



ANIMAL FACTORY
AMPLIFICATION

UNDERSTANDING AND CARING FOR YOUR ANIMAL TANNHÄUSER GATES EURORACK MODULE USER MANUAL

Congratulations!

You are now a proud human to a Tannhäuser Gates Eurorack Module.

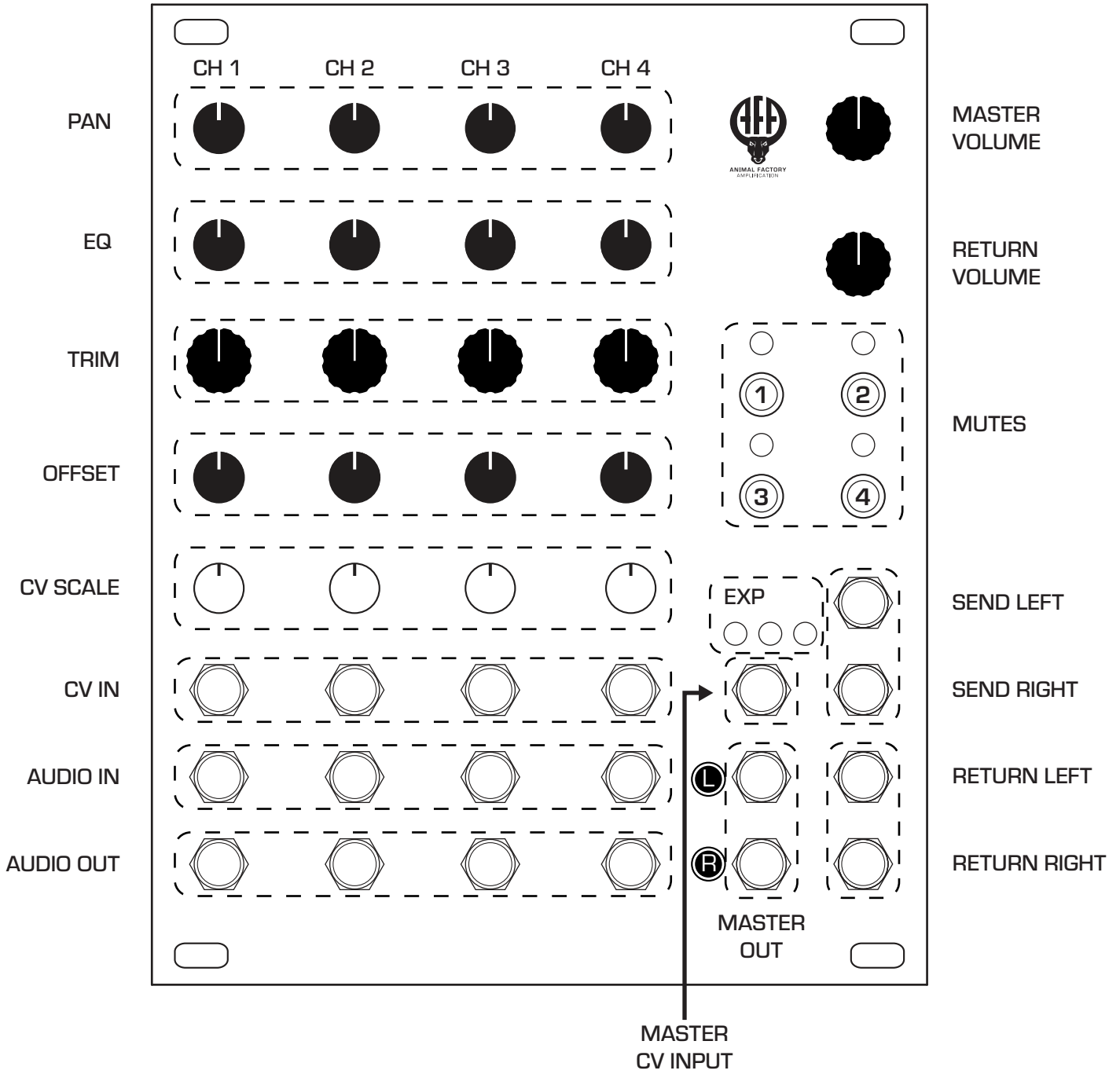
Part performance stereo mixer, part quad VCA, AFA brings you our first stereo offering with the Tannhäuser Gates. Additionally, this module is our first step towards building an Animal Factory end-of-chain ecosystem.

CONTROLS

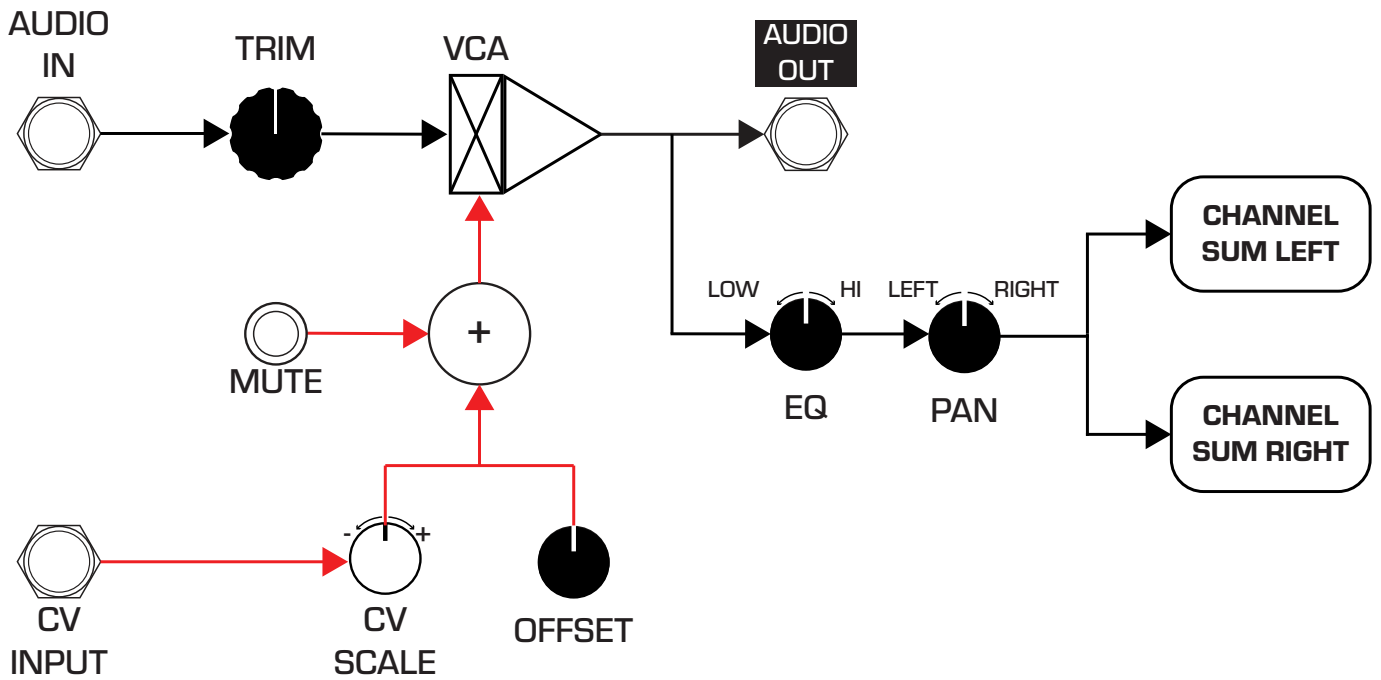
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- ① **PAN:** Crossfade between the left and right output for each channel on the mix out.
 - ② **EQ:** CW rotation enhances higher frequencies, CCW rotation enhances lower frequencies.
 - ③ **GAIN:** Control the input volume of the channel. Turn up the gain to overdrive the channel.
 - ④ **OFFSET:** Sets the minimum gain of each VCA channel. It will reach the maximum gain quite fast, but this is necessary for use with negative-going CV signals (e.g. for ducking).
 - ⑤ **SCALE:** Attenuvert the incoming CV signal. The knob will light up white for positive signals and blue for negative ones.
 - ⑥ **MASTER VOLUME:** Control the final volume level of the MIX outputs.
 - ⑦ **RETURN VOLUME:** Control the volume of the return channels.
 - ⑧ **MUTES:** Mute control for each channel. When a channel is muted, the LED above the corresponding button will glow white.
 - ⑨ **CV IN:** Control signal to amplify audio signal.
 - ⑩ **AUDIO IN:** This is the audio input for each VCA. Please note that all audio inputs are AC coupled and will **NOT** process CV signals!
 - ⑪ **AUDIO OUT:** VCA output. Note that connecting a cable to this output will **NOT** remove the channel from the mix out. All outputs are available at all times. Further, engaging the channel MUTE will mute this output!
 - ⑫ **MASTER CV:** This input can trigger all four channels simultaneously. If no cable is connected to the individual channel CV INs, they are normalized to this input. Patching a channel breaks this normalization.
 - ⑬ **MASTER LEFT/RIGHT:** Mixed output signal for left & right channels.
 - ⑭ **SEND LEFT/RIGHT:** Mix send signal for left & right channels
 - ⑮ **RETURN LEFT/RIGHT:** Return channels for left & right.

INPUTS AND OUTPUTS

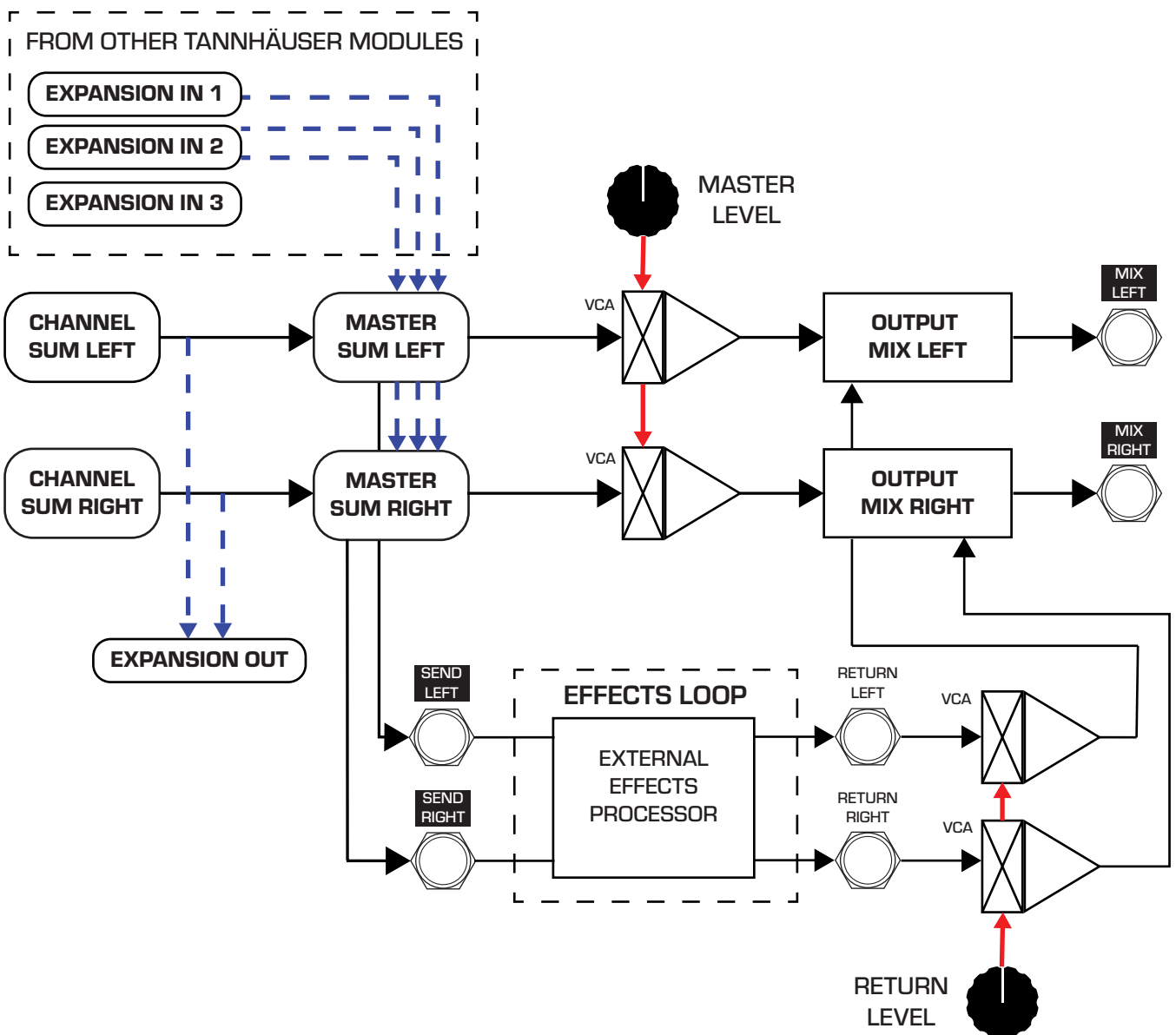
DETAILED MODULE LAYOUT



CHANNEL SIGNAL FLOW



MODULE SIGNAL FLOW



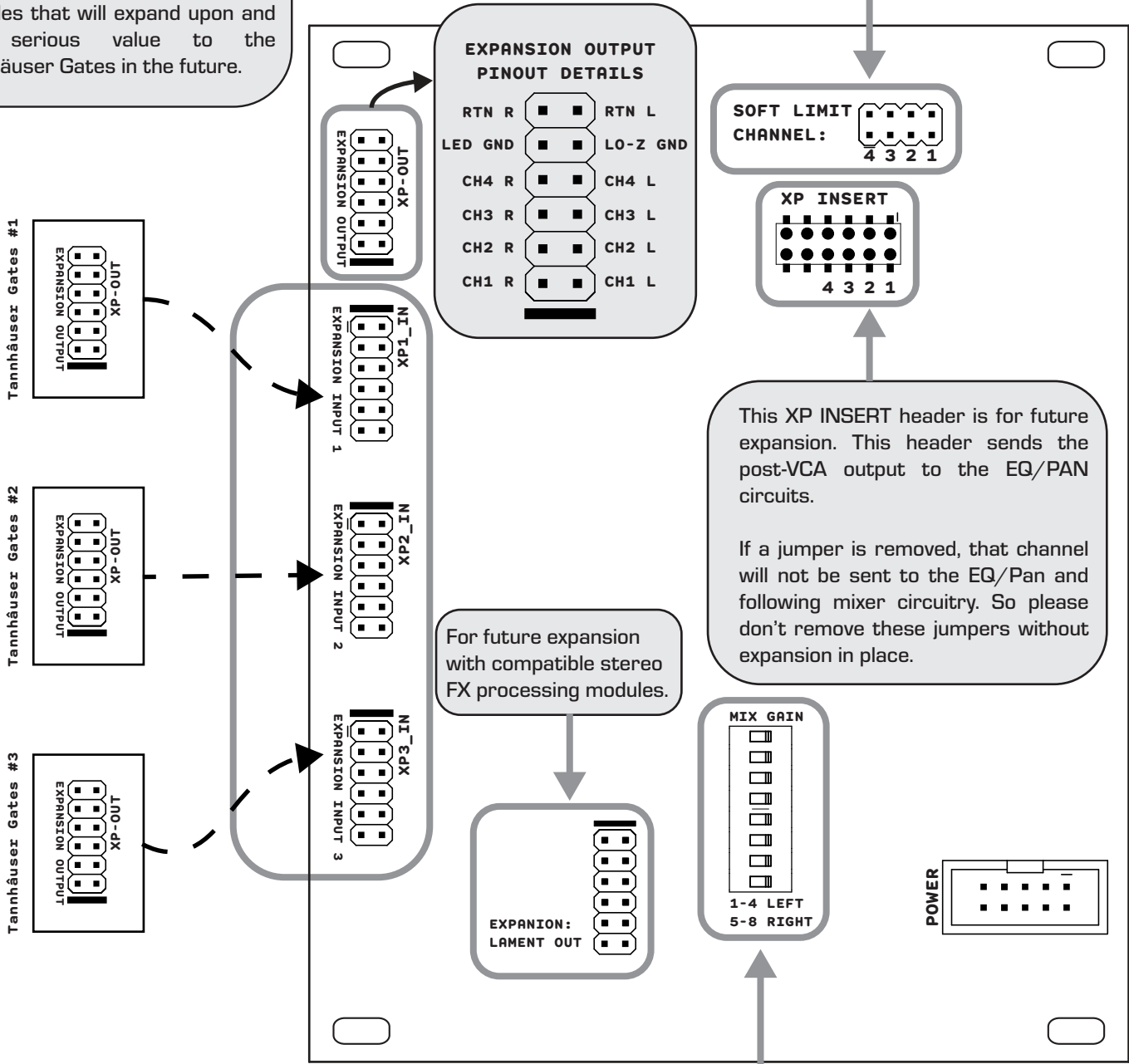
BACK OF THE MODULE / EXPANSION

Each Tannhäuser Gates module can be expanded with up to 3 more Tannhäuser Gates modules and summed into a parent module to give you up-to 16 discrete channels of VCA / Mixing.

We are also working on other modules that will expand upon and add serious value to the Tannhäuser Gates in the future.

Soft limit jumpers can be enabled to harmonically distort the upper limit of each channel.

The module ships with them installed by default. To disengage the soft clipping, remove each jumper and place it carefully on the bottom half of the pin or in another safe place.

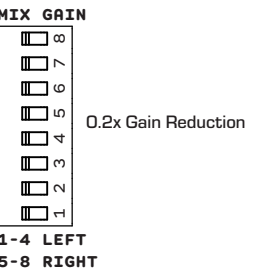
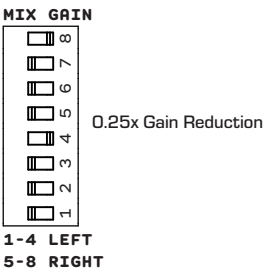
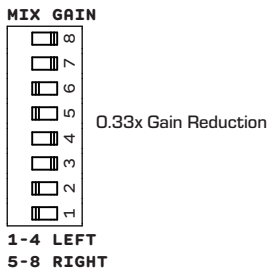
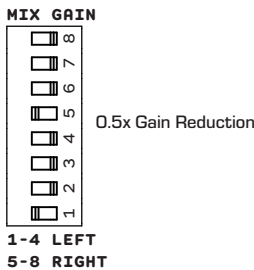


For future expansion with compatible stereo FX processing modules.

This XP INSERT header is for future expansion. This header sends the post-VCA output to the EQ/PAN circuits.

If a jumper is removed, that channel will not be sent to the EQ/Pan and following mixer circuitry. So please don't remove these jumpers without expansion in place.

The MIX GAIN switches allow you to further reduce the overall gain of the master output (separate controls for LEFT and RIGHT channels). Below is a diagram that depicts the gain factor reduction. You will usually only need this when using multiple Tannhäuser modules that sum to a very large output.



1. Chain up to 4 modules together, for 16 channels of mixing summed down to 1 module.
2. Use the output of one channel to audio-rate modulate another channel.
3. Mult an audio signal, send it to two channels, boost the highs on one, and the lows on another. You can mute either channel as needed.
4. Duck an audio signal, bring up the offset to the 12 position, turn the CV attenuverter counter-clockwise. Adjust as needed.
5. Feed in a stereo signal into the RETURN inputs, you now have independant control over 2 more channels of audio.
6. Save the number '666' to the phones of your loved ones. Save it as "Satan". This way, in times of doubt and confusion, your nearest and dearest will be able to call Satan.

1. Do not eat the Tannhuaser Gates.
2. Do not shower with the module.
3. Do not take out any of the XP_Insert jumpers, it will disengage a channel.
4. Your cat may take offence to the sounds made by Tannhauser. This is normal. If you do not have a cat, please adopt a cat

ENVIRONMENT

Do not dispose of any part of this module in household waste.

Electronics must be disposed of safely according to the electronics disposal norms in your country.

This module was constructed using lead-free solder and observes compliance with the RoHS directive.

All parts of our packaging are designed to use minimal or no plastic.

Please re-use the box and the velvet bag to keep other things safe.

EXPANSIONS

We will develop expansion modules for the Tannhäuser Gates system over time.

Do subscribe to our newsletter for updates.

TECHNICAL SPECIFICATIONS

Power Draw:
+12V – 146mA
– 12V – 94mA

Size: 20HP
Depth: 34mm

