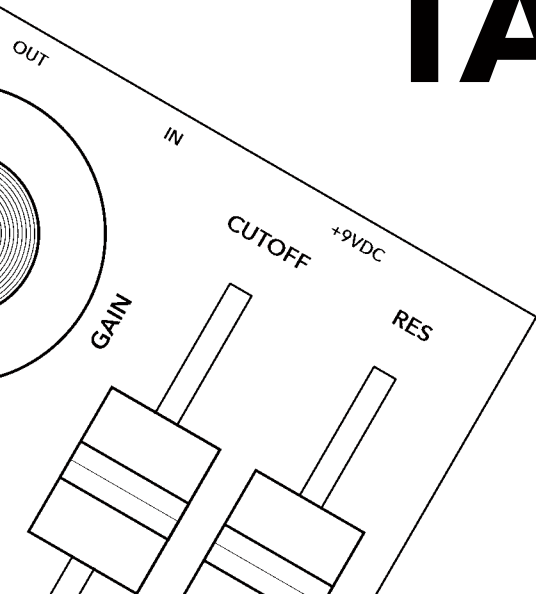


U S E R M A N U A L

TARS



TARS

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Thank you for buying **TARS**.

This pedal has passed through many hands during its building here in France to be alive.

Now it is yours.

Our aim at Collision Devices is to help you expand your creativity with unique and high quality effect pedals.

Thank you so much for your precious support.
Feel free to share your favorite controls, audio clips and suggestions via contact@collisiondevices.com or on our social medias.

WARNING

TARS is an effect pedal for guitar, bass, synthesizer and any instrument or device which could be plugged into it.

ONLY use a +9V DC adapter with negative center (2.1mm).

An unregulated power supply or a higher voltage could cause some noise or damage the circuit.

That kind of problem is not included in our lifetime warranty.

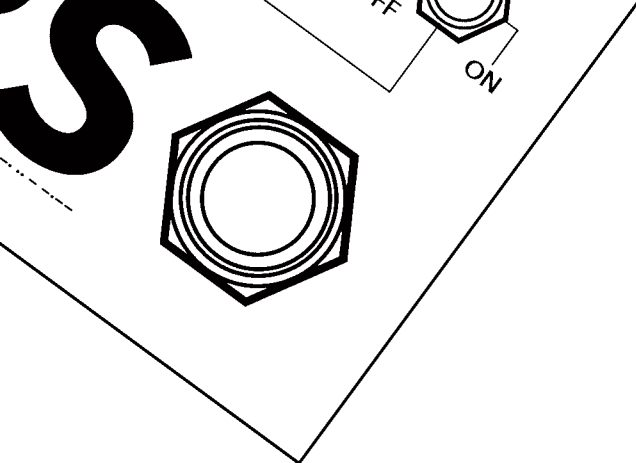
The EXP connector can not be used with anything else than an expression pedal/Control Voltage.

Typically between 10k Ω -100k Ω .

Requires a TRS jack.

Maximum current draw	150mA
Voltage	9V DC (negative center)
Input Impedance	1 M Ω
Output Impedance	100 k Ω
All analog dry signal path	Mono IN / Mono OUT
Size	120mm x 90mm
Weight	150gr

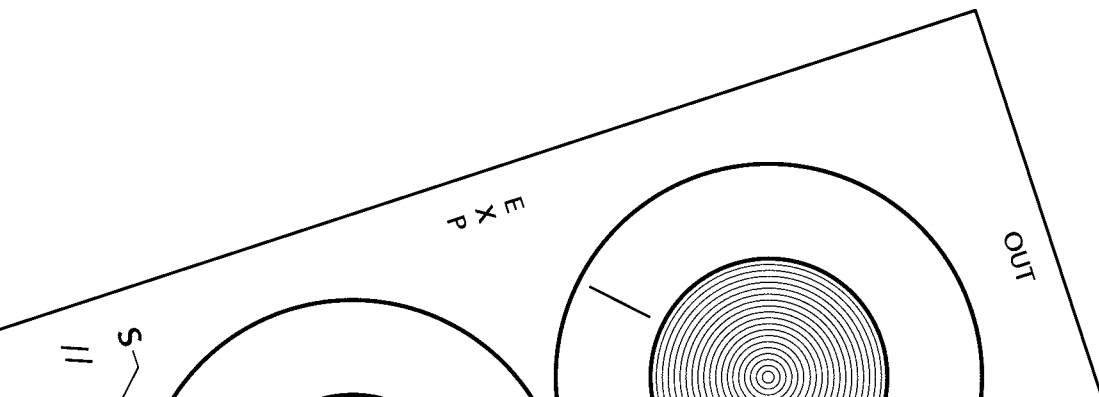
This pedal is true bypass.



Did you reach Singularity ?

Because **TARS** did.

And will probably do it once again with you.



TARS is a robot.

Like all robots it is completely unable to take any decision by itself and is programmed to reach the center of the closest black hole.

TARS was born to bring audio files inside a black hole through a space capsule and measure how it is distorted when sucked by a black hole.

In concrete terms, a list of the favorite albums selected with care were played in the capsule and a bunch of microphones eruditely placed were continuously recording the sound.

TARS has no ears but a piezo microphone to detect if the music stopped or if anything is suspect in the broadcasting.

Like all robots it has no soul and does the same task again and again until its programmed death.

Or until a huge amount of smoke let its components burn on the ground.

The story tells that when the spaceship going into the black hole hit a massive object - **TARS** has been ejected in a space capsule.

Joël the astronaut there in the spaceship saw the tiny robot going away.

Until he could not see it anymore.

TARS' fuzz part comes from the Black Hole Symmetry.

The part named Singularity with the Disintegrate control.

It has been improved to create fuzzy-noisy textures.

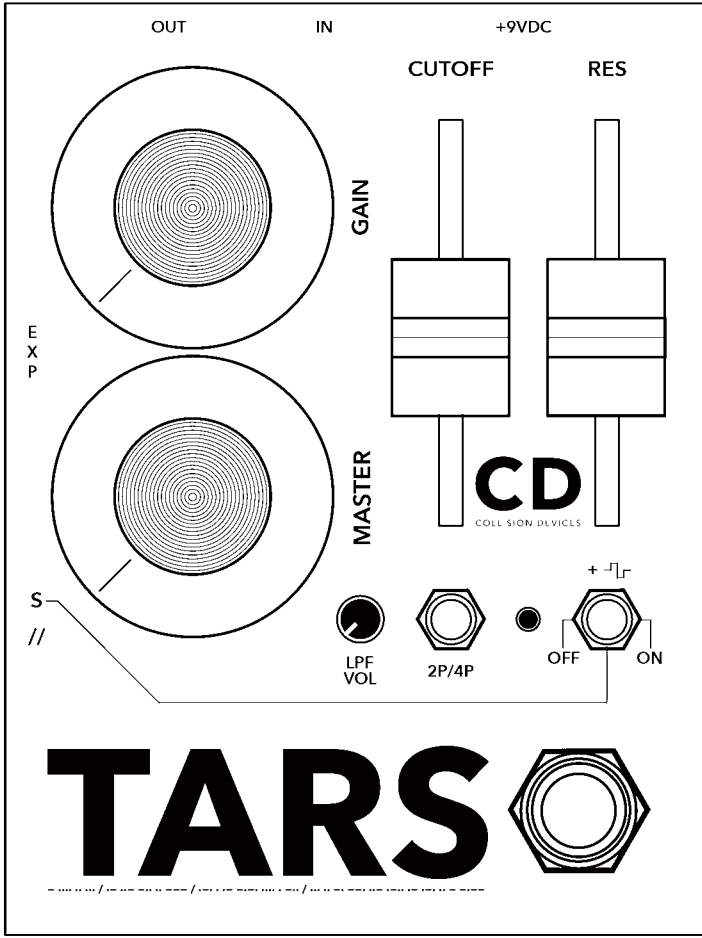
Cut through the mix with the different filter possibilites or sweep between the frequencies to create huge waves of noise.

FUZZ STAGE

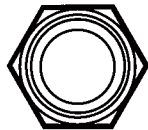
GAIN :

Placed after the input Jfet transistor stage.
It controls the amount of signal you send into the clipping stage right after it.

Can goes from a very low gain "broken fuzz" to the fat round sound we all loved with the Black Hole Symmetry.
The input stage is followed by a gain stage and a clipping stage.
Both silicon transistors.



TARS



LOW PASS FILTER STAGE

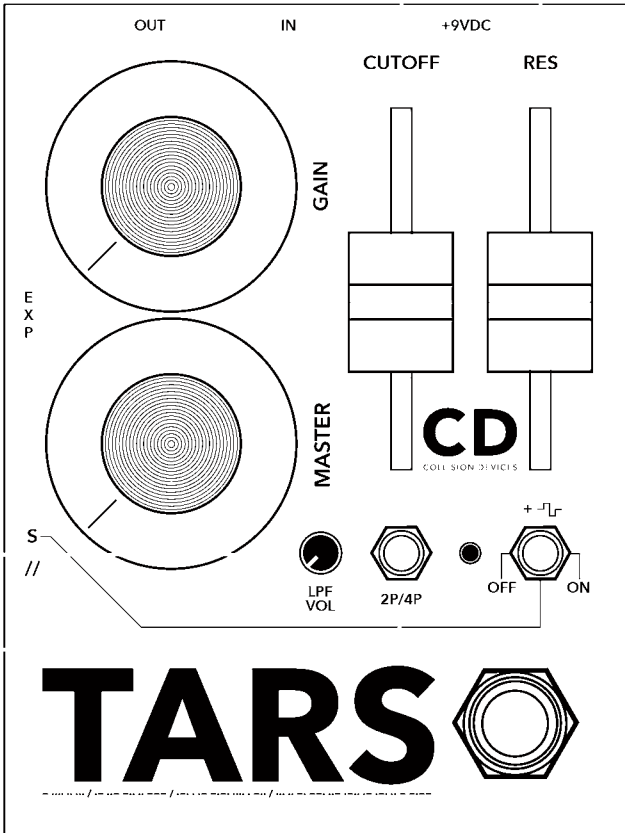
Cutoff : This fader controls the cutoff frequency (-3dB) of the MS-20 style low pass filter. Based on a LM13700 stage.
As it is a lowpass filter it allows frequencies below the cutoff frequency to pass through the output. Goes from 15Hz to 44kHz.

Resonance : Increases the intensity of the signal around the cutoff frequency.
Very interactive with the cutoff control.

Filter Volume : VCA - sets the output volume of the filter.
Pretty useful to adjust the filter to your setup.

2p/4p : Select the attenuation curve. Choose if you want the filter to cut at -12dB/octave (2p) or at -24dB/octave (4p).

Add Fuzz (On/Off) : Select if you want to add an extra unfiltered fuzz signal. The result is louder and creates cool frequencies boost or cut depending on the cutoff position.
This toggle switch has no effect when the side toggle is in // position.
To sum up: Toggle OFF is fuzz into the filter.
Toggle ON is fuzz into filter sum with unfiltered fuzz.



LOW PASS FILTER STAGE

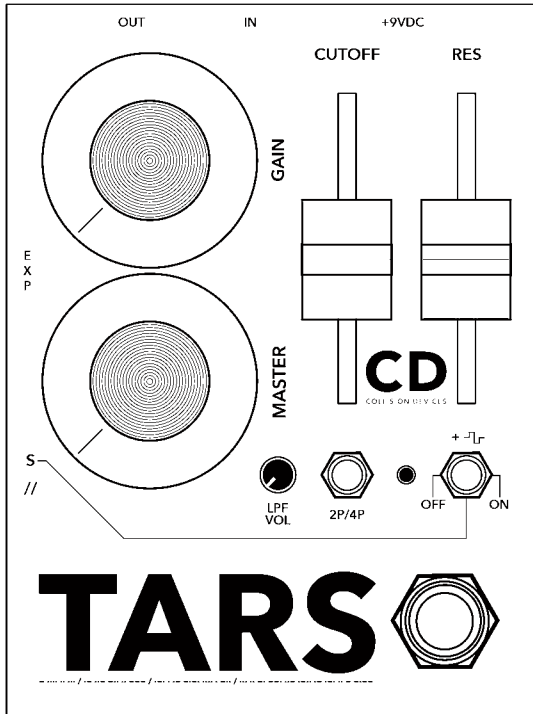
Expression : The Expression control is linked to the cutoff fader. As soon as a TRS jack is plugged the circuit detects the presence of the expression pedal. Then the cutoff fader value is the lowest value the EXP pedal can go. So those two are quite interactive too. EXP pedal is typically between $10k\Omega$ and $100k\Omega$. The expression controls the cutoff frequency.

Control Voltage : TARS likes to work with other robots and machines. So it accepts "CV in" of course. Between $0/+5V$. Make sure the CV signal is on the tip of your TRS jack.

S - // : Can I use the filter alone?

Of course! If you want to - just toggle the switch in // position. It allows you to use the filter alone on your dry signal and add the fuzz alone with the gain knob in parallel. If you don't want any fuzz signal - please turn the gain knob CCW. Both are reunited together before the volume control.

You can come back to the fuzz trough filter with this following toggle switch in serial position



Quick recap of the different signal path you can have :

Side Toggle in S position : Fuzz into Filter.

Side Toggle in // position : Fuzz in // with Filter.

No Fuzz in filter. No Filter in fuzz.

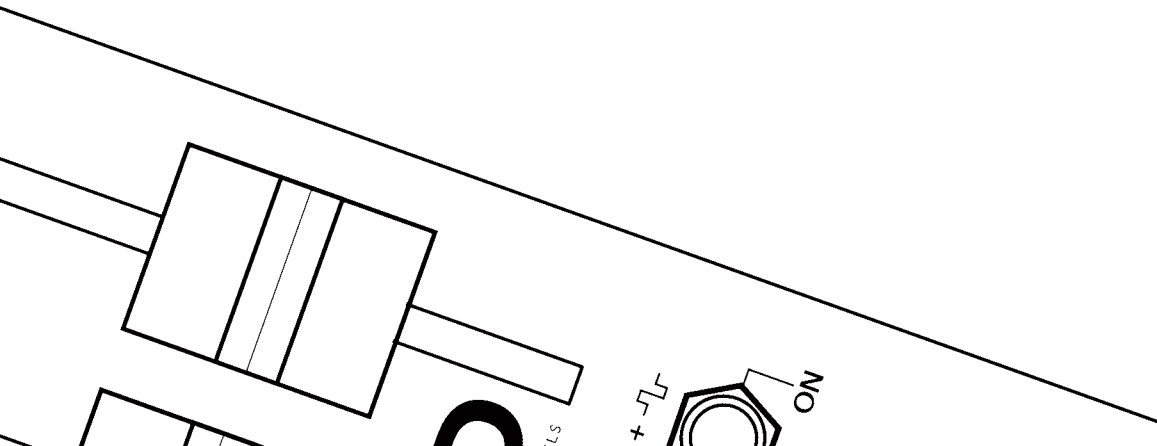
Both are used on their side and summed together before the master volume control.
So control the fuzz with the gain & the filter with the tiny volume knob dedicated.

GOOD THINGS TO KNOW

- The volume has to be adapted if you want the same volume when you use the filter in parallel or in serial with the fuzz.
You can use the filter volume control for that.

- The resonance control can produce a self oscillation when it's pushed at its maximum value. It has been designed for.

- As the layout is a bit particular - yeah it's a strange robot - we suggest you put all of the controls at zero and try to slowly increase the different controls to check how it works.





EXP

S
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NOTES

We repair any pedal we manufactured as long as Collision Devices is still alive.

Warranty does not apply on any visual default due to a normal use.

We do not charge for a repair unless the PCB needs to be replaced due to use damage.

Customer is responsible for shipping to Collision Devices and back to him/her after the repair has been done.

Take a look at our demo video on our youtube channel to find different ways to use the pedal and the controls together.

And of course feel free to ask us, or TARS, anything you need.

TARS may not hear you as it is a capricious robot - so, ask us.

CD

COLLISION DEVICES