

VF-16 Owner's Manual

<V3.0 Supplement>

The VF-16 software has been upgraded to v3.0, which supports the new “internal mixdown mode”, as well as expands the function of save/load using a “SCSI” CD-RW drive.

You can now record mixed-down materials onto a CD-RW/CD-R disc with the standard audio CD format.

This supplement only handles instructions for the internal mixdown mode and save/load using CD-RW/CD-R disc.

See also the main VF-16 owner's manual for operating the unit correctly.

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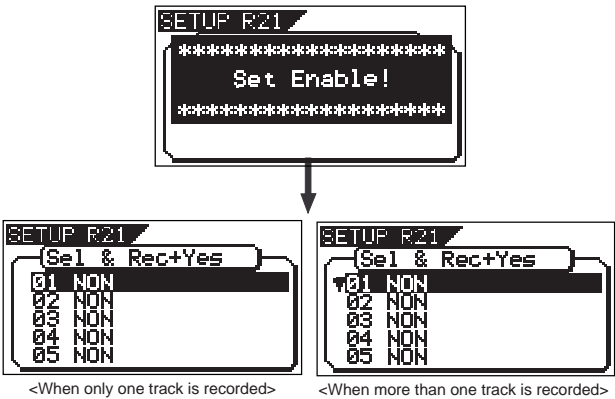
<Glossary>

CD-RW (Compact Disc Rewritable) A disc media that can be re-written as many times as you like. New data is written after the previously recorded data is erased.	SCSI (Small Computer System Interface) An interface standard for computer peripherals standardized by ANSI (American National Standard Institute). Up to 7 peripherals, such as a hard-disk drive, MO drive and zip drive, can be daisy-chained.
CD-R (Compact Disc Recordable) A disc media that can be written only once. Unlike a CD-RW disc, you cannot write data onto a recorded CD-R disc. If any error happens during recording to a CD-R disc, the disc cannot be used anymore.	Protect (Copy Protect) A bit for indicating whether the digital copy is permitted or not. If the copy protect bit of an audio CD is “on”, you can make a digital copy once but cannot make a copy from the copied material.
CD-DA (Compact Disc Digital Audio) The standard for compact disc for audio. A compact disc recorded by this format can be played back by a CD-ROM player built in a personal computer, as well as an audio CD player.	Sampling Rate The number of times per second which analog data such as an audio signal is sampled. With the higher sampling rate, the converted data is closer to the original analog sound. The sampling rate for audio CD is 44.1 kHz.

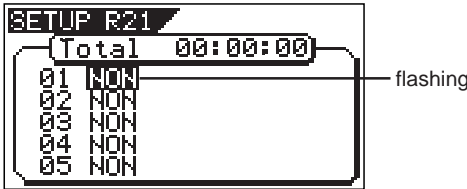
<Note>
If you do not agree with the warning message contents, press the [EXIT/NO] key to quit loading. The display briefly shows “Set Disable” and “Can’t Loading”, then returns to the mode select screen. If you agree with the warning message contents, go to the next step to continue the operation.

<Hint>
When loading data using the S/P DIF digital signal, the same message also appears after selecting the load device to “SP DIF” and pressing the [ENTER/YES] key.

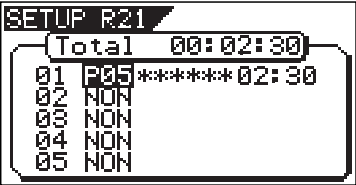
6. If you agree to the message contents, press the [ENTER/YES] key.
After showing “Set Enable!”, the display shows the screen for selecting the song(s) to be loaded.
If there is more than one track recorded on the audio CD, “▼” flashes, showing that you can select a desired track. If there is only one track recorded on the audio CD, “▼” is not shown on the screen.



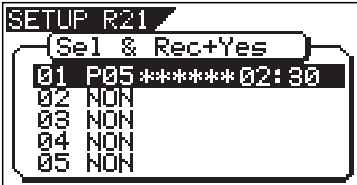
7. Use the [JOG] dial to select a track number to be loaded and press the [ENTER/YES] key.
“NON” for the selected track number flashes, and you are ready for showing the destination program.



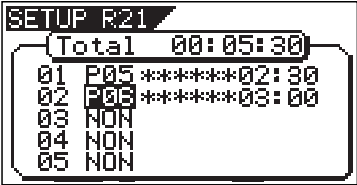
8. Use the [JOG] dial to show to the destination program.
A track is always loaded to a new program.
The program number shown is one greater than the highest program number among programs currently available on the current drive.
For example, if there are 4 programs available on the current drive, the program number shown is “P05”.
If there are already 99 programs on the current drive, “Disk Full!” appears and no program is shown when rotating the [JOG] dial.
In such a case, delete the unnecessary program(s) on the current drive and then perform step 8 above again.



9. After showing the program, press the [ENTER/YES] key.

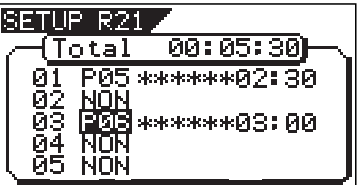


To load more than one track, repeat steps 7 through 9 above.
The following screen example shows that tracks 1 and 2 will be loaded to program 05 and 06 respectively. The track title and track time are also shown to the left of each program number.

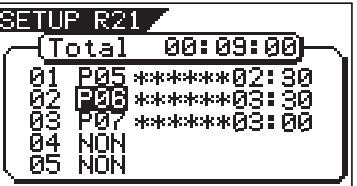


<Note>
When loading from a commercially available audio CD, no title is shown when selecting the track.

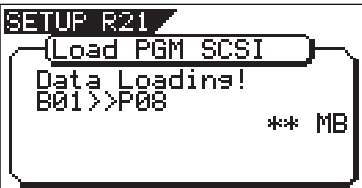
<Hint>
If you are going to load tracks 1 and 3 in the example above, instead of tracks 1 and 2, track 3 will be loaded to program 06 (see the screen example below).



However, if you select track 2 after selecting tracks 1 and 3, the unit automatically reassigns track 2 to program 06 and track 3 to program 07 (see the screen example below).



10. After specifying track(s) to be loaded, press the [ENTER/YES] key while holding down the [RECORD] key.
The unit starts loading tracks to the current drive. The following screen example shows that track 1 is now being loaded to program 08 on the current drive.



When the loading ends, “Load Completed!” appears on the screen, while the disc is automatically ejected from the CD-RW drive.

11. Press the [EXIT/NO] key to quit the Setup mode.
The display returns to the Normal display that was shown last time before entering the Setup mode.

Loading from an audio CD

You can load a desired song to the unit from an audio CD you created by recording on a CD-RW/CD-R disc. When a desired song is loaded, the unit automatically creates a new program on the current drive, and the song are recorded on tracks 1 and 2 of the program. Loading data from an audio CD is operated via the "Load PGM" menu in the Setup mode, which is the same way as loading backup data.



<Important note for copyright>

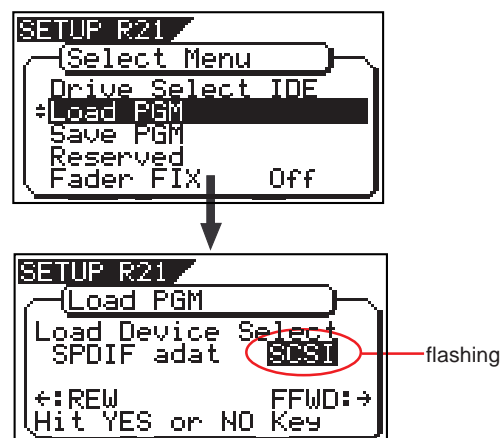
You can also load a material from a commercially available audio CD in the same manner, however, never use a material for which a copyright is reserved for a commercial purpose. Any unauthorized use will constitute infringement of such copyright and will render the infringer liable to an action at law.

In the following description, we assume that a CD-RW drive is connected to the SCSI port of the unit and an audio CD created is prepared.

<Note>

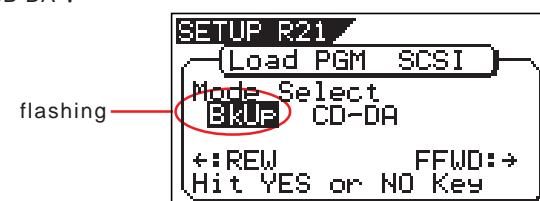
Key operations of the unit should be done after completing access to a CD-RW/CD-R disc.

1. After turning on the power of both the VF-16 and a connected CD-RW drive, load a recorded audio CD disc to the CD-RW drive.
2. Press the [SETUP] key to enter the Setup mode.
3. Use the [JOG] dial to select (highlight) the "Load PGM" menu and press the [ENTER/YES] key. The display shows the screen for selecting the device from which the data is loaded. "SCSI" flashes.

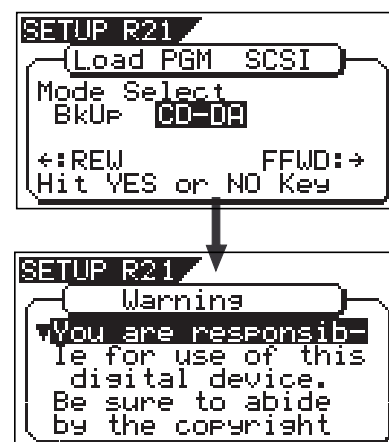


4. Press the [ENTER/YES] key while "SCSI" flashes.

After showing the model name of the connected CD-RW drive, the display shows the screen for selecting the load mode, in which "BkUp" flashes. To carry out loading a song from an audio CD, select "CD-DA".



5. Use the [JOG] dial to select (highlight) "CD-DA", then press the [ENTER/YES] key. A warning message for copyright appears. You can scroll the message to read all message by rotating the [JOG] dial.



<Warning message>

The warning message for copyright shown on the screen is as follows.

Warning!

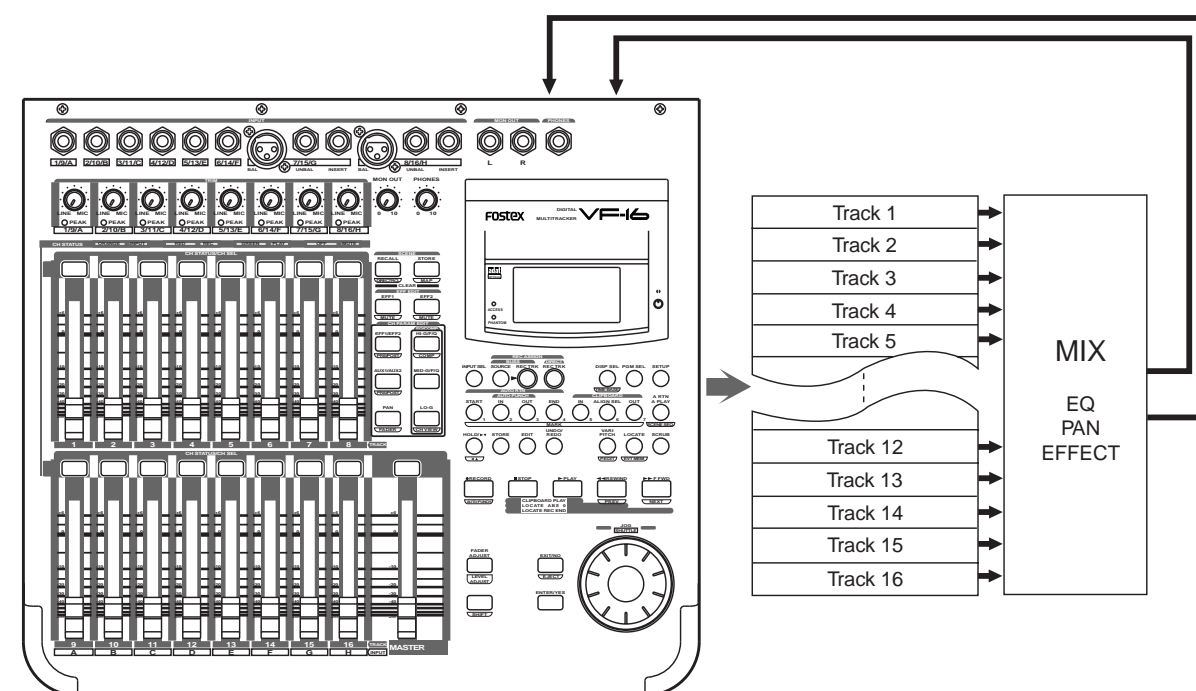
You are responsible for use of this digital device. Be sure to abide by the copyright conditions of the source material. Press "Enter/Yes" key if you agree with the above.

Internal Mixdown Mode

Generally, "mixdown" means the process for mixing audio materials (instruments, vocals, etc.) recorded on a multitrack recorder and recording the stereo-mixed signals to a master (digital or analog) recorder.

The internal mixdown mode, a newly expanded feature for the VF-16, allows you to mix 16 internal tracks recorded on a program down to stereo signals and record them to the current drive of the unit. By using the internal mixdown function, you can make mixdown without the need for an external master recorder.

Furthermore, you can record an internally mixed material to a CD-RW/CD-R disc to make an audio CD. See page 15 for details.



<Please read this first before executing mixdown!>

After executing mixdown, a new program on which a mixed-down material is saved is automatically created on the current drive. The program number of this program is set to one greater than the current greatest program number.

For example, if there are 8 programs (P01 through 08) on the current drive, by mixing down a desired program data, a new program (P09) is automatically created and the mixed-down stereo signals are recorded on tracks 1 and 2 of P09.

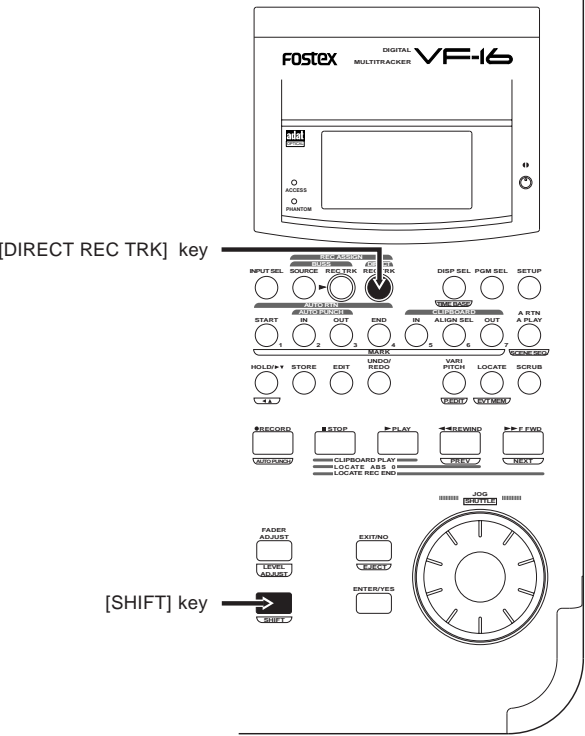
Note that if the unit is under either of the following conditions, you cannot carry out internal mixdown.

1. There are 99 programs already existed on the current drive even though there is enough recording space.
If you try to carry out internal mixdown, "Can't New PGM!" is shown and the operation is ignored. To carry out mixdown, delete an unnecessary program.
2. There is not enough recording space even though there are less than 99 programs on the current drive.
If you try to carry out internal mixdown, "Over time!" is shown and the operation is ignored. To carry out mixdown, erase unnecessary song data or delete an unnecessary program.

See the main owner's manual for the details about how to delete a program or erase song data.

Activating the internal mixdown mode

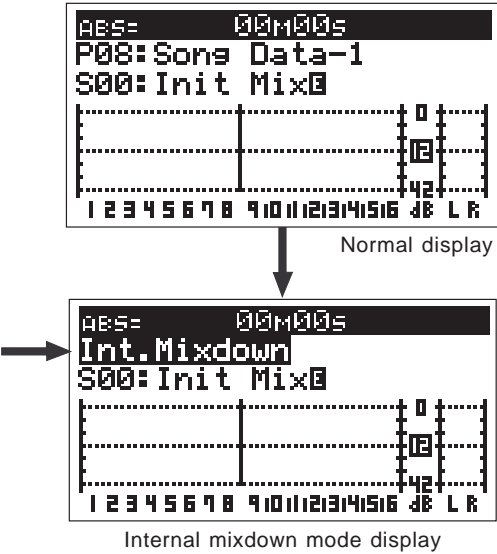
- 1. Select the program to be mixed down.
To select the desired program, press the [PGM SEL] key and select the program using the [JOG] dial, then press the [ENTER/YES] key.
- 2. When the unit is stopped, press the [DIRECT REC TRK] key while holding down the [SHIFT] key.
See the illustration below.



The program number/name shown on the Normal display changes to "Int. Mixdown" in inverse video, showing that the internal mixdown mode is now active, while the [DIRECT REC TRK] key flashes.

In the example shown below, "P08: Song Data-1" is mixed down.

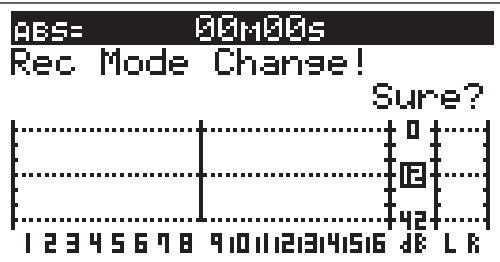
Each time you press the [DIRECT REC TRK] key while holding down the [SHIFT] key, the mixdown mode alternates on and off.



<Hint>

If you press the [DIRECT REC TRK] key to activate the internal mixdown mode when the recording track(s) or source track(s) are set for "DIRECT recording" or "BUSS recording", the following message ("Rec Mode Change!" and "Sure?") appears.

In this case, pressing the [ENTER/YES] key activates the internal mixdown mode.
Pressing the [EXIT/NO] key cancels the operation.



<Note>

After the internal mixdown recording is completed, the unit automatically quits the internal mixdown mode.

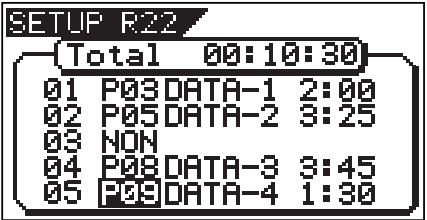
The unit also automatically quits the internal mixdown mode when you complete performing any of the following while the internal mixdown mode is active. Therefore, if you want to continue the internal mixdown mode, you need to activate the mode again.

- Program change
- Program delete
- Creating a new program
- Formatting a disk
- Copy/paste, Move/paste
- Erase
- Save to/load from DAT/adat

<Note>

If "Rec Protect" in the Setup mode is set to "ON", you cannot carry out internal mixdown. If you try to perform the internal mixdown operation, "Protected!" appears on the display. In this case, set "Rec Protect" in the Setup mode to "OFF" before performing the internal mixdown operation.

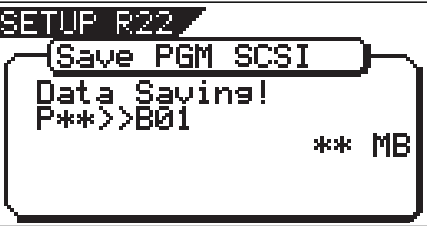
<Notes for selecting more than one program>
When recording more than one program to a CD-RW/CD-R disc, do not skip any track when assigning programs to tracks.
If you skip any track, you cannot record data to the subsequent tracks. In the following example, track 03 is skipped when assigning programs.
So only tracks 01 and 02 will be recorded. Tracks 03 and subsequent tracks can not be recorded.



<Note>
When making an audio CD, if you select a program which consumes more disc space than the recordable space of a CD-RW/CD-R disc, "Disk Full!" appears on the display and you cannot select the program.



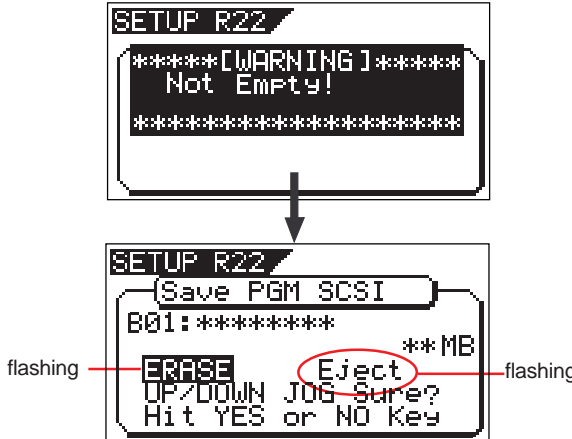
- 10. After specifying the program(s), press the [ENTER/YES] key while holding down the [RECORD] key.
The unit starts recording to the disc, while the display shows the following screen.



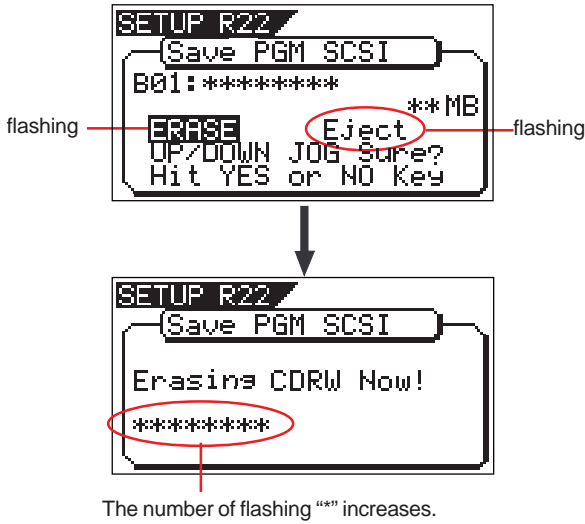
When the recording ends, "Save Completed!" appears on the screen, while the disc is automatically ejected from the CD-RW drive.

- 11. When completed, press the [EXIT/NO] key to quit the Setup mode.

<Hint>
When a CD-RW disc on which any data is recorded is set, if you perform step 7 above (i.e. pressing the [ENTER/YES] key when "CD-DA" is flashing), "Not Empty!" appears on the display, followed by the screen for selecting whether erasing recorded data or ejecting the disc.



• If you erase recorded data:
Press the [ENTER/YES] key while "ERASE" and "Sure?" are flashing.
After the key press, the display changes as follows and the unit starts erasing the data. As the erasing process is going on, the number of flashing "*" increases.



When erasing is completed, the display shows the same screen which appears when pressing the [ENTER/YES] key after selecting "CD-DA" on step 7 above. So follow the same procedure from step 8 on page 16.

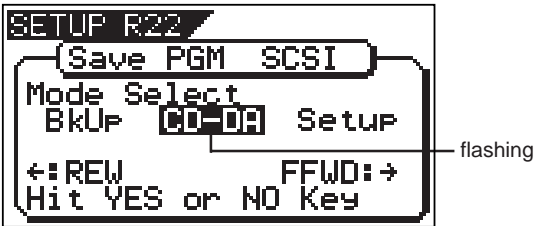
• If you eject the disc:
Use the [JOG] dial to make "Eject" flashing and then press the [ENTER/YES] key.
The disc is ejected, while "Insert Disk!" appears on the screen.
When inserting a blank disc, you can go on the next step (see the procedure described above).

Copy protection setting
You can restrict the disc copy (duplication) capability of an audio CD you are going to make.

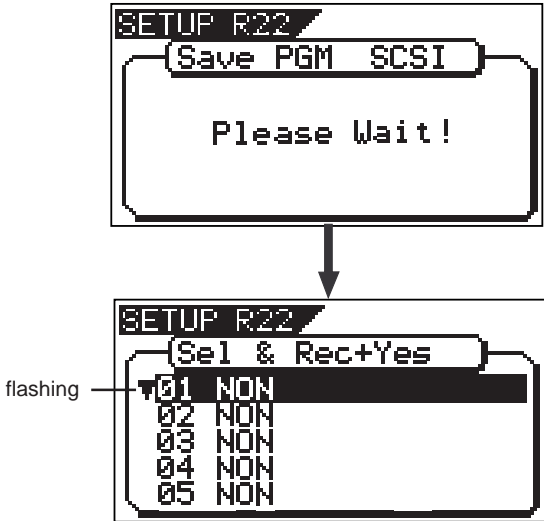
“ON”	A disc you made can be copied to other digital device once.
“OFF”	A disc you made can be copied to other digital device as many times as required (default).

To change the setting, press the [ENTER/YES] key when the “CD-DA Setup” screen is shown. The current setting starts flashing, showing it can be edited. While flashing, use the [JOG] dial to select “ON” or “OFF”, then press the [ENTER/YES] key to confirm.

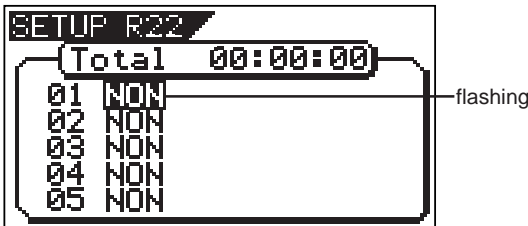
6. After setting the copy protection, press the [EXIT/NO] key.
The display returns to the screen for selecting the save mode, in which “CD-DA” now flashes.



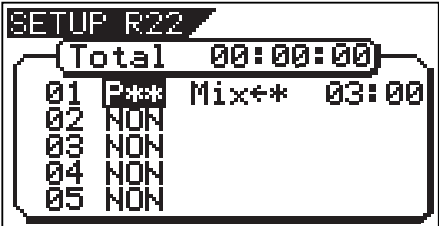
7. While “CD-DA” is flashing, press the [ENTER/YES] key.
After showing “Please Wait!”, the display shows the screen for selecting the program(s) to be record.
- In the screen, a number such as “01” or “02” shows the track number, while “NON” shows that no program is assigned to the track.



8. Press the [ENTER/YES] key.
“NON” for the first program starts flashing, while the total time indicator appears at the top of the screen.

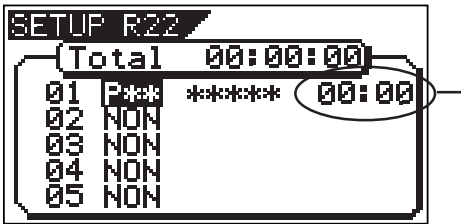


9. While “NON” is flashing, use the [JOG] dial to select a program to be mixed down.
By rotating the [JOG] dial, you can select a desired program from those available on the current drive. The title and recording time of the selected program are also shown on the screen. The total time at the top of the screen will show the program total time after pressing the [ENTER/YES] key.



- To record a single song to a CD-RW/CD-R disc, select a program and press the [ENTER/YES] key, and then go to step 10.
- To record more than one song to a CD-RW/CD-R disc, repeat the procedure for selecting a program described above (i.e. use the [JOG] dial to select a program and press the [ENTER/YES] key) until selecting all desired programs, and then go to step 10.

<Note>
If the program time shows “00: 00” when selecting a program as the screen example below, the CLIPBOARD IN and CLIPBOARD OUT points are not correctly set.



In other words, in the following conditions, the CLIPBOARD IN and CLIPBOARD OUT points are not regarded as being correctly set.

CLIPBOARD IN point = CLIPBOARD OUT point
CLIPBOARD IN point > CLIPBOARD OUT point

If you press the [ENTER/YES] key after selecting such a program, the warning message as below appears on the display and you cannot select the program.

“Void In!”, “Void Out!”, or “Void Data!”

It is possible to select a program that is not mixed down if it holds the correct “IN” and “OUT” points. However, if you record such a program to a CD-RW/CD-R disc with the audio CD format, only track 1 and 2 can be recorded.

So, make sure that you select programs properly when making an audio CD.

Rehearsing internal mixdown recording

Before performing the actual mixdown recording, you can rehearse it while adjusting level, balance and sound character (EQ, effect, etc.) of each track. In the following description, we assume that you are going to mixdown all program tracks (1 through 16) on which instruments or vocals are recorded, and headphones for monitoring are connected to the [PHONES] jack.

<Note> Make sure that the [CH STATUS/CH SEL] keys of all the source and MASTER channels are lit (in the following example, all the [CH STATUS/CH SEL] keys should be lit). A channel whose [CH STATUS/CH SEL] key is unlit will not be mixed down.

1. Select the desired program to be mixed down.
To select the desired program, press the [PGM SEL] key and select the program using the [JOG] dial, then press the [ENTER/YES] key.
2. Set the [MASTER] fader to the “0” position.
3. Press the [PLAY] key to start playback from the beginning of the selected program.
4. During playback, adjust track levels using the channel faders, as well as pan, EQ and effect settings if necessary.
You can monitor the mix-down sound (in other words, stereo buss signals) through the headphones by raising the [PHONES] control. You can record the exact sound you are monitoring by executing the actual mixdown recording as described in “Performing internal mixdown recording”.

You may playback the program repeatedly to tailor the sound by setting pan, EQ and effects until you are satisfied.
For details about setting pan, EQ and effects, see the main owner’s manual.

<Hint>
You can make internal mixdown recording with the “Scene sequence” function active. By executing the scene sequence after creating the scene event map, you can make mixdown recording while playing back materials according to the scene event map.
However, only the scenes that are set for the direct recording can be recalled by the scene sequence.
Note that the scenes that are set for the buss recording cannot be recalled.
For details about “Scene event map” and “Scene sequence”, see the main owner’s manual.

5. After completing all the adjustments, stop the unit and locate the beginning of the program.
You can locate the beginning of the program (ABS 0) quickly by pressing the [REWIND] key while holding down the [STOP] key.

Now you are ready for actual internal mixdown recording.

Performing internal mixdown recording

<Note: There is no recording track selection>
In the internal mixdown mode, unlike the normal recording, you do not have to select recording tracks. When executing the internal mixdown recording according to the following procedure, the unit automatically arms Tracks 1 and 2. Therefore, the [CH STATUS/CH SEL] keys never light up in red during the internal mixdown recording.

1. Press the [DIRECT REC TRK] key while holding down the [SHIFT] key to activate the internal mixdown mode. Make sure that the [DIRECT REC TRK] key flashes.
2. Press the [PLAY] key while holding down the [RECORD] key.
The internal mixdown recording starts.
Both the [DIRECT REC TRK] and [RECORD] keys light up.



3. After completing internal mixdown recording, press the [STOP] key to stop the unit.
“Please Wait!” appears on the display for a few seconds. The internal mixdown mode quits and the unit locates the beginning (ABS 0) of the newly created (mixed-down) program.
In the display example below, you can see the newly created program, whose number is “P09”, is mixed down from “Song Data-1” data.
We recommend to give a title of a mixed-down program starting by “Mix <*” to distinguish from other programs.



4. Check the result by playing back the mixed-down program (“P09” in the example above).
The playback levels of mix-down tracks can be adjusted using faders for channels 1 and 2.

If you make an audio CD of the mixed material, read “Hint” on the next page in advance.

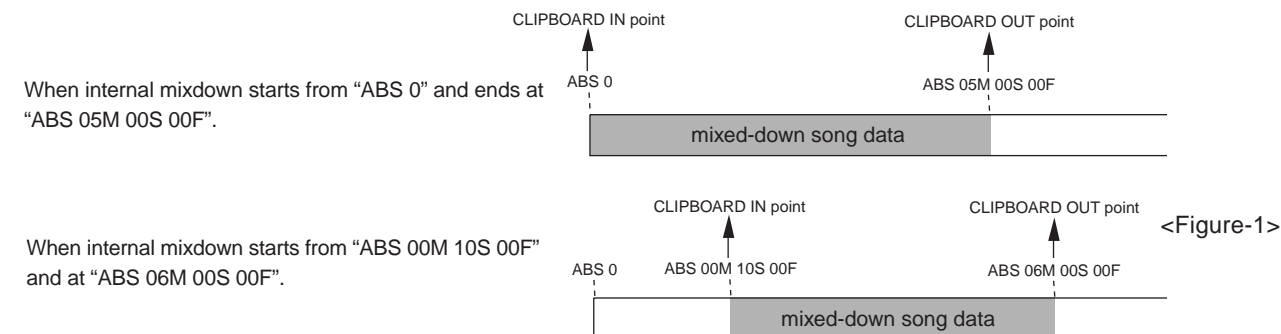
<Note: You cannot undo internal mixdown recording>
If you are not satisfied with the result, try again from the beginning.
You cannot undo internal mixdown recording.
If you do not need the previously recorded program, delete the program by using “Delete” menu in the Setup mode.
For details, see “Erasing a Program” in the main owner’s manual.

<Hint>

When internal mixdown is completed, the starting and ending times of the mixdown are registered as “CLIPBOARD IN point” and “CLIPBOARD OUT point” respectively (see the illustrations below).

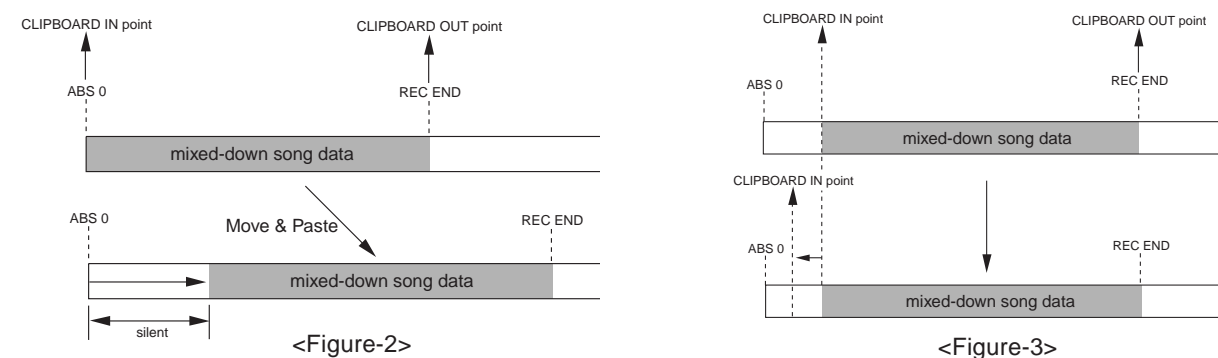
This is because, when making an audio CD from the mixed-down material, data between “CLIPBOARD IN point” and “CLIPBOARD OUT point” is automatically recorded.

Regardless of the starting point of mixdown, only the data between “CLIPBOARD IN point” and “CLIPBOARD OUT point” is recorded when making an audio CD. In other words, you cannot make an audio CD without setting these two points.



However, if you make an audio CD from the material whose actual audio starts from the exact “CLIPBOARD IN point”, there will be no silence before starting audio.

If you want to make a CD which have a silence before actual audio starts, move back the mixed-down data for a few seconds as shown in Figure-2, or move ahead the “CLIPBOARD IN point” for a few seconds as shown in Figure-3.



<Note>

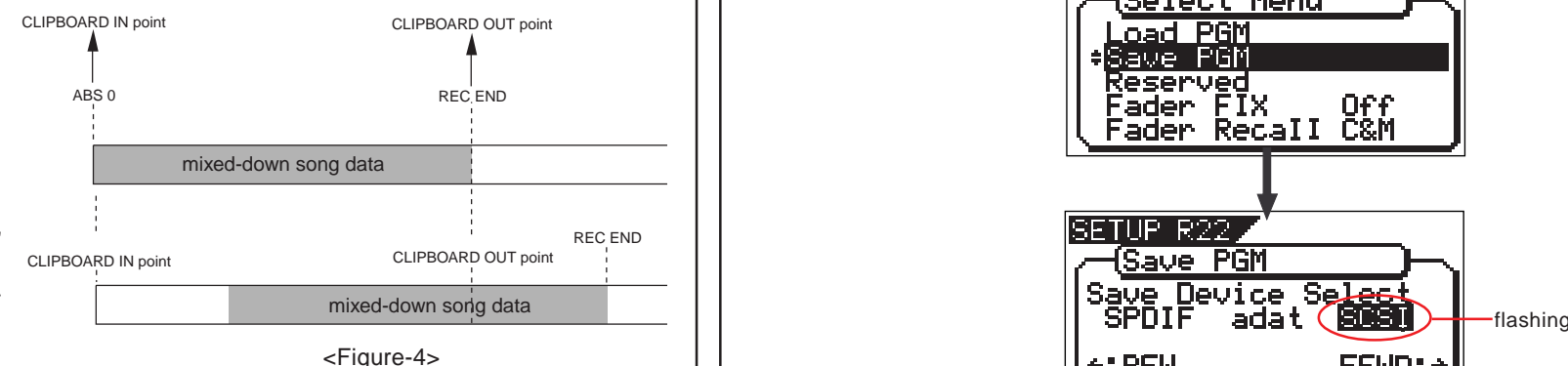
When recording songs continuously to a CD-RW/CD-R disc, the unit automatically record a 2-second silence after the “REC END point”. Therefore, you do not have to make a silence as shown above if a 2-second silence is enough for you. If you want to have a longer silence than 2 seconds, use either of two methods shown above to make a silence longer. See the next page for details about how to make a silence.

<Note>

When you move data as shown in Figure-2, the “CLIPBOARD IN point” is not changed, while the “CLIPBOARD OUT point” moves (as shown in Figure-4).

If you record data to a CD-RW or CD-R disc without changing the CLIPBOARD OUT point, data between the CLIPBOARD IN and OUT points is recorded but data between the CLIPBOARD OUT and REC END points are not recorded.

Therefore, you have to set the “CLIPBOARD OUT point” to the same point as the “REC END point” or latter point.



Making an audio CD

The following procedure describes how to record mixed-down songs (using the internal mixdown mode) to a CD-RW/CD-R disc to make an audio CD (CD-DA format).

The “Save PGM” menu in the Setup mode, which is used for saving song data, is also used for making an audio CD.

<Figure-1>

<Figure-2>

<Basic information>

When making an audio CD using the VF-16, mixed-down materials on the current drive are recorded to a CD-RW/CD-R disc (by the CD-DA format). As we explain in “Save/load of Song Data using a CD-RW drive” on page 10, you can record not only a single song but also multiple songs continuously. When recording more than one songs continuously, the unit automatically inserts a 2-second silent space between songs.

<Note>

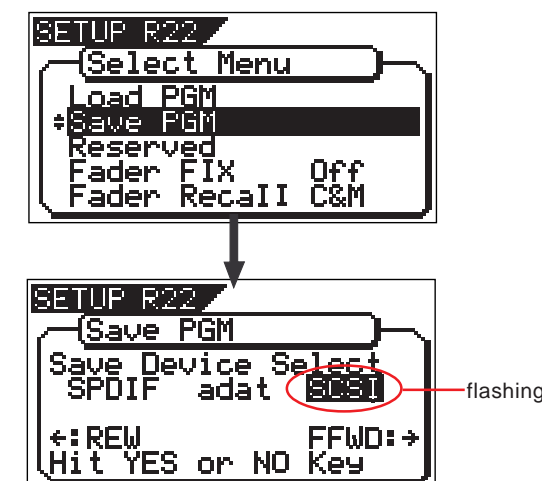
If an audio CD is made using a CD-RW disc, it can be played back only by a player that supports CD-RW playback. You cannot playback such a disc by a conventional CD player that does not support CD-RW playback.

In the following description, we assume that one or more mixed-down programs exist and a CD-RW drive is connected to the SCSI port of the unit.

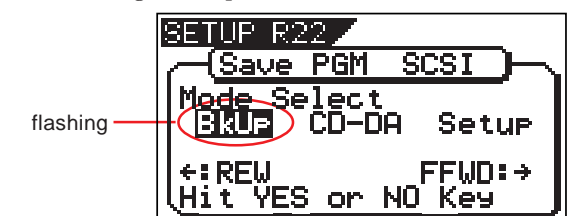
<Note>

Key operations of the unit should be done after completing access to a CD-RW/CD-R disc.

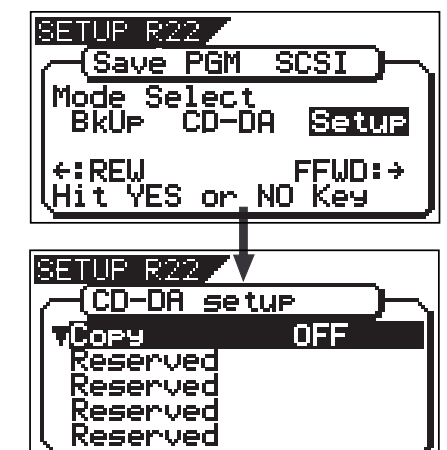
1. After turning on the power of both the VF-16 and a connected CD-RW drive, load a non-recorded disc to the CD-RW drive.
2. Press the [SETUP] key to enter the Setup mode.
3. Use the [JOG] dial to select (highlight) the “Save PGM” menu and press the [ENTER/YES] key. The display shows the screen for selecting the device to which the data is saved. “SCSI” flashes.

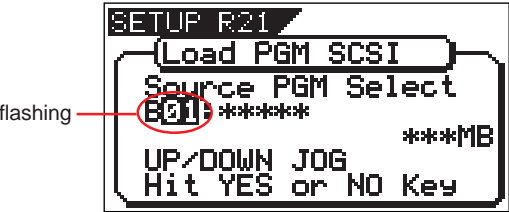


4. Press the [ENTER/YES] key while “SCSI” flashes. After showing the model name of the connected CD-RW drive, the display shows the screen for selecting the save mode, in which “BkUp” flashes. To carry out making an audio CD, select “CD-DA”. If you need to change the copy protection setting (the default setting is “OFF”), select “Setup” (for setting writing conditions). If you make an audio CD without changing the copy protection setting, skip steps 5 and 6 below and go to step 7.

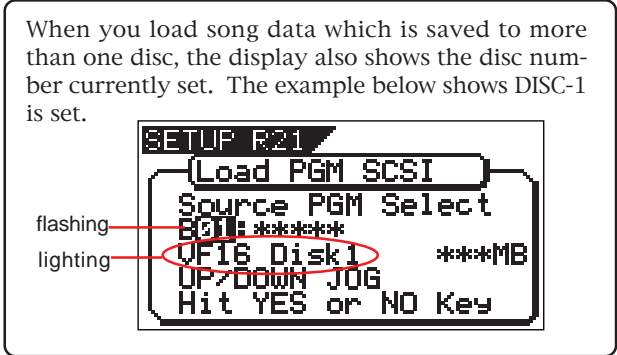


5. Use the [JOG] dial to select “Setup” and press the [ENTER/YES] key. The display shows the “CD-DA Setup” screen, on which you can select the copy protection setting (see the next page).

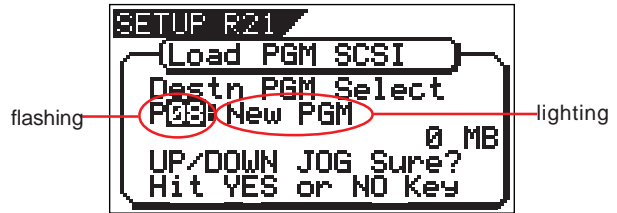




By rotating the [JOG] dial, you can select a desired program number/title from among available programs in the VF-16 current drive. You can also select “Eject”. If you select “Eject” and press the [ENTER/YES] key, the disc is ejected



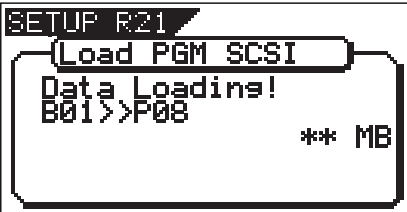
6. While the desired backup number/title is shown on the display, press the [ENTER/YES] key. The display shows the screen for creating a new program on the current drive, to which data will be loaded (“New PGM” lights).



As described earlier, when loading data from a CD-RW drive, the VF-16 creates a new program on the current drive, which is the load destination. Therefore, “New PGM” is shown on the right of the flashing program number. The program number for the newly created destination program is the next number to the highest existing program number. For example, if there are 8 existing programs (“P01” through “P08”) on the current drive, the newly created program is numbered “P09”.

<Note>
If you rotate the [JOG] dial while the above screen (“Destn PGM Select”) is shown, you can select an existing program on the current drive as the destination. However, as mentioned earlier, when loading data using CD-RW you cannot actually load data to the existing program by overwriting the program data. If you press the [ENTER/YES] key (see the next step) while selecting an existing program as the destination, the display shows “Void!” and the VF-16 ignores the operation.

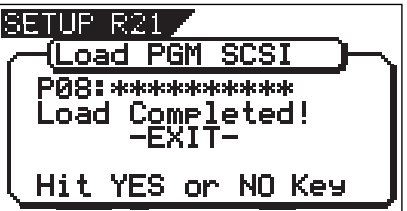
7. While “New PGM” is shown, press the [ENTER/YES] key. The VF-16 starts the load operation. The recorded space shown on the display is counted down while the load operation progresses. It will take some time for loading all data. The following display example shows that the data of the backup number “B01” is being loaded to “P08” which is newly created on the current drive.



<Display example for loading>

<Note>
If there is not enough available space for loading on the current drive, the display shows “Disk Full!” and the display returns to the previous screen.

When completing the load operation, “Load Completed!” appears on the display (as shown below) and the VF-16 stops access to the drive, while the disc in the CD-RW drive is automatically ejected.



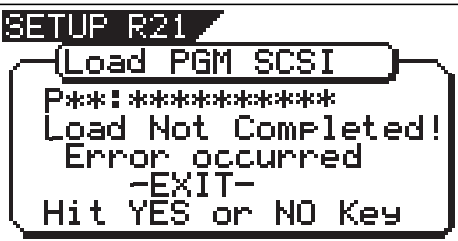
When loading data from more than one disc, the first disc will be ejected immediately after all disc data has been loaded, while “Insert Disk!” appears on the screen. After inserting the second disc, the VF-16 automatically resumes the load operation. After completing loading all the discs, the above screen appears.

<Note>
You cannot abort the load operation before completed.

8. Press the [EXIT/NO] key (or the [STOP] button) to exit the setup mode.

<About load error>
If an error occur for some reason during the load operation, the error message as below appears. If it appears, press the [EXIT/NO] key. The display returns to the previous screen before performing the load operation.

Note that loaded data before the error message appears is all invalid.



Inserting “silence” at the beginning of a song

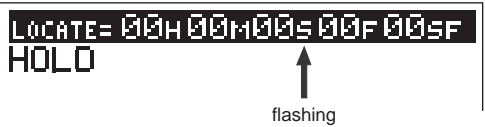
To insert “silence” at the beginning of a song, use either of the following methods depending on the start time. The following operations are assumed to be done when the time base is set to “ABS”. If you want to perform the operations with another time base (such as Bar/Beat), press the [DISP SEL] key while holding down the [SHIFT] key to change the time base in advance.

When mixdown starts from “ABS 0”

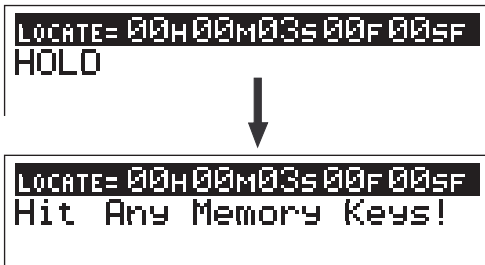
You can make a silence at the beginning of a program which is mixed down from “ABS 0” by using the “move & paste” technique. In the following description, we assumed that the current program is a 5-minute length program, in which the [CLIPBOARD IN] and [CLIPBOARD OUT] keys hold “00M 00S 00F 00SF” and “05M 00S 00F 00SF” respectively, and audio immediately starts from ABS 0 (=00M 00S 00F 00SF). And you are now going to create a 3-second silent space at the beginning of the program.

- First, enter the “AUTO PUNCH IN” point, which is the destination for the paste operation.

1. At the beginning of the program (ABS 0), press the [HOLD/>] key. The current time is held and “S” on the display flashes, showing that you can now edit the “second” field.



2. While “S” flashes, enter “03” using [JOG] dial and press the [STORE] key. “Hit Any Memory Key!” appears on the display.



To edit another field than “second”, use the [HOLD/>] key (or [REWIND]/[F FWD] keys) to flash the appropriate point.

3. Press the [AUTO PUNCH IN] key. Now the [AUTO PUNCH IN] key holds “00M 03S 00F 00SF” as the auto punch-in point, and the display returns to the Normal display.

- Then carry out the move & paste operation.

4. After pressing the [EDIT] key, use the [JOG] dial to display “Move Clip?”. “Select Track!” appears together with “Move Clip?”.



5. Press the [CH STATUS/CH SEL] keys of channels 1 and 2. These [CH STATUS/CH SEL] keys that start flashing in red, showing that tracks 1 and 2 are selected to be moved.

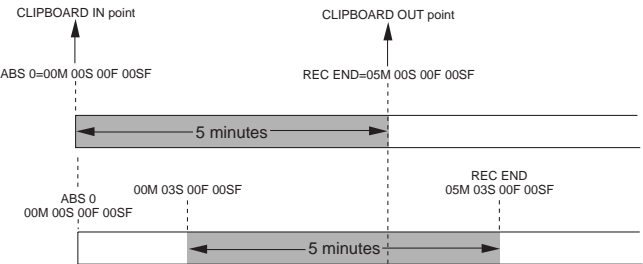
6. Press the [ENTER/YES] key. The “move” operation is immediately completed, and “Move Paste?” appears on the display.



7. Press the [ENTER/YES] key again. The display for selecting the number of repeat times appears, in which “01” and “Sure?” flash. In this tutorial, leave the number as the initial “01”.



8. Press the [ENTER/YES] key again while “01” flashes. The move & paste operation is immediately completed and the program data now moved as shown below. When the move & paste operation is completed, “Completed!” appears on the display.



As we mentioned earlier, if you make an audio CD in this condition, data after the “CLIPBOARD OUT point” will not be recorded. Therefore, you have to set the “CLIPBOARD OUT point” to the “REC END point”.

- Change the “CLIPBOARD OUT point”.

9. When the unit is stopped, press the [F FWD] key while holding down the [STOP] key.
The unit immediately locates the “REC END point”.
10. Press the [STORE] key followed by the [CLIPBOARD OUT] key.
The “REC END point” is now registered as the “CLIPBOARD OUT point”.
The display returns to the Normal display.

By changing the “CLIPBOARD OUT point”, you can now create an audio CD without losing the last part.

When mixdown starts from non-“ABS 0”

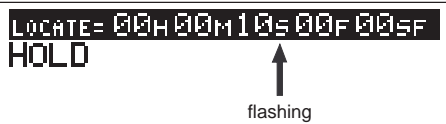
You can make a silence at the beginning of a program which is not mixed down from “ABS 0” by setting the “CLIPBOARD IN point” appropriately.

In the following description, we assumed that the current program is a 5-minute length program which is mixed down from “ABS 00M 10S 00F 00SF”, in which the [CLIPBOARD IN] and [CLIPBOARD OUT] keys hold “00M 10S 00F 00SF” and “05M 10S 00F 00SF” respectively, and audio immediately starts from “00M 10S 00F 00SF”.

And you are now going to create a 3-second silent space at the beginning of the song.

- Change the “CLIPBOARD IN point”.

1. When the unit stopped, press the [CLIPBOARD IN] key.
The time registered with the [CLIPBOARD IN] key is shown (in this tutorial, “ABS 00M 10S 00F 00SF”), and “S” on the display flashes, showing that you can now edit the “second” field.



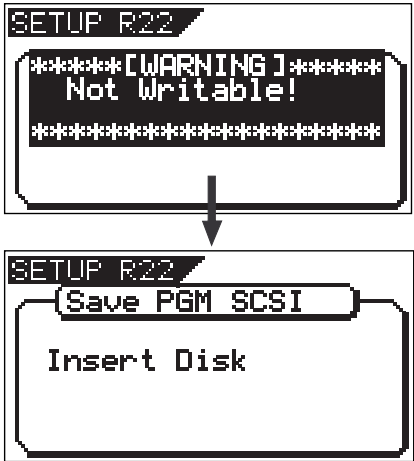
2. While “S” flashes, enter “07” using the [JOG] dial.
3. Press the [STORE] key followed by the [CLIPBOARD I N] key.
“00M 07S 00F 00SF” is registered with the “CLIPBOARD IN point”.

Now you made a 3-second silent space at the beginning of the song by changing the “CLIPBOARD IN point”.

See “Making an audio CD” in “Save/load using CD-RW/CD-R” described later for details about how to make an audio CD from the mixed-down song.

- To eject the disc
Use the [JOG] dial to highlight “Eject” (flashing) and press the [ENTER/YES] key.
The disc is ejected while the display shows “Insert Disk!”.
- By inserting a disc, you can start the save operation again from the beginning.

<Hint 2>
If you try to save data to a recorded CD-R disc, the display shows a warning message saying “Not Writable”, followed by a message saying “Insert Disk” as below.



Loading backup data from a CD-RW drive

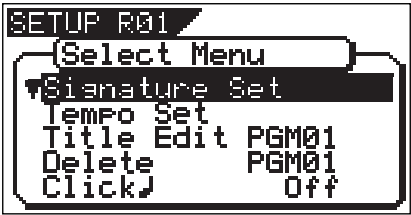
In the following procedure, we assume that a CD-RW drive is connected to the VF-16 SCSI port and a CD-RW/CD-R disc to which data has been saved is prepared.

<Note>
Do not carry out any VF-16 key operation until the access process to the CD-RW/CD-R disc is completed.

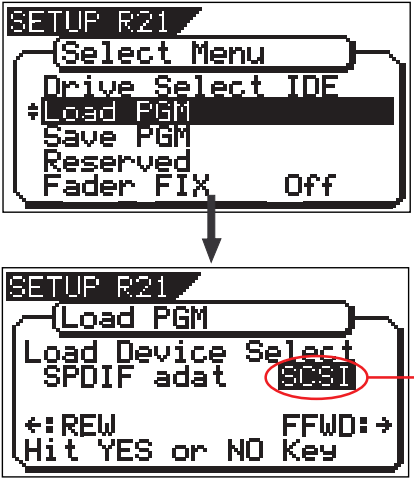
1. After turning on both the VF-16 and the CD-RW drive connected, insert the disc to the CD-RW drive.

<Note>
If you load song data which is saved to more than one disc, set DISC-1 first.
If you set the other disc and go on the following procedure, the VF-16 automatically recognized that the disc order is not correct and the display shows “Wrong Disk”, followed by “Illegal No!” momentarily, and the disc is automatically ejected.

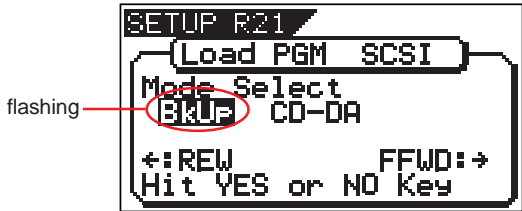
2. Press the [SETUP] key to enter the setup mode.
The display shows the screen for selecting the setup menu.



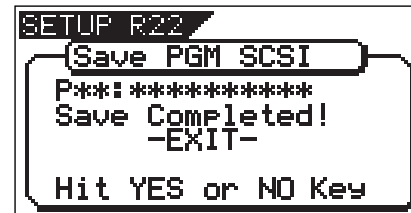
3. Use the [JOG] dial to select (highlight) “Load PGM” and press the [ENTER/YES] key.
The display shows the screen for selecting a load device, where “SCSI” is flashing.



4. While “SCSI” is flashing, press the [ENTER/YES] key.
After briefly showing the model name of the connected CD-RW drive, the display shows the screen for selecting a load mode, where “BkUp” (backup) is flashing.
To load song data saved, select “BkUp”.
To load a material from an audio CD, select “CD-DA”.
This procedure describes how to load song data, so we select “BkUp” here.
See “Loading from an audio CD” described later for details about how to load a material from an audio CD.



5. While “BkUp” is flashing, press the [ENTER/YES] key.
The display shows the backup number and title, as well as recorded space.



When saving data to more than one disc, the first disc will be ejected when it is full (i.e. there is no more recording space on the disc), while "Insert Disk!" appears on the screen. After inserting the second disc, the VF-16 automatically resumes the save operation. After completing the save operation, the final disc is ejected and the above screen appears. (See <Note> below).

8. Press the [EXIT/NO] key (or the [STOP] key) to exit the Setup mode.

<Note for saving data to more than one disc>

If you save data to more than one disc, we recommend to put a number on each disc in the saving order (such as DISC-1, DISC-2, etc.) so that you will easily know the order for inserting discs when loading data.

<Note>

You cannot abort the save operation before completed. Especially during the save operation to more than one disc, if you happen to press the [EXIT/NO] key while removing or inserting a disc, you have to redo the save operation from the beginning with the first disc.

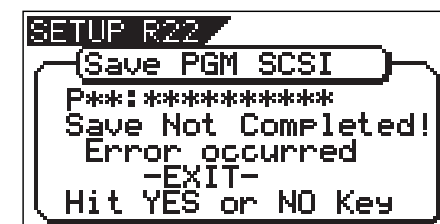
<About save error>

If an error occurs for some reason during the save operation, the error message as below appears.

If it appears, press the [EXIT/NO] key.

The display returns to the previous screen before performing the save operation.

Note that saved data before the error message appears is all invalid.



<Note>

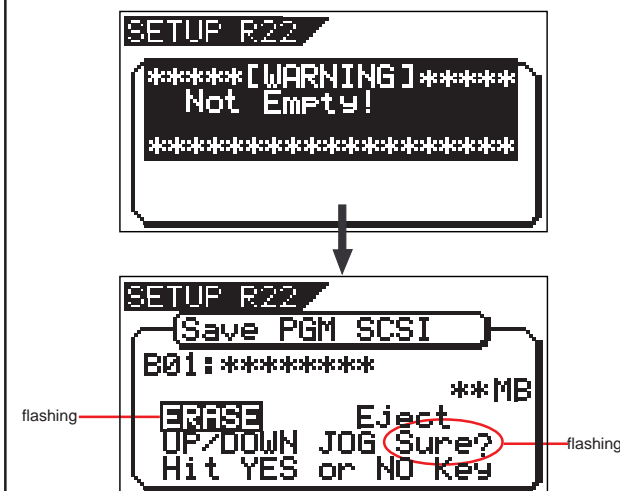
If the message above appears while saving data to a CD-R disc, you can no longer use the disc.

<Hint 1>

In the description for saving data above, we assume to use a non-recorded CD-RW/CD-R disc. If you use a recorded disc (including a disc on which computer data is recorded), also note the following.

By performing step 5 in the save operation procedure shown above ("While "BkUp" is flashing, press the [ENTER/YES] key".) When a recorded disc is inserted, the display shows a warning message, followed by the confirmation screen (where "Sure?" flashes).

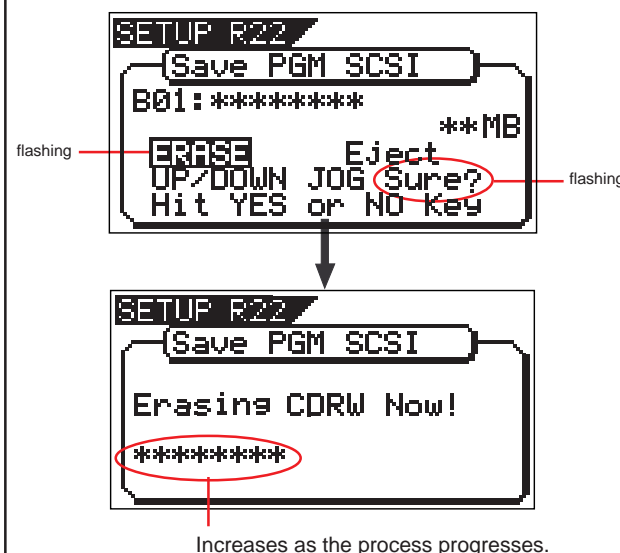
With this screen, you can choose whether erasing the recorded data or ejecting the disc.



- To erase the existing (recorded) data Press the [ENTER/YES] key while both "ERASE" and "Sure?" are flashing.

The display shows the screen below and the VF-16 starts erasing the disc.

As the erase process progresses, the number of flashing "*" increases from left to right.



Immediately after completing erasing the disc, the display shows the same screen (for selecting a program to be saved) which appears after step 5 is performed. Hereafter, perform the same procedure as described above.

Save/Load using CD-RW/CD-R

Please read this first!

<Check compatibility of CD-RW drive!>

A CD-RW drive to be used for saving/loading VF-16 song data or making audio CD from VF-16 data must be compatible with the VF-16. If you use a drive that is not operation-confirmed by Fostex, you may have a problem. You can check operation-confirmed CD-RW drive by the following ways.

<Customers who are accessible to Fostex internet web site>

Confirm the model number and manufacturer of operation-confirmed CD-RW drive by accessing the following URL.

<http://www.fostex.co.jp/int/pages/sets/faqset.htm>

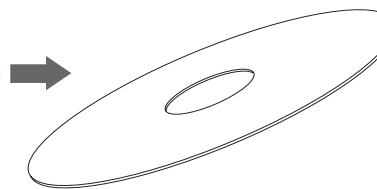
<Customers who are not accessible to Fostex internet web site>

Contact your local Fostex distributor.

<Care and handling of CD-RW/CD-R discs>

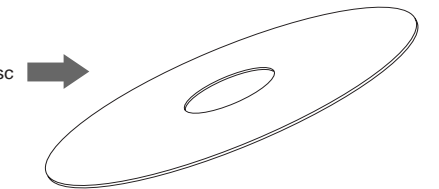
With a CD-RW drive, you can use not only CD-RW discs but also CD-R discs. Note that CD-R discs has some restrictions as shown below.

CD-RW disc



You can save (record) data to a disc as many times required. Note that when saving new data, it is recorded after the previously recorded data is erased. In other words, every time you save new data, all disc data is rewritten. (See "Saving data" described later.)

CD-R disc



You can save (record) data to a disc only once. You cannot save data to a recorded disc. You can, of course, load data as many times as required.

<Note>

A CD-RW/CD-R disc on which VF-16 data is recorded can only be played by Fostex machines. Do not play it by non-Fostex devices. The drive or system used may be damaged.

However, a CD-R disc with audio CD format created by the Fostex machine can be played by general machines such as audio CD players. (If an audio CD is made using a CD-RW disc, it can be played back only by a player that supports CD-RW playback. You cannot playback such a disc by a conventional CD player that does not support CD-RW playback.)

<About data writing and reading speeds for data save/load>

The writing and reading speeds for data save and load of the VF-16 are automatically set as below.

- Writing speed: according to a CD-RW drive used, however the maximum speed is 8 times.
- Reading speed: according to a CD-RW drive used.

The writing speed depends on a CD-RW drive but it is limited to 8 times.

For save/load of the VF-16 data, use discs that can be written at 4 times or higher speed. Do not use discs that only can be written at real-time or twice speed.

Save/load of Song Data Using a CD-RW drive

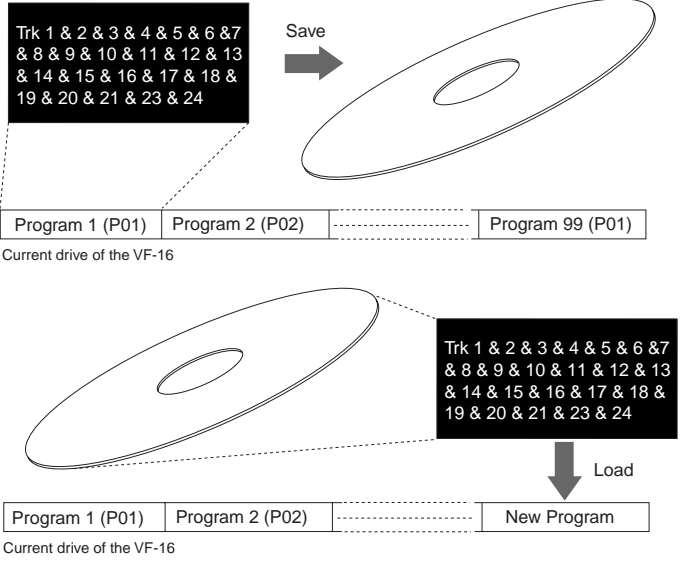
Using a CD-RW drive, in addition to make backup of song data as with other SCSI devices such as zip and MO drives, you can also make an audio CD.

• Save

You can only a single selected program data to a disc regardless of the program data amount. You cannot save more than one program data even if there are enough disc space. However, you can save a program data to more than one disc if the data amount is larger than a disc space. As shown on the right, you can save almost all necessary information such as song data of all tracks (real and additional tracks) and mixer scene data, as with using other SCSI devices.

• Load

Unlike data load using other SCSI drives, data loading using a CD-RW drive is taken place after a "new program" is created in the current drive (the load destination). You cannot overwrite an existing program with the loaded data. The newly created program is numbered the next number to the highest existing program number.



<Note>

You can save or load data using a CD-RW drive only with the FDMS-3 (Fostex Digital Management System-3) format and CD-DA format. Note that, unlike other SCSI devices, you cannot save or load data with the WAV file format. See the main manual for saving/loading a WAV file.

• Creating an audio CD

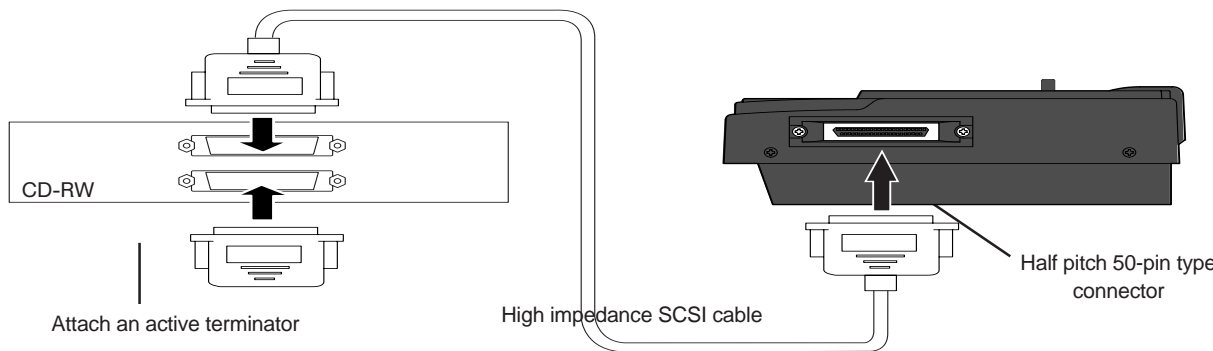
You can make an audio CD by recording sound data of tracks 1 and 2 between the "CLIPBOARD IN point" and "CLIPBOARD OUT point" to a CD-RW/CD-R disc. It is also possible to record some mixed-down materials continuously. Note that no mixer scene nor setup mode information is recorded when making an audio CD.

• Loading an audio CD data

You can load a material on a (commercial or created) audio CD to a program of the VF-16. Audio data is loaded to a "new program" automatically created by the unit, which is the same way as backup data loading. The unit never overwrites the existing program.

<Notes for using a CD-RW drive>

- Use a high-impedance SCSI cable for connection between the VF-16 and a CD-RW drive. The cable length should be as short as possible.
- Only a single SCSI device can be connected to the VF-16 SCSI port. Attach an active terminator to the CD-RW drive used. If you attach a terminator that is not active, you may not be able to save or load data correctly.
- When a CD-RW drive connected to the VF-16 is turned on, only the eject switch of the drive can be used. Other controls such as the level control and the play button are not effective.



Saving data using a CD-RW drive (Backup)

In the following procedure, we assume that a CD-RW drive is connected to the VF-16 SCSI port and a non-recorded CD-RW/CD-R disc is used.

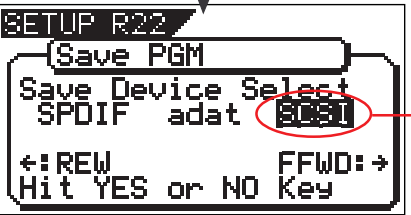
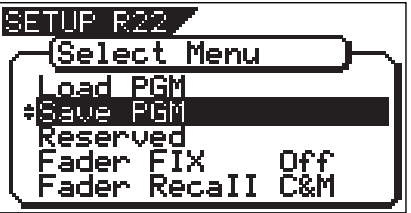
<Note>

Do not carry out any VF-16 key operation until the access process to the CD-RW/CD-R disc is completed.

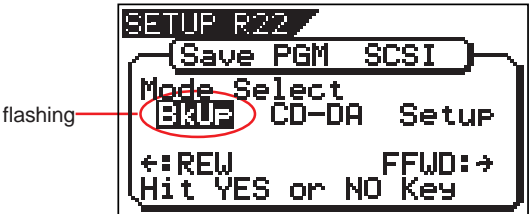
1. After turning on both the VF-16 and the CD-RW drive connected, insert a disc to the CD-RW drive.
2. Press the [SETUP] key of the VF-16 to enter the setup mode. The display shows the screen for selecting the setup menu.



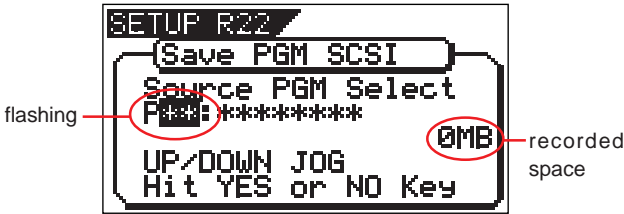
3. Use the [JOG] dial to select (highlight) "Save PGM" and press the [ENTER/YES] key. The display shows the screen for selecting a save device, where "SCSI" is flashing.



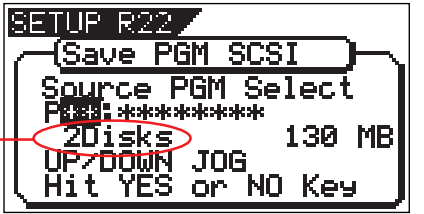
4. While "SCSI" is flashing, press the [ENTER/YES] key. After briefly showing the model name of the connected CD-RW drive, the display shows the screen for selecting a save mode, where "BkUp" (backup) is flashing. To save (backup) song data, select "BkUp". To make an audio CD, select "CD-DA" or "Setup". This procedure describes how to save song data, so we select "BkUp" here. See "making an audio CD" described later for details about how to make an audio CD.



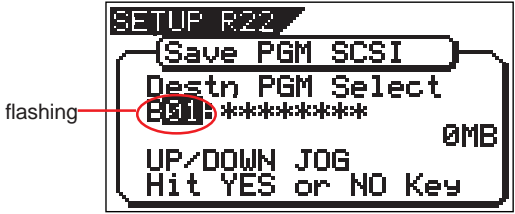
5. While "BkUp" flashing, press the [ENTER/YES] key. The display shows the screen for selecting a program to be saved (the program number of the selected program flashes).



By rotating the [JOG] dial, you can select a desired program number/title from among available programs in the VF-16 current drive. The recorded space of the selected program is also shown. If you select a program which requires more than one disc for saving, the display shows the required number of discs (see the screen example below).

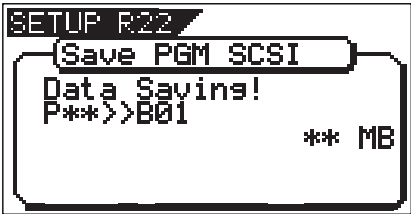


6. After selecting a program, press the [ENTER/YES] key. The display shows the screen as below.



In the example above, the selected program data will be saved to a CD-RW/CD-R disc with the backup number "B01". The program title is copied to the backup title (you can not edit it). By rotating the [JOG] dial when the above screen is shown, you can also select "Eject", besides "B01". If you select "Eject" and then press the [ENTER/YES] key, the disc will be ejected.

7. While "B01" is shown, press the [ENTER/YES] key. The VF-16 starts the save operation. The recorded space shown on the display is counted down while the save operation progresses. It will take some time for saving all data. The following display example shows that the data of the selected program number is being saved to the backup number "B01".



When completing the save operation, "Save Completed!" appears on the display (as shown below) and the VF-16 stops access to the drive, while the disc in the CD-RW drive is automatically ejected.