TABLE OF CONTENTS

BACKGROUND ............................................................................. 1
INTRODUCTION ........................................................................... 2
DISPLAYING NUMERIC VALUES ................................................... 3
DIAGRAM CONVENTIONS .............................................................. 4
A NOTE ON SAVING TO MEMORY ................................................... 5
CONTROLLING OPEN HI-HAT DECAY WITH TEMPO KNOB ............. 6

THE BASICS

SEQUENCER BASICS ........................................................................ 8
  STEPS ...................................................................................... 9
  PATTERNS ............................................................................... 10
  TRACKS .................................................................................. 11
  MODES .................................................................................. 12
  FUNCTIONS ............................................................................... 13

QUICK START

QUICK START ............................................................................... 15
  CONNECTIONS ........................................................................ 15
    CONNECTING MIDI .............................................................. 15
    CONNECTING AUDIO ......................................................... 15
    CONNECTING POWER ........................................................ 15
  CREATE A PATTERN ................................................................. 16
  MODIFY A PATTERN ................................................................. 16
  CREATE A TRACK ..................................................................... 17

REFERENCE GUIDE

PATTERN WRITE MODE ..................................................................... 19
  NORMAL MODE ......................................................................... 19
  SELECTING THE CURRENT INSTRUMENT ................................... 19
  PROGRAMMING RHYTHM PATTERNS - STEP MODE ................... 20
  PROGRAMMING RHYTHM PATTERNS - TAP MODE ..................... 21
  RECORDING PATTERNS IN REALTIME USING MIDI .................. 22
  ADDING ACCENT TO INDIVIDUAL INSTRUMENTS ..................... 23
  SELECTING PATTERN SECTIONS .............................................. 24
  SELECTING PATTERNS IN CHAINS .......................................... 25
  MUTE AND ROLL MODE ........................................................... 26
### MUTING INSTRUMENT TRACKS ................................................................. 27
### GLOBAL MUTING .................................................................................. 28
### DRUM ROLL .......................................................................................... 29
### ROLL RESOLUTION ................................................................................ 30
### FUNCTION MODE .................................................................................. 31
### SETTING PATTERN LENGTH ................................................................. 31
### SETTING PATTERN SECTIONS ............................................................... 31
### EXTENDING A PATTERN ....................................................................... 32
### SETTING PATTERN LAST STEP ............................................................ 33
### SETTING PATTERN SCALE .................................................................... 34
### ADDING SHUFFLE TO A PATTERN ......................................................... 35
### CLEAR MODE ......................................................................................... 36
### CLICKING FOR CLEAR, COPY AND PASTE FUNCTIONS ...................... 36
### CLEARING INSTRUMENTS ..................................................................... 37
### CLEARING PATTERNS .......................................................................... 38
### COPYING INSTRUMENTS ....................................................................... 39
### COPYING PATTERNS ............................................................................ 40
### PASTING INSTRUMENTS ....................................................................... 41
### PASTING PATTERNS ............................................................................. 42
### INSTRUMENT ROTATE ........................................................................... 43
### PATTERN ROTATE ................................................................................. 44
### INSTRUMENT RANDOMIZE ..................................................................... 45
### PATTERN RANDOMIZE .......................................................................... 46
### INSTRUMENT REVERSE ........................................................................ 47
### PATTERN REVERSE .............................................................................. 48
### PATTERN SYSEX .................................................................................. 49
### TRACK SYSEX ..................................................................................... 50
### MACHINE STATE SYSEX DUMP ............................................................ 51

### PATTERN PLAY MODE ........................................................................... 52
### SELECTING PATTERNS .......................................................................... 52
### CREATING PATTERN CHAINS ............................................................... 53
### RESTARTING A RUNNING PATTERN ..................................................... 54
### MUTE AND ROLL MODE ....................................................................... 55
### MUTING INSTRUMENT TRACKS ............................................................. 56
### GLOBAL MUTING ................................................................................. 57
### DRUM ROLL ........................................................................................... 58
### ROLL RESOLUTION ............................................................................... 59

### TRACK PLAY MODE ............................................................................... 60
### SELECTING TRACKS ............................................................................... 60
### DISPLAYING THE CURRENT TRACK STEP .......................................... 61
### RESTARTING A PLAYING TRACK .......................................................... 61
### MUTE AND ROLL MODE ....................................................................... 62
BACKGROUND

The Quicksilver 606 CPU upgrade is closely related to the Quicksilver 303 CPU. The TB-303 and TR-606 share much of the same digital control circuitry, allowing a similar set of features to be added to both machines.

With the Quicksilver 606 we wanted to introduce some awesome new performance oriented features, at the same time we also added all of the utility functions that make the machine fit into a modern workflow.

Although the sounds of the 606 have no edit capability, they serve as the perfect companion to the 303 for a compact electronic music setup. For on the fly performance and composition, the Quicksilver 606 and Quicksilver 303 take this relationship even further.
INTRODUCTION

Quicksilver 606 is all about taking a good thing and making it better. More expressive, more controllable and perfect for live performance.

The original TR-606 is unique among the older analog drum machines because it allowed switching between PATTERN PLAY and PATTERN WRITE modes without stopping the sequencer. This makes the TR-606 a very immediate and easy to use machine.

We took this foundation and expanded upon it, allowing everything to be done while the sequencer is running.

One of the most exciting features of the Quicksilver 606 is MUTE AND ROLL MODE, this mode is meant to be used as a live “scratchpad” for dynamic variation and performance.

Another great new feature is the capability to accent individual instruments. This one feature alone really opens up the possibilities for creating expressive sequences.

With full MIDI capabilities, the Quicksilver 606 also becomes a useful drum sequencer for other machines. This allows the same intuitive control over any MIDI drum machine.

The Quicksilver 606 focuses on manipulation of INSTRUMENTS and PATTERNS separately, much like the Quicksilver 303 allows independent manipulation of TIME and PITCH. This means that every function can be performed on either a single INSTRUMENT or an entire PATTERN.

Most TR-606 users stay in PATTERN mode and never venture into TRACK MODE, but we have also changed the TRACK MODE quite a bit, and tried to make it easier to create interesting sequences of patterns. Everyone should try TRACK MODE at least once to see what they are missing!
DISPLAYING NUMERIC VALUES

Because the 606 interface does not have an LCD screen, the 16 step LEDs are used to display numeric values.

Using this unary numbering method, any number greater than 16 (such as track step numbering) will use a blinking pattern LED to denote a multiple of 16.

For example, to display the value “4”, the step 4 LED illuminates.

To display the value “24”, the step 1 LED blinks and the step 8 LED illuminates.

The number “4” represented on the 606 step LEDs.

The number “24” represented on the 606 step LEDs.
DIAGRAM CONVENTIONS

Throughout this document, diagrams are used to illustrate the buttons used to perform various actions.

To illustrate that a button should be pressed and held, the button will be displayed as RED.

To illustrate that a button should be pressed and released (clicked), the button will be displayed as WHITE.

Example:

This shows a button being HELD

This shows a button being CLICKED

This shows a button being DOUBLE-CLICKED

When multiple buttons are used to perform an action, the diagram will use a plus sign to show the combination of buttons used.

Example:

This shows two buttons being HELD at the same time
A NOTE ON SAVING TO MEMORY

The entire memory contents of the Quicksilver 606 are stored temporarily in RAM, any changes to patterns or tracks are stored in RAM to allow the sequencer to continue playback in all modes without glitches. Each time the sequencer is stopped, any modifications to the RAM memory contents are automatically stored to longterm EEPROM memory.

Because all information is stored to non-volatile EEPROM memory, it is no longer necessary to use batteries in the 606 to maintain memory!

This method is used so that a "save to memory" function is not necessary, which can interrupt the creative flow.

Be aware that if the 606 is powered down while the sequencer is running, any changes to pattern or track data may be lost.

Changes made to patterns or tracks may be lost if the sequencer has not been started and stopped before powering the 606 down.

The machine state can be explicitly saved in CONFIG MODE by pressing the STEP 10 button (see CONFIG MODE documentation for details on the save function).
CONTROLLING OPEN HI-HAT DECAY WITH TEMPO KNOB

On the TR-606, the decay of the open hi-hat sound is influenced by the speed of the internal clock. As the internal tempo is increased, the decay of the open hi-hat is decreased. This normally keeps the open hi-hat under control, making it decay very fast at high tempo.

This creates an interesting side effect when using external MIDI sync, or triggering notes from an external MIDI source. Because the internal clock is not being used for tempo control of the sequencer, the TEMPO knob essentially becomes a DECAY control for the open hi-hat sound!

This side effect can be used creatively to introduce some subtle variations when using the Quicksilver 606 under external control.
THE BASICS
SEQUENCER BASICS

This section covers the basic features and building blocks of the Quicksilver 606. If you own or have used a TR-606 in the past, you can probably skip this section.

The Quicksilver 606 sequencer works with three main components; STEPS, PATTERNS and TRACKS.

MODES select what component is currently possible to play or edit. FUNCTIONS allow components to be modified.
Starting at the lowest level is the STEP. A STEP typically represents one musically significant event, such as a 16th note, although this can change depending on the time signature.

Each step defines what instrument will play at that step, from the following instruments:

- ACCENT – Increases volume and intensity of instruments on this step.
- BASS DRUM
- SNARE DRUM
- LOW TOM
- HIGH TOM
- CYMBAL
- OPEN HI-HAT
- CLOSED HI-HAT
PATTERNS

PATTERNS can contain up to 32 STEPS split into two sections.

A pattern can have up to 32 STEPS, with each step defining the instrument triggers.

In addition to STEP sequences, PATTERNS also have additional settings that apply to the entire pattern:

- PATTERN LAST STEP – The current number of TIME STEPS in the last section.
- PATTERN SECTIONS - The number of 16 step sections in the pattern.
- SCALE – Determines the time signature of the pattern.
- MUTES – The mute state for each instrument in the pattern.

There are 32 total patterns in memory, split into 2 PATTERN GROUPS (as on the original 606).

PATTERN GROUPS are selected using the PATTERN GROUP button.
TRACKS

A TRACK is a sequence of PATTERNS. TRACKS allow for entire songs to be constructed out of different patterns and played back in sequence automatically.

Each TRACK is made up of a series of TRACK STEPS (not to be confused with PATTERN STEPS). A TRACK can contain up to 64 individual TRACK STEPS.

Each TRACK STEP has settings for:

- MUTES – Instrument mutes saved with the track step
- REPEATS – How many times a TRACK STEP will play before advancing to the next step. Playback of an entire pattern chain counts as one repeat.
- CHAIN – Multiple patterns can be chained in a single track step (up to 16 patterns).

A TRACK also contains settings for TRACK LENGTH. After reaching the last TRACK STEP, a TRACK will loop back to the beginning.

There are 8 total tracks in memory. TRACKS are selected using the TRACK/INSTRUMENT SELECT knob.

There are 8 total tracks in memory.

TRACKS are selected using the TRACK/INSTRUMENT SELECT knob.
MODES

There are two types of MODES in the Quicksilver 606; PRIMARY MODES and SUB MODES.

For most of this manual we will refer to both primary modes and sub modes simply as "modes".

PRIMARY MODES are used to determine what type of data can be edited or played by the sequencer. Primary modes are selected using the MODE SELECT knob on the 606.

There are 4 primary modes in the Quicksilver 606 sequencer:

• PATTERN WRITE - Create and edit patterns
• PATTERN PLAY - Playback of existing patterns, with a focus on live performance
• TRACK PLAY - Playback of tracks
• TRACK WRITE - Editing and construction of new tracks with existing patterns

Choose the appropriate mode depending on what type of action you wish to perform.

Each PRIMARY MODE has several SUB MODES, which are described in detail in the reference section of this manual.

Examples of sub modes in the Quicksilver 606 sequencer:

• MUTE/ROLL MODE - Setting the ROLL or MUTE attributes.
• CONFIG MODE - Overall machine configuration settings.
• NORMAL MODE - The default mode of any PRIMARY MODE.
• CLEAR MODE - Modification of pattern or track data
• FUNCTION MODE - Modifying pattern or track length data.
FUNCTIONS

FUNCTIONS perform actions on pattern or track data. Each sub mode has one or more functions accessed through various combinations of buttons.

Many pattern functions can be used to modify instrument or pattern data separately.

Some examples of Quicksilver 606 functions are:

- **PATTERN CLEAR** - Clearing pattern data.
- **TRACK COPY** - Copy track data to the track copy buffer.
- **ROTATE** - Shift pattern triggers forwards or backwards.
- **RANDOMIZE** - Randomize pattern data.

Each function is documented in full detail throughout the remainder of this User Guide.
QUICK START

This section should help you get started as quickly as possible. It covers some of the basic methods of entering PATTERN and TRACK data.

CONNECTIONS

Before using the Quicksilver 606, you will need to connect the machine to power, an audio output device and optionally to other MIDI equipped devices.

CONNECTING MIDI

Assuming you have the MIDI dongles installed in your TR-606, there are two MIDI ports available. One is the MIDI input and the other MIDI output.

Because the TR-606 case doesn't allow much extra room for large MIDI ports, we have used mini DIN ports with converter dongles. These dongles have a 5-pin MIDI port which accepts standard MIDI cables.

The MIDI input can be used to synchronize the 606 with other MIDI equipment, such as drum machines, sequencers or DAWs.

MIDI output can be used to send MIDI sync or note output from the 606 sequencer.

The MIDI ports can also be used to send or receive MIDI SYSEX messages, which allow transmission of PATTERN, TRACK or configuration data.

CONNECTING AUDIO

Connect audio cables before turning on audio amplifiers.

Connect the TR-606 audio output to a mixer or other audio input. The headphone output can be used for private listening.

CONNECTING POWER

Be sure to use a good quality regulated 9V power supply to power the Quicksilver 606 CPU!

The Quicksilver 606 CPU consumes more power than the original TR-606 CPU. Because of this, it is recommended to power the TR-606 with a power supply. Although battery power will work if the USB dongle is not installed in the battery compartment, the batteries will drain quicker with the Quicksilver 606 CPU.
If you have the USB dongle option installed, it will reside in the battery compartment, and batteries will not fit into the battery compartment.

Once the power supply is connected, turn the power switch to the ON position. You should see the LEDs light in sequence as the Quicksilver 606 boots.

CREATE A PATTERN
First we will quickly create some new patterns. There are multiple ways of entering pattern data, but for this exercise we will use the most direct method. For details on other methods, please refer to the REFERENCE GUIDE section of this manual.

1. Press the RUN/STOP button to start sequence playback!
2. Select PATTERN PLAY MODE using the mode selector knob.
3. Press the pattern 1 button to select a pattern for editing.
4. Select PATTERN WRITE MODE using the mode selector knob.
5. Initiate the CLEAR function by pressing and holding the PATTERN CLEAR button and then clicking the step 1 button.
6. Press the step 1 button to clear pattern 1.
7. Release the PATTERN CLEAR button
8. Select an INSTRUMENT using the TRACK/INSTRUMENT selector knob.
9. Press step buttons to program a rhythm sequence into the pattern
10. Select a different INSTRUMENT using the TRACK/INSTRUMENT selector knob.
11. Press step buttons to program a rhythm sequence into the pattern for this instrument.
12. Repeat steps 10 and 11 for each desired instrument.

MODIFY A PATTERN
Now that you have created a pattern, you can do something dynamic with it.

• Try the MUTE function by double-clicking the FUNCTION button then press step buttons 1-8 to mute instruments.

• Try the ROLL function in MUTE MODE by pressing step buttons 9-16 and changing the ROLL RESOLUTION by holding the TAP button and pressing step buttons 9-14.
CREATE A TRACK
After you have created a nice sounding set of patterns, you can use them to build a track.

1. Select TRACK WRITE MODE using the mode selector knob.
2. Select a TRACK by rotating the TRACK/INSTRUMENT selector knob.
3. Clear the track by pressing and holding both the PATTERN CLEAR button and the STEP 1 button, then press the PATTERN GROUP button to confirm the action.
4. Select the first pattern of the track by pressing the appropriate step button.
5. Press the WRITE/NEXT button to move to the next track step.
6. Select a second pattern by pressing the appropriate step button.
7. Set this track step to repeat 3 times by pressing and holding the FUNCTION button and then the STEP 3 button.
8. Set this track step as the last track step by pressing and holding the FUNCTION button and then pressing the PATTERN GROUP button.
9. Change the TRACK STEP MUTES of this step by double-clicking the FUNCTION MODE button and selecting the instruments to mute using the step 1-8 buttons.
10. Rotate the MODE selector knob to TRACK PLAY and press the RUN/STOP button to hear your track play back!
PATTERN WRITE MODE

PATTERN WRITE mode is accessed by moving the MODE selector knob to PATTERN WRITE.

PATTERN WRITE mode is for creation and editing of patterns.

In PATTERN WRITE mode there are four sub modes:

- NORMAL MODE
- MUTE AND ROLL MODE
- CLEAR MODE
- FUNCTION MODE

NORMAL MODE

NORMAL mode is the default mode for PATTERN WRITE.

When the sequencer is stopped, patterns can be selected for editing by pressing the pattern select buttons. The current PATTERN group can be changed by pressing the PATTERN GROUP button. If you wish to select patterns while the sequencer is running, switch to PATTERN PLAY mode to make the selection.

When the sequencer is running, the step triggers for each instrument can be edited. Step triggers can be entered in step mode or using tap mode.
SELECTING THE CURRENT INSTRUMENT

The pattern for each instrument can be programmed separately. To choose which instrument is currently being programmed you must select the instrument using the TRACK/INSTRUMENT selector knob.

Be aware that selecting an instrument will simultaneously change the selected TRACK, although instrument selection is not used in TRACK WRITE or TRACK PLAY modes.

PROGRAMMING RHYTHM PATTERNS - STEP MODE

Programming a new pattern with step mode uses the classic grid programming method.

When the sequencer is playing, the current instrument pattern is displayed on the step LEDs, to add or remove an instrument trigger, simply press the appropriate step button. To add an accented trigger, double-click the step button.

An LED chase light will scan across the pattern to show which step is currently playing.

The selected instrument can be changed while the sequence plays to create a pattern for each instrument.

To select a new pattern, or to create a pattern chain without stopping the sequencer, quickly change to PATTERN PLAY mode and select the new pattern. Then switch back to PATTERN WRITE mode and continue editing the pattern.
PROGRAMMING RHYTHM PATTERNS - TAP MODE

Programming a pattern in TAP MODE allows for live entry of instrument triggers. TAP MODE is always active in PATTERN WRITE - NORMAL mode, meaning that you do not need to choose between STEP or TAP mode when entering a pattern. Both methods can be used simultaneously.

To enter instrument triggers using TAP MODE, with the sequencer running, simply hit the TAP (WRITE/NEXT) button in the rhythm you wish to record. Each tap will create a trigger event in the sequence, quantized to the nearest step resolution.

To select a new pattern, or to create a pattern chain without stopping the sequencer, quickly change to PATTERN PLAY mode and select the new pattern. Then switch back to PATTERN WRITE mode and continue editing the pattern.
RECORDING PATTERNS IN REALTIME USING MIDI

It is possible to record incoming MIDI notes directly into the 606 sequencer. Recorded triggers are strictly quantized to the step triggers of the 606.

Multiple instruments can be recorded simultaneously, without the need to select the current instrument using the instrument select knob.

The incoming velocity of the MIDI notes is used to determine whether the recorded trigger should be accented or unaccented.

To record a pattern in realtime, just play MIDI notes on the configured MIDI input channel while the sequencer is running. The notes need to be mapped to the various instruments. The note mapping can be changed using the MIDI LEARN function in CONFIG MODE.

MIDI INPUT must be enabled to record MIDI messages in realtime.
ADDING ACCENT TO INDIVIDUAL INSTRUMENTS
With the Quicksilver 606, each individual instrument trigger can be accented or unaccented.

This flexibility allows more expressive patterns. With individual instrument accent, only a single instrument is accented on a step, while all other instruments on that step are left unaccented.

The global ACCENT instrument can still be used to accent every instrument that is played on a step.

The individual instrument accent is still played even if the ACCENT instrument is muted in MUTE MODE. This makes it possible to create interesting pattern variations using just the ACCENT mute and roll capability.

Normally when placing an instrument trigger, you simply press the appropriate step button.

If you wish to place an accented trigger, double-click the appropriate step button. The LED for this step will have a flickering LED instead of the normal bright LED.

DOUBLE-CLICK a step button to add an accented trigger.
SELECTING PATTERN SECTIONS
When a pattern has two sections (more than 16 steps) you can quickly choose which section to edit by pressing the PATTERN GROUP button.

While the sequencer is running, press the PATTERN GROUP button to toggle between each section.

If a pattern has only one section, the section cannot be changed, and the PATTERN GROUP button will do nothing.

You will also notice that the chase LED will scan on the current section being edited and then the PATTERN GROUP LED will blink while the section that is not in view plays.
SELECTING PATTERNS IN CHAINS
While editing a chain of patterns, you may wish to switch the current pattern displayed for editing, without going into PATTERN PLAY mode. This can be done quickly by pressing and holding the PATTERN GROUP button.

While the PATTERN GROUP button is held, the currently selected pattern or pattern chain is displayed on the pattern step buttons. The pattern currently being edited will blink quickly.

If a pattern chain is selected, you can select which pattern of the chain is being edited, by pressing the pattern step button (while continuing to hold the PATTERN GROUP button).

The currently playing pattern of the chain will blink in tempo, allowing you to tell where in a chain you may wish to edit.

New patterns or pattern chains cannot be selected using this method.
MUTE AND ROLL MODE

Mute and roll mode is used to mute individual instruments or set up a "drum roll".

There are two types of muting, PATTERN MUTING and GLOBAL MUTING. PATTERN MUTING applies only for the currently selected pattern and is saved with the pattern in memory. GLOBAL MUTING applies to all patterns and is not stored in memory.

Mutes and rolls can be used for interesting live performance variations.

To enter MUTE AND ROLL MODE, double-click the FUNCTION button.

To exit MUTE AND ROLL MODE, double-click the FUNCTION button again.

In mute and roll mode, the first eight step buttons represent mutes for the eight TR-606 instruments.

- STEP BUTTON 1 - Accent Mute
- STEP BUTTON 2 - Bass Drum Mute
- STEP BUTTON 3 - Snare Drum Mute
- STEP BUTTON 4 - Low Tom Mute
- STEP BUTTON 5 - High Tom Mute
- STEP BUTTON 6 - Cymbal Mute
- STEP BUTTON 7 - Open Hi-Hat Mute
- STEP BUTTON 8 - Closed Hi-Hat Mute

Step buttons 9-16 represent the drum roll for the eight instruments.

- STEP BUTTON 9 - Accent Roll
- STEP BUTTON 10 - Bass Drum Roll
- STEP BUTTON 11 - Snare Drum Roll
- STEP BUTTON 12 - Low Tom Roll
- STEP BUTTON 13 - High Tom Roll
PATTERN WRITE MODE

• STEP BUTTON 14 - Cymbal Roll
• STEP BUTTON 15 - Open Hi-Hat Roll
• STEP BUTTON 16 - Closed Hi-Hat Roll

MUTING INSTRUMENT TRACKS
Each pattern can have individual instruments muted. This is useful for creating variations and build-ups from a single programmed pattern.

Pattern mutes are stored with the pattern.

To mute or unmute an instrument, press the corresponding instrument mute button (step buttons 1-8).

When an instrument is muted, the LED for the corresponding instrument will be off.
GLOBAL MUTING
Global muting is used to mute an instrument across patterns. This is useful when you want to remove an instrument from a pattern chain or during a live performance. It is also a useful way to mute or unmute a group of instruments simultaneously with a single button press.

Global muting is temporary and is not stored to memory.

Pattern mutes override global mutes, meaning that a pattern mute cannot be unmuted in global mute mode.

To enable global muting, while in mute and roll mode, press the PATTERN GROUP button. Both pattern group LEDs will begin blinking to indicate global mute mode.

To turn off global muting, press the PATTERN GROUP button again. Any mutes that were enabled in global mute mode will be disabled when global muting is deactivated.
DRUM ROLL
An instrument can be set to automatically play repeated notes using the ROLL function. The "resolution" of this repetition can be adjusted dynamically, allowing the creation of a build-up or variation on the fly during live performance.

The roll notes are in addition to any notes already programmed into the pattern.

More than one instrument can be enabled for roll, but all instruments share a common roll resolution.

The roll status is not stored with a pattern.

To enable or disable roll for an instrument, press the corresponding step button (buttons 9-16).

When roll is active for an instrument, the LED will remain lit above the corresponding pattern button.
ROLL RESOLUTION

The roll resolution can be adjusted to increase or decrease the repetition rate of the rolled notes.

There are six different resolution settings (based on standard 4/4 timing):

- OFF - no notes are played, even if roll is enabled for an instrument
- 1/32 - very fast repetition, faster than is programmable into a pattern
- 1/16 - a note is played on every step
- 1/8 - a note is played every other step
- 1/4 - a note is played every four steps
- 1/2 - a note is played every eight steps

The resolution buttons are arranged in this order to allow for intuitive live performance of a build-up, and then disabling the roll by setting roll resolution to OFF.

Roll resolution defaults to OFF, when the machine is first powered on.

To adjust the roll resolution, press and hold the WRITE/NEXT button while in mute and roll mode. Now select the desired resolution by pressing the corresponding pattern button.

Any instruments that have roll enabled will immediately start playing at the selected resolution.

You can quickly switch back and forth between roll enable/disable and roll resolution by pressing or releasing the WRITE/NEXT button.
FUNCTION MODE

FUNCTION MODE is used to adjust the length and scale of a pattern as well as the shuffle level.

The original TR-606 only allowed for a maximum of 16 steps per pattern, with the Quicksilver 606, a pattern can now be up to 32 steps in length.

To enter FUNCTION MODE, press and hold the FUNCTION button.

SETTING PATTERN LENGTH

The length of a pattern can be set to any length between 1 and 32 steps using a combination of the pattern LAST STEP and the number of PATTERN SECTIONS.

The total length of a pattern is the number of sections multiplied by 16, minus any steps that are removed by setting the last pattern step.

If the scale of the pattern is changed, the length should also be changed manually to match the timing if desired.

For example, if a pattern is set to 3/4 time and a total of 24 steps is required, then the pattern length would be set to two sections with a last step of eight: 32 - 8 = 24 steps.

SETTING PATTERN SECTIONS

A pattern section consists of 16 steps, as displayed by the 16 pattern step buttons. By default, a standard 16 step pattern is one section long, but can be increased to two sections (32 steps).

A 32 step pattern can also be reduced to 16 steps. The pattern information on steps 17-32 is not lost when the length is reduced, allowing the section length to be used as a "fill" function during live performance, by dynamically changing the number of sections during playback.

If the number of sections is reduced while the sequencer is running, the change will not take effect until the pattern loops.
To change the number of sections, while holding FUNCTION, press the PATTERN GROUP button. This will switch the number of sections back and forth between one or two sections.

A section length of one is indicated by the PATTERN GROUP I LED being lit. A section length of two is indicated by the PATTERN GROUP II LED being lit.

EXTENDING A PATTERN

When increasing a pattern from one to two sections, the pattern information from the first 16 steps can automatically be copied to the second section. This is useful when you have programmed a 16-step pattern, and you wish to create a longer version with some variation.

To extend a pattern, while holding FUNCTION, press and hold the WRITE/NEXT button, then press the PATTERN GROUP button.
SETTING PATTERN LAST STEP
Similar to the original TR-606, the last step of a pattern can be set to create pattern lengths that are not multiples of 16.

The last step only applies to the last section of the pattern.

If the last step is changed while the sequencer is running, the change is immediate.

To set the last step, while holding FUNCTION, press one of the step buttons, this will become the last step of the pattern.
PATTERN WRITE MODE

SETTING PATTERN SCALE
The scale of a pattern controls the timing of notes in relation to a master clock.

The TR-606 offers four different scales:

- 4 - Six steps play for every quarter note
- 3 - Three steps play for every quarter note
- 2 - Eight steps play for every quarter note
- 1 - Four steps play for every quarter note

If the scale is changed while the sequencer is running, the scale change will not take effect until the pattern loops.

Changing scale on the Quicksilver 606 is slightly different than on the original TR-606. On the original, when pressing FUNCTION, the scale immediately changed to the scale selected with the SCALE slide switch.

To change the scale on the Quicksilver 606, hold the FUNCTION button and then move the SCALE slide switch.

The scale will not change until the SCALE switch is moved, even if the pattern is in a different scale than that selected by the current position of the SCALE slide switch.
ADDING SHUFFLE TO A PATTERN
The Quicksilver 606 allows for SHUFFLE timing to be added to a pattern. SHUFFLE delays the playback of all even-numbered steps by an amount determined by the SHUFFLE level.

The amount of shuffle available depends on the SCALE of the pattern. On SCALE setting 1, there are 7 levels of SHUFFLE. On SCALE setting 2, there are 4 levels of SHUFFLE. On SCALE settings 3 and 4, SHUFFLE timing is not available. If the SCALE of a pattern is changed, the SHUFFLE is automatically reset to 1. A SHUFFLE setting of “1” is equal to “no shuffle”.

To view or set the SHUFFLE of a pattern, hold the FUNCTION button and the WRITE/NEXT buttons together. The amount of SHUFFLE is displayed on the step LEDs. To change the SHUFFLE amount, press the corresponding step button (1-7 on SCALE 1 or 1-4 on SCALE 2).

The amount of SHUFFLE is stored with the pattern in memory.
CLEAR MODE

Although the name suggests this function is used for clearing patterns, it also has some cool additional features that have nothing to do with clearing. All of these additional functions are accessed while still holding down the PATTERN CLEAR button. Additionally, most functions can also operate independently on PATTERNS or INSTRUMENTS.

The functions available in CLEAR MODE are:

- CLEAR PATTERN - Clear entire pattern, reset length and scale
- CLEAR INSTRUMENT - Clear all triggers for a single instrument
- COPY PATTERN - Copy an entire pattern
- COPY INSTRUMENT - Copy the triggers for a single instrument
- PASTE PATTERN - Paste an entire pattern
- PASTE INSTRUMENT - Paste the triggers for a single instrument
- RANDOMIZE PATTERN - Randomize the triggers for all instruments in a pattern
- RANDOMIZE INSTRUMENT - Randomize the triggers for a single instrument
- REVERSE PATTERN - Reverse the location of all instrument triggers in a pattern
- REVERSE INSTRUMENT - Reverse the location of all triggers for a single instrument
- ROTATE PATTERN - Shift all triggers in a pattern forwards or backwards
- ROTATE INSTRUMENT - Shift all triggers for a single instrument forwards or backwards
- TRACK SYSEX - Transmit the current track via MIDI system exclusive.
- PATTERN SYSEX - Transmit the current pattern via MIDI system exclusive
- MACHINE SYSEX - Transmit all memory contents via MIDI system exclusive

CLICKING FOR CLEAR, COPY AND PASTE FUNCTIONS

The CLEAR, COPY and PASTE functions work a bit differently than other functions. They are initiated by first clicking the relevant function button. The function can then be applied to a whole pattern or to a single instrument. To apply the function to an entire pattern, press the appropriate step button, to apply the function to only the currently selected instrument, press the TAP button. To exit the function, simply release the PATTERN CLEAR button. This method is used to make it easier to remember the location of the function buttons, and to allow the flexibility of choosing either a pattern or single instrument.
CLEARING INSTRUMENTS

To clear the triggers for a single instrument, while still holding the PATTERN CLEAR button, click the STEP 1 button. The LED above the STEP 1 button will blink. Now, press the TAP button to clear the currently selected instrument. The CLEAR function will automatically exit.
CLEARING PATTERNS
To clear the triggers for an entire pattern, while still holding the PATTERN CLEAR button, click the STEP 1 button. The LED above the STEP 1 button will blink. Now, press the STEP button for the pattern you wish to clear. The CLEAR function will automatically exit.
COPYING INSTRUMENTS
To copy the triggers for a single instrument into the copy buffer, while still holding the PATTERN CLEAR button, click the STEP 2 button. The LED above the STEP 2 button will blink. Now, press the TAP button to copy the triggers of the currently selected instrument into the copy buffer. The COPY function will automatically exit.
COPYING PATTERNS
To copy the triggers for an entire pattern into the copy buffer, while still holding the PATTERN CLEAR button, click the STEP 2 button. The LED above the STEP 2 button will blink. Now, press the STEP button for the pattern you wish to copy into the copy buffer. The COPY function will automatically exit.
PASTING INSTRUMENTS
To paste the triggers for a single instrument from the copy buffer, while still holding the PATTERN CLEAR button, click the STEP 3 button. The LED above the STEP 3 button will blink. Now, press the TAP button to paste the copy buffer triggers into the currently selected instrument. The PASTE function will automatically exit.
PASTING PATTERNS
To paste the triggers for an entire pattern from the copy buffer, while still holding the PATTERN CLEAR button, click the STEP 3 button. The LED above the STEP 3 button will blink. Now, press the STEP button for the pattern you wish to paste the copy buffer into. The PASTE function will automatically exit.
**INSTRUMENT ROTATE**

The instrument rotate function will shift the triggers of the currently selected instrument forwards or backwards. This is useful to line up a single instrument with the rest of the pattern.

The INSTRUMENT ROTATE function is the default action of the PATTERN GROUP and TAP buttons when in CLEAR MODE.

To shift an instrument back, press the PATTERN GROUP button. To shift an instrument forwards, press the TAP button.
**PATTERN WRITE MODE**

**PATTERN ROTATE**

The PATTERN ROTATE function will shift the triggers of an entire pattern forwards or backwards. This is useful to line up a pattern on the correct loop point or in relation to external machines.

The PATTERN ROTATE function is initiated by pressing and holding the STEP 5 button. Then shift the pattern back by pressing the PATTERN GROUP button. To shift the pattern forwards, press the TAP button.
INSTRUMENT RANDOMIZE
The INSTRUMENT RANDOMIZE function will randomize the triggers of the currently selected instrument. This can be useful for creating some interesting starting points for a new pattern.

To initiate the INSTRUMENT RANDOMIZE function press and hold the STEP 6 button. To randomize the currently selected instrument press the TAP button.
PATTERN WRITE MODE

PATTERN RANDOMIZE

The PATTERN RANDOMIZE function will randomize all of the triggers for the current pattern.

To initiate the PATTERN RANDOMIZE function press and hold the STEP 6 button. To randomize the current pattern press the PATTERN GROUP button.
INSTRUMENT REVERSE
The INSTRUMENT REVERSE function will reverse all of the triggers for the currently selected instrument. This can be useful for creating an interesting variation of the current pattern.

To initiate the INSTRUMENT REVERSE function press and hold the STEP 7 button. To reverse the currently selected instrument press the TAP button.
PATTERN WRITE MODE

PATTERN REVERSE
The PATTERN REVERSE function will reverse all of the triggers for the current pattern.

To initiate the PATTERN REVERSE function press and hold the STEP 7 button. To reverse the current pattern press the PATTERN GROUP button.
PATTERN WRITE MODE

PATTERN SYSEX
The pattern information of the pattern copy buffer can be dumped over MIDI as system exclusive information. This allows patterns to be backed up to a computer for storage. To transmit a specific pattern, it should first be copied to the pattern copy buffer using the COPY function.

When a SYSEX pattern dump is received over MIDI, it is placed into the pattern copy buffer and must then be pasted into the destination pattern location. Pattern dumps can be sent and received while the sequencer is running.

To dump a pattern over MIDI, first copy the source pattern into the pattern copy buffer. Configure your receiving MIDI device to listen for the SYSEX dump information. While holding the PATTERN CLEAR button, press the STEP 9 button. The pattern information stored in the pattern copy buffer will be immediately transmitted as MIDI information.
**TRACK SYSEX**

The track information of the track copy buffer can be dumped over MIDI as system exclusive information. In PATTERN WRITE mode, this function is limited, because the TRACK COPY and PASTE functions are located in TRACK WRITE MODE. For more information on COPY and PASTE functions for tracks, please see the TRACK WRITE mode documentation.

To transmit a track, it should first be copied to the track copy buffer using the COPY function (this must be performed in TRACK WRITE mode).

When a SYSEX track dump is received over MIDI, it is placed into the track copy buffer and must then be pasted into the destination track location. Track dumps can be sent and received while the sequencer is running.

To dump a track over MIDI, first copy the source track into the track copy buffer in TRACK WRITE MODE. Configure your receiving MIDI device to listen for the SYSEX dump information. While holding the PATTERN CLEAR button, press the STEP 10 button. The track information stored in the track copy buffer will be immediately transmitted as MIDI information.
MACHINE STATE SYSEX DUMP
The entire contents of memory can be dumped in a single button press using the MACHINE SYSEX DUMP function. This dumps all 32 patterns, 8 tracks and the machine configuration as MIDI system exclusive data. This is useful for creating a snapshot of the entire machine for backup purposes. The MACHINE STATE DUMP can be performed while the sequencer is running, but reception of a MACHINE DUMP while the sequencer is running will result in audible timing glitches as the entire contents of memory are overwritten.

To dump the entire machine state over MIDI, configure your receiving MIDI device to listen for the SYSEX dump information. While holding the PATTERN CLEAR button, press the STEP 11 button. The entire contents of memory will be immediately transmitted as MIDI information.
Pattern play mode is used for playback of existing patterns. PATTERN PLAY mode is good for performance playback, because it allows for dynamic changes using MUTE and ROLL mode.

Pattern mute settings are stored with the pattern even when changed in PATTERN PLAY mode.

SELECTING PATTERNS

A new pattern can be selected for playback while the sequencer is playing or stopped.

If a pattern is selected during playback, the current pattern will play to completion before the new pattern begins playback. When the sequencer is stopped, the new pattern is selected immediately.

To select a new pattern, press the appropriate step button. The pattern group can also be changed by pressing the PATTERN GROUP button.
CREATING PATTERN CHAINS

In PATTERN PLAY mode, multiple patterns can be chained together to create a longer pattern loop. The chain will loop indefinitely until a different pattern or pattern chain is selected. A pattern chain can be up to 16 patterns in length.

To create a pattern CHAIN, press and hold the step button for the first pattern in the chain, then press the step button of the last pattern in the chain.

The LEDs of the step buttons will light to show the current chain. The currently playing pattern is indicated with a blinking LED.
RESTARTING A RUNNING PATTERN
While the sequencer is running in PATTERN PLAY mode, the current pattern can be restarted, or forced to play from the first step. This is useful for manually resyncing a pattern with an external source, or for creatively stuttering pattern playback.

To restart a pattern, press and hold the TAP button, then press the BACK button. This combination is used to avoid accidentally restarting a pattern.
MUTE AND ROLL MODE

Mute and roll mode is used to mute individual instruments or set up an instrument "drum roll".

There are two types of muting, PATTERN MUTING and GLOBAL MUTING. PATTERN MUTING applies only for the currently selected pattern and is saved with the pattern in memory. GLOBAL MUTING applies to all patterns and is not stored in memory.

Mutes and rolls can be used for interesting live performance variations.

To enter mute and roll mode, double click the FUNCTION button.

In mute and roll mode, the first eight step buttons represent mutes for the eight TR-606 instruments.

- STEP BUTTON 1 - Accent Mute
- STEP BUTTON 2 - Bass Drum Mute
- STEP BUTTON 3 - Snare Drum Mute
- STEP BUTTON 4 - Low Tom Mute
- STEP BUTTON 5 - High Tom Mute
- STEP BUTTON 6 - Cymbal Mute
- STEP BUTTON 7 - Open Hi-Hat Mute
- STEP BUTTON 8 - Closed Hi-Hat Mute

Step buttons 9-16 represent the drum roll for the eight instruments.

- STEP BUTTON 9 - Accent Roll
- STEP BUTTON 10 - Bass Drum Roll
- STEP BUTTON 11 - Snare Drum Roll
- STEP BUTTON 12 - Low Tom Roll
- STEP BUTTON 13 - High Tom Roll
- STEP BUTTON 14 - Cymbal Roll
- STEP BUTTON 15 - Open Hi-Hat Roll
- STEP BUTTON 16 - Closed Hi-Hat Roll
MUTING INSTRUMENT TRACKS

Each pattern can have individual instruments muted. This is useful for creating variations and build-ups from a single programmed pattern.

Pattern mutes are stored with the pattern.

To mute or unmute an instrument, press the corresponding pattern mute button (buttons 1-8).

When an instrument is muted, the LED for the corresponding instrument will be off.
GLOBAL MUTING
Global muting mutes an instrument track across patterns. This is useful when you want to remove an instrument from a pattern chain or during a live performance. It is also a useful way to mute or unmute a group of instruments simultaneously with a single button press.

Global muting is temporary and is not stored to memory.

Pattern mutes override global mutes, meaning that a pattern mute cannot be unmuted in global mute mode.

To enable global muting, while in mute and roll mode, press the PATTERN GROUP button.

Both pattern group LEDs will begin blinking to indicate global mute mode.

To turn off global muting, press the PATTERN GROUP button again. Any mutes that were enabled in global mute mode will be disabled when global muting is deactivated.
DRUM ROLL

An instrument can be set to automatically play repeated notes using the ROLL function. The "resolution" of this repetition can be adjusted dynamically, allowing the creation of a build-up or variation on the fly during live performance.

The roll notes are in addition to any notes already programmed into the pattern.

More than one instrument can be enabled for roll, but all instruments share a common roll resolution.

The roll status is not stored with a pattern.

To enable or disable roll for an instrument, press the corresponding pattern button (buttons 9-16).

When roll is active for an instrument, the LED will remain lit above the corresponding pattern button.
ROLL RESOLUTION
The roll resolution can be adjusted to increase or decrease the repetition rate of the rolled notes.

There are six different resolution settings (based on standard 4/4 timing):

- **OFF** - no notes are played, even if roll is enabled for an instrument
- 1/32 - very fast repetition, faster than is programmable into a pattern
- 1/16 - a note is played on every step
- 1/8 - a note is played every other step
- 1/4 - a note is played every four steps
- 1/2 - a note is played every eight steps

The resolution buttons are arranged in this order to allow for intuitive live performance of a build-up, and then disabling the roll by setting roll resolution to OFF.

Roll resolution defaults to OFF, when the machine is first powered on.

To adjust the roll resolution, press and hold the WRITE/NEXT button while in mute and roll mode. Now select the desired resolution by pressing the corresponding pattern button:

Any instruments that have roll enabled will immediately start playing at the selected resolution.

You can quickly switch back and forth between roll enable/disable and roll resolution by pressing or releasing the WRITE/NEXT button.
TRACK PLAY MODE

TRACK PLAY mode is used to play back programmed tracks.

Only a few functions are available in TRACK PLAY PATTERN mode, to avoid accidental disruption of a track during playback. MUTE AND ROLL MODE is available in TRACK PLAY mode.

To access TRACK PLAY mode, move the MODE selector knob to TRACK PLAY.

SELECTING TRACKS
Tracks are selected by rotating the TRACK/INSTRUMENT selector knob. When selecting a new track, playback will begin from the first step of the track.

If the sequencer is running when selecting a new track, the current pattern will complete playback before switching to the first step of the newly selected track.
**TRACK PLAY MODE**

**DISPLAYING THE CURRENT TRACK STEP**

The current playing track step can be displayed on the step LEDs by pressing and holding the TAP button. The display will update as the track step advances. This can be useful to determine the current playback location within a long track.

**RESTARTING A PLAYING TRACK**

While the sequencer is running in TRACK PLAY mode, the current track can be restarted, or forced to play from the first step immediately. This is useful for manually resyncing a track with an external source, or for creatively stuttering track playback.

To restart a track, press and hold the TAP button, then press the PATTERN GROUP button. This combination is used to avoid accidentally restarting a track.
MUTE AND ROLL MODE

Mute and roll mode is used to mute individual instruments or set up a "drum roll".

In TRACK PLAY mode, TRACK STEP MUTES cannot be modified. GLOBAL MUTING is available for muting an instrument across track steps.

Mutes and rolls can be used for interesting live performance variations.

To enter MUTE AND ROLL MODE, double click the FUNCTION button.

To exit MUTE AND ROLL MODE, double-click the FUNCTION button again.

In mute and roll mode, the first eight step buttons represent track step mutes for the eight TR-606 instruments. In TRACK PLAY mode, mutes can only be changed in GLOBAL MUTING.

- STEP BUTTON 1 - Accent Mute
- STEP BUTTON 2 - Bass Drum Mute
- STEP BUTTON 3 - Snare Drum Mute
- STEP BUTTON 4 - Low Tom Mute
- STEP BUTTON 5 - High Tom Mute
- STEP BUTTON 6 - Cymbal Mute
- STEP BUTTON 7 - Open Hi-Hat Mute
- STEP BUTTON 8 - Closed Hi-Hat Mute

Step buttons 9-16 represent the drum roll for the eight instruments.

- STEP BUTTON 9 - Accent Roll
- STEP BUTTON 10 - Bass Drum Roll
- STEP BUTTON 11 - Snare Drum Roll
- STEP BUTTON 12 - Low Tom Roll
- STEP BUTTON 13 - High Tom Roll
- STEP BUTTON 14 - Cymbal Roll
TRACK PLAY MODE

- STEP BUTTON 15 - Open Hi-Hat Roll
- STEP BUTTON 16 - Closed Hi-Hat Roll

VIEWING TRACK STEP MUTES
Each track step can have individual instruments muted. This is useful for creating variations and build-ups from a single programmed pattern.

TRACK STEP MUTES cannot be modified in TRACK PLAY mode, but they can be displayed. The display will change to show the current track step mutes as the track plays.

When an instrument is muted, the LED for the corresponding instrument will be off.
GLOBAL MUTING
Global muting mutes an instrument track across patterns. This is useful when you want to remove an instrument from a pattern chain or during a live performance. It is also a useful way to mute or unmute a group of instruments simultaneously with a single button press.

Global muting is temporary and is not stored to memory.

Pattern mutes and track step mutes override global mutes, meaning that a pattern or track step mute cannot be unmuted in global mute mode.

To enable global muting, while in mute and roll mode, press the PATTERN GROUP button.

Both pattern group LEDs will begin blinking to indicate global mute mode. To turn off global muting, press the PATTERN GROUP button again. Any mutes that were enabled in global mute mode will be disabled when global muting is deactivated.
DRUM ROLL
An instrument can be set to automatically play repeated notes using the ROLL function. The "resolution" of this repetition can be adjusted dynamically, allowing the creation of a build-up or variation on the fly during live performance.

The roll notes are in addition to any notes already programmed into the pattern.

More than one instrument can be enabled for roll, but all instruments share a common roll resolution.

The roll status is not stored with a pattern.

To enable or disable roll for an instrument, press the corresponding pattern button (buttons 9-16).

When roll is active for an instrument, the LED will remain lit above the corresponding pattern button.
ROLL RESOLUTION
The roll resolution can be adjusted to increase or decrease the repetition rate of the rolled notes.

There are six different resolution settings (based on standard 4/4 timing):

- OFF - no notes are played, even if roll is enabled for an instrument
- 1/32 - very fast repetition, faster than is programmable into a pattern
- 1/16 - a note is played on every step
- 1/8 - a note is played every other step
- 1/4 - a note is played every four steps
- 1/2 - a note is played every eight steps

The resolution buttons are arranged in this order to allow for intuitive live performance of a build-up, and then disabling the roll by setting roll resolution to OFF.

Roll resolution defaults to OFF, when the machine is first powered on.

To adjust the roll resolution, press and hold the WRITE/NEXT button while in mute and roll mode. Now select the desired resolution by pressing the corresponding pattern button:

Any instruments that have roll enabled will immediately start playing at the selected resolution.

You can quickly switch back and forth between roll enable/disable and roll resolution by pressing or releasing the WRITE/NEXT button.
In TRACK WRITE mode, tracks can be created and edited. If the sequencer is running while in TRACK WRITE mode, the track steps are not advanced automatically (as they are in TRACK PLAY MODE).

Tracks can be a maximum of 64 steps in length and each step can be a chain of up to 16 patterns. A track step can also be programmed to repeat up to 16 times before advancing to the next track step.

Each track step can also have mutes set, which are separate from the pattern mutes saved with each pattern.

To enter TRACK WRITE mode, rotate the mode selector knob to TRACK WRITE.

SELECTING TRACKS
The track to edit is selected by rotating the TRACK/INSTRUMENT selector knob. When selecting a new track, the current track step will be reset to the first step of the track.

If the sequencer is running when selecting a new track, the current pattern will change immediately to the first step of the newly selected track.
SELECTING PATTERNS
A pattern can be selected for each track step while the sequencer is playing or stopped. The new pattern is selected immediately regardless of the sequencer state. This makes it quicker to program many steps into a track.

To select a new pattern, press the appropriate STEP button.

SELECTING THE PATTERN GROUP
In TRACK WRITE mode, the PATTERN GROUP button defaults to moving back to the previous track step.

To change the current PATTERN GROUP, press and hold the STEP button and then press the PATTERN GROUP button.
CREATING PATTERN CHAINS
In TRACK WRITE mode, each track step can have multiple patterns chained together to create a longer pattern loop. The chain will loop once per track step repeat. A pattern chain can be up to 16 patterns in length.

To create a pattern CHAIN, press and hold the step button for the first pattern in the chain, then press the step button of the last pattern in the chain. The LEDs of the pattern buttons will light to show the current chain.

The currently playing pattern is indicated with a blinking LED.
TRACK WRITE MODE

CHANGING THE CURRENT TRACK STEP

In TRACK WRITE mode, the track steps are not advanced automatically. This allows changes to be made to the track step before moving to a different track step.

The current track step can be selected by pressing the WRITE/NEXT or PATTERN GROUP buttons.

The currently selected track step number is displayed on the step LEDs while the TAP/WRITE or PATTERN GROUP button is held.
TRACK WRITE MODE

TRACK STEP MUTES
In TRACK WRITE mode, MUTE MODE is used to set the TRACK STEP MUTES instead of PATTERN MUTES.

TRACK STEP MUTES allow for each track step to have a different set of mutes, even if the same pattern is playing back. This is great for creating a song from a single pattern by using different track step mutes to create builds and breakdowns.

TRACK STEP MUTES are in addition to any PATTERN MUTES, meaning that a PATTERN MUTE cannot be unmuted by a TRACK STEP MUTE. If you plan to program a song from different combinations of TRACK STEP MUTES, you should start with all PATTERN MUTES unmuted.

Global muting and the ROLL function are not available in TRACK WRITE MODE.

To enter TRACK WRITE MUTE MODE, double-click the FUNCTION button.

To mute or unmute an instrument, press the corresponding pattern mute button (buttons 1-8).

When an instrument is muted, the LED for the corresponding instrument will be off.
FUNCTION MODE

In FUNCTION MODE the number of TRACK STEP REPEATS and the current LAST STEP can be viewed or modified.

Each track step can be set to repeat up to 16 times before advancing to the next track step. If the TRACK STEP is a chain of patterns, the entire chain counts as one repetition.

The LAST STEP of the track defines where the track will end. After reaching the LAST STEP, the track will automatically loop and continue playing from the first track step.

SETTING TRACK STEP REPEATS

While holding the FUNCTION button, the current number of TRACK STEP REPEATS is displayed on the step LEDs. TRACK STEP REPEATS can be set from 1 to 16 repeats per step.

To change the number of repeats, press the corresponding STEP button. The LED above the step button should light, indicating the new TRACK STEP REPEAT value.
TRACK WRITE MODE

SETTING THE LAST TRACK STEP
While holding the FUNCTION button, both of the PATTERN GROUP LEDs will light if the current track step is defined as the LAST TRACK STEP. If the PATTERN GROUP LEDs are not lit, then the track step is either before or after the current LAST TRACK STEP.

Only one track step can be defined as the LAST TRACK STEP.

To designate the current track step as the LAST TRACK STEP, press the PATTERN GROUP button.
CLEAR MODE

Although the name suggests this function is used for clearing tracks, it also has other useful functions that have nothing to do with clearing. All of these additional functions are accessed while still holding down the PATTERN CLEAR button.

Track clear mode is accessed by pressing and holding the PATTERN CLEAR button while in TRACK WRITE mode.

CLEARING TRACKS

To clear a track, press and hold the STEP 1 button while holding PATTERN CLEAR. Then press the PATTERN GROUP button to confirm the action.

This sets each track step to pattern 1 with no track mutes, one repeat and the track length to 64 steps. Track clearing cannot be undone!
TRACK COPY
A track can be copied from one track location to another. This is useful for creating multiple copies of a track before editing.

The copy buffer is also used for transmission of tracks over SYSEX. Any track can be copied into the track copy buffer for subsequent paste operations or SYSEX dumps.

First select the source track by rotating the TRACK / INSTRUMENT selector knob.

To COPY a track, while holding the PATTERN CLEAR button, push the STEP 2 button.

TRACK PASTE
The track stored in the track copy buffer can be pasted into another track location. The PASTE operation can be performed multiple times using the same track copy buffer information. This makes it easy to quickly create a few copies of a source track.

First select the destination track by rotating the TRACK / INSTRUMENT selector knob.

To PASTE a track, while holding the PATTERN CLEAR button, push the STEP 3 button.
TRACK SYSEX DUMP

The track information in the track copy buffer can be dumped over MIDI as system exclusive information. This allows tracks to be backed up to a computer for storage.

To transmit a specific track, it should first be copied to the track copy buffer using the COPY function. When a SYSEX track dump is received over MIDI, it is placed into the track copy buffer and must then be pasted into the destination track location.

Track dumps can be sent and received while the sequencer is running.

To dump a track over MIDI, first copy the source track into the track copy buffer. Configure your receiving MIDI device to listen for the SYSEX dump information.

While holding the PATTERN CLEAR button, press the STEP 10 button. The track information stored in the track copy buffer will be immediately transmitted as MIDI information.
MACHINE STATE SYSEX DUMP

The entire contents of memory can be dumped in a single button press using the MACHINE SYSEX DUMP function. This dumps all 32 patterns, 8 tracks and the machine configuration as MIDI system exclusive data.

This function is useful for creating a snapshot of the entire machine for backup purposes.

The MACHINE STATE DUMP can be performed while the sequencer is running, but reception of a MACHINE DUMP while the sequencer is running may result in audible timing glitches as the entire contents of memory are overwritten.

To dump the entire machine state over MIDI, configure your receiving MIDI device to listen for the SYSEX dump information.

While holding the PATTERN CLEAR button, press the STEP 11 button. The entire contents of memory will be immediately transmitted as MIDI information.
CONFIG MODE

CONFIG MODE is used to set user configurable options, such as MIDI SYNC input/output, MIDI channels, instrument note assignments, etc. These settings apply to the overall machine and are not specific to a pattern or track.

Config mode settings are stored to memory, and are retained even after power down.

To enter CONFIG MODE, from any other mode, press and hold the FUNCTION button, then press the PATTERN CLEAR button.

To exit CONFIG MODE, press the FUNCTION button.
CONFIG MODE

MIDI NOTE INPUT DISABLE/ENABLE
Reception of MIDI notes can be disabled or enabled. This only effects reception of MIDI note information, but not reception of MIDI clock, or the MIDI control function (see MIDI CONTROL documentation).

The internal sounds will respond to incoming MIDI note messages when the internal sequencer is stopped. This allows the 606 to be used as a "sound module" with an external sequencer or DAW.

MIDI notes with velocity greater than 65 will trigger ACCENT.

MIDI note reception listens on the configured MIDI input channel. See documentation on configuring the MIDI input channel.

To toggle MIDI NOTE INPUT on or off, in CONFIG MODE, press the STEP 1 button.

An illuminated LED indicates that MIDI NOTE INPUT is active.
MIDI SYNC INPUT
The reception of MIDI start/stop and clock messages can be turned on or off.

When MIDI SYNC INPUT is enabled, the 606 will automatically begin playback when a MIDI start or continue message is received. The sequencer tempo will lock to incoming MIDI clock messages after receiving a MIDI start message. When a MIDI stop message is received, the 606 will revert back to internal clock.

The internal clock generator always runs independently, regardless of the MIDI sync setting, enabling the sequencer to be started by pressing the START button, even when being controlled from external MIDI.

If a MIDI start is received after the internal clock is started, the 606 will automatically switch to MIDI sync, and then back to internal clock when MIDI stop is received without stopping the sequencer.

A subsequent MIDI start will restart the current pattern at the first step, allowing the sequencer to continue uninterrupted playback while remaining in sync. This is very useful for live performance!

To toggle MIDI SYNC INPUT on or off, in CONFIG MODE, press the STEP 2 button.

An illuminated LED indicates that MIDI SYNC INPUT is active.
**MIDI NOTE OUTPUT DISABLE/ENABLE**

Transmission of MIDI notes can be disabled or enabled. This only effects transmission of MIDI note information from the internal sequencer, not transmission of MIDI clock.

This allows the internal sequencer of the 606 to play other MIDI enabled devices.

MIDI notes will be sent with velocity 127 for ACCENT steps.

MIDI note transmission uses the configured MIDI output channel. See documentation on configuring the MIDI output channel.

To toggle MIDI NOTE OUTPUT on or off, in CONFIG MODE, press the STEP 3 button.
MIDI SYNC OUTPUT

MIDI start/stop and clock messages can be sent from the sequencer to an external device. MIDI start/stop messages are sent when starting and stopping the internal sequencer. MIDI clock messages are sent at the standard 24 ppqn.

If the 606 is synchronized to an external MIDI clock, it will retransmit MIDI sync messages (rather than passing the incoming messages as-is). Note that many modern DAWs cannot sync to incoming MIDI clock, and the few DAWs that can receive incoming clock do not synchronize to it well. If using the 606 with a DAW, it is recommended to set the 606 as MIDI sync slave.

To toggle MIDI SYNC OUTPUT on or off, in CONFIG MODE, press the STEP 4 button.

An illuminated LED indicates that MIDI SYNC OUTPUT is active.
MIDI CONTROL MODE
The Quicksilver 606 has a special "MIDI Control" function which allows MIDI note messages to operate the front panel buttons as if they were being physically pressed. This enables a keyboard controller or some other MIDI device to be used in place of the 606 front panel (which may be too fragile for vigorous live tweaking).

Some of the more "challenging" button combinations used on the front panel could be mapped to an external controller, such as an iPad, for quick use in a live performance situation.

Another interesting use of MIDI control mode, is to record the MIDI note messages being sent to the 606 and allow "programming sessions" to be replayed or edited, rather than storing the audio or pattern data.

When MIDI CONTROL MODE is enabled, the 606 will also send MIDI note messages for each button press, this allows one 606 to control another 606 remotely.

Please see the MIDI CONTROL appendix for the MIDI note to button mapping.

To toggle MIDI CONTROL MODE on or off, in CONFIG MODE, press the STEP 5 button.
CONFIG MODE

USB MIDI
The Quicksilver 606 allows for MIDI messages to be sent over the USB interface instead of using standard serial MIDI input/output.

When USB MIDI is enabled, MIDI messages are not received over the standard MIDI port. MIDI messages will still be output from the standard MIDI port.

All other aspects of MIDI operation work exactly the same over USB MIDI.

NOTE: When USB MIDI is enabled, the CPU will consume more power. This will have an effect on battery life. If using USB MIDI it is recommended to run the TR-606 from a good power supply, not batteries.

When connecting the Quicksilver 606 to a host computer with USB MIDI enabled, the Quicksilver 606 will appear as a new MIDI interface named "Quicksilver 606". Select this interface to send or receive MIDI over USB.

NOTE: We have seen some machines exhibit "USB noise" from the audio output of the TR-606 while connected to a host computer via USB. This noise can be reduced somewhat with proper gain staging, or reconfiguring the grounding/power arrangement of the computer or TR-606. This noise can also be eliminated by using an external “USB isolator”.

To toggle USB MIDI on or off, in CONFIG MODE, press the STEP 6 button.
MIDI LEARN

By default, the Quicksilver 606 maps incoming MIDI notes to the internal drum sounds using the General MIDI standard for drum sounds. This can be changed as needed using the MIDI learn function. The note assignments are saved with the machine configuration and are retained after powering off.

Multiple internal sounds can be mapped to the same MIDI note for creative use.

To change the MIDI note mapping:

- First select the instrument to be mapped by rotating the TRACK / INSTRUMENT selector knob.
- Now press and hold the STEP 7 button.
- While holding the STEP 7 button, send a MIDI note to the 606 on the correct MIDI input channel. This MIDI note will now be mapped to the selected instrument sound.
- Release the STEP 7 button.
SAVE MEMORY TO EEPROM
Please see the note regarding saving to memory at the beginning of this manual. Under normal usage it should not be required to use this function.

It is possible to force the machine to save RAM contents to EEPROM by pressing the STEP 10 button while in CONFIG MODE.
CLEAR ALL TRACKS
Be careful, this function will clear all tracks in memory!

CLEAR ALL TRACKS is useful for resetting all tracks to a blank state before starting work on a new project. This procedure cannot be undone, so be sure to save any tracks you wish to keep using MIDI SYSEX dump.

To clear all track data, press and hold the STEP 11 button. The PATTERN GROUP LEDs will blink to warn you. Now press the PATTERN GROUP button to confirm the operation.
CONFIG MODE

CLEAR ALL PATTERNS
Be careful, this function will clear all patterns in memory!

CLEAR ALL PATTERNS is useful for resetting all patterns to a blank state to work on a new project. This procedure cannot be undone, so be sure to save any patterns you wish to keep using MIDI SYSEX dump.

NOTE: When clearing all patterns, existing tracks will now point to empty patterns!

To clear all pattern data, press and hold the STEP 12 button. The PATTERN GROUP LEDs will blink to warn you. Now press the PATTERN GROUP button to confirm the operation.
**MIDI INPUT CHANNEL**

The MIDI INPUT CHANNEL defines which MIDI channel will be used for incoming MIDI notes or MIDI CONTROL (notes).

To set the MIDI INPUT CHANNEL, press and hold the STEP 14 button, then use the TAP/ WRITE and PATTERN GROUP buttons to increment or decrement the current MIDI INPUT CHANNEL. The currently selected channel is displayed on the step LEDs.
MIDI OUTPUT CHANNEL
The MIDI OUTPUT CHANNEL defines which MIDI channel will be used for transmitting MIDI notes from the internal sequencer or MIDI CONTROL MODE.

The MIDI notes output by the instrument triggers are the same as those which have been set using the MIDI LEARN function.

To set the MIDI OUTPUT CHANNEL, press and hold the STEP 15 button, then use the WRITE/NEXT and PATTERN GROUP buttons to increment or decrement the current MIDI OUTPUT CHANNEL. The currently selected channel is displayed on the step LEDs.
**LED DIMMING**

The brightness of the LEDs can be adjusted as needed. By dimming the LEDs, some inherent noise (audible on the audio output) can be reduced.

Depending on the LEDs installed in the 606, the brightness can be set at a usable level. For example, the original red LEDs will need a higher brightness setting than more efficient blue LEDs.

The LED brightness can be adjusted by pressing and holding the STEP 16 button, then increase or decrease the brightness by pressing the PATTERN GROUP and TAP/WRITE buttons.
CONFIG MODE

DISPLAYING THE OS VERSION
To display the current CPU operating system version, in CONFIG MODE, press the PATTERN GROUP button.

The major version number is shown on the 100 or 200 LEDs (STEP 11 and STEP 12) as a solidly lit LED.

The minor version numbers are shown as a solid and a blinking LED. Solid for the 10s value, blinking for the 1s value. If the minor values are the same, the LED will blink alternately.

OS version 1.10 displayed on the step LEDs.
USING THE QUICKSILVER 606 AS A MIDI SOUND MODULE

The Quicksilver 606 can be used as a “simple” MIDI sound module. This allows the internal sounds to be played from an external sequencer or computer.

There are a few setup options that must be properly configured before the Quicksilver 606 can be used as a sound module.

1. The MIDI input channel must be configured, to match your MIDI source.
2. The MIDI note input option must be enabled. This allows the Quicksilver 606 to receive MIDI note messages.
3. The MIDI sync input option should be disabled. This stops the internal sequencer from starting with an external sync source. The Quicksilver 606 will not play external MIDI notes when the internal sequencer is running.
4. The MIDI CONTROL MODE option must be disabled.
5. You may also use the MIDI LEARN function to change the assignment of MIDI notes to sounds.
Occasionally the operating system may need to be updated for bugfixes or new features. This can be done using the USB connection to the CPU.

There is a video of the update process available from the Social Entropy website.

Start by downloading the new OS hex file and the update utility from the Social Entropy website. ([http://www.socialentropy.com/quicksilver](http://www.socialentropy.com/quicksilver)).

You will need the update utility to get the new operating system onto the CPU.

From the update utility, choose the new OS hex file to upload to the Quicksilver 606 CPU.

Now, set the update utility to automatic mode by pressing the AUTO mode button in the update utility.

After installing the update utility and loading the OS hex file, you will need to connect the Quicksilver 606 CPU to your PC using a standard USB cable.

If you have the USB dongle installed, the USB port should be available inside the battery compartment of the 606. Otherwise, you will need to (carefully) open the case of the 606 to access the USB port directly on the CPU.

With the 606 connected to your PC, you will now boot the 606 in update mode. To do this, press and hold both the TAP/WRITE button and the PATTERN GROUP button while turning on the machine.

You should see the update utility recognize the Quicksilver 606 and begin uploading the new operating system automatically, you can release the TAP/WRITE and PATTERN GROUP buttons now.

After the new operating system is loaded, the TR-606 will reboot itself running the new OS.

You can check the OS version in config mode by pressing the PATTERN GROUP button.

That completes the upgrade process!
## MIDI Implementation Chart

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>TRANSMITTED</th>
<th>RECOGNIZED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC CHANNEL</td>
<td>DEFAULT</td>
<td>1 - 16</td>
<td>1 - 16</td>
</tr>
<tr>
<td></td>
<td>CHANGED</td>
<td>1 - 16</td>
<td>1 - 16</td>
</tr>
<tr>
<td>MODE</td>
<td>DEFAULT</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>MESSAGES</td>
<td>********</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>ALTERED</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NOTE NUMBER</td>
<td></td>
<td>0 - 127</td>
<td>0 - 127</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 - 38(^1)</td>
<td>**</td>
</tr>
<tr>
<td>VELOCITY</td>
<td>NOTE ON</td>
<td>O(^2)</td>
<td>O(^2)</td>
</tr>
<tr>
<td></td>
<td>NOTE OFF</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>AFTERTOUCH</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PITCH BEND</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>CONTROL CHANGE</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PROGRAM CHANGE</td>
<td>X</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>SYSTEM EXCLUSIVE</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>SYSTEM COMMON</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SYSTEM REALTIME</td>
<td>CLOCK</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>COMMANDS</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>AUX MESSAGES</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES**

1. MIDI Control mode starts at note number 12
2. Note transmission uses velocity 63 for unaccented notes, 127 for accented notes

\(O\) : Yes  
\(X\) : No
This mapping is used for incoming MIDI notes when MIDI CONTROL MODE is enabled.

Each MIDI note corresponds to a button on the TR-606 front panel.

The RUN/STOP LED will not light when the sequencer is started with MIDI Control messages.

<table>
<thead>
<tr>
<th>MIDI NOTE NUMBER</th>
<th>STEP</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1</td>
<td>C0</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>C#0</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>D0</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>D#0</td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>E0</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>F0</td>
</tr>
<tr>
<td>18</td>
<td>7</td>
<td>F#0</td>
</tr>
<tr>
<td>19</td>
<td>8</td>
<td>G0</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
<td>A0</td>
</tr>
<tr>
<td>21</td>
<td>10</td>
<td>A1</td>
</tr>
<tr>
<td>22</td>
<td>11</td>
<td>A#1</td>
</tr>
<tr>
<td>23</td>
<td>12</td>
<td>B0</td>
</tr>
<tr>
<td>24</td>
<td>13</td>
<td>B1</td>
</tr>
<tr>
<td>25</td>
<td>14</td>
<td>C0</td>
</tr>
<tr>
<td>26</td>
<td>15</td>
<td>C#0</td>
</tr>
<tr>
<td>27</td>
<td>16</td>
<td>D0</td>
</tr>
<tr>
<td>28</td>
<td>17</td>
<td>D#0</td>
</tr>
<tr>
<td>29</td>
<td>18</td>
<td>E0</td>
</tr>
<tr>
<td>30</td>
<td>19</td>
<td>F0</td>
</tr>
<tr>
<td>31</td>
<td>20</td>
<td>F#0</td>
</tr>
<tr>
<td>32</td>
<td>21</td>
<td>G0</td>
</tr>
<tr>
<td>33</td>
<td>22</td>
<td>A0</td>
</tr>
<tr>
<td>34</td>
<td>23</td>
<td>A#1</td>
</tr>
<tr>
<td>35</td>
<td>24</td>
<td>B0</td>
</tr>
<tr>
<td>36</td>
<td>25</td>
<td>B1</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>C0</td>
</tr>
</tbody>
</table>

MIDI NOTE NUMBER

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>STEP</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATTERN CLEAR</td>
<td>1</td>
<td>C0</td>
</tr>
<tr>
<td>PATTERN GROUP</td>
<td>12</td>
<td>C0</td>
</tr>
<tr>
<td>TAP</td>
<td>24</td>
<td>C0</td>
</tr>
</tbody>
</table>

MIDI NOTE NUMBER