



## DARK FADER TT

### TECHNICS SL1200 FADER MEETS JOGWHEEL CLASS COMPLIANT MIDI CONTROLLER

#### TECHNICAL SPECIFICATIONS

##### CHASSIS

- Full metal chassis, available in single or double height (double height via optional Xpander)
- CNC made panels, brushed black anodized 3mm aluminium, polished bare metal sides
- Engraved pitch fader scale and logos (no painting, no laser cut)
- Dimension L/W/H (single height): 207 x 65 x 38/48 mm, with Xpander: 207 x 65 x 74/84 mm
- Weight: 430 grams (630 grams with Xpander)

##### DESIGN VERSIONS

- STANDARD: Black brushed anodized Aluminium top panel, silver steel knobs
- DARK BLACK: Black panel, black steel knobs
- TRANSPARENT: Acrylic panel, silver knobs

##### SL1200 FADER

- Technics SL1200 fader (mk3/4/5), 100mm
- Technics silver or black (mk7) pitch fader cap
- Firmware: A/D conversion with 14Bit

##### JOGWHEEL

- High quality 10bit analog magnetic hall encoder, high Ticks Per Turn rate (TPT > 600)
- Ball bearing axis for long lasting spins
- Supporting CDJ mode (Nudging), VINYL mode (touch scratching) and 20 TPT encoder simulation in additional layers
- Heavy full metal knob, touch sensitive in VINYL mode (clickless capacitive technology)

##### CONTROL ELEMENTS

- KNOBS: 6 stainless steel buttons (12mm anti vandal switch), low pressure versions, silver or black anodized surface (both lathe polished)
- LEDs: 4 multi purpose RGB LEDs, indicating controller status (Decks A-D, SHIFT & BANK, CDJ/VINYL) and MIDI messages
- Bicolored fader mid LED (green/red) to indicate MIDI messages and fader zero position

##### PRINTED CIRCUIT BOARD

- Bottom layer PCB: Dark Board (CAD factory made PCB, dual layer, black glossy surface, immersion gold contacts)
- Top layer sandwich PCB: Dark Fader TT carrier PCB for jogwheel and RGB LEDs, SMD QFN IC's factory soldered in SMT (surface-mount technology), I2C bus connected to Dark Board
- CPU: Teensy LC or 3.2 (48-72 MHz 32 bit ARM)

##### CONNECTIVITY

- USB MIDI connector (USB-B standard size) to connect Dark Fader TT to MIDI host. USB bus powered (no power adapter needed)
- Low power consumption (less 80 mA) allows operation on mobile devices or smart phones

##### FIRMWARE

- MIDI class compliant, no driver needed
- Multi-deck support (1, 2, or 4 decks), multi-layer support (4 layer)
- Built in 'Power-On Configuration Setup' to customize controls and user favorite settings

# DARK FADER TT FEATURES

## SAME AS DARK FADER

### SL1200 FADER

- Original Technics SL1200 fader offers the wonderful smooth and still resistant tactile feeling of real turntables as MIDI control
- The full metal chassis design is the perfect complement to the haptic experience of the portable SL1200 fader
- Firmware converts the bent signal of an analogue fader element into a linear MIDI 14bit pitchbend and in addition to a MIDI 7bit CC message (supporting general MIDI software)
- Inbuilt Low Pass Filter (R/C element) on circuit board and the intelligent noise reduction algorithm in firmware allow highest sensitivity
- Fader behaviour is highly user configurable (see Power-On customizing and calibration)

### SL1200 FADER MID POSITION LED

- Bicolored LED on the left side of the fader is used for multiple purposes
- LED RED flash: As soon as any fader movement is detected, the LED flashes RED to indicate a sent MIDI message. This gives an intuitive and immediate feedback on small fader movements
- LED GREEN: indicates that the last sent MIDI value was in exact mid zero position. Permanently GREEN if pitch reset is active
- LED OFF (despite fader movements): Indicates MIDI Soft Takeover is active, fader waits until user catches the earlier fader position

### MIDI SOFT TAKEOVER FEATURE

- Dark Fader TT offers an inbuilt hardware MIDI Soft Takeover feature on fader movements after deck change (MIDI channel change)
- This ensures that the pitch tempo will not jump abruptly after deck changes even in DJ application with limited MSTO features

### PITCH RESET FEATURE

- Dark Fader TT offers two options to set pitch to zero, combining best of all SL versions: MOVING to green and LOCKING to green
- MOVING the fader into mid position range (similar SL1200mk2) switches mid LED to green and sends exact MIDI message pitchbend mid value
- LOCKING via pressing SHIFT and MIDI CHANNEL BUTTON together. This simulates the PITCH RESET knob of the SL1200mk3 (deactivates fader and locks the pitch to zero)
- Pitch Reset switches the bicolored LED at fader mid position to permanently GREEN

### LEFT / RIGHT BUTTONS

- Free for any user mappings, e.g. CUE and PLAY

### SHIFT LAYER BUTTON

- SHIFT button (on bottom) offers a 2nd layer, modifying the MIDI notes of the other buttons

## NEW IN DARK FADER TT

### JOGWHEEL

- MECHANICS: Heavy full metal knob, combined with ball bearing axis for long lasting spins. Supporting high precision in small movements AND dynamic speed acceleration for beat searching on fast swipe gestures. Dedicated beat searching mapping not needed (firmware supports automatically)
- TOUCH SENSITIVE in VINYL mode. Touch recognition on complete Metal knob (holding music on finger touch). Using clickless capacitive touch technology for lowest latency
- MIDI CC messages: High speed CC messages in layer 1 (above 600 TPT) for smooth jogwheel mappings, Layer 2-4 send CC Encoder messages (20 TPT). This allows to map the jogwheel easily to any user preferred encoder actions (e.g. for Track Browser, Looping etc.)

### VINYL BUTTON

- VINYL button (left below jogwheel) toggles between 2 jogwheel modes: 1. CDJ mode for nudging (no touch events), and 2. VINYL mode for CUE position scratching (activated TOUCH)
- Button can be customized to user favorite behaviour (latching or momentary)

### BANK BUTTON (2 BANKS, 4 LAYERS)

- BANK button (right below jogwheel) toggles to a 2nd bank (can be combined with SHIFT)
- In total 4 layers supported (BANK1: Normal / SHIFT, BANK2: Normal / SHIFT)

### DECK BUTTON SUPPORTS 4 DECKS

- 4 DECKS: Dark Fader TT extends the 2 decks in Dark Fader to 4 decks (4 MIDI channels). Top DECK button is fully user customizable
- 9 modes available: A, B, C, D, AB, AC, BD, CD, ABCD. Different mappings no longer needed
- Deck Indicator LED's in RGB (different colors for all 4 decks), spending 2 LED's (L/R) for best usability: A/C (left) and B/D (right)

### POWER-ON CONFIGURATION SETUP

Holding a BUTTON during power on activates the 'Power-On Configuration Setup', allowing customizing user settings/preferences

Dark Fader and Dark Fader TT:

- FADER MID POSITION: Calibrate zero position
- FADER MID RANGE: Size of mid green area
- FADER SENSITIVITY: Customize fader threshold for small movements
- MIDI SOFT TAKEOVER: Enable/disable MSTO
- RESET to factory settings

Dark Fader TT only:

- 9 deck modes: A, B, C, D, AB, AC, BD, CD, ABCD. Supporting 4 decks, 2 decks with a one click toggle, or fixed deck (button free for mappings)
- PITCH RESET feature on/off
- VINYL button toggle MOMENTARY on/off
- Jogwheel ROTATE SENSITIVITY

