iTar User Manual

Performance controls, setup, MIDI operation, and fretboard lighting

Pre-production beta firmware | November 2026

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Starr Labs Inc.

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DOCUMENT CONTROL

Item	Value
Document	iTar User Manual
Revision	2.0
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This manual explains the iTar from a player's point of view. IRIE configures the instrument; IPOT provides a performance-oriented application surface. The Clipper command appendix is retained for compatible fretboard-lighting workflows. Private configuration packets and storage layouts are intentionally outside this customer manual.

How to use this manual

Start with Sections 1 through 4 to connect and play. Use Sections 5 through 12 for performance features and applications. Section 13 summarizes musical MIDI behavior, Section 14 covers troubleshooting, and Appendix A contains the retained Clipper lighting-command reference.

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SECTION 1 — PRODUCT OVERVIEW AND QUICK START

The iTar is a six-string, twenty-fret MIDI performance controller with pressure-sensitive keys and an illuminated fretboard. It can play software instruments and hardware synthesizers through USB MIDI or BLE MIDI. The instrument supports conventional guitar-style note mapping and a unique-key iTar/App mapping for performance software.

The three parts of the system

Part	Purpose
iTar	The physical instrument. It scans the fretboard, produces MIDI performance data, and controls local fretboard lighting.

Part	Purpose
IRIE	The editor and setup application. Use it to configure tunings, string channels, Trigger and Expression settings, presets, and ColorMaps.
IPOT	The iTar Performance Only Tool. Use it as a performance-oriented surface after the instrument has been configured.

Quick start

1. Power the iTar from its 9 VDC input or a USB port that can supply 500 mA.
2. Connect by USB MIDI or complete the operating system's BLE MIDI connection to iTar-BLE.
3. In the receiving application, enable the iTar as a MIDI input. For IRIE, enable both MIDI input and output.
4. Select P mode with short presses of the TRIG button. The fretboard displays a red P when P mode is selected.
5. Choose a sustained sound, press a fret, and confirm that the receiving instrument responds to the iTar's MIDI channels.
6. Use IRIE to confirm the current tuning, channels, mapping, and Expression settings before saving a setup.

SECTION 2 — POWER CHARGING AND SAFE USE

The DC power input is rated 9 VDC, 700 mA maximum. Use only the supplied or approved 9 VDC adapter. The iTar has also been shown to operate reliably from a USB port capable of supplying 500 mA. Do not substitute an unidentified adapter or cable.

- Keep liquids, conductive debris, and excessive moisture away from the instrument and connectors.
- Disconnect power before cleaning. Use a soft dry cloth; do not apply solvent to the fretboard or enclosure.
- Do not open the enclosure or service the battery unless Starr Labs has supplied a service procedure for the exact hardware revision.
- Stop using the instrument if the battery, enclosure, cable, or connector is damaged or unusually hot.

Charging indicators, battery capacity, operating time, and low-battery behavior depend on the hardware documentation supplied with the instrument.

SECTION 3 — USB MIDI AND BLE MIDI CONNECTIONS

USB MIDI

1. Connect the iTar to the host with the correct USB cable.
2. Open the receiving application and select StarrLabs L1 MIDI CONTROLLER iTar as a MIDI input.
3. When using IRIE, select the iTar as both MIDI input and MIDI output so hardware and editor states can stay synchronized.
4. Make a small hardware change and confirm that IRIE reflects it before changing or saving a setup.

BLE MIDI

1. Power the iTar and open the host platform's BLE MIDI connection panel.
2. Select iTar-BLE and complete the BLE MIDI connection.
3. If the platform separates BLE connection from application port selection, select the connected MIDI ports inside IRIE or IPOT.
4. Confirm two-way communication before using Save or Restore.

SECTION 4 — FRETBOARD CONTROLS AND INDICATORS

The firmware name Trigger refers to the physical TRIG/ISP button. Button actions occur on release unless the procedure says to hold a control.

Gesture	Action	Indication
TRIG/ISP short press	Cycle P → S → T → SL → P	Red P, S, T, or SL on the fretboard
TRIG/ISP hold about 1 second	Toggle Hammer/Pull-off velocity scaling	Confirm the resulting state in IRIE
EDIT short press	Toggle Guitar mode and iTar/App mode	Confirm the resulting mapping in IRIE
EDIT hold about 1 second	Enable or disable KeyPressure	The selected destination does not change
Octave Up or Octave Down	Change the global octave	Fretboard octave indication
Hold both Octave buttons	Send Panic	Clears stuck notes and restores configured recovery controls
Outer strings at physical fret 1 + EDIT	Toggle right- and left-handed operation	One power-LED blink = right; two = left
Outer strings at physical fret 20 + EDIT	Save the current setup	Cyan SAVE
Outer strings at physical fret 19 + EDIT	Restore the deliberately saved setup	Cyan REST then ORE

Use the two physical outer strings for the handedness, Save, and Restore gestures. These gestures do not move when handedness changes.

Startup display

At power-up, the fretboard displays ITAR with a red-to-purple transition. Wait for startup to complete before opening a performance application or restoring a setup.

SECTION 5 — TRIGGER MODES P S T AND SL

Display	Mode	Playing behavior
P	Poly	Plays all held notes. Multiple simultaneous notes on the same string are supported.
S	Strum	In iTar/App operation, the application buffers or gates unique fret identities from its trigger surface. In standalone Guitar operation, the historical top-four-fret hardware Strum Zone remains available.
T	Tapping	Monophonic per string with hammer-on and pull-off behavior. Hammer/Pull-off velocity scaling is a separate option.
SL	Slide	Sounds an initial note and bends smoothly toward subsequently held frets on that string instead of retriggering every semitone.

There is no OFF position in the Trigger-mode cycle. Use Panic or stop the receiving instrument when you need to silence all notes.

SECTION 6 — GUITAR MODE AND ITAR APP MODE

Guitar mode

Guitar mode uses independently configurable open-string notes and MIDI channels. Configure each string in IRIE, then verify the receiving synth listens on every channel used by the active setup.

iTar App mode

iTar/App mode gives each fret a unique key identity for IRIE, IPOT, Ableton Live workflows, or other compatible applications. The current unique-key mapping uses user-facing MIDI Channel 15. Do not move it to Channel 16, which is reserved for compatible control and lighting functions.

Outside an application-owned zone, iTar/App mode continues to transmit measured touch velocity. An application-owned zone may suppress local lighting so that the host can control the complete display.

Changing modes

Short-press EDIT to switch between Guitar and iTar/App mapping. Because no dedicated local indication is assigned in this release, confirm the selected mapping in IRIE before playing or saving.

SECTION 7 — OCTAVE, HANDEDNESS, PANIC, SAVE & RESTORE

Octave

Use the two Octave buttons to shift the entire active setup in one-octave steps. Return to the neutral octave when troubleshooting an unexpected pitch range.

Handedness

Hold the two outer strings at physical fret 1, then press and release EDIT. One power-LED blink indicates right-handed operation; two blinks indicate left-handed operation. Handedness changes musical string identity but does not move the physical Save and Restore gestures.

Panic

Hold both Octave buttons to send Panic when notes remain stuck or a receiving synth is left in an unexpected controller state. Panic includes standard note-reset behavior and, by default, CC112 value 127 for GeoShred compatibility. The additional Panic controller can be changed in IRIE and is not universal to every synthesizer.

Live edit Save and Restore

Operation	Meaning
Live edit	An IRIE or onboard change immediately affects the running instrument.
Save	Writes the current Preset and supported global settings to the instrument's nonvolatile memory.
Restore	Replaces the live setup with the deliberately saved setup.

Save includes the active Preset and supported global settings, including tunings, string channels, zones, velocity-curve selection, handedness, Trigger and Expression state, global octave, Guitar/iTar mapping, and the current ColorMap data and selection. Save only after confirming the intended setup.

At power-up, the beta release automatically restores saved global Expression and performance settings. The full Preset remains under the explicit Save and Restore workflow so experimental Preset edits do not silently replace the compiled startup Preset.

SECTION 8 — KEYPRESSURE AND EXPRESSION

KeyPressure uses the fretboard's lateral and pressure sensing circuit to add expression while a key is held. Hold EDIT for about one second to enable or disable KeyPressure. This gesture does not change the selected destination.

Available destinations

- Pitch Bend
- Channel Pressure
- CC74
- CC11
- Pitch Bend + CC74

Factory settings preselect Pitch Bend but start with KeyPressure disabled. The factory Pitch Bend depth is 100 cents with a quadratic response intended to reserve more expressive range for firmer pressure.

When combined with Slide, KeyPressure Pitch Bend acts as pressure vibrato or additional pitch expression around the currently bent note. The audible result also depends on the receiving synth patch.

SECTION 9 — SLIDE SETUP

Slide mode holds an initial note and sends a timed pitch-bend trajectory toward later held frets on the same string. Releasing an upper fret returns toward the lower highest-held fret.

Receiving-synth requirements

- Use an independent MIDI channel for each string whenever possible so one string's Pitch Bend does not detune another string.
- Set the receiving synth's Pitch Bend range to 20 semitones, or use a synth that honors the range setup sent by the iTar.
- The iTar provides per-string channels and expressive MIDI but does not implement full MPE member-channel rotation.

Current Slide behavior

Parameter	Beta setting
Pitch Bend range	20 semitones
Trajectory	Adaptive timing
Pitch points	Five points per semitone
Nominal timing	12 ms per semitone
Maximum ramp	250 ms

A sustained patch usually produces a more convincing guitar, pedal-steel, or Dobro-style slide. If the note fades too quickly, adjust the synth's amplitude envelope before changing iTar timing.

SECTION 10 — IRIE CONFIGURATION WORKFLOW

IRIE is the editor and setup application for the iTar. It can edit instrument, MIDI, Expression, ColorMap, and related settings over USB MIDI or BLE MIDI.

1. Connect the iTar and select both its MIDI input and MIDI output in IRIE.
2. Confirm that a hardware change appears in IRIE before editing the Preset.
3. Choose Guitar or iTar/App mapping and configure each string's tuning and MIDI channel as required.
4. Configure Trigger mode, KeyPressure destination, response, threshold, curve, and depth.
5. Load or edit the required ColorMap using the IRIE lighting workflow.
6. Test the complete setup with the intended receiving synth or performance application.
7. Use Save only after confirming the live setup. Use Restore to recover the last deliberately saved setup after experimentation.

For detailed ColorMap editing, preset-library management, and application screenshots, use the IRIE manual. This manual does not publish IRIE's private instrument-control packet format.

SECTION 11 — IPOT PERFORMANCE WORKFLOW

IPOT is the iTar Performance Only Tool. Use IRIE to configure the instrument, then use IPOT as the performance-oriented surface.

1. Complete the USB MIDI or BLE MIDI connection before opening the IPOT performance view.
2. Verify that the intended iTar/App mapping, zone ownership, and receiving sound are active.
3. Confirm that the selected Trigger mode and Expression response match the performance.
4. If the application owns a lighting zone, let the application control that display rather than combining it with local held-key lighting.
5. Before saving changes, return to IRIE and verify the complete instrument setup.

SECTION 12 — FRETBOARD LIGHTING AND COLORMAPS

The twenty-fret surface can show startup text, Trigger-mode labels, octave information, Save and Restore prompts, locally generated held-key colors, and application-owned displays.

Local key lighting

In a locally owned playable zone, the pressed key can light automatically. Use the IRIE manual for the key-lighting and ColorMap configuration workflow.

Application-owned lighting

Ableton and other externally owned zones can suppress local self-lighting so the host can own the grid display. Do not combine competing local and host-generated feedback for the same zone.

ColorMaps

IRIE can upload and select a custom ColorMap and save it with the Preset. Follow the IRIE manual for ColorMap creation, transfer, test-display, key-color behavior, and preset workflows.

SECTION 13 — MIDI IMPLEMENTATION SUMMARY

Function	Implementation
Performance channels	Configurable per string in Guitar mode; iTar/App unique-key mapping uses Channel 15
Note On	Supported with measured velocity
Note release	Sent as Note On with velocity 0
Pitch Bend	Used by Slide and selectable KeyPressure expression
Channel Pressure	Selectable KeyPressure destination
CC11	Selectable Expression destination; also restored by Panic
CC74	Selectable KeyPressure destination
RPN 0	Pitch Bend Sensitivity setup for compatible receivers
Program Change	Not used to select Trigger modes
Bank Select	Not generated by the documented performance controls
Polyphonic Key Pressure	Not generated
Transport	Class-compliant USB MIDI and BLE MIDI through the installed subsystem; DIN-5 MIDI is not fitted in this beta unit

Channel 16 is reserved for compatible control and lighting uses. Do not place the iTar/App unique-key performance map on Channel 16.

SECTION 14 — TROUBLESHOOTING

Symptom	Action
No response to IRIE	Confirm both MIDI input and output ports. Reconnect USB or BLE MIDI, then verify that a hardware change appears in IRIE.
BLE connects but no notes sound	Confirm iTar-BLE is selected inside the receiving application and that it listens on the channels used by the active setup.
Wrong pitch in Slide	Match the receiver's Pitch Bend range to 20 semitones or use a synth that honors the iTar range setup.

Symptom	Action
Slide fades too quickly	Choose a patch with more sustain. The synth envelope usually controls the audible decay after the iTar releases a note.
Only one note per string in P	Confirm that P is selected and that the receiving synth is not forcing mono or legato operation.
Stuck notes	Hold both Octave buttons to send Panic.
Wrong handedness	Use the two outer strings at physical fret 1 plus EDIT. One blink is right-handed; two is left-handed.
Unexpected setup	Use Restore to recover the deliberately saved setup. Save only when the live setup is correct.
iTar/App notes conflict with controls	Confirm the unique-key map uses MIDI Channel 15, not Channel 16.
Unexpected lighting	Disconnect the application and verify local lighting first. Then check zone lighting ownership and the ColorMap workflow in IRIE.

Basic recovery sequence

1. Return the receiving synth to a known sustained patch and enable all channels used by the iTar.
2. Select P mode and return the global octave to neutral.
3. Hold both Octave buttons to send Panic.
4. Confirm Guitar or iTar/App mapping in IRIE.
5. Use Restore if you need the last deliberately saved setup.

SECTION 15 — FIRMWARE VERSION AND UPDATES

This manual documents the highly developed pre-production iTar beta firmware selected on 18 November 2026. Features and hardware details may change before production release.

SHA-256: 9EA214A4D2E04934703F6187D255B14173A99946164F956D696147DEAE7BBA3B

Firmware updates are performed over USB. Use only a Starr Labs-approved firmware image and USB update procedure for the exact hardware revision. Do not disconnect USB power or data while an approved update is in progress.

SECTION 16 — SPECIFICATIONS AND SUPPORT

Item	Specification
Playing surface	Six strings × twenty playable frets
Performance modes	P Poly; S Strum; T Tapping; SL Slide
Mappings	Guitar mode and iTar/App unique-key mode
iTar/App MIDI channel	Channel 15
Slide Pitch Bend range	20 semitones
KeyPressure destinations	Pitch Bend, Channel Pressure, CC74, CC11, Pitch Bend + CC74
Connections	USB MIDI and BLE MIDI; DIN-5 MIDI is planned as a future upgrade and is not present in this beta unit
USB device name	StarrLabs L1 MIDI CONTROLLER iTar
BLE device name	iTar-BLE
DC power input	9 VDC, 700 mA maximum
USB power	Demonstrated reliable operation from a USB port capable of supplying 500 mA
Dimensions	30 × 2.75 in (76.2 × 7.0 cm)

Item	Specification
Weight	1 lb 12 oz (0.79 kg)
Battery and charging	Refer to the hardware information supplied with the instrument
Warranty and support	Use the Starr Labs warranty and support information supplied with the instrument

APPENDIX A CLIPPER COMMAND CHARTS

This appendix is retained for compatible Clipper and fretboard-lighting workflows. It is separate from the private IRIE instrument-configuration protocol.

MIDI Note commands — Channel 16

The following tables retain the Clipper command names, note numbers, and value descriptions used by compatible fretboard-lighting workflows. Refer to the Clipper Manual or the IRIE Manual tab for more information.

Command	#	Comments
CLEAR FRAME	127	Ignore velocity, clears to 0 unless clear to background mode set
INIT ZONES	126	ignore velocity
REFRESH	125	ignore velocity
ENABLE ZONE	124	velocity = ZONE 1 - 31, bit6 1 = enable 1 = disable (Displays Zone lighting. Bring to foreground)
LEFTRIGHT	123	velocity 2 = LEFT, 1 = RIGHT, mirror about the Y-axis
SHIFT RIGHT	122	velocity offset 0:no effect, =>1:Shift Right one position Bit6=0: Rotate (Wrap) image, Bit6=1: Do not wrap image. Rotate Right: vel<64; Shift Right: vel =>64D
SHIFT LEFT	121	velocity offset 0:no effect, =>1:Shift Left one position Bit6=0: Rotate (Wrap) image, Bit6=1: Do not wrap image. Rotate Left: vel<64; ShiftLeft: vel =>64D
SCROLL UP	120	velocity offset: 0:no effect, =>1:Shift Up one position Bit6=0: Rotate (Wrap) image, Bit6=1: Do not wrap image. Rotate Up: vel<64; Shift Up: vel =>64D
SCROLL DN	119	velocity offset: 0:no effect, =>1:Shift Down one position Bit6=0: Rotate (Wrap) image, Bit6=1: Do not wrap image. Rotate Down: vel<64; Shift Down: vel =>64D
BLINK ON(upper 16)	118	velocity + 128 = led#
BLINK ON(lower 128)	117	velocity = led#
BLINK OFF(upper 16)	116	velocity + 128 = led#
BLINK OFF(lower 128)	115	velocity = led#
BRIGHT(upper 16)	114	velocity + 128 = led#
BRIGHT(lower 128)	113	velocity = led#
DIM(upper 16)	112	velocity + 128 = led#
DIM(lower 128)	111	velocity = led#
RedBox Scroll Up	110	Velocity: Ignore - not used by ledfb firmware, output to Ableton
RedBox Scroll Down	109	Velocity: Ignore - not used by ledfb firmware, output to Ableton
RedBox Scroll Right	108	Velocity: Ignore - not used by ledfb firmware, output to Ableton
RedBox Scroll Left	107	Velocity: Ignore - not used by ledfb firmware, output to Ableton
Unused -	106	unused -
REVERSE LEDS	105	Velocity: 0-64 = Normal, 65-127 = Reverse

Command	#	Comments
TABLE TOP GUITAR	104	Mirror about X-axis. Velocity 7F=Tabletop: body is low LED number Velocity 00=Guitar: head is low LED number
Set Char (lower 128)	103	velocity = text character in lower 128 of ASCII table
Set Char (upper 128)	102	velocity + 128 = text character in upper 128 of ASCII
SET CHAR DIRECTION	101	velocity sets the direction Chars scroll from, 0 from head, >0 from body
SELECT SCRIPT [Available scripts are listed in a table below.]	100	Velocity selects a Script, 0 aborts. A Script is an embedded macro that can display images, text, and/or lighting effects. The opening splash screen is a Script. Any script is aborted by asserting Select-Script with a value=0.
ENABLE BACKGROUND	99	Enable Background: velocity 1 = clear to black, velocity 2 = Enable background. When an LED is turned on, then turned off according to some dynamic function, the off-state may be either an image saved to the background or simply black.
SET COLOR MAP	98	velocity is color map number; Max = 4. See Pg.18, Maps
SELECT IMAGE	97	velocity is the number of the image to display. Image# 0-31 are RAM, images 32-128 are ROM based images
SET STRING 6	96	Set all LEDs on a string to the same color. Velocity = color index
SET STRING 5	95	Velocity = color index
SET STRING 4	94	Velocity = color index
SET STRING 3	93	Velocity = color index
SET STRING 2	92	Velocity = color index
SET STRING 1	91	Velocity = color index
Display Tuning Map	90	Velocity = zone number*
Send To Background	89	Send the foreground image to the background. Velocity is ignored.
Set Tuning	88	Pre-defined Tuning Maps are stored in ROM. Velocity selects the tuning-map number; 1 clears the tuning background.
SCROLL-IMAGE	87	Scroll the selected image over the short dimension of the fingerboard; velocity sets the scroll-step delay.
SET FOREGROUND COLOR	86	Velocity selects the foreground color-map index.
SET BACKGROUND COLOR	85	Velocity selects the background color-map index.
Rotate RedBox 90°	84	Ableton Live RedBox rotation command; velocity is ignored by the LED fingerboard firmware.
SYNC	83	Reset the Blink timer and other internal step timers.
OFFSET FOREGROUND COLOR INDEX	82	Add velocity to indexed foreground colors; values wrap at the end of the color map.
SET FRETMARKS OVERLAY COLOR	81	Velocity selects the fretmark color.
ENABLE FRETMARKS OVERLAY	80	Velocity 1 disables the fretmarks; velocity 2 enables them.

MIDI CC commands — Channel 16

Command	CC	Comments
Latch LEDs	64	Off < 65, On > 64; Once set, all LEDs will remain lit until the command is reset.
BRIGHTNESS	7	Scale global brightness from Master Volume, Channel 16
SCALE RED	20	Adjust the brightness for all Red LEDs on the
SCALE GREEN	21	Adjust the brightness for all Green LEDs on the
SCALE BLUE	22	Adjust the brightness for all Blue LEDs on the

Command	CC	Comments
SCALE SATURATION	23	0-127; Scales the intensity of all colors. Applies to images, tuning maps, and foreground colors.
VU String 1 *	24	Fires all of the LEDs on String #1 in sequence (Data value= length of the lit-string. All LEDs are lit from Fret1 to the scaled data-level) CC-data values of 0-127 scale from no lights to all 24 columns lit. All LEDs will light from Fret1 up to the scaled data-value. Each Fret (column) corresponds to a data increment of a little more than 5.
VU String 2	25	Fires all of the LEDs on String #2 (in sequence, value= length) lights sequential number of frets according to MIDI data 0-127
VU String 3	26	Fires all of the LEDs on String #3 (in sequence, value= length) lights sequential number of frets according to 0-127
VU String 4	27	Fires all of the LEDs on String #4 (in sequence, value= length) lights sequential number of frets according to 0-127
VU String 5	28	Fires all of the LEDs on String #5 (in sequence, value= length) lights sequential number of frets according to 0-127
VU String 6	29	Fires all of the LEDs on String #6 (in sequence, value= length) lights sequential number of frets according to 0-127
VU All Strings	30	Fires all of the LEDs on all Strings (in sequence, value= length) lights sequential number of frets according to 0-127
VU Fret 1 **	31	Lights LEDs sequentially up fret 1 like a VU meter. CC-data values of 0-127 scale from no lights to all 6 rows lit in 12 increments. From bottom to top: Rows 1-4= green, Row5=yellow, Row6=Red. Each key lights at half-brightness for the lower half of its own range. Any given data value will light all keys from the bottom to the scaled level. Each lighting increment corresponds to a data increment of about 10 and a half. For example, a datum110 (decimal) lights Row6 (Red) at half-brightness, Row5 (Yellow) full-brightness, and Rows4-1 (Green) full-brightness.
VU Fret 2	32	Lights LEDs sequentially up fret 2 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 3	33	Lights LEDs sequentially up fret 3 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 4	34	Lights LEDs sequentially up fret 4 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 5	35	Lights LEDs sequentially up fret 5 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 6	36	Lights LEDs sequentially up fret 6 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 7	37	Lights LEDs sequentially up fret 7 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 8	38	Lights LEDs sequentially up fret 8 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 9	39	Lights LEDs sequentially up fret 9 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 10	40	Lights LEDs sequentially up fret 10 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 11	41	Lights LEDs sequentially up fret 11 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 12	42	Lights LEDs sequentially up fret 12 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 13	43	Lights LEDs sequentially up fret 13 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 14	44	Lights LEDs sequentially up fret 14 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 15	45	Lights LEDs sequentially up fret 15 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 16	46	Lights LEDs sequentially up fret 16 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.

Command	CC	Comments
VU Fret 17	47	Lights LEDs sequentially up fret 17 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 18	48	Lights LEDs sequentially up fret 18 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 19	49	Lights LEDs sequentially up fret 19 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 20	50	Lights LEDs sequentially up fret 20 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 21	51	Lights LEDs sequentially up fret 21 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 22	52	Lights LEDs sequentially up fret 22 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 23	53	Lights LEDs sequentially up fret 23 like a VU meter. Value of 0-127 scales from no lights to all lit, fading in brightness and color.
VU Fret 24	54	Light LEDs sequentially up fret 24 like a VU meter; values 0–127 scale from no lights to all lit.
LATCH MODE	64	MIDI Sustain behavior for lighting: below 65 is Off; above 64 is On.
FADE TIME	72	Set how long LEDs remain illuminated after a Note-On event.
SET-SCRIPT-CLOCK-COARSE	75	Set script-loop timing in 10 ms increments: delay = velocity × 0.01 seconds.
SET-SCRIPT-CLOCK-FINE	76	Set additive script-loop timing in 0.1 ms increments: delay = velocity × 0.0001 seconds.
STORE-RAM-IMAGE	77	Copy the dynamic LED frame buffer to RAM image 0–9, selected by velocity.