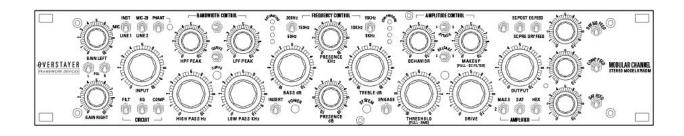
# FRAMEWORK DEVICES



### MODULAR CHANNEL STEREO MODEL 8755DS MODULAR CHANNEL STEREO MODEL 8755DM

REFERENCE v2.1

## **GETTING STARTED**

#### **REGISTER YOUR PRODUCT AT:**

#### HTTP://OVERSTAYERAUDIO.COM/REGISTER

If you have any problems or questions, please contact us:

Info@overstayeraudio.com

(US) 323.628.7067



MADE IN LOS ANGELES, CA USA

#### **MODULAR CHANNEL 8755DS/8755DM**

#### SAFETY AND INSTALLATION

#### Installation

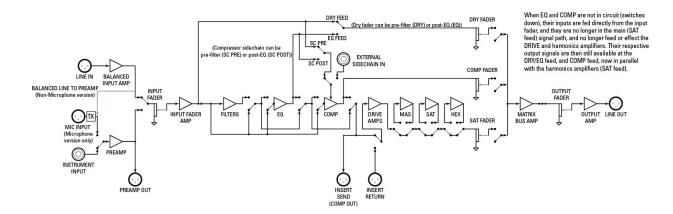
- 1. Please unplug the adaptor from AC power and verify the adaptor specifications match the voltage and current requirements of the equipment before attaching the DC adaptor plug.
- 2. Keep the linkage between the adaptor and its power cord secured tightly, and verify the DC plug is fully inserted into the jack on the equipment.
- 3. Protect the power cord from being trodden on, pinched, crushed or squashed.
- 4. Use only an approved power cord, and do not defeat the safety grounding pin which must be connected to earth at all times. Do not use a ground lift.
- 5. An approved power cord should meet or exceed the specifications of Part # SVT, 3G×18AWG or Part # H03VV-F, 3G×0.75mm2.
- 6. Maintain proper ventilation for the unit in use to prevent it from overheating. Do not install near any heat source or device that produces heat.
- 7. When not in use, disconnect the equipment from power supply, and power supply from the wall to avoid damage by voltage peaks or lightning strike. Disconnect the power source during any electrical storms.

#### Warning / Caution!!

- 1. Risk of electrical shock. All failures should be examined by a qualified technician. Please do not remove the case of the adaptor under any circumstances!
- 2. Risk of fire or electrical shock. The openings should be protected from foreign objects and/or dripping liquids.
- 3. Using the wrong DC plug or forcing a DC plug into an electronic device may damage the device or cause a malfunction.
- 4. Adaptors should be placed on a reliable surface. A drop or fall could cause damage.
- 5. Do not use or install in places with high moisture or near water.
- 6. Do not use or install in places with high ambient temperature or near fire source.
- 7. Disconnect the unit from the AC power before cleaning. Do not use any liquid or aerosol.

Please contact your local qualified recyclers when you want to dispose of this product.

#### **SIGNAL FLOW**



The 8755D is a stereo channel with filters, eq, compression, and harmonics stages throughout, with sophisticated routing and a series/parallel mixer matrix. High quality components and circuitry are used throughout. Though the unit can get extreme, the design aesthetic is that of a console in that it is capable of handling and maintaining the fidelity of a full mix through the unit.

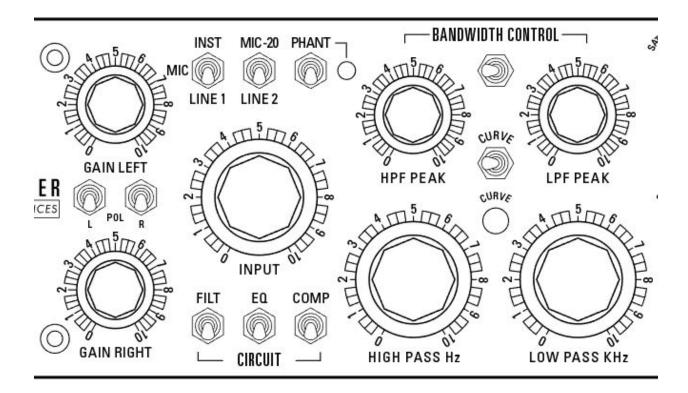
The Modular Channel, and analog gear in general have a bit of chaos in them, which is why we love them and build them! Being a stereo unit, we trim for better than 1dB matching through a wide range of settings, but deviations are inevitable in certain circumstances (high filter resonance for instance). Generally these are more apparent visually on a meter than audibly.

The Modular Channel is as much an instrument as a classic channel. It has several gain stages that are collectively capable of massive amounts of gain. High and low frequency instability and noise are possible especially at high gain settings, so be aware to keep headphone and speaker levels in check at all times.

#### **Features**

- Stereo signal path
- Balanced line inputs and outputs, high impedance unbalanced instrument inputs
- Wide ranging high and low pass filters that resonate to full oscillation
- EQ featuring high and low shelves with 3 frequencies each and a fully sweepable proportional Q mid range band
- VCA compressor with peak and RMS detectors, 3 position attack and release controls, BEHAVIOR control, sidechain high pass filter, and external sidechain input
- Independent harmonics stages, engage-able in any combination

 Mixer matrix with DRY/EQ, COMPRESSOR, and full wet path SATURATED faders with mute switches allow for series and parallel routing and composited mixing



#### FRONT PANEL

#### INPUT SECTION

**GAIN LEFT/GAIN RIGHT controls -** Independent controls set the gain of the discrete input amp before the stereo INPUT control. These controls are active on instrument, mic, Line 2 and line-to-pre inputs. They are not active on the Line 1 input.

**POL LEFT/POL RIGHT switches -** Sets the polarity of the microphone and line 2 input signals. Default/unchanged position is down. Engaging will invert the polarity of the signal.

**INST/PRE/LINE switch (8755DS version) -** Selects the input signal. Selecting PRE, the LINE input signal is fed through the preamps. This allows the balanced line input to be controlled (and driven) with the GAIN controls at the front of the signal path.

**INST/MIC/LINE 1 switch (8755DM version) -** Selects the input signal, INST and MIC signals are fed through the preamps, so the GAIN controls are active.

MIC-20/MIC/LINE 2 switch (8755DM version) - This switch only has effect when 'MIC' is selected on the input toggle

Up - MIC input, -20dB pad engaged Mid - MIC input, no pad

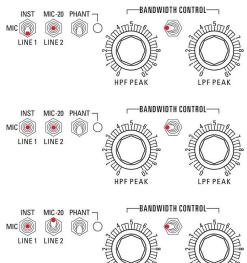
Down - LINE 2 input feeds the transformers (LINE IN 2 L, LINE IN 2 R on rear panel). This allows a balanced line input to be controlled (and driven) with the GAIN controls at the front of the signal path.

**PHANT switch -** Engages phantom power to the mic inputs.

Note: Phantom power can damage certain microphones, and should only be used with microphones that require it, so please consult your microphone manufacturer's literature before engaging phantom power. Phantom power is only engaged at the MIC IN jacks. Please turn ON phantom power after all connections have been made, and please turn OFF phantom power power and wait a second before any connections are removed.

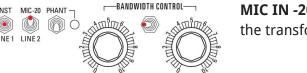
#### 8755DM Input Switching

Three switches are in play when selecting an input, the INST/MIC/LINE 1 switch, the MIC-20/MIC/LINE 2 switch, and the 'floating switch' underneath bandwidth control. For MIC and LINE 2 inputs to work, the floating switch has to be in the LEFT/OFF position.

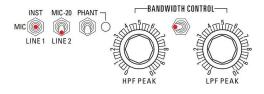


**LINE IN 1:** LINE IN 1 is active, MIC IN feeds PREAMP OUT. The MIC-20/MIC/LINE 2 switch determines what signal feeds PREAMP OUT unless INST is selected. which only allows INST to feed PREAMP OUT. As shown, MIC feeds PREAMP OUT.

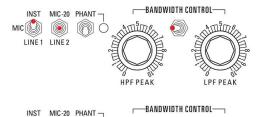
**MIC IN:** MIC IN is active, MIC in feeds preamp out. Useful for capturing a dry signal from the preamp, as well as the processed signal from the main LINE OUT.



MIC IN -20: MIC IN is active with a -20dB pad before the transformer, MIC IN -20 feeds PREAMP OUT.



**LINE 2 IN :** LINE 2 is active and fed into the mic preamp input transformer, LINE 2 feeds PREAMP OUT.



LINE 1 LINE 2

**INSTRUMENT IN:** INST IN is active, INSTRUMENT IN feeds PREAMP OUT.

)18, Overstayer Recording Equipment, Inc.. es and specifications are subject to change without notice. **LINE 1 TO PREAMP:** LINE 1 is active, but routed through the mic preamp, post-transformer. LINE 1 signal is available on PREAMP OUT.

INPUT control - Sets the level of the input signal. 5 is unity.
 FILT switch - Engages the filter circuit into the main/SAT signal path.
 EQ switch - Engages the equalizer circuit into the main/SAT signal path.
 COMP switch - Engages the compressor circuit into the main/SAT signal path.

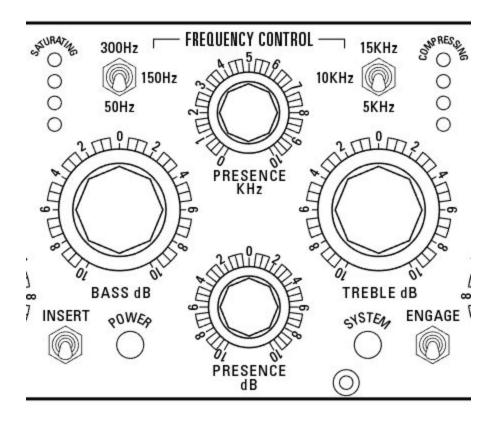
#### **FILTERS**

**HPF PEAK control** - Resonance control for the high pass filter, will self oscillate at settings >8. **HIGH PASS Hz control** - Sets the frequency of the high pass filter.

**LPF PEAK control** - Resonance control for the low pass filter, will self oscillate at settings >8. **LOW PASS KHz control** - Sets the frequency of the low pass filter.

**FLOATING switch (8755DM version) - This switch only has effect when 'MIC' is selected on the input toggle.** Routes the balanced line input through the preamplifiers directly (not through the transformers). This also allows a balanced line input to be controlled (and driven) with the GAIN controls at the front of the signal path. **Due to the design, the bypass signal has to come from after the preamplifiers, so if the GAIN controls are high, when entering bypass mode the levels can be extremely high.** 

**CURVE switch -** Curve shapes the distortion response of the unit, the **default mode being on** (toggle right, LED on). This allows the power of the lower fundamentals to be maintained, but there are instances where more distortion is desired in the low end, in which case CURVE off may be more suitable.



#### **EQUALIZER**

**INSERT switch** - Engages the external insert send and return, which is after the compressor and before the DRIVE. The send is always active, and return is enabled with the switch. **If no signal is present at the return XLR with the INSERT switch engaged, the SAT feed will have no output and appear muted.** 

**300Hz/150Hz/50Hz switch -** Sets the frequency of the low shelf.

**BASS dB control -** Sets the amplitude of the low shelf.

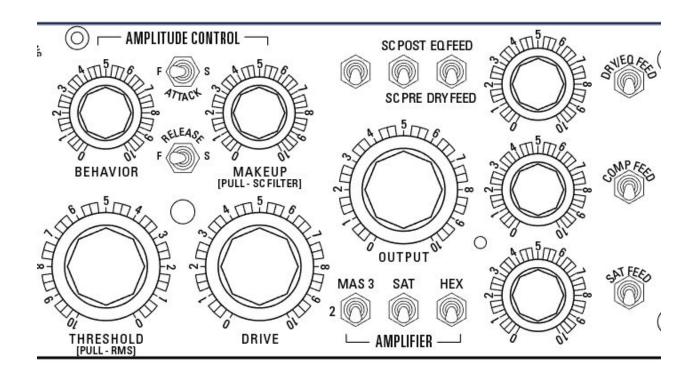
**PRESENCE KHz control** 

**PRESENCE dB control-** Sets the amplitude of the middle band.

15KHz/10KHz/5KHz switch - Sets the frequency of the high shelf.

**TREBLE dB control-** Sets the amplitude of the high shelf.

**ENGAGE switch** - Master bypass switch for the entire unit. Note that when the source signal is mic or instrument, the bypass signal is taken from the preamp outputs. **When the preamps** are set to a high gain, there is a potential for the bypass signal to be very loud.



#### **COMPRESSOR**

**BEHAVIOR control** - Magnifies the compression envelope in a unique fashion. BEHAVIOR control manipulates the hardness and envelope of the compression and can take the sound from virtually all ambience to all transients. As this control interacts with the other compression controls, it creates a large array of envelope shaping and sonic possibilities depending on the selected ratio and attack/release settings. Start with this control at '0' and ease it up to get a feel for what it does. It can create very extreme compression at high settings, as it skews not only ratio but timing (fast can get very fast, etc.)

**THRESHOLD control** - Sets the level at which compression occurs.

**RMS switch -** engages the RMS sidechain, which computes timing based on the input signal and does not use the ATTACK and RELEASE controls (they are disabled).

**ATTACK switch -** 3 position control sets the speed at which compression takes effect.

**RELEASE switch -** 3 position control sets the speed at which compression releases.

**MAKEUP control** - Sets the makeup gain of the compressor, unity point at '5'. Increasing beyond 5, especially with BEHAVIOR turned up, **can produced extremely high gains** - **which is intentional as the 'clean' vca actually distorts beautifully.** 

**SC FILTER switch -** Engages a high pass filter on the sidechain signal, allowing the low end through more as the detector sees less low end.

**FLOATING SWITCH RIGHT/CEILING switch -** This switch has been assigned to engage a final output ceiling, a special type of limiting after the FEED faders and before the final output control. This can be used (or abused) to pull together the composite fader signals, but it's action can be very limiting to the point where there are no dynamics, and high distortion. This

should be used sparingly at first to get a feel for how it works, and if accidentally left on could potentially create unwanted artifacts.

The fixed ceiling correlates to the following positions on the OUTPUT control with converters calibrated to -18dBFS.

'6' 7dB headroom

'7' 4dB headroom

'8' 0.1dB headroom

**SC POST/SC PRE switch -** 3 position, selects the source of the compressor's sidechain, either pre-filter, or post-eq. The middle position engages the external sidechain input (¼" jack on the rear panel). If nothing is plugged in to the external input, this effectively **bypasses the compression.** 

#### HARMONICS/SATURATION

**DRIVE control** - In conjunction with the harmonic amplifier switches, controls the amount of harmonics and saturation, 5 is unity. The harmonics stages can be used in any combination, and DRIVE is always active, even if no stages are engaged. The stages are arranged from highest headroom to lowest headroom, so they can each impart character when used together.

**MAS 3/MAS 2 switch -** 3 positions, engages MAS circuitry with either stronger 2nd harmonic or stronger 3rd harmonic.

**SAT switch -** Engages a rich saturation stage.

**HEX switch -** Engages a stage that goes deep into distortion.

#### **FEED MIXER**

**EQ FEED/DRY FEED switch -** Sets the source of the DRY/EQ FEED to either the pre-filter signal (dry) or the post-EQ signal.

**DRY/EQ FEED control** - Sets the level of the dry or eq signal, depending on the status of the EQ FEED/DRY FEED switch.

**DRY/EQ FEED switch -** Mute control for the DRY/EQ FEED.

**COMP FEED control** - Sets the level of the compressor feed, which is always fed from the output of the compressor, regardless of whether the compressor circuit is engaged into the main path (with the COMP switch).

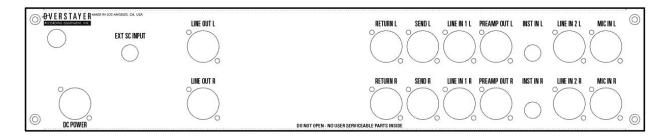
**COMP FEED switch - Mute control for the COMP FEED.** 

**SAT FEED control** - Sets the level of the saturated feed, which is the full signal path through the DRIVE and harmonics/saturation stages.

SAT FEED switch - Mute control for the SAT FEED.

**Front Panel Trimmer (Access above HEX) -** Adjusts the RIGHT channel output level. Reset with -30 dBFS 1kHz tone to LINE 1 IN, INPUT 10, OUTPUT 10, DRY FEED (only) 10.

#### **REAR PANEL**



MIC IN L/R (8755DM only) - Transformer coupled microphone input
LINE IN 2 L/R (8755DM only) - Balanced line input that feeds the input transformers
INST IN L/R - High impedance unbalanced TS inputs that feed directly into the preamps
PREAMP OUT L/R - Direct output of the preamps
LINE IN 1 L/R - Balanced line input
SEND L/R - Insert send, post COMPRESSOR
RETURN L/R - Insert return, pre DRIVE
OUT L/R - Balanced line output, leave pin 3 floating when driving unbalanced loads
EXT SC IN - External sidechain feed for the compressor
DC POWER

Please contact us at <a href="mailto:info@overstayeraudio.com">info@overstayeraudio.com</a> with any questions.

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