

6 - Recorder functions

Automatic punch in/out function

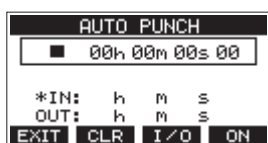
Using the automatic punch in/out function, you can automatically record between punch in and out points set in advance.

To use the automatic punch in/out functions, start playback from a pre-roll point before the punch in point where recording will start.

Recording will stop when the punch out point is reached, but playback will continue for two seconds before stopping.

Setting the punch in/out points

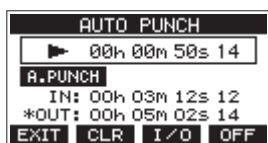
1. When the recorder is stopped, select MTR on the MENU Screen, and open the MTR Screen. (see "Menu operation procedures" on page 21)
2. Select AUTO PUNCH on the MTR Screen, and open the AUTO PUNCH Screen.



3. Press the ►/|| button to start playback.
4. Press the MULTI JOG dial to set the punch in and out points. The set points are shown next to the IN and OUT items.

NOTE

- You can also turn the MULTI JOG dial to set the points.
 - Set the punch in and out points at least one second apart.
 - Press the F2 CLR button to clear set punch in and out points.
 - Press the F3 I/O button to select either the punch in or out point. An ✚ icon will appear next to the selected item.
5. Press the ■ button to stop playback.
 6. Press the F4 ON button to turn the automatic punch in/out function on. The A.PUNCH icon appears on the AUTO PUNCH Screen.



7. Press the F1 EXIT button to return to the MENU Screen.

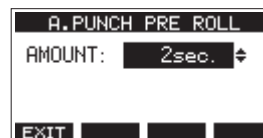
TIP

- By setting only the punch in point, you can start recording with automatic punch in and then continue recording until you press the ■ button to stop.
- By setting only the punch out point, you can start recording by pressing the ● button and then stop recording with automatic punch out.

Setting a pre roll point

When using automatic punch in, the amount of playback time before the punch in point can be set (pre roll point).

1. When the recorder is stopped, select MTR on the MENU Screen, and open the MTR Screen. (see "Menu operation procedures" on page 21)
2. Select A.PUNCH PRE ROLL on the MTR screen to open the A.PUNCH PRE ROLL screen.



3. Set the pre-roll point.

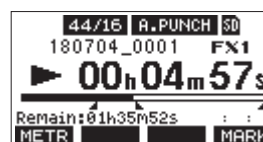
Option	Meaning
OFF	Do not locate to a point before the punch in point. Manually moving to somewhere before the punch in point beforehand will be necessary.
1sec. – 10sec. (default: 2sec.)	Locate to a pre roll point the set time before the punch in point and start playback.

4. Press the F1 EXIT button to return to the MTR Screen.

Rehearsing punching in and out

You can rehearse before punch in/out recording. In rehearsal, recording will not occur, but monitoring will be the same as if recording.

1. Press the MENU button when the recorder is stopped to open the Home Screen. Confirm that the A.PUNCH icon appears on the Home Screen.



2. Press the REC buttons for the tracks you want to record using automatic punch in/out.

NOTE

Punch in recording is not possible when the REC button is on for eight or more channels.

3. Press the ►/|| button. Auto punch in/out rehearsal starts.
 - The transport starts playback from the pre-roll point. Both track playback and input source signals can be monitored. (see "Setting a pre roll point" on page 36)
 - When the punch in point is reached, only the input source signal will be monitored. The ● button will blink showing that it is rehearsal mode.
 - When the punch out point is reached, both track playback and input source signals will be monitored. The ● button will become unlit.
 - Playback will automatically stop two seconds after the punch out point. The ►/|| button will blink.

Rehearsal can be repeated.

Using automatic punching in and out

Follow these procedures to punch in and out automatically and record.

1. Confirm that the **A.PUNCH** icon appears on the Home Screen.
2. Press the REC buttons for the tracks you want to record using automatic punch in/out.

NOTE

Punch in recording is not possible when the REC button is on for eight or more channels.

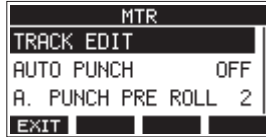
3. Press the ● button.
 - The transport starts playback from the pre-roll point. Both track playback and input source signals can be monitored. (see "Setting a pre roll point" on page 36)
 - When the punch in point is reached, only the input source signal will be monitored. The ● button will light.
 - When the punch out point is reached, both track playback and input source signals will be monitored. The ● button will become unlit.
 - Playback will automatically stop two seconds after the punch out point. The ►/|| button will blink.

7 - Track editing

Clearing tracks

The selected track will be cleared.

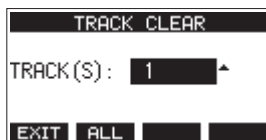
1. When the recorder is stopped, select MTR on the MENU Screen, and open the MTR Screen. (see “Menu operation procedures” on page 21)



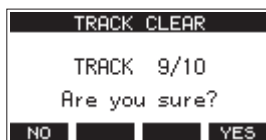
2. Select TRACK EDIT on the MTR Screen, and open the TRACK EDIT Screen.



3. Select TRACK CLEAR on the TRACK EDIT Screen, and open the TRACK CLEAR Screen.



4. Turn the MULTI JOG dial to select the track to clear, and press the MULTI JOG dial. A confirmation message will appear.



NOTE

Press the **F2** **ALL** button to open a message asking to confirm that you want to clear all tracks.



5. Press the **F4** **YES** button to clear the track(s).

NOTE

- To cancel clearing tracks, press the **F1** **NO** button.
 - Undoing is possible only for the last cleared track.
6. After clearing tracks completes, the TRACK CLEAR Screen will reopen.

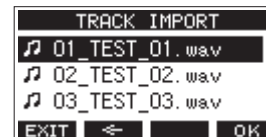
Importing tracks

You can import audio files that you have to tracks in the current song.

Files that can be imported to tracks must be WAV (BWF) format (“WAV” extension).

To import an audio file with a different format (.mp3, etc.) to this unit, it must be converted to a WAV file that matches the format of the song it will be imported into beforehand.

1. Connect this unit with a computer. (see “Connecting with a Computer” on page 51)
2. Use the computer to copy WAV files on it to this unit’s “MUSIC” folder.
3. Follow the proper disconnection procedures on the computer before disconnecting the USB cable. (see “Disconnecting” on page 52)
4. When the recorder is stopped, select MTR on the MENU Screen, and open the MTR Screen. (see “Menu operation procedures” on page 21)
5. Select TRACK EDIT on the MTR Screen, and open the TRACK EDIT Screen.
6. Select IMPORT on the TRACK EDIT Screen, and open the TRACK IMPORT Screen. WAV files in the “MUSIC” folder will be shown.



7. Select a WAV file to import.
 - Turn the MULTI JOG dial to select a WAV file.
 - Press the MULTI JOG dial when a folder is selected to show its contents.
 - Press the **F1** **EXIT** button to return to the MENU Screen.
 - Press the **F2** **←** button to move up one level.
8. Press the **F4** **OK** button. A confirmation message will appear if the bit length of the WAV file to be imported differs from the current song.



Confirmation message example

- Press the **F1** **NO** button to return to the TRACK IMPORT screen.
- Press the **F4** **YES** button to continue to the TRACK IMPORT screen. In this case, the file will be imported and the bit length will be changed to match the current song.

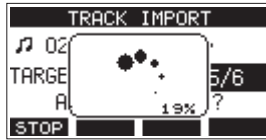
NOTE

- If there are no openings for tracks to import, an “Import error. No track” pop-up message will appear.
- To cancel importing a track, press the F1 button.
- Importing is not possible under the following conditions.
 - Not enough open space is available on the SD card
 - There are no empty tracks
 - If the sampling frequency of the WAV file you are trying to

import differs from the current song

Example: Trying to import a 48kHz WAV file when the current song is 44.1kHz

- If there is no file that can be imported, a “No File” pop-up message will appear.
- 9. Select the track to import, and press the **F4** **YES** button to import it.



When importing completes, the TRACK IMPORT Screen reopens.

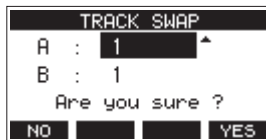
NOTE

- Press the **F1** **STOP** button to cancel importing.
- The part of the track imported before canceling will remain; it will not be deleted.

Swapping tracks

Recorded tracks can be swapped with other tracks.

1. When the recorder is stopped, select MTR on the MENU Screen, and open the MTR Screen. (see “Menu operation procedures” on page 21)
2. Select TRACK EDIT on the MTR Screen, and open the TRACK EDIT Screen.
3. Select TRACK SWAP on the TRACK EDIT Screen, and open the TRACK SWAP Screen.



4. Turn the MULTI JOG dial to select a track.
Options: 1 (default), 2, 3, 4, 5, 6, 7, 8, 7/8, 9, 10, 9/10, 11, 12, 11/12
5. Press the MULTI JOG dial to move the cursor to the B item.
6. Turn the MULTI JOG dial to select a track.
Options: 1 (default), 2, 3, 4, 5, 6, 7, 8, 7/8, 9, 10, 9/10, 11, 12, 11/12
7. Press the **F4** **YES** button to swap the track specified in the A and B items.

NOTE

This can be used as a basic bounce function by swapping the signals recorded on tracks 11/12 (the output from the MAIN OUTPUT connectors) to other tracks, and then clearing all the other tracks.

Stereo mix export function

MAIN MIX L/R bus recording files (mono) can be converted to a single stereo file.

Converted stereo files are saved in the “MUSIC” folder.

Saved files are named according to the song name. For example, the file name will be “181228_0002_2-MIX_01.wav” if the song name is “181228_0002”.

If the size of the converted file would exceed 2 GB, multiple files will be created with numbers like “02” and “03” at their ends.

1. Load the song to be exported as a stereo mix in advance. For details about loading songs, see “Loading Songs” on page 28.
2. When the recorder is stopped, select STEREO MIX EXPORT on the MENU Screen, and open the STEREO MIX EXPORT Screen. (see “Menu operation procedures” on page 21)

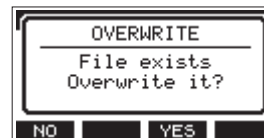


3. Press the **F4** **YES** button to start conversion.



NOTE

- If a converted file already exists, a message to confirm overriding appears.



Press the **F3** **YES** button to delete the existing file and start conversion. This operation cannot be undone.

- Conversion is not possible if no MAIN MIX L/R bus file has been recorded. The message shown below will appear.



- During conversion, press the **F1** **STOP** button to cancel conversion. A file with the part converted before canceling will remain.
- 4. When conversion completes, the MENU Screen will reopen.

NOTE

Converted files can be played using this unit’s SD PLAY mode. For details about playback with the SD PLAY mode, see “Playing WAV files on SD cards (SD PLAY mode)” on page 50.

8 - Mark functions

Marks can be used to cue for playback, for example. In addition to use with this unit, mark information added to WAV files can be used with software, for example, that supports the BWF format.

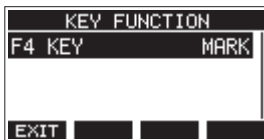
Using mark functions

In order to set and clear marks, the Home Screen **F4** button function must be switched to **MARK**.

NOTE

When the unit is purchased new, **MARK** appears on the Home Screen. There is no need to change the function of the **F4** button before use.

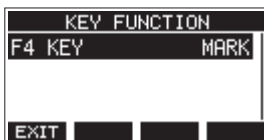
1. When the recorder is stopped, select **KEY FUNCTION** on the **SYSTEM** Screen, and open the **KEY FUNCTION** Screen. (see "Menu operation procedures" on page 21)



2. Press the **MULTI JOG** dial to open the **F4 KEY** Screen.
3. Turn the **MULTI JOG** dial to select **MARK**.



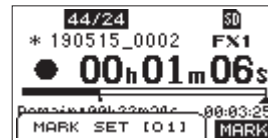
4. Press the **MULTI JOG** dial to confirm the setting. The **KEY FUNCTION** Screen reopens.



Adding marks

When playing or recording, press the **F4 MARK** button to add a mark at the current point.

When a mark is added, a pull-up showing the mark number appears at the bottom of the display.



Mark icons appear below the playback position bar where marks are set.

- The [xx] in the mark name is a number given to all marks that is incremented in order.
- Marks added during recording will automatically be saved in the song when recording stops.
- Marks added during playback will not be automatically saved. Save song information after stopping playback to save mark data. (see "Saving the current song" on page 28)

NOTE

If an icon appears at the beginning of a song name, it has unsaved mark data. Save the song information to save the mark data. (see "Saving the current song" on page 28)

Moving between marks

When stopped, paused or playing back, press the **◀◀** or **▶▶** button to move (skip) to the previous or next mark.

When skipping, the mark name appears in a pull-up at the bottom of the display.

Clearing individual marks

Marks can be cleared when stopped or paused.

1. Skip to a mark that you want to delete when stopped or paused. (see "Moving between marks" on page 40)
2. Press the **F4 MARK** button to open the **Mark Clear** confirmation screen.



3. Press the **F4 YES** button to clear the mark.

NOTE

- Repeat steps 1 - 3 to clear multiple marks.
- To clear all marks in the current song, select the **CLR ALL MARKS** item from the menu list shown on the **SONG** Screen. (see "Clearing all marks" on page 28)

Metronome functions

This unit has a built-in metronome.

Click sound and metronome settings can be made for each output separately.

NOTE

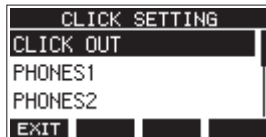
Metronome function settings are saved in the current song. The settings saved in the song can be used the next time it is loaded.

Setting the click sound

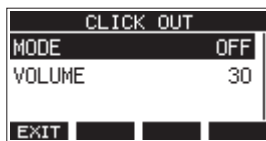
The output can be set for the metronome click sound. The setting procedures differ according to the output destination.

Setting the click sound output from the CLICK jack

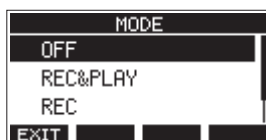
1. When the recorder is stopped, select SETTING on the CLICK Screen, and open the CLICK SETTING Screen. (see "Menu operation procedures" on page 21)



2. On the CLICK SETTING Screen, select CLICK OUT, and open the CLICK OUT Screen.



3. Select MODE on the CLICK OUT Screen, and open the MODE Screen.

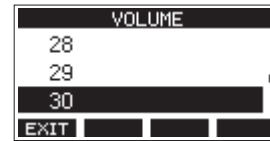


4. Turn the MULTI JOG dial to select the click sound output mode.

Option	Meaning
OFF (default)	Click is not output with recording or playback
COUNT IN+REC	Click is output during count in and recording
REC	Click is output during recording
REC&PLAY	Click is output during recording and playback

5. Press the MULTI JOG dial to confirm the setting. The CLICK OUT Screen reopens.

6. Select VOLUME on the CLICK OUT Screen, and open the VOLUME Screen.



7. Turn the MULTI JOG dial to set the CLICK jack output level. Options: 0–50 (default: 30)
8. Press the MULTI JOG dial to confirm the setting. The CLICK OUT Screen reopens. Starting recording or playback will cause the click to be output according to the setting. When the setting is enabled, the TEMPO indicator flashes in time with the metronome tempo. The metronome signal is not recorded even if set to work during recording.

NOTE

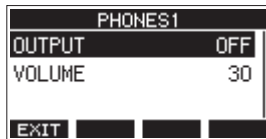
- When the metronome is working, you can monitor the sound of the metronome through connected external speakers. Note, however, in this case that the metronome sound could also be recorded if you are using a microphone to record in the same room.
- When the metronome is running, the output level settings on various output VOLUME screens can be adjusted, but other items cannot be changed.
- You can use the metronome as a click track to help keep time when recording rhythm guitar or bass, for example, as the first tracks of a song.
- If you want to use the metronome alone for practice, you can either turn each track's fader all the way down during playback or play a song that does not have any recordings.

9 - Other functions

Setting the click sound output from the PHONES jacks and buses (MAIN MIX L/R, AUX 1, AUX 2/FX, SUB L/R)

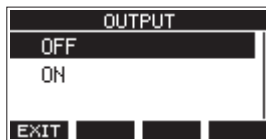
1. When the recorder is stopped, select SETTING on the CLICK Screen, and open the CLICK SETTING Screen. (see "Menu operation procedures" on page 21)
2. Select the following items on the CLICK SETTING Screen, and open the corresponding settings screens.

Option	Meaning
PHONES1	Settings for click sent to the PHONES 1 jack
PHONES2	Settings for click sent to the PHONES 2 jack
SUB BUS	Settings for click sent to the SUB L/R bus
MAIN BUS	Settings for click sent to the MAIN MIX L/R bus
AUX1	Settings for click sent to the AUX 1 bus
AUX2	Settings for click sent to the AUX 2/FX bus



Settings screen when PHONES1 selected

3. Select OUTPUT on the settings screen, and open the OUTPUT Screen.



4. Turn the MULTI JOG dial to select the click sound sent to the CLICK jack.

Option	Meaning
OFF (default)	No click is sent.
ON	Click is sent.

5. Press the MULTI JOG dial to confirm the setting. The settings screen reopens.
6. Select VOLUME on the screen shown, and open the VOLUME Screen.

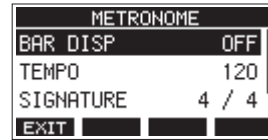


7. Turn the MULTI JOG dial to set the CLICK jack output level. Options: 0–50 (default: 30)
8. Press the MULTI JOG dial to confirm the setting. The settings screen reopens.

Making metronome settings

Specific metronome settings can be made.

1. When the recorder is stopped, select CLICK on the MENU Screen, and open the CLICK Screen. (see "Menu operation procedures" on page 21)
2. Select METRONOME on the CLICK Screen, and open the METRONOME Screen.



3. Turn the MULTI JOG dial to select a metronome setting item. Then, press the MULTI JOG dial. The corresponding setting item screen will open.

BAR DISP

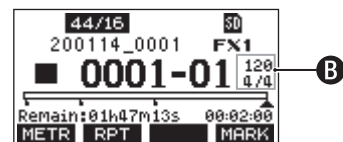
This sets the display of the time counter on the Home Screen.

Options: OFF (default), ON



When ON, the time counter on the Home Screen switches to bars and beats, showing the tempo and rhythm in the **B** area.

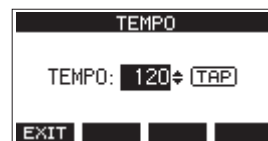
The maximum number of bars that can be shown is 10000.



TEMPO

This sets the tempo.

The setting range is from 20 to 250 (BPM). (Default: 120)



Turn the MULTI JOG dial to set the tempo.

Tap the CLICK button repeatedly at the desired tempo to set it.

When the footswitch function is "TAP", the footswitch can also be used for input. (see "Setting up the footswitch" on page 47)

SIGNATURE

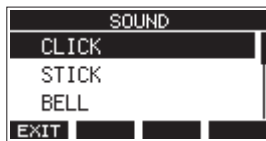
Set the time signature to 4/4, 3/4, etc.
The setting range is from 1/1 to 12/8. (Default: 4/4)



SOUND

This sets the click sound.

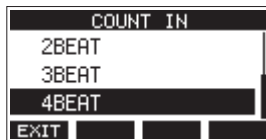
Options: CLICK (default), STICK, BELL, KICK, SNARE, PEDAL HIHAT, OPEN HIHAT, CLOSE HIHAT



Setting the count in function

When the click sound output setting is set to COUNTIN+REC, counting in before recording is possible. The click sound pattern played before recording starts can be set.

1. When the recorder is stopped, select CLICK on the MENU Screen, and open the CLICK Screen. (see "Menu operation procedures" on page 21)
2. Select COUNT IN on the CLICK Screen, and open the COUNT IN Screen.



3. Turn the MULTI JOG dial to set the count in type.

Option	Meaning
SIGNATURE	One bar of beats for the set SIGNATURE are output. The first beat of the bar is accented.
2SIGNATURES	Two bars of beats for the set SIGNATURE are output. The first beat of the bar is accented.
2+4BEAT	Regardless of the signature setting, one bar of half notes followed by one bar of quarter notes are output. No beat is accented.
2BEAT	Regardless of the signature setting, two quarter notes are output. No beat is accented.
3BEAT	Regardless of the signature setting, three quarter notes are output. No beat is accented.
4BEAT (default)	Regardless of the signature setting, four quarter notes are output. No beat is accented.

4. Press the MULTI JOG dial to confirm the setting. The CLICK Screen reopens.

Starting and stopping the metronome manually

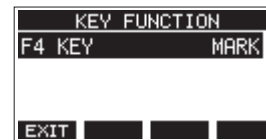
The metronome can be started and stopped at any time by pressing the CLICK button.

- Press the CLICK button when the metronome is off to start it.
- Press the CLICK button when the metronome is on to stop it.

Function button setting

By changing the **F4** button function on the Home Screen from **MARK** to **CLIC**, the METRONOME screen where metronome functions can be set can be opened directly from the Home Screen.

1. When the recorder is stopped, select KEY FUNCTION on the SYSTEM Screen, and open the KEY FUNCTION Screen. (see "Menu operation procedures" on page 21)



2. Press the MULTI JOG dial to open the F4 KEY Screen.

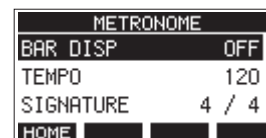


3. Turn the MULTI JOG dial to select CLICK.
4. Press the MULTI JOG dial to confirm the setting. The KEY FUNCTION Screen reopens.
5. Open the Home Screen to show that **CLIC** is assigned to the **F4** button.



NOTE

Press the **F4 CLIC** button to open the METRONOME Screen.



9 - Other functions

MIDI functions

This unit can generate MIDI TIME CODE and MIDI CLOCK when the recorder is playing back or recording.

The generated MIDI data is output from the MIDI OUT connector and simultaneously sent to a computer connected by USB.

A DAW, for example, can be set to synchronize with the MIDI time code from this unit so it can operate in time with the recorder of this unit.

For details, check the operation manual of the hardware or software product being used.

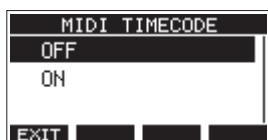
MIDI settings are made on the following screen.



Setting MIDI time code operation

When MIDI time code is enabled, it sends quarter-frame messages during playback and recording. It sends full messages when locating.

1. When the recorder is stopped, select MIDI TIME CODE on the MIDI Screen, and open the MIDI TIME CODE Screen. (see "Menu operation procedures" on page 21)



2. Turn the MULTI JOG dial to set MIDI time code operation.

Option	Meaning
OFF (default)	MIDI time code is not transmitted.
ON	MIDI time code is transmitted.

NOTE

The MIDI time code frame type sent by this unit is 30 frames per second (non-drop).

3. Press the MULTI JOG dial to confirm the setting. The MIDI Screen reopens.

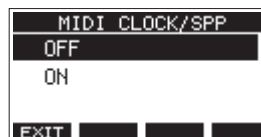
Setting MIDI CLOCK/SPP

When MIDI CLOCK/SPP is enabled, MIDI CLOCK is sent during playback and recording.

Song position pointers are sent when locating.

The MIDI Clock timing and song positions sent depend on the metronome settings.

1. When the recorder is stopped, select MIDI CLOCK/SPP on the MIDI Screen, and open the MIDI CLOCK/SPP Screen. (see "Menu operation procedures" on page 21)



2. Turn the MULTI JOG dial to set whether or not MIDI CLOCK/SPP is sent.

Option	Meaning
OFF (default)	MIDI CLOCK/ SPP is not sent.
ON	MIDI CLOCK/ SPP is sent.

3. Press the MULTI JOG dial to confirm the setting. The MIDI Screen reopens.

Mixer functions

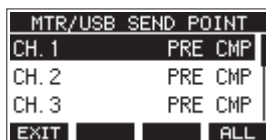
Selecting the positions that recording signals are sent from each channel

The signals that are sent from each channel for recording to an SD card can be set to before or after the compressor or after the equalizer.

1. When the recorder is stopped, select MIXER on the MENU Screen, and open the MIXER Screen. (see "Menu operation procedures" on page 21)



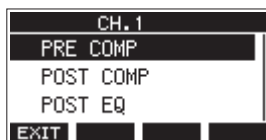
2. Select MTR/USB SEND POINT on the MIXER Screen, and open the MTR/USB SEND POINT Screen.



NOTE

Press the **F4 ALL** button to change the settings for all channels at the same time.

3. Select the channel to be changed, and press the MULTI JOG dial. This opens the setting screen for the selected channel.



4. Turn the MULTI JOG dial to select the send position.

Option	Meaning
PRE COMP (default)	The signal of the channel is recorded to the SD card before the compressor.
POST COMP	The signal of the channel is recorded to the SD card after the compressor.
POST EQ	The signal of the channel is recorded to the SD card after the equalizer.

5. Press the MULTI JOG dial to confirm the setting. The MTR/USB SEND POINT Screen reopens.

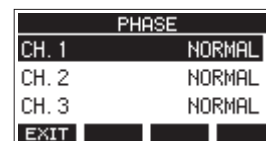
Setting the phase of each channel

The phase of each channel can be set.

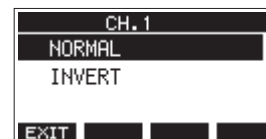
1. When the recorder is stopped, select MIXER on the MENU Screen, and open the MIXER Screen. (see "Menu operation procedures" on page 21)



2. Select PHASE on the MIXER Screen, and open the PHASE Screen.



3. Select the channel with the signal phase to change, and open its settings screen.



4. Turn the MULTI JOG dial to change the signal phase.

Option	Meaning
NORMAL (default)	Normal phase
INVERT	Inverted phase

5. Press the MULTI JOG dial to confirm the setting. The PHASE Screen reopens.

9 - Other functions

Changing the positions that signals are sent to the AUX 1 bus from each channel

The positions from which signals are sent from the channels to the AUX 1 bus can be changed.

This setting is shared by channels 1–6, 7/8 and 9/10.

1. When the recorder is stopped, select MIXER on the MENU Screen, and open the MIXER Screen. (see “Menu operation procedures” on page 21)



2. Select AUX1 SEND on the MIXER Screen, and open the AUX1 SEND Screen.



3. Turn the MULTI JOG dial to select the signal sent to the AUX 1 bus.

Option	Meaning
PRE FADER (default)	The signal is sent to the AUX 1 bus before adjustment by the channel fader.
POST FADER	The signal is sent to the AUX 1 bus after adjustment by the channel fader.

4. Press the MULTI JOG dial to confirm the setting. The MIXER Screen reopens.

Setting the solo function for all channels

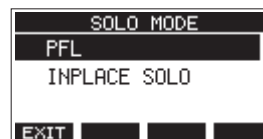
This sets the function of the SOLO buttons.

This setting is shared by channels 1–6, 7/8 and 9/10.

1. When the recorder is stopped, select MIXER on the MENU Screen, and open the MIXER Screen. (see “Menu operation procedures” on page 21)



2. Select SOLO MODE on the MIXER Screen, and open the SOLO MODE Screen.



3. Turn the MULTI JOG dial to select the solo mode.

Option	Meaning
PFL (default)	Pressing the SOLO button sends the channel signal to the SOLO L/R bus.
INPLACE SOLO	Pressing the SOLO button mutes the signals of other channels.

4. Press the MULTI JOG dial to confirm the setting. The MIXER Screen reopens.

Footswitch functions

Setting up the footswitch

Use the FOOTSW Screen to set the footswitch. Two footswitches can be connected by using a commercially-available splitter cable. The function and polarity can be set separately for each footswitch.

NOTE

When connecting a footswitch directly without using a splitter cable, the FOOTSW1 settings will be used. In this case, set FOOTSW2 to OFF.

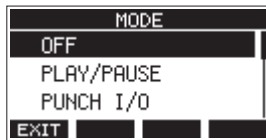
1. When the recorder is stopped, select FOOTSW on the SYSTEM Screen, and open the FOOTSW Screen. (see "Menu operation procedures" on page 21)



2. Select FOOTSW1 or FOOTSW2 from the list, and open the corresponding footswitch settings screen.



3. Select the MODE item, and open the MODE Screen.



4. Turn the MULTI JOG dial to select the function to assign to the footswitch.

Option	Meaning
OFF	No function is assigned to the footswitch.
PLAY/PAUSE (default)	Press to start playback when stopped or paused. Press to pause when playing.
PUNCH I/O	Press during playback to punch in. Press when recording to punch out.
FX MUTE	Mute the built-in effect signal.
REC/STOP	Start/stop recording.
MARKER	Add a mark to the song.
MARK SKIP	Move to the next mark.
SONG INCREMENT	Load the next song.
TAP	Use in the same way as the CLICK button on the EFFECT and TEMPO screens.

5. Press the MULTI JOG dial to confirm the assigned function. The FOOTSW screen reopens.

Setting the footswitch polarity

The setting of this unit can be changed according to the polarity of the footswitch being used.

1. When the recorder is stopped, select FOOTSW on the SYSTEM Screen, and open the FOOTSW Screen. (see "Menu operation procedures" on page 21)
2. Select FOOTSW1 or FOOTSW2 from the list, and open the corresponding footswitch settings screen.



3. Select the POLARITY item, and open the POLARITY Screen.

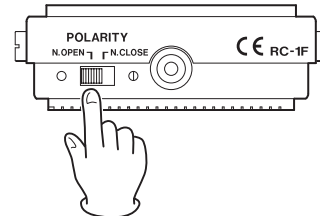


4. Turn the MULTI JOG dial to set the footswitch polarity. Select "NORMALLY OPEN" or "NORMALLY CLOSED" so that the actual footswitch movement matches that shown by the illustration on the screen.

Options: NORMALLY OPEN (default), NORMALLY CLOSED

NOTE

When using a TASCAM RC-1F, set the POLARITY switch to "N.OPEN".



5. Press the F1 **EXIT** button to return to the FOOTSW Screen.

NOTE

Dual-type footswitches can also be connected. Refer to the operation manual of the footswitch for how to connect and set it.

DAW CONTROL

This unit has DAW control functions. By setting it to DAW control mode, the controls of this unit can be used for basic operation of the DAW application. This includes fader operation, muting, panning, soloing, recording, playing, stopping and other transport functions.

Mackie Control and HUI protocol emulation are supported, so Cubase, Digital Performer, Logic, Live, Pro Tools, Cakewalk and other major DAW applications can be controlled.

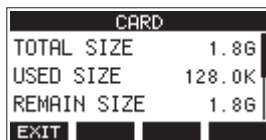
For details about DAW control mode, download the DAW Control Mode Manual from the page for this product on the TASCAM website (<https://tascam.com/us/>).

10 - Settings and Information

Viewing information

Use the INFORMATION screen to view various types of information about the unit. Follow the procedures below to view the INFORMATION screen.

1. When the recorder is stopped, select INFORMATION on the SYSTEM Screen, and open the Information Screen. (see "Menu operation procedures" on page 21)



The Information Screen has 3 pages. The CARD page opens first.

2. Turn the MULTI JOG dial to cycle through the CARD, SONG and FIRMWARE screens.

CARD Screen

Shows the use status of the currently loaded SD card.

SONG Screen

Shows the number of songs on the loaded SD card.

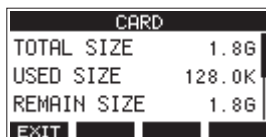
FIRMWARE Screen

Shows the unit's system firmware version.

3. Press the **F1 EXIT** button to return to the SYSTEM Screen.

CARD Screen

The CARD Screen shows the status of the currently loaded SD card.



TOTAL SIZE

Shows the total amount of space on the SD card.

USED SIZE

Shows the amount of space used on the SD card.

REMAIN SIZE

Shows the amount of space unused on the SD card.

SONG Screen

The SONG Screen shows the use status of the "MTR" folder.

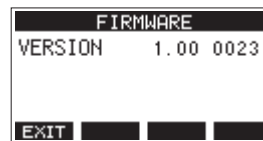


TOTAL SONG

This shows the total number of songs in the "MTR" folder.

FIRMWARE Screen

The FIRMWARE Screen shows the firmware version.



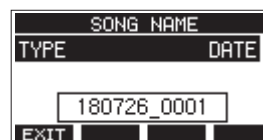
VERSION

This shows the system firmware version of this unit.

Setting the song name format

Set the name format used by the unit for created songs.

1. When the recorder is stopped, select SONG NAME on the SYSTEM Screen, and open the SONG NAME Screen. (see "Menu operation procedures" on page 21)



2. Set the file name format.

Option	Meaning
DATE (default)	Use the date for the song name. (Example: 180101_0001)
WORD	Use the 6-character song name set on the EDIT screen. (Example: TASCAM_0001)

NOTE

The date is set using the unit's internal clock. (see "Setting the built-in clock date and time" on page 25)

3. Press the **F1 EXIT** button to return to the SYSTEM Screen.

Setting the WORD item

To set the characters, select WORD on the TYPE Screen. An EDIT item will appear on the SONG NAME Screen that can open the WORD EDIT Screen.



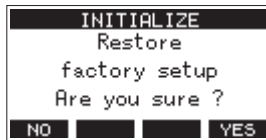
For details about how to set characters, see "Editing text" on page 29.

Restoring factory default settings

You can restore the various settings stored in the memory of the unit to their factory default values.

Use the following menu procedures to do so.

1. When the recorder is stopped, select INITIALIZE on the SYSTEM Screen, and open the INITIALIZE Screen. (see "Menu operation procedures" on page 21)



2. Press the **F4 YES** button to restore the factory default settings.
3. When the setting completes, the SYSTEM Screen will reopen.

NOTE

- Press the **F1 NO** button to cancel execution.
- The date and time setting is not initialized.

Formatting SD cards

Formatting erases all music files on the SD card and automatically creates new "MTR", "MUSIC" and "UTILITY" folders as well as a "tascam_m.sys" file.

ATTENTION

- Formatting an SD card erases all the data on it. This cannot be undone.
- Always use this unit to format media to be used with it. Operation of this unit might be affected when using an SD card that has been formatted by a computer or other device.

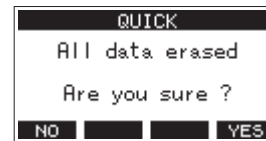
1. When the recorder is stopped, select MEDIA FORMAT on the SYSTEM Screen, and open the MEDIA FORMAT Screen. (see "Menu operation procedures" on page 21)



QUICK: Execute quick formatting.

ERASE (Recommendation): Erase and format the card.

2. Select the format method, and press the MULTI JOG dial. A confirmation message will appear on the QUICK or ERASE Screen.



Shown when QUICK selected

NOTE

Press the **F1 NO** button to cancel formatting and return to the previous screen.

3. Press the **F4 YES** button to start formatting.
4. When formatting is complete, the SYSTEM Screen will reopen.

NOTE

- Pressing the **F1 STOP** button during an ERASE format will cancel erasure and execute a QUICK format instead.
- The writing speeds to SD cards and other storage media that use flash memory tend to decrease after writing occurs repeatedly.

If the writing speed decreases, this could have a negative impact on recording.

Using the ERASE function of this unit should restore the writing speed of the SD card.*

For this reason, we recommend using the ERASE function at the following times.

- Whenever the card has been written to until it became completely full
- On a regular schedule (about once per month)
- Before starting important recordings

* Writing speed might not be restored depending on the SD card condition (including malfunction and age).

10 - Settings and Information

Playing WAV files on SD cards (SD PLAY mode)

The WAV files in the "MUSIC" folder on an SD card can be played back. (see "Loading WAV files from a computer" on page 52)

To play files recorded on this unit, use the stereo mix export function to convert the recorded (mono) files to a single stereo file. Then, use the SD PLAY mode to play it. (see "Stereo mix export function" on page 39)

The following audio file formats can be played back in SD PLAY mode.

- WAV: 44.1/48kHz, 16/24-bit
- BWF: 44.1/48kHz, 16/24-bit

NOTE

Playback signal is sent from channels 9 and 10.

1. Set the channel 9/10 MODE switch to "MTR".
2. Set the channel 9/10 PAN/BAL knob to the center position.
3. When the recorder is stopped, select SD PLAY on the MENU Screen, and open the SD PLAY Screen. (see "Menu operation procedures" on page 21)



4. Select a file to play back.
 - Turn the MULTI JOG dial to select a WAV file.
 - Press the MULTI JOG dial when a folder is selected to show its contents.
 - Press the **F1** **EXIT** button to return to the MENU Screen.
 - Press the **F2** **←** button to move up one level.

NOTE

Only WAV files can be played back. Unsupported files will not be shown.

5. Press the **F4** **PLAY** button or **▶/||** button to start WAV file playback.
The SD PLAY Screen will show playback status.



- Press the **F1** **EXIT** button to return to the file selection screen.
- Press the **F2** **RPT** button to turn the repeat playback function on and select the repeat playback mode.

Display	Meaning
No indicator	The folder that contains the currently playing WAV file will play back, and then playback will stop.
↺1	The currently playing WAV file will play back repeatedly.
↺ALL	The folder that contains the currently playing WAV file will play back repeatedly.

- Press the **F3** **←←** button to skip to the beginning of the WAV file. Press near the beginning of the WAV file to skip to the beginning of the track before it.
 - Press the **F4** **→→** button to skip to the beginning of the next WAV file.
6. Press the **F1** **EXIT** button twice to return to the MENU Screen.

11 - Using a computer to transfer data

By connecting this unit with a computer using a commercially available USB cable, you can back up song data on the SD card in the unit to the computer, as well restore backed up song data to the unit. You can also export track and stereo master files from songs to the computer and import audio files from the computer.

Backed up data can be restored to other Model 12 units. Since this allows you to freely move files between Model 12 units, you can easily conduct additional recording or mixing at different locations.

ATTENTION

You can conduct the same operations by removing the SD card from the unit and connecting it directly to a computer or by using a card reader instead of using USB to connect the unit and the computer. Turn the unit's power off or stop operation before removing the SD card.

This unit can transfer the following data to a computer.

Entire songs

This unit can transfer all the data for a song from the "MTR" folder to a computer. This operation is called "backing up". Data backed up to a computer can also be transferred to the "MTR" folder, and restored as a song file. This operation is called "restoring".

ATTENTION

Do not change names, delete or otherwise alter individual files inside the "MTR" folder. Doing so could prevent loading data as a song and make proper recording and playback operations impossible.

WAV files

By placing WAV files from the computer into the "MUSIC" folder, you can import them to song tracks. Moreover, WAV files in the "MUSIC" folder can be played back in SD PLAY mode.

Connecting with a Computer

You cannot use this unit's recording, playback and other recorder functions when it is connected to a computer by USB. To connect with a computer, use a Type-A to Type-C USB2.0 cable to connect the USB port on the back of this unit to a USB port on the computer.

The USB cable can be connected either before or after turning this unit on.

1. Use a USB cable (Type-A to Type-C) to connect the computer to this unit's USB port.

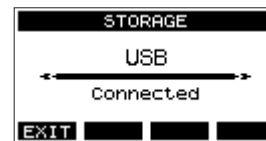
ATTENTION

The unit should be connected directly with the computer instead of via a USB hub. Moreover, noise could be picked up if the cable is too long.

2. On the MENU Screen, select STORAGE to open the STORAGE Screen. (see "Menu operation procedures" on page 21)



3. To connect with the computer, press the **F4** **YES** button. The unit enters USB storage mode and connects with the computer.



Make sure that the SD card is inserted properly.

4. This unit appears on the computer as an external drive named "TASCAM_M" (if the card was formatted by this unit).

NOTE

Follow these procedures to open This PC.

Windows 10

Left-click the Windows Start button, and from Windows System select "PC".

Windows 8.1

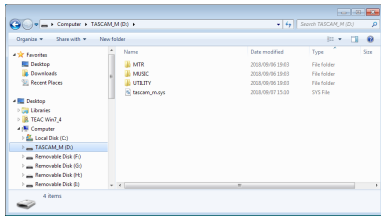
Left-click the Windows Start button, click the down arrow icon on the Start screen, and select This "PC" under Windows System in the application list.

Windows 7

Left-click the Windows Start button, and select "Computer" in the Start menu.

11 - Using a computer to transfer data

5. Click the "TASCAM_M drive" on the computer to show the "MTR", "MUSIC" and "UTILITY" folders.



ATTENTION

- This unit receives power through its power cord. It cannot be powered by USB.
- Do not disconnect the power cord or turn off the power during data transfer. Data will be lost if the power is interrupted during transfer. Lost data cannot be restored.
- Do not change the names of folders in "TASCAM_M".

NOTE

- Do not change names, delete or otherwise alter individual files inside the "MTR" folder.
- The "UTILITY" folder is used when updating the unit system, for example.

6. Press the **F1 EXIT** button to return to the Meter Screen.

Disconnecting

Before disconnecting the USB cable, use the proper procedures for your computer to unmount the unit (as an external drive). See the computer's operation manual for instructions about how to unmount an external volume.

Press the **F1 EXIT** button to disconnect from the computer and return to the Home Screen.

Loading WAV files from a computer

1. Use a USB cable (Type-A to Type-C) to connect the computer to this unit's USB port. (see "Connecting with a Computer" on page 51)
2. Click the "Model 12" drive on the computer to show the "MTR", "MUSIC" and "UTILITY" folders.
3. Drag and drop files on the computer that you want to transfer to the unit to the "MUSIC" folder.

ATTENTION

- The "UTILITY" folder is used when updating the unit system, for example.
- Do not change names, delete or otherwise alter individual files inside the "MTR" folder. Doing so could prevent loading data as a song and make proper recording and playback operations impossible.

TIP

- You can manage the content of "MTR" or "MUSIC" folders from the computer.
- You can create subfolders in the "MUSIC" folder up to the second level for use with this unit. The Model 12 cannot recognize sub-folders and files located at the third layer level or below.

12 - USB audio interface functions

Installing the dedicated software

To use this unit as a USB audio interface with a Windows computer, dedicated software must be installed on the computer.

Download the latest software from the product page on the TEAC Global Site (<http://teac-global.com/>).

Installing the dedicated software will install a driver and a Settings Panel application.

ATTENTION

Before starting to install software, quit other applications.

NOTE

With a Mac, the standard OS driver will be used, so installation of dedicated software is not strictly necessary. We recommend installing this software, however, because it has a notification function about updates for the unit firmware and software.

Installing the Windows dedicated software

Follow the procedures below to install the Windows dedicated software.

ATTENTION

- Complete installation of the Windows dedicated software on the computer before connecting the unit to it with the USB cable.
- If you connected the unit to the computer using the USB cable before installing the Windows dedicated software and the "Found New Hardware Wizard" launched, close the Wizard and disconnect the USB cable.

Windows dedicated software installation procedures

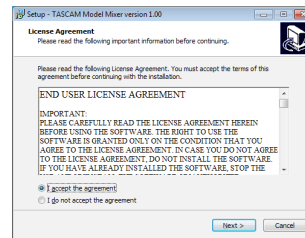
1. Download the latest Windows dedicated software from the TEAC Global Site (<http://teac-global.com/>) and save it on the computer to be used with the unit.
2. Uncompress the saved software (zip file) on the computer desktop or another location.
3. Double-click the "TASCAM_Model_Mixer_Installer_x.xx.exe" file in the folder that appears after uncompression to launch the installation software.

ATTENTION

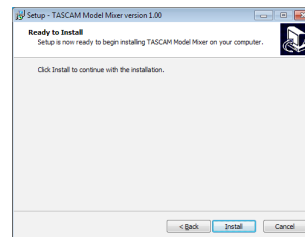
If you open a zip file without decompressing it and doubleclick the "TASCAM_Model_Mixer_Installer_x.xx.exe" file in the folder that opens, installation will not start. Right-click the zip file and select "Extract All", for example, to decompress it and then try again.

4. When a "Security Warning" or "User Account Control" screen appears, click the "Yes" button.

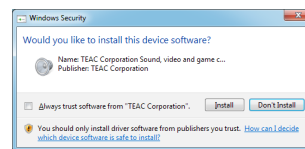
5. Read the contents of the User License Agreement, and select "I accept the agreement" if you agree to the terms. Then, click the "Next >" button.



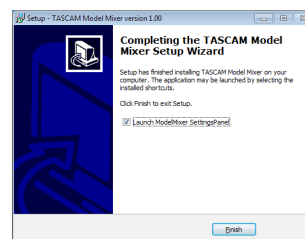
6. Next, click the "Install" button.



7. Next, click the "Install" button to start installation. (Windows 7 only)



8. The following screen appears when installation has completed. The following screen appears when installation has completed. Click the "Finish" button.



The installer will quit and the Windows Settings Panel will launch.

NOTE

The first time you connect the unit by USB to the computer after installing the software, installation of the device driver will be executed. Some time might be necessary before the unit is recognized because Windows Update will be automatically searched at this time. If the unit is still not recognized after a while, open the software installation screen from the notification area at the bottom right of the computer display, and click "Skip obtaining driver software from Windows Update" to stop the search.

12 - USB audio interface functions

Installing the Mac dedicated software

NOTE

- Install the Mac dedicated software on the computer before connecting the unit to it with the USB cable.
- Depending on the Gatekeeper setting, a warning message might appear during installation. Please see “Working with Gatekeeper” on page 54 for information about Gatekeeper.

Mac dedicated software installation procedures

1. Download the latest Mac dedicated software for the operating system you are using from the TEAC Global Site (<http://teac-global.com/>) and save it on the computer to be used with the unit.
2. Double-click “TASCAM_MODEL MIXER_Installer_x.xx.dmg”, which is the saved disk image file for the Mac dedicated software, and double-click “ModelMixer_Installer.pkg” inside the folder that opens.

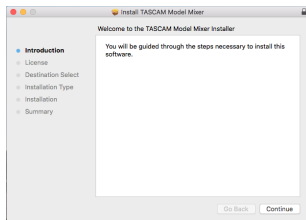


ModelMixer_Installer.pkg

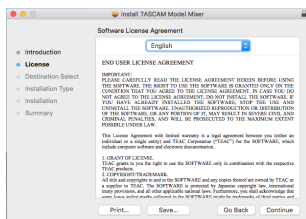
NOTE

Depending on the computer’s settings, the downloaded zip file might not have been uncompressed automatically. In this case, uncompress the zip file first and then double-click the disk image file.

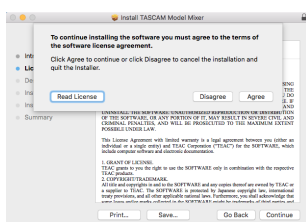
3. When the installer starts, click the “Continue” button.



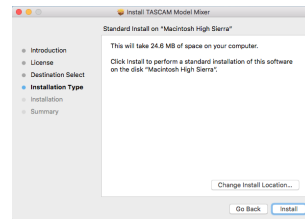
4. Next, select the desired language and click the “Continue” button.



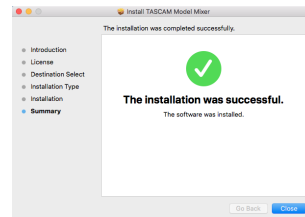
5. Click the “Read License” button and check the contents of the Software License Agreement. If you agree to the contents of the license, click “Agree”. Then, click the “Next” button.



6. Next, click the “Install” button to start installation.



7. The following screen appears when installation has completed. Click the “Close” button.



Working with Gatekeeper

When using macOS, depending on the Gatekeeper security function setting, a warning message might appear during installation.

The solution depends on the warning message shown. See the following explanations for details.

When the Gatekeeper setting is “Allow applications downloaded from: the Mac App Store”

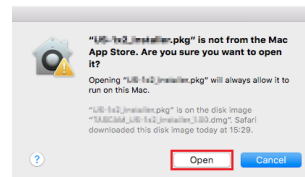
The following security warning might be shown:

“ModelMixer_Installer.pkg” can’t be opened because it was not downloaded from the Mac App Store.”



In this case, click the “OK” button to close the message. Then, control-click (or right-click) the file and click “Open” in the menu.

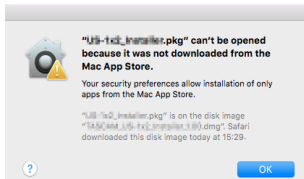
When the “ModelMixer_Installer.pkg” can’t be opened because it was not downloaded from the Mac App Store. Are you sure you want to open it?” security warning message appears, click the “Open” button.



This warning message might also appear when the Gatekeeper setting is something other than “Allow applications downloaded from: the Mac App Store.”

12 - USB audio interface functions

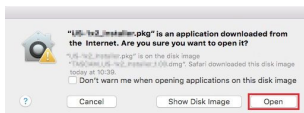
The file still might not open and “ModelMixer_Installer.pkg” can’t be opened because it was not downloaded from the Mac App Store.” might appear again.



In this case, copy the file from the folder where it is to the desktop or another folder, and then open it. Alternatively, change the Gatekeeper settings to “Allow apps downloaded from: App Store and identified developers” and try opening it again.

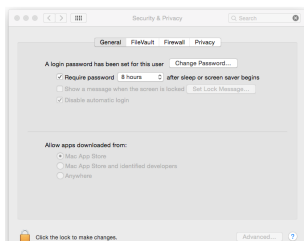
When the Gatekeeper setting is “Allow applications downloaded from: the Mac App Store”

“TASCAM_MODEL MIXER_Installer_x.xx.dmg” is an application downloaded from the Internet. Are you sure you want to open it?” might appear as a security warning message. In this case, click the “Open” button.



Changing the Gatekeeper setting

The Gatekeeper setting can be changed using the “Allow applications downloaded from:” item on the “General” page of the “Security & Privacy” pane of the System Preferences. To change this, you must click the lock icon (🔒) at the bottom left and enter a password to unlock the settings.



This setting will lock again when you close the System Preferences by clicking the 🔒 button or typing command-Q, for example, or when you click “Show All” to close the open pane.

ATTENTION

Changing the Gatekeeper settings could result in security risks. If you changed the Gatekeeper setting to decrease security (use one of the lower settings), set it back to the original setting after updating the driver and/or firmware.

Uninstalling the dedicated software

NOTE

Normally, there is no need to uninstall the dedicated software. Follow these procedures if a problem occurs or you no longer intend to use the unit with the computer.

Uninstalling the Windows dedicated software

1. Open the “Uninstall or change a program” screen using the procedures for the operating system being used (Windows 10/Windows 8.1/Windows 7).
2. Select “TASCAM Model_Mixer x.xx” from the list, and double-click it.
3. Then, follow the instructions that appear on the screen.

Uninstalling the Mac dedicated software

Delete “TASCAM Model_Mixer” from the Application folder to complete uninstallation.

Opening the Settings Panel

Open the Settings Panel in the following manner.

Windows

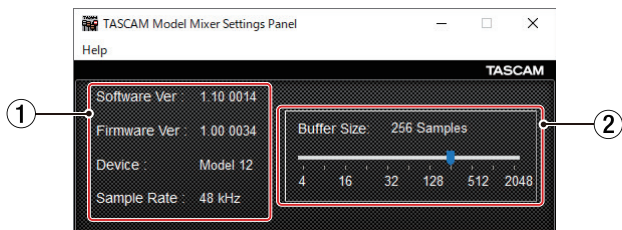
- From the “Start” menu select “TASCAM Model Mixer” under “TASCAM”.

Mac

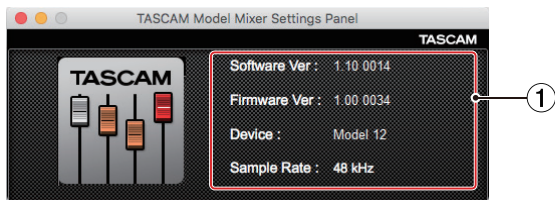
- On the Launchpad, click “TASCAM Model Mixer”.
- Using the Finder, open the Applications folder and click “TASCAM Model Mixer” to open the Settings Panel.
- In the Audio Devices window of the Audio MIDI Setup application, control-click (right-click) “TASCAM Model Mixer”. Alternatively, click the button and click “Configure device...” from the menu that appears to open the Settings Panel.

12 - USB audio interface functions

Settings Panel overview



Windows Settings Panel



Mac Settings Panel

① Status display area

This shows the current status of the software.

Item displayed	Meaning
Software Ver	This is the software version.
Firmware Ver	This is the firmware version used by the connected unit.
Device	This is the name of the connected unit. ("No Device" is shown when no device is connected.)
Sample Rate	This shows the sampling frequency of the current song. If an SD card is not loaded, this shows the sampling frequency set by the computer.

② Buffer Size (Windows only)

You can adjust the size of the buffer used to handle the audio input and output signals transferred to and from the computer.

Smaller buffer sizes result in less audio signal delay (latency), but require high-speed processing by the computer.

If the processing cannot keep up, for example, due to other system operations, clicking and popping noises might occur and the audio signal might even drop out.

Increasing the buffer size will stabilize operation and suppress negative effects on audio signals, but the delay in audio signals sent to the computer will increase.

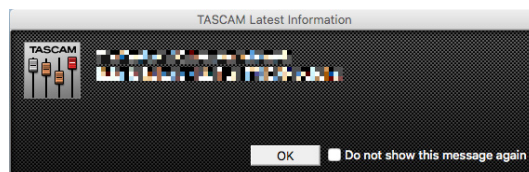
You can use the slider on the panel to adjust the buffer size for this unit according to the use conditions.

Options

4, 8, 16, 24, 32, 64, 128, 256 (default), 512, 1024, 2048

Notification function

If the computer you are using is connected to the Internet, the latest information about unit firmware and software, for example, can be shown when the Settings Panel is launched.



NOTE

Put a check in the "Do not show the same message again" checkbox to prevent the same message from being shown the next time it is launched.

Setting Sound Properties

1. Open the OS Control Panel.

NOTE

Follow these procedures to open the Control Panel.

Windows 10

Left-click the Windows Start button, and from "WindowsSystem" select "Control Panel".

Windows 8.1

Right-click the Windows Start button, and select "Control Panel".

Windows 7

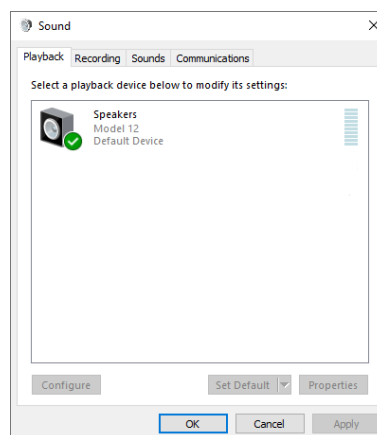
Left-click the Windows Start button, and select "Control Panel" in the Start menu.

2. Double-click "Sound" in the Control Panel.

NOTE

If the Control Panel is set to be viewed as icons, a "Sound" icon will appear.

3. On the "Playback" page, right-click "Model 12", and click "Set as Default Device" in the pop-up menu that appears. When you do this, the green check mark appears next to the selected device.



Windows 10 screen

NOTE

Set the default device according to the ASIO device being used on the Recording tab in the same manner as on the Playback tab.

12 - USB audio interface functions

4. After completing the setting, click the "OK" button.
5. Launch Windows Media Player and start playback to input the playback sound from the computer to channels 1 and 2 on the Model 12. (MODE switches: PC)

NOTE

- If you change the setting while Windows Media Player is running, the software will not recognize that the device has been changed. In this case, restart Windows Media Player.
- If you still cannot hear sound after making the settings and completing the procedures above, restart the computer.
- If you make this setting, sound will be output through this unit, but no sound will be output from the computer's speakers or headphone jack.

Simultaneous ASIO/WDM playback

The driver for this unit can simultaneously play ASIO output from a DAW and WDM output from Windows Media Player, for example. The sample rates of both sources must be set to the same value for simultaneous playback to be possible. Moreover, the sample rate must also be set to the same value for both playback and recording in the Windows Sound Properties.

When the sample rates are the same

Example: Windows (WDM) at 44100 Hz, ASIO at 44100 Hz

The Windows audio and ASIO sound are mixed and played simultaneously.

When the sample rates are different

Example: Windows (WDM) at 48000 Hz, ASIO at 44100 Hz

Only sound from a DAW and other ASIO sources are output.

Sound from Windows Media Player and other WDM sources are not output.

When the DAW is shut down, for example, and output from ASIO sources stops, sound from Windows Media Player and other WDM sources will become audible.

USB audio mode

The sound input to the computer can be changed to allow the MAIN MIX L/R bus signal to be sent to communication applications and streaming software.

1. When the recorder is stopped, select USB AUDIO on the SYSTEM Screen, and open the USB AUDIO Screen. (see "Menu operation procedures" on page 21)



2. Turn the MULTI JOG dial to set USB audio mode.

Option	Meaning
MULTI INPUT (default)	The inputs of channels 1–6, 7/8 and 9/10 and the output of the MAIN MIX L/R bus are input to USB channels 1–12.
STEREO MIX	The output of the MAIN MIX L/R bus is input to USB channels 1–2.

13 - MIDI Implementation Chart

MIDI Implementation Chart

Function		Transmit	Recognize	Remarks
Basic channels	When power on	×	×	Thru
	Settable	×	×	
Mode	When power on	×	×	Thru
	Messages	×	×	
	Altered		
Note number	Range	×	×	Thru
Velocity	Note on	×	×	Thru
	Note off	×	×	
Aftertouch	Polyphonic	×	×	Thru
	Channel	×	×	
Pitch bend		×	×	Thru
Control change		×	×	Thru
Program change		×	×	Thru
	Setting range		
System exclusive		○ ^{*1}	×	Thru
System common	Position	○ ^{*3}	×	Thru
	Song select	×	×	
	Quarter frame	○ ^{*2}	×	
	Tune	×	×	
System real-time	Clock	○ ^{*3}	×	Thru
	Command	×	×	
Other	Local on/off	×	×	Thru
	All notes off	×	×	
	Active sense	×	×	
	Reset	×	×	
Notes				
*1 MTC full message when MIDI TIME CODE is ON				
*2 When MIDI TIME CODE is ON				
*3 When MIDI CLOCK/SPP is ON				

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO
 Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO

○: YES
 ×: NO

14 - Messages

The following is a list of messages that appear in pop-up windows.

Refer to this list if one of these pop-up messages appears on the Model 12 and you want to check the meaning or determine a proper response.

Message	Meaning and response
Card Error	The SD card cannot be recognized properly. Replace the SD card.
Card Full	The SD card has no remaining capacity. Erase unnecessary files or transfer them to a computer.
Dup File Name	A file with the same name already exists. Change the file name.
File Not Found	The file cannot be found or the file may be damaged. Check the relevant file.
No sys file Make sys file	The system file is missing. This unit requires a system file for operation. When this message appears, press the MULTI JOG dial to create a system file.
Song Protected	This operation is not possible because the song is protected. Remove protection.
Invalid Card Change Card	Something might be wrong with the SD card. Change the SD card.
I/O Too Short	The time between the punch in and out points is too short. Set them with at least 1 second between them.
MBR error Init card	The SD card is not formatted properly or the card is broken. Change the SD card or press the MULTI JOG dial while this message is being shown to format the card. Formatting will erase all the data on the SD card.
No Card	A SD card is not set. Insert a recordable SD card.
Non-supported	The file format is not supported. Please see "Playing WAV files on SD cards (SD PLAY mode)" on page 50 for file formats that this unit can use.
Card Protected	The SD card is write-protected. Disable SD card write-protection.
USB Fs mismatch	The sampling rate of the current song and the USB audio interface are not the same. Change the sampling rate of one so that they are the same.
Current Song	The current song cannot be deleted. To delete the current song, load another song first.
Invalid I/O point	The punch in/out point settings on the AUTO PUNCH Screen are not set correctly. Automatic punching in/out occurred at an invalid position for the punch in or out point. Start the automatic punch operation from a valid point.
Write error REC continue	Writing to the SD card timed out. This has caused audio to be interrupted and noise to occur.
REC stop Card slow	Writing to the SD card timed out, and recording stopped. SD card writing performance has become worse. Execute the erase format function or change the SD card.
Need to set I/O point.	Neither the punch in or out points are set for the automatic punch in/out function. Either the punch in or out point must be set.
Sample rate Unmatch	The sampling frequency of the WAV file to be imported does not match the current song. Select a WAV file with the same sampling frequency as the current song or convert the sampling frequency before importing.
Remain time is not enough	The SD card does not have enough open space, so importing is not possible. Erase unnecessary files or transfer them to a computer.
8 track punch in limit	The maximum number of tracks for punch in recording is eight. Press REC buttons to reduce the number of recording tracks to eight or less.
Song is not loaded	No song is loaded. Create a new song or load a song.
Song number full	The maximum number of songs that can be created on an SD card is 100. Erase unnecessary songs.
SD PLAY: cannot record	SD PLAY mode is for playback only. Recording is not possible.
SD CARD cluster size error	Recording is not possible because the SD card cluster size is not right. Back up the contents of the SD card on a computer and then format it with this unit. Then, restore the data from the computer.
Import error. No track	Importing is not possible because there are no open tracks. Use TRACK CLEAR to clear a track. (see "Clearing tracks" on page 38)
Invalid track	The selected track cannot be used for replacement. Change the track selection on the TRACK SWAP screen. (see "Swapping tracks" on page 39)
Already protected	The selected song is already protected.
Already unprotected	The selected song is already unprotected.

14 - Messages

Message	Meaning and response
Can't Save Data	If any of these errors occurs, turn the unit off and restart it. If these error messages continue to appear frequently, please contact the store where you purchased this unit or TASCAM customer support.
Device Error	
File Error	
Not Continued	
Player Error	
UNDO not available	
Writing Failed	
Sys Rom Err	
System Err XX (XX is a number.)	

15 - Troubleshooting

If you are having trouble with the operation of this unit, please try the following before seeking repair.

If these measures do not solve the problem, please contact the store where you bought the unit or TEAC customer support (see the back cover).

The unit will not turn on

- Confirm that the power plug and other connectors are inserted completely.

The SD card is not recognized

- Confirm that the SD card is inserted completely.

No sound is output

- Are the input sources and MODE switches set properly?
- Are that channel faders raised to suitable levels?
- Is the MAIN fader raised to a suitable level?
- Is a monitoring system correctly connected to the PHONES jack or SUB OUTPUT jacks?
Is the monitoring system set up correctly?
- Is the PHONES knob or SUB fader placed to a suitable level?
- Is the SD MAIN MIX RETURN switch on (pushed in, during playback of anything other than a stereo master file)?

The sound I want to record is distorted

- Are the channel GAIN knobs set too high?
Are the input source levels too high?
- Is the EQ set too high?
- Are any channel faders or the MAIN fader raised too high?
- Is the monitoring level too high, causing the monitoring system to distort?

Noise occurs when a passive guitar or bass is connected directly

- Connecting another device to the unit's SUB OUTPUT jacks (stereo output) could reduce noise.
- It could be affected by interference noise from another device, for example. If a power amplifier or other device with a large transformer, or a fluorescent light, for example, is nearby, changing the distance or orientation of such devices could reduce noise.

Playback is not possible

- If you are trying to play a WAV file, confirm that it uses a sampling frequency (44.1/48 kHz) and a bit depth (16/24-bit) that are supported by this unit.

There is noise

- Confirm that the connection cables do not have contact issues.

Sound via Bluetooth breaks up or is noisy

- Are there any wireless LAN devices, other Bluetooth devices, microwave ovens or similar equipment nearby?
Keep such devices as far away as possible during use.
- Try reducing the distance between this unit and the other Bluetooth device. Try changing the positions of this unit and the other Bluetooth device.
- The operation of apps other than for music playback on the smartphone could cause the sound to break up. In this case, stop operation of apps other than the one used for music playback.

Cannot connect or communication is interrupted when using Bluetooth

- Confirm that the other Bluetooth device power is on and that its Bluetooth function is on.
- Confirm that the other Bluetooth device is not too far away.
Are there walls or other obstacles, for example, between this unit and the other Bluetooth device?
Try changing the positions of this unit and the other Bluetooth device.
- Turn OFF and restart the Model 12.
- Remove the "Model 12" pairing record from the other Bluetooth device, and try pairing the unit with that Bluetooth device again. (see "Connecting with Bluetooth devices" on page 24)

Cannot pair with another Bluetooth device

- Confirm that the other Bluetooth device supports A2DP.
- Confirm that the other Bluetooth device is in a state that allows transmission. For details, check the operation manual of that Bluetooth device.
- Turn the power off for both this unit and the other Bluetooth device once, turn them both on again and try pairing them.
- Turn off Bluetooth devices other than the one that you are trying to pair with.
- Remove the "Model 12" pairing record from the other Bluetooth device, and try pairing the unit with that Bluetooth device again. (see "Connecting with Bluetooth devices" on page 24)

A computer does not recognize the unit when connected by USB

- Has the dedicated software been installed? (see "Installing the dedicated software" on page 53)
- This unit cannot be used with USB 1.1. Use a USB 2.0 or USB 3.0 port.
- Do not use a USB hub with this unit. Always connect the unit directly to a USB port on the computer.
- If the above methods do not resolve the problem, connect the unit to a different USB port on the computer.

When connected by USB, sound breaks up or noise occurs.

- The processing load on the computer causes sound to break up and noise to occur.
- If a wireless LAN or background software, including antivirus software, is running, turn it off during use of this unit. In addition, please use "computer's power option" as "high performance setting".
- Use the shortest USB cable possible.
- Use a USB port built into the computer because the computer USB port affects the USB connection.

16 - Specifications

General

Supported media

SD cards (Class 10 or more)
SDHC cards (Class 10 or more)
SDXC cards (Class 10 or more)

File System

SD card: FAT16
SDHC card: FAT32
SDXC card: exFAT

Recording file formats

WAV (BWF): 44.1/48kHz, 16/24-bit (Maximum file size: 2 GB)

Playback file formats

WAV (BWF): 44.1/48kHz, 16/24-bit

Recordable Channel

Max. 12 channels (10ch + 2 stereo mix)

Inputs and outputs

Analog audio input and output ratings

MIC input jacks (1-6, 7, 9)

Connectors: XLR-3-31 (1: GND, 2: HOT, 3: COLD)
Maximum input level: +10 dBu
Nominal input level: -8 dBu
Minimum input level: -58 dBu
Gain adjustment range: 0 - 50 dB
Input impedance: 1.8 k Ω

LINE (BAL)/INST input jacks (1-6)

Connectors: 6.3mm (1/4") standard TRS jacks
(Tip: HOT, Ring: COLD, Sleeve: GND)
Maximum input level: +22 dBu (LINE)/19.8 dBV (INST)
Nominal input level: +4 dBu (LINE)/ 1.8 dBV (INST)
Gain adjustment range: -10 - +40 dB
Input impedance: 22 k Ω (LINE)/1 M Ω (INST)

L/MONO(BAL)/INST input jacks (7, 9)

Connectors: 6.3mm (1/4") standard TRS jacks
(Tip: HOT, Ring: COLD, Sleeve: GND)
Maximum input level: +22 dBu (LINE)/19.8 dBV (INST)
Nominal input level: +4 dBu (LINE)/ 1.8 dBV (INST)
Gain adjustment range: -20 - +30 dB
Input impedance: 18 k Ω (LINE)/ 1 M Ω (INST)

R (BAL) input jacks (8, 10)

Connectors: 6.3mm (1/4") standard TRS jacks
(Tip: HOT, Ring: COLD, Sleeve: GND)
Maximum input level: +22 dBu
Nominal input level: +4 dBu
Gain adjustment range: -20 - +30 dB
Input impedance: 18 k Ω

INSERT jacks (1-2)

Connectors: 6.3mm (1/4") standard TRS jacks
(Tip: SEND, Ring: RETURN, Sleeve: GND)

RETURN (Ring)
Nominal input level: 0 dBu
Maximum input level: +18 dBu
Input impedance: 5 k Ω
SEND (Tip)
Nominal output level: 0 dBu
Maximum output level: +18 dBu
Output impedance: 100 Ω

MUSIC/TALK jack (9/10)

Connector: 3.5mm (1/8") 4-pole mini jack
(Tip: L, Ring1: R, Ring2: GND, Sleeve: MIC)
Maximum input level: +8 dBV
Nominal input level: -10 dBV
Input impedance: 10 k Ω

MAIN OUTPUT L/R jacks

Connectors: XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Nominal output level: +4 dBu
Maximum output level: +22 dBu
Output impedance: 200 Ω

SUB OUTPUT L/R jacks

Connectors: 6.3mm (1/4") standard TRS jacks (Tip: HOT, Ring: COLD, Sleeve: GND)
Nominal output level: -2 dBu
Maximum output level: +16 dBu
Output impedance: 200 Ω

AUX OUTPUT AUX 1/2 jacks

Connectors: 6.3mm (1/4") standard TRS jacks (Tip: HOT, Ring: COLD, Sleeve: GND)
Nominal output level: -2 dBu
Maximum output level: +16 dBu
Output impedance: 200 Ω

PHONES jack

Connector: 6.3mm (1/4") standard stereo jack
Maximum output: 45mW + 45mW (32 Ω load)

Control input/output

USB port

Connector: 4-pin USB C-type
Protocol: USB 2.0 HIGH SPEED (480 Mbps)

CLICK jack

Connector: 6.3mm (1/4") standard TS jacks
(Tip: HOT, Sleeve: GND)

FOOTSWITCH jack

Connector: 6.3mm (1/4") standard TRS jacks
(Tip: FOOTSW1, Ring: FOOTSW2, Sleeve: GND, Unlatch type correspondence)

MIDI OUT connector

Connector: 5-pin DIN
Format: standard MIDI

MIDI IN connector

Connector: 5-pin DIN
Format: standard MIDI

Computer system requirements

Check the TEAC Global Site (<http://teac-global.com/>) for the latest information about supported operating systems.

Windows

Supported operating systems

Windows 10 32-bit
Windows 10 64-bit
Windows 8.1 32-bit
Windows 8.1 64-bit
Windows 7
(Operation has been confirmed with the final version of Windows 7.)
Windows 7 32-bit SP1 or later
Windows 7 64-bit SP1 or later

Computer hardware requirements

Windows computer with a USB 2.0 (or higher) port

CPU/processor speed

2 GHz or faster dual core processor (x86)

Memory

2 GB or more

ATTENTION

Operation of this unit was confirmed using standard computers that meet the above requirements. This does not guarantee operation with all computers that meet the above requirements. Even computers that meet the same system requirements might have processing capabilities that differ according to their settings and other operating conditions.

Mac

Supported operating systems

macOS Mojave (10.14 or later)
macOS High Sierra (10.13 or later)

Computer hardware requirements

Mac with a USB 2.0 (or higher) port

CPU/processor speed

2 GHz or faster dual core processor

Memory

2 GB or more

iOS device

Operation has been confirmed with Apple devices running the following iOS versions.

iOS13
iOS12
iOS11

Supported audio drivers

Windows

ASIO2.0, WDM

Mac

Core Audio

iOS device

Core Audio for iPhone

Audio performance

S/N ratio

103dB (MAIN MIX & 1Ch 0dB, 22kHz, A-weighted)

Equivalent input noise (EIN)

-128 dBu (Rs=150 Ω, MIC IN → INSERT SEND, gain knob at MAX, A-weighted)

Total harmonic distortion ratio (THD+N)

0.003% (MONO MIC IN → MAIN OUT, +2dBu, 1kHz, gain knob at MIN)

Frequency response

20Hz to 20kHz (+0.1/-0.15 dB, 1kHz, MIC IN → MAIN OUT)

Crosstalk

(PAN knobs turned completely left or right, 1 kHz)
Between channels: -95 dB
Between input and output: -95 dB

Maximum gain

(All GAIN knobs maximized, PAN knobs turned completely left or right, EQ knobs and MASTER SECTION EQ knobs at middle positions)
MIC → MAIN OUT: 74 dB
MIC → INSERT OUT: 54 dB
MIC → SUB OUT: 74 dB
MIC → AUX OUT: 75 dB
USB/SD → MAIN OUT: 24 dB

Bluetooth

Bluetooth version: 5.0

Output class: 2 (about 10m* unobstructed transmission distance)
Supported profile: A2DP
Supported A2DP codecs: SBC, AAC
Supported A2DP content protection: SCMS-T

* The transmission distance is only an estimate and might vary depending on the surrounding environment and radio wave conditions.

16 - Specifications

Other

Power

Dedicated AC adapter (PS-M1524A)
Input voltage: AC 100–240V ~, 50/60Hz
Output voltage: DC 15V $\overline{=}$
Output current: 2.4 A

Power consumption

16W

Dimensions

With side panels
343.0 × 98.8 × 360.0 mm (W × H × D, including protrusions)
Without side panels
315.0 × 98.8 × 360.0 mm (W × H × D, including protrusions)

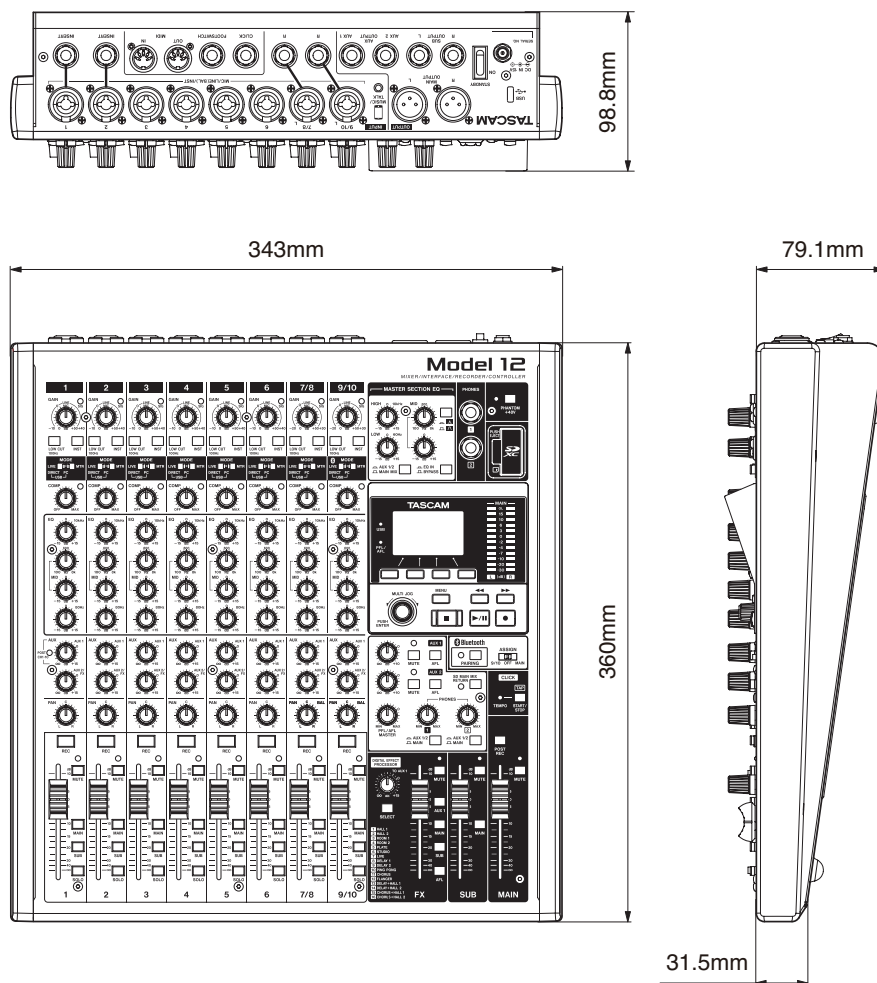
Weight

4.3kg

Operating temperature range

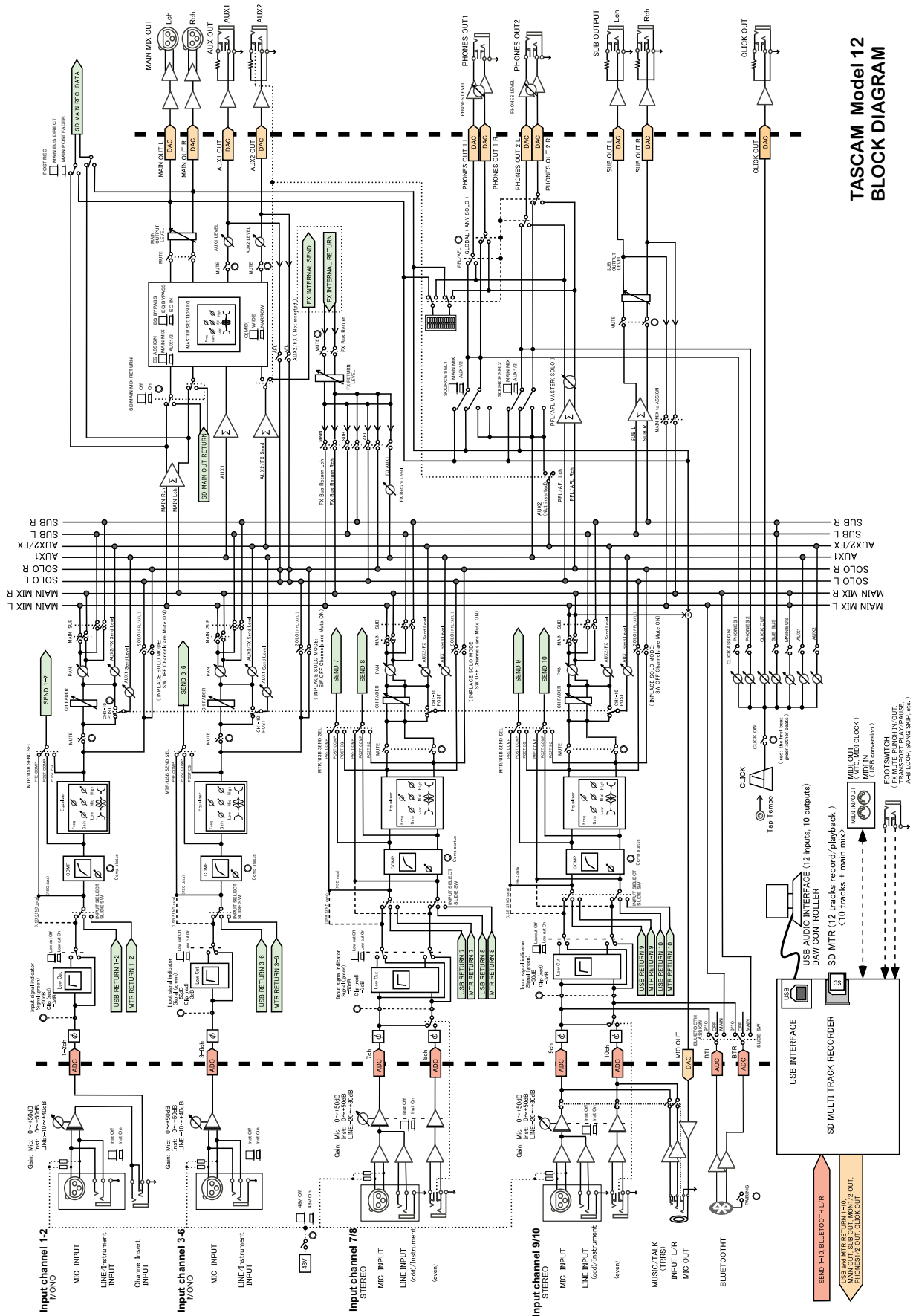
5 - 35°C (41 - 95°F)

Dimensional drawings



- Illustrations in this manual might differ in part from the actual product.
- Specifications and external appearance might be changed without notification to improve the product.

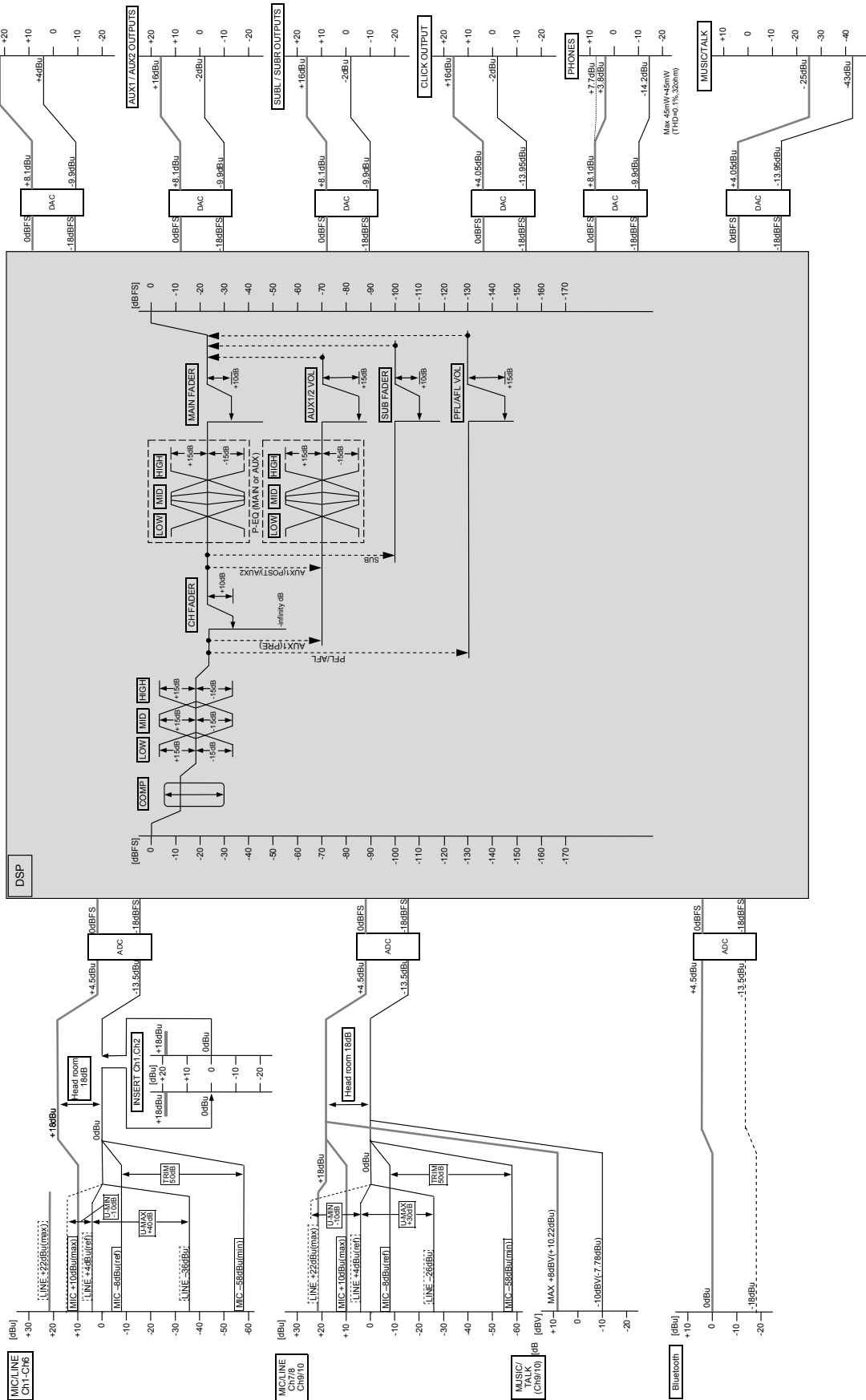
Block diagram



16 - Specifications

Level diagram

Model 12 LEVEL DIAGRAM



WARRANTY

< In the United States >

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty is only valid within the country the unit was originally purchased.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in materials and workmanship in this product. The following are not covered by the warranty:

1. **Damage to or deterioration of the external cabinet.**
2. **Damage resulting from accident, misuse, abuse or neglect.**
3. **Damage resulting from failure to perform basic daily maintenance and/or calibration or otherwise resulting from failure to follow instructions contained in your owner's manual.**
4. **Damage occurring during shipment of the product. (Claims must be presented to the carrier)**
5. **Damage resulting from repair or attempted repair by anyone other than TEAC or an authorized TASCAM service station.**
6. **Damage resulting from causes other than product defects, including lack of technical skill, competence, or experience of the user.**
7. **Damage to any unit which has been altered or on which the serial number has been defaced, modified or is missing.**

WHO IS COVERED UNDER THE WARRANTY

This warranty may be enforced only by the original purchaser. This warranty is not valid if the product was purchased through an unauthorized dealer.

LENGTH OF WARRANTY

All parts except heads and disk drives are warranted for one (1) year from the date of original purchase. Heads and disk drives are warranted for ninety (90) days from date of original purchase. Labor is warranted for ninety (90) days from date of original purchase.

WHAT WE WILL PAY FOR

We will pay all labor and material expenses for items covered by the

warranty. Payment of shipping charges is discussed in the next section of this warranty.

HOW YOU CAN GET WARRANTY SERVICE

Your unit must be serviced by an authorized TASCAM service station in the United States. (This warranty is not enforceable outside the U.S.) If you are unable to locate an authorized TASCAM service station in your area, please contact us. We either will refer you to an authorized service station or instruct you to return the unit to the factory. Whenever warranty service is required, you must present a copy of the original dated sales receipt from an Authorized TASCAM Dealer.

You must pay any shipping charges if it is necessary to ship the product to service. However, if the necessary repairs are covered by the warranty, we will pay return surface shipping charges to any destination within the United States.

LIMITATION OF IMPLIED WARRANTIES

Any implied warranties, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

TEAC's liability for any defective product is limited to repair or replacement of the product, at TEAC's option. TEAC shall not be liable for:

1. **Damages based upon inconvenience, loss of use of the product, loss of time interrupted operation or commercial loss; or**
2. **Any other damages, whether incidental, consequential or otherwise.**

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

To locate an Authorized Service Center in Your Area

CALL 1-323-726-0303

< Europe >

This product is subject to the legal warranty regulations of the country of purchase. In case of a defect or a problem, please contact the dealer where you bought the product.

Ce produit est sujet aux réglementations concernant la garantie légale dans le pays d'achat. En cas de défaut ou de problème, veuillez contacter le revendeur chez qui vous avez acheté le produit.

Dieses Gerät unterliegt den gesetzlichen Gewährleistungsbestimmungen des Landes, in dem es erworben wurde. Bitte wenden Sie sich im Gewährleistungsfall an den Händler, bei dem sie das Gerät erworben haben.

Questo apparecchio è conforme alle norme sulla garanzia vigenti nel rispettivo Paese in cui esso è stato acquistato. Si prega di rivolgersi al proprio commerciante, presso il quale è stato acquistato l'apparecchio, nel caso in cui si voglia richiedere una prestazione in garanzia.

Las condiciones de garantía de este aparato están sujetas a las disposiciones legales sobre garantía del país en el que ha sido adquirido. En caso de garantía, debe dirigirse al establecimiento donde adquirió el aparato.

< In other countries/areas >

This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province.

If you have a warranty claim or request, please contact the dealer where you bought the product.

该保证书赋予了顾客特定的合法权利，并且因国家、州或省等地域的不同，顾客可能拥有其他权利。如需申请或要求保修，请与购买本产品的销售店进行联系。

If you require repair services for your TASCAM equipment, please contact the dealer where the product was purchased from or the TASCAM Distributor in your country. A list of TASCAM Distributors can be found on our website at: <http://teac-global.com/>

TASCAM

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Printed in China

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WARRANTY

Model / Modèle / Modell
Modello / Modelo / 型号

Model 12

Serial No. / No de série / Seriennummer
Numero di serie / Número de serie / 序列号

Date of purchase / Date de l'achat / Datum des Kaufs
Data dell'acquisto / Fecha de compra / 购买日期

TASCAM

<http://teac-global.com/>

Owner's name / Nom du propriétaire / Name des Eigentümers
Nome del proprietario / Nombre del propietario / 顾客姓名

Address / Adresse / Adresse
Indirizzo / Dirección / 顾客地址

Dealer's name / Nom du revendeur / Name des Händlers
Nome del commerciante / Nombre del establecimiento / 销售店名

Dealer's address / Adresse du revendeur / Adresse des Händlers
Indirizzo del commerciante / Dirección del establecimiento / 销售店



FCC Caution:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

IC Caution:

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

L'appareil a été évalué pour répondre aux exigences générales d'exposition RF. L'appareil peut être utilisé dans des conditions d'exposition portables sans restriction.