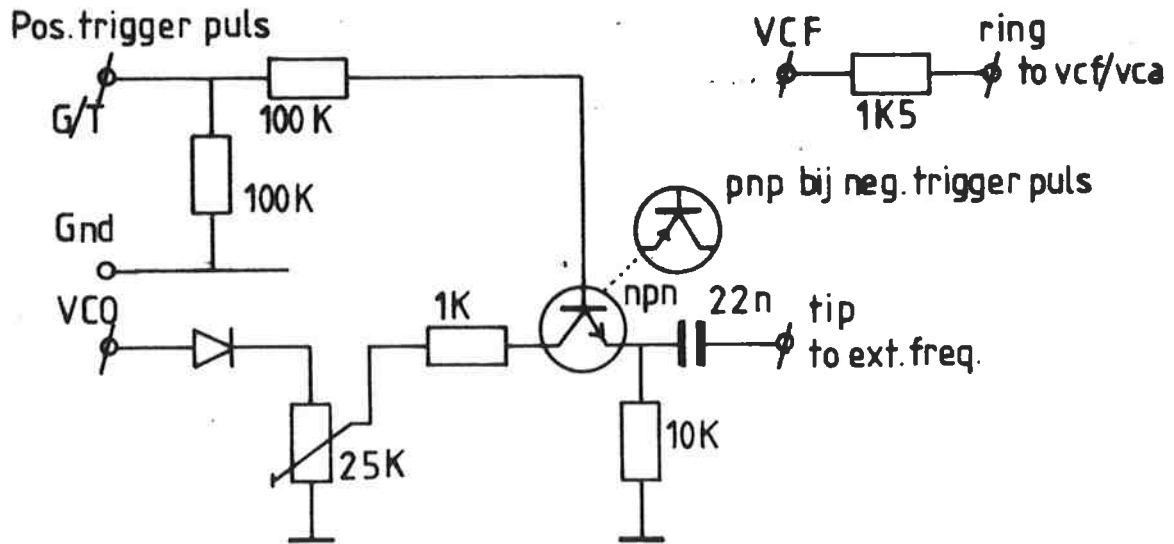
De groene draad gaat naar de audioingang van het
filter.

De oranje draad moet worden aangesloten op de gate
of trigger uitgang van de keyboard sectie.

De gele draad moet worden verbonden met aarde.

Op het Jack chassisdeel bevinden zich de audio-
ingang (ring) en de stuurfrequentie uitgang (tip).

SR 315



Het SR-315 printje wordt geleverd met een NPN transistor (BC 547).

M.b.v. de trimpotmeter kan een te groot ingangssignaal verzwakt worden.

Een optimale uitgangsspanning voor een Instant Replay is 4 Volt top-top, gemeten op de tip van de plug.

Indien de synthesizer negatief gaande pulsen levert, dient de NPN vervangen te worden door een PNP-type.