M	MODE 1 - M ↑	MODE 2 - M ⊙	MODE 3 - M ↓
DESCRIPTION	The input signal is continuously written to a fixed-length buffer, which is simultaneously played back at a variable speed with the possibility of feedback to the write head.	Up to 4-seconds of sound can be recorded, and then played back in shorter segments randomly.	Up to 8-seconds can be recorded and played back by up to three Read-Heads simultaneously.
LED RED	Alternates with BLUE when LEN B is changed over 10 discrete settings	Recording	
LED BLUE	Alternates with RED when LEN B is changed over 10 discrete settings	Playback	
LED WHITE	White [Long Blink] - Changes to 'None' Q Setting White [Short Blink] - Read-Head Offset Triggered (Mode 1 Only) / Changes Q setting between: - Chromatic Scales - Whole Tone Scale - Diminished Triad - (I - iii - dim V) - Augmented Triad - (I - III - aug V) - Perfect Fifths & Octaves - (I - V - VIII [I])		
Q	Quantization Interval Settings - None ↔ Chromatic ↔ Whole Tone ↔ Diminished Triad ↔ Augmented Triad ↔ Perfect Fifths & Octaves Q stored while unit is powered; Reverts to 'None' when power-cycled.		
Q↑	Read-Head Trigger Threshold	-	Step Modulation
Q↓	LPF/LFO		Read-Head Volume
Soft Switch	Hold - Infinite Buffer Playback Tap - Manually Trigger Read-Head (no playing required)	Tap/Hold - Record new sample. Recording more than 4-seconds will layer over previous 4-seconds. Release - Sample Playback Tap - Stop Playback & Cancel Sample	Tap/Hold - Record New Sample. Recording more than 8-seconds will layer over previous 8-seconds. Release - Sample Playback Hold - Record over Original Sample Tap - Stop Playback & Cancel Sample
E	E ↑ - Assign EXP to DIR E ⊙ - Assign EXP to LEN B E ↓ - Assign EXP to FBK	E ↑ - Assign EXP to DIR E ⊙ - Assign EXP to LEN S E ↓ - Assign EXP to RAND	E ↑ - One Read-Head E ⊙ - Two Read-Heads E ↓ - Three Read-Heads EXP Assignable to Read-Head-1 only
TRANSCENDENCE *Bypass Pedal & Hold Soft Switch* Green LED - Trancendence Enabled Blue LED - Transcendence Disabled	Buffer stored when changing settings M1 (No Loop) → M2/3 - M2/3 sample length set by LEN B when exiting M1. M1 (Loop Recorded Before) → M2/3 - Loop auto-playback in M2/3 M1 → M2/3 - M2/3 sample slice length set by LEN B when exiting M1 M2/3 → M1 - Max LEN B will be length of loop recorded in M2/3, otherwise it will be 8-seconds	Buffer stored when changing settings Two 4-second buffers replaced by one 8-second buffer M1 (No Loop) → M2/3 - M2/3 sample length set by LEN B when exiting M1. M1 (Loop Recorded Before) → M2/3 - Loop auto-playback in M2/3 M1 → M2/3 - M2/3 sample slice length set by LEN B when exiting M1 M2/3 → M1 - Max LEN B will be length of loop recorded in M2/3, otherwise it will be 8-seconds Hold Soft Switch - Record new sample & playback immediately (no release required)	
DIR1	DIR1 ↻ - Direction Speed Read-Head -2 Octaves DIR1 ↺ - Direction Speed Read-Head +2 Octaves Unity Speed - Appx. 10:00/2:00	DIR1 ↻ - Direction Speed Read-Head -2 Octaves DIR1 ↺ - Direction Speed Read-Head +2 Octaves Unity Speed - Appx. 10:00/2:00	DIR1 ↻ - Direction Speed Read-Head-1 -2 Octaves DIR1 ↺ - Direction Speed Read-Head-1 +2 Octaves Unity Speed - Appx. 10:00/2:00
DIR1 HOLD Q↑	Q↑ DIR1 ↻ - Decrease Read-Head Trigger Input Threshold Q↑ DIR1 ↺ - Increase Read-Head Trigger Input Threshold	-	Q↑ DIR1 ↻ - Decrease Step-Modulation Tempo Q↑ DIR1 ↺ - Increase Step-Modulation Tempo
DIR1 HOLD Q↓	Q↓ DIR1 ↻ - Decrease LPF Cutoff Frequency Q↓ DIR1 ↺ - Increase LPF Cutoff Frequency		Q↓ DIR1 ↻ - Decrease Read-Head-1 Volume Q↓ DIR1 ↺ - Increase Read-Head-1 Volume
LENB/LENS/DIR2	(10 Discrete Buffer Length Settings) LENB ↻ - Half Previous Buffer Length LENB ↺ - Double Previous Buffer Length	LENS ↻ - Decrease Resampled Slice Length LENS ↺ - Increase Resampled Slice Length	DIR2 ↻ - Direction Speed Read-Head-2 -2 Octaves DIR2 ↺ - Direction Speed Read-Head-2 +2 Octaves Unity Speed - Appx. 10:00/2:00
LENB/LENS/DIR2 HOLD Q↑	Q↑ LENB ↻ - Decrease Read-Head Trigger Offset Q↑ LENB ↺ - Increase Read-Head Trigger Offset	-	Q↑ DIR2 ↻ - Decrease Step-Modulation Variance Q↑ DIR2 ↺ - Increase Step-Modulation Variance
LENB/LENS/DIR2 HOLD Q↓	Q↓ DIR1 ↻ - Decrease Read-Head LFO Frequency Q↓ DIR1 ↺ - Increase Read-Head LFO Frequency		Q↓ DIR2 ↻ - Decrease Read-Head-2 Volume Q↓ DIR2 ↺ - Increase Read-Head-2 Volume
FBK/RAND/DIR3	FBK ↻ - Decrease Feedback from Read-Head to Write-Head FBK ↺ - Increase Feedback from Read-Head to Write-Head	RAND ↻ - Decrease Resampled Slicing Randomization RAND ↺ - Increase Resampled Slicing Randomization	DIR3 ↻ - Direction Speed Read-Head-3 -2 Octaves DIR3 ↺ - Direction Speed Read-Head-3 +2 Octaves Unity Speed - Appx. 10:00/2:00
FBK/RAND/DIR3 HOLD Q↑	-	-	Number of Step Modulation Heads (4 Discrete Settings) 7:00 - 9:00 - Off 9:00 - 12:00 - DIR3 12:00 - 3:00 - DIR2/3 3:00 - 5:00 - DIR1/2/3
FBK/RAND/DIR3 HOLD Q↓	Q↓ DIR1 ↻ - Decrease Read-Head LFO Depth Q↓ DIR1 ↺ - Increase Read-Head LFO Depth		Q↓ DIR3 ↻ - Decrease Read-Head-3 Volume Q↓ DIR3 ↺ - Increase Read-Head-3 Volume
count to five	Montreal Assembly mtlasm.blogspot.com mtl.asm@gmail.com	Settings for Ct5 revision k & l; Firmware 0.963 Reference by J. Namer, Inspired by N. Gill Latest firmware updated Nov 15, 2016 by S. Monk	