



SOFTWARE INSTRUCTION MANUAL

SOUND REPEATER

**EV-20R
PM-20EV**

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

TOA Corporation

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1. SOFTWARE GENERAL DESCRIPTION

The software program described in this manual is a data transfer program used to enable communications between the TOA Sound Repeater and a computer (PC).


2. HANDLING PRECAUTIONS

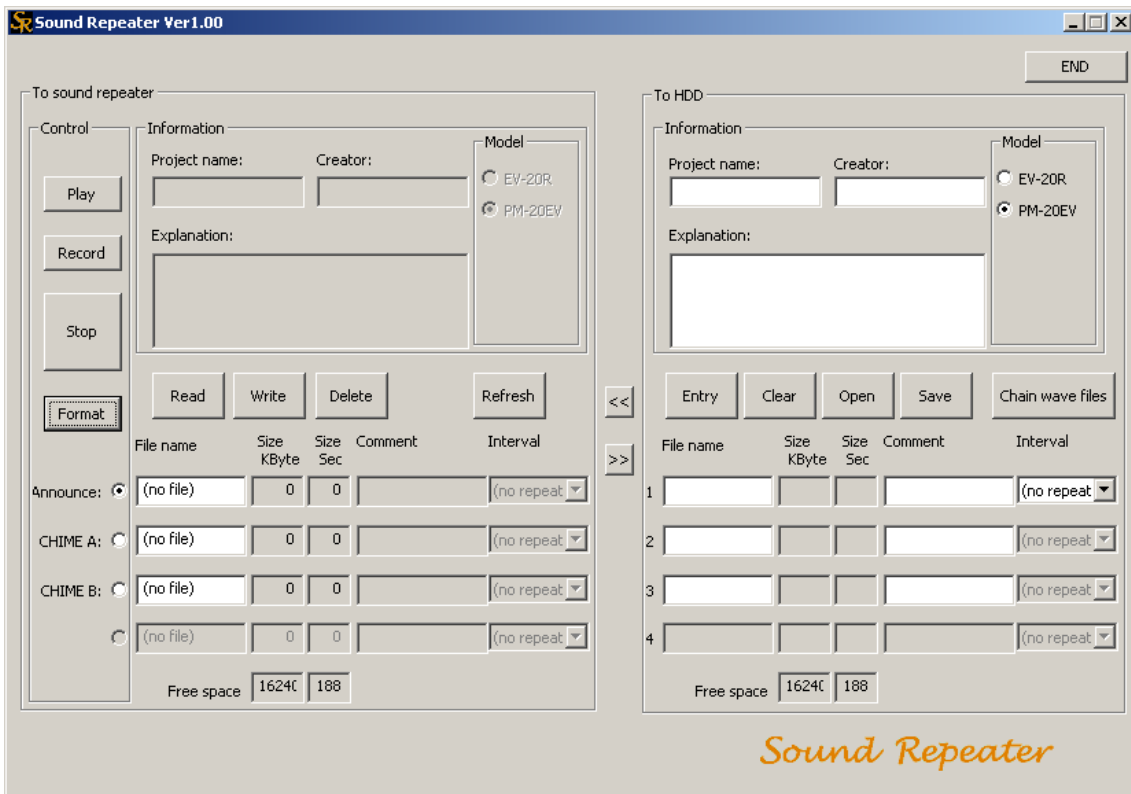
- This CD-ROM is not an audio CD-ROM. Do not attempt to use it in an ordinary audio CD player.
- Avoid exposing the CD-ROM to direct sunlight, as data may be lost.
- When the EV-20R or PM-20EV is in the following operating states, do not switch off its power nor insert or remove the USB cable. PC operation may stop.
 - While the driver software program is being installed.
 - While the OS is being activated or terminated.
 - During the course of being suspended or resumed.
 - While data is being transferred between the unit and the PC.Because PC operations could also freeze, avoid performing the following:
 - Frequent ON and OFF power switching
 - Frequent USB cable insertion and detachment

3. SOFTWARE STARTUP

Note

Install the USB driver and data transfer program in a compatible PC, then connect the PC to the Sound Repeater. For more information regarding software installation and connections, please refer to the separately supplied instruction manual.

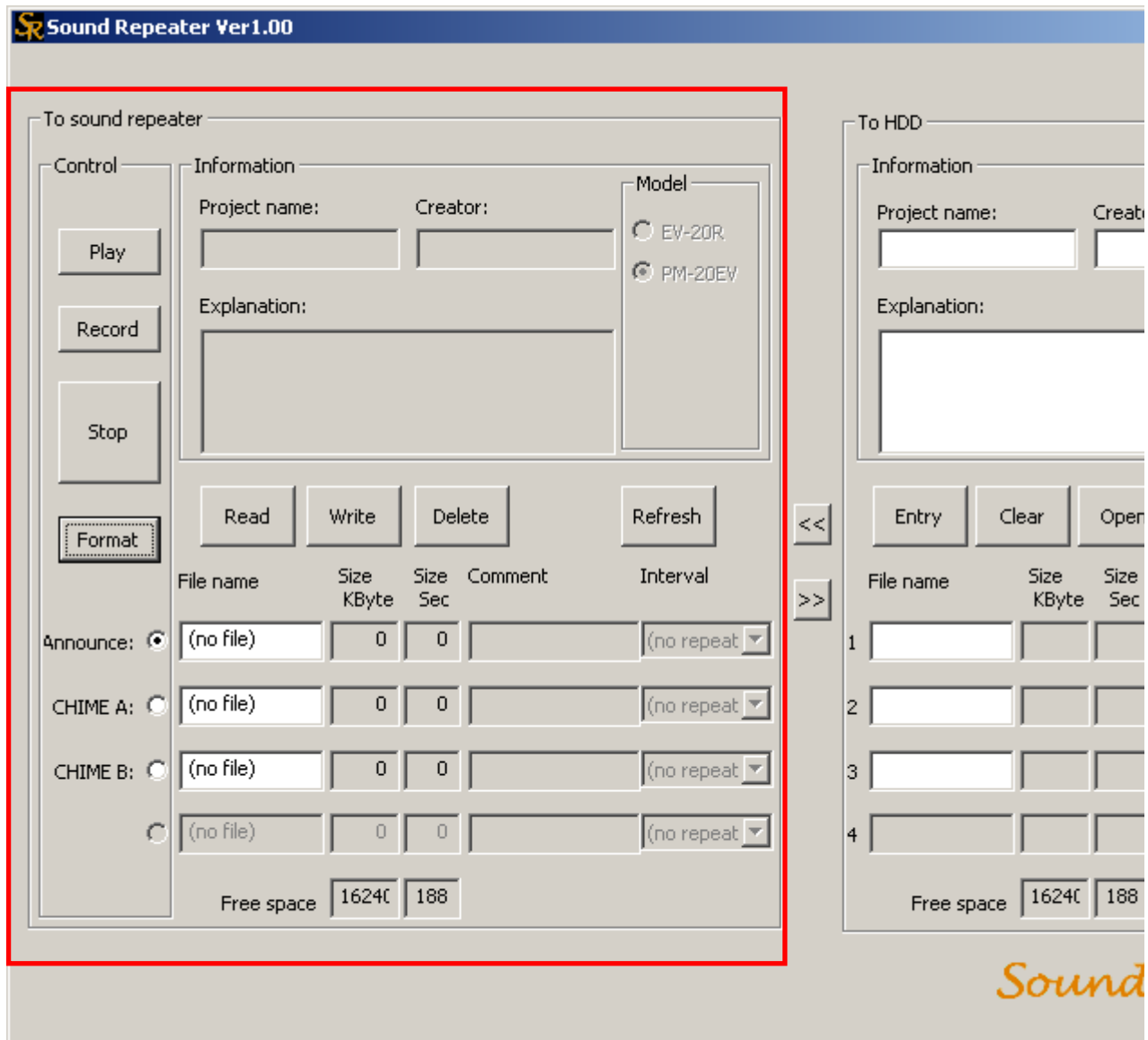
The data transfer software program can be started by double-clicking on the shortcut icon  created on the desktop screen during installation. (The data transfer program is located in the "C:\Program Files\EV-20PC\" folder, unless the designated installation folder was changed during installation.)



4. SCREEN DESCRIPTION

4.1. Sound Repeater Memory Area

This screen is used to display the Sound Repeater's recorded contents or save the unit's recorded messages in files. Individual message data can also be written or deleted.



[Information]

Displays project information.

(1) Project name

Displays the name of the project.

(2) Creator

Displays the creator.

(3) Explanation

Displays the explanatory information about the project.

(4) Model

Displays the Sound Repeater model number. The model number is automatically displayed when the Sound Repeater is connected to a PC.

[Control]

The connected Sound Repeater can be remotely operated by the PC.

(5) Play

Plays back selected messages. This button provides the same operation as the Play key on the Sound Repeater.

(6) Record

Records selected messages. This button provides the same operation as the Record key on the Sound Repeater.

(7) Stop

Stops playback or recording of selected messages.

(8) Format

Initializes (deletes in a single operation) the memory in the Sound Repeater.

(9) Message Number

EV-20R: No. 1 – 4

PM-20EV: Announce, CHIME A, or CHIME B

Click to select the desired message number, etc.

Note

The display differs depending on the Sound Repeater model. The screen on the previous page is an example of the PM-20EV.

For the PM-20EV, CHIME A and CHIME B refer to as follows.

CHIME A: Pre-announcement chime tones

CHIME B: Post-announcement chime tones

[Memory Buttons]

Enable the writing or deletion of individual messages.

(10) Read

Saves selected messages recorded on the Sound Repeater to the PC.

(11) Write

Writes messages stored in the PC to selected message numbers in the Sound Repeater.

(12) Delete

Deletes selected messages recorded on the Sound Repeater.

(13) Refresh

Recalls and displays (on the Sound Repeater Memory screen) the filenames and data of all messages recorded on the Sound Repeater.

[Message Information]

Displays relevant Sound Repeater data.

(14) File name

Displays the filename of the message.

(15) Size (kByte)

Displays message file size in kilobytes.

(16) Size (Sec)

Displays message file length in seconds.

(17) Comment

Displays comments about the message.

(18) Interval

Displays the repeat interval between messages.

(19) Free space

Displays the Sound Repeater's remaining memory capacity.

4.2. PC Hard Disk Area

This screen is used to program or pre-edit messages to be transferred to the Sound Repeater. Data transfer and backup are carried out for the entire Repeater data (all messages and data for individual projects are processed in a single operation).

The screenshot shows the 'Sound Repeater' software interface. A dialog box titled 'To HDD' is open, containing the following elements:

- Information Section:**
 - Project name:** A text input field.
 - Creator:** A text input field.
 - Model:** Radio buttons for 'EV-20R' and 'PM-20EV' (selected).
 - Explanation:** A large text area for entering project details.
- Buttons:** 'Entry', 'Clear', 'Open', 'Save', and 'Chain wave files'.
- File Management Table:**

File name	Size KByte	Size Sec	Comment	Interval
1				(no repeat)
2				(no repeat)
3				(no repeat)
4				(no repeat)
- Free space:** A display showing '16240' and '188'.

The main window background shows a similar interface with a list of files and a 'Free space' indicator at the bottom.

[Information]

Data regarding the project can be entered and stored.

(20) Project name

The name of the project is entered and displayed. Up to 128 characters can be entered. There is no limit to the types of characters that can be entered.

(21) Creator

The name of the creator is entered and displayed. Up to 128 characters can be entered. There is no limit to the types of characters that can be entered.

(22) Explanation

Explanatory information about the project is entered and displayed. Up to 256 characters can be entered. There is no limit to the types of characters that can be entered.

(23) Model

Displays and selects the Sound Repeater model number to be used.

[Memory Buttons]

Permit editing of Sound Repeater message data.

(24) Entry

Programs audio data to be written to the Sound Repeater.

- (25) Clear**
Deletes selected programmed messages.
- (26) Open**
Reads and displays entire Repeater data (for individual projects) stored in the PC.
- (27) Save**
Saves data and information concerning the message being edited to the PC as a file for entire Repeater data (for individual projects).
- (28) Chain wave files**
Creates new audio data by linking two audio files stored in either the PC or a CD-ROM.

[Programming Status]

Messages used by the Sound Repeater can be edited. Comments can also be added to each file.

- (29) File name**
Displays the filename of the message.
- (30) Size (kByte)**
Displays the message file size in kilobytes.
- (31) Size (Sec)**
Displays the message file length in seconds.
- (32) Free space**
Displays the Sound Repeater's remaining memory capacity.

- (33) Comment**
Used to display and enter comments about the message. Up to 128 characters can be entered. There is no limit to the types of characters that can be entered.
- (34) Interval**
Sets the repeat interval between messages. Select the desired interval from the pull-down menu. In the case of the EV-20R, the interval cannot be set on the PC screen. Use the unit's DIP switch to set the interval.

[Miscellaneous]

- (35) One-Touch Write [<<]** (Center-left of the area screen)
Writes data contents programmed on the Sound Repeater's PC Hard Disk area by transferring them to the Repeater. Written contents are displayed on the Sound Repeater Memory screen.
- (36) Backup [>>]** (Center-left of the area screen)
Displays the Sound Repeater's programmed contents by transferring them to the PC Hard Disk Area.
- (37) END** (Top right of the area screen)
Used to quit and exit the software program.

5. USABLE AUDIO DATA

Audio data previously prepared by the customer can be read and written to the Sound Repeater.

5.1. Audio Data Creation

Previously prepared customer Wave (.WAV) files can also be used for broadcast. Specifications for Wave files that can be written to the Sound Repeater are as follows:

- Sampling frequency: 44.1 kHz
- Quantifying number: 16 bits
- Mode: Monaural
- Data format: PCM
- Filename: 8.3 format (8 alphanumeric characters or less); extension: WAV)
- Format: Wave format

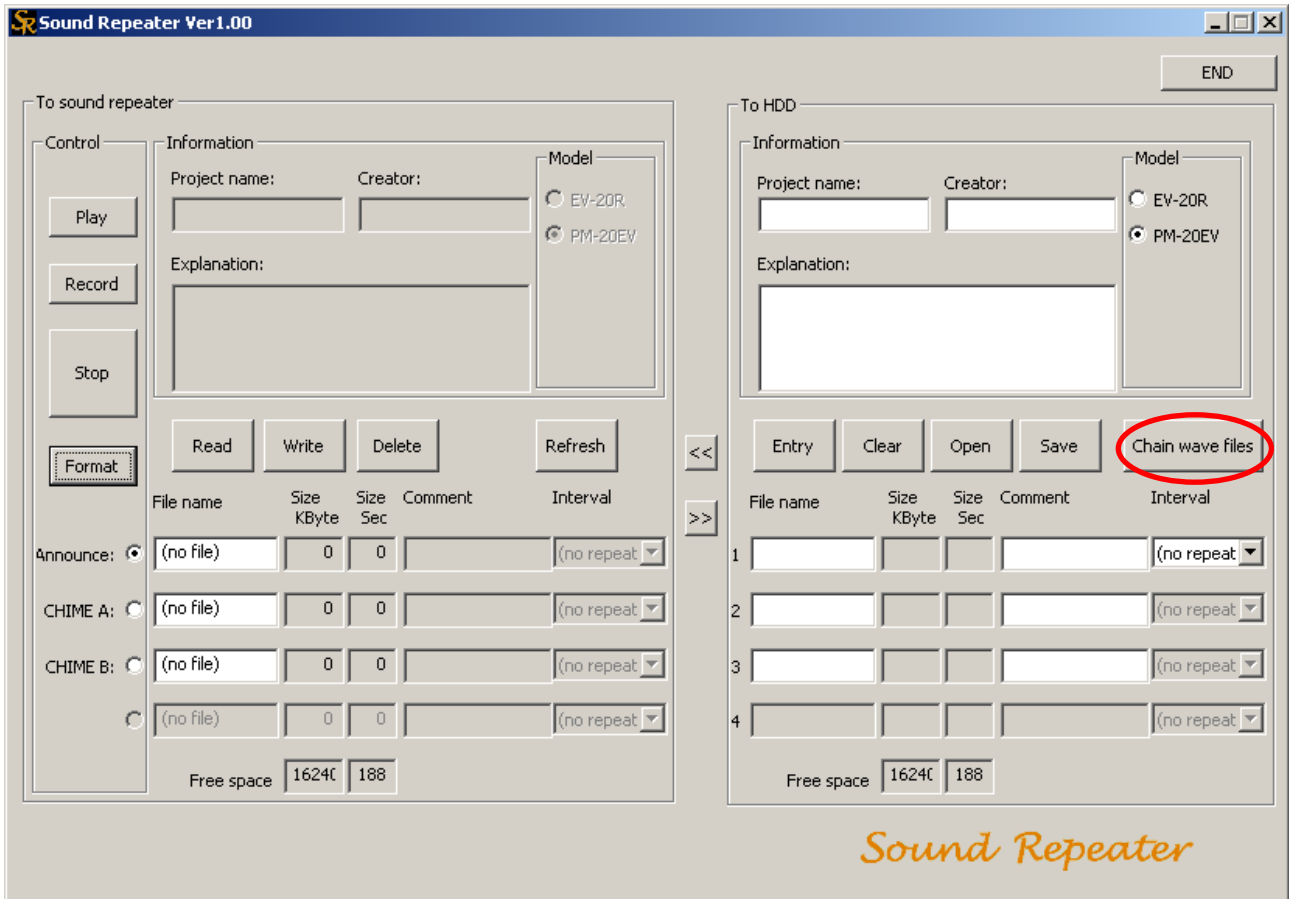
Caution

The Sound Repeater is not compatible with the Broadcast Wave Format (BWF), the upgraded Wave format.

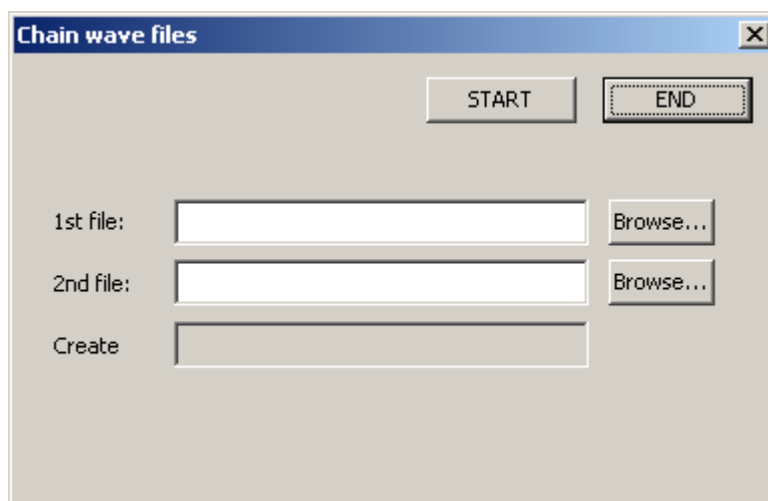
5.2. Linking Wave Files to Create New Files

New Wave files can be created by using the data transfer software program to link previously prepared customer Wave files.

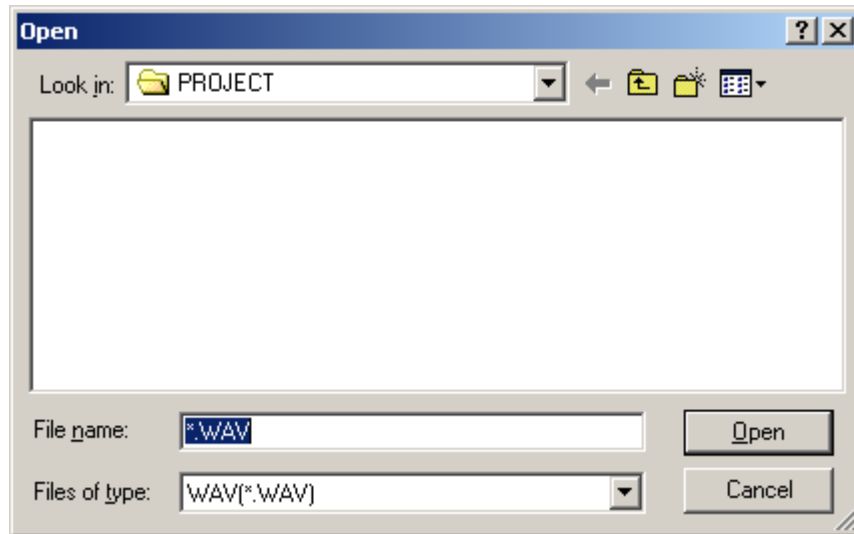
Step 1. Click the Chain wave files button.



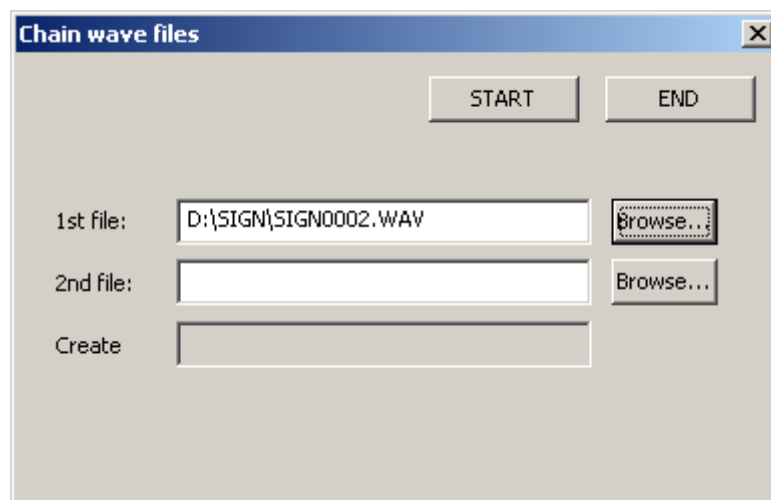
A dialog box is displayed.



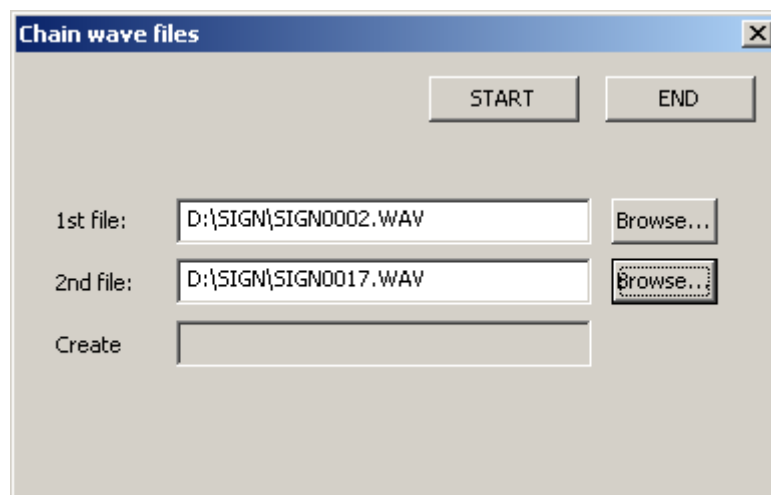
Step 2. Click the Browse button for the "1st file."
A dialog box is displayed.



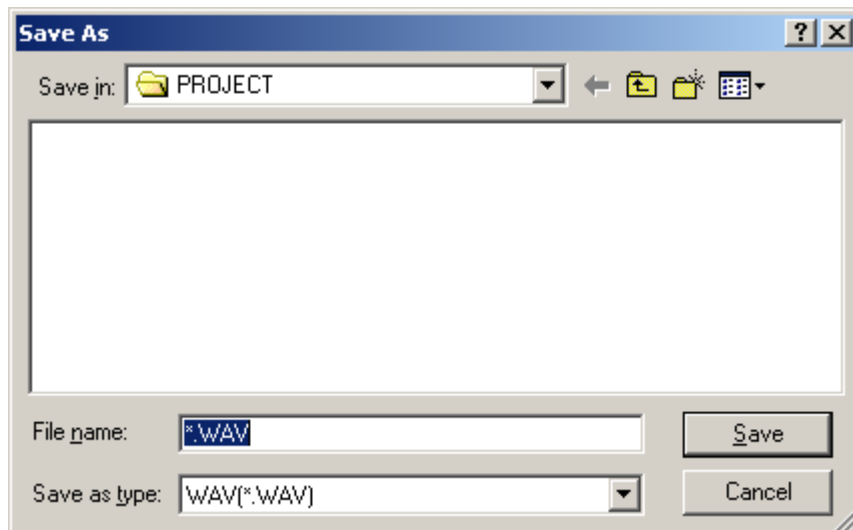
Step 3. Select the file to link, and click the Open button.
The selected filename is displayed in the "1st file" field.



Step 4. Select the "2nd file" using the same procedure.



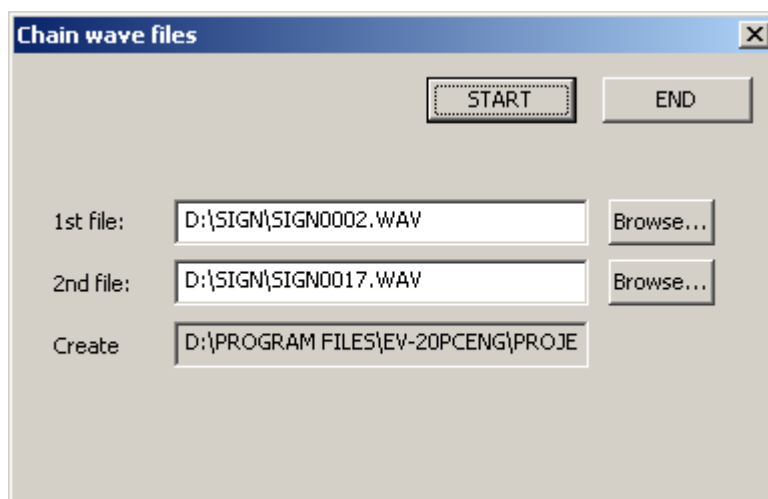
Step 5. Click the START button.
A dialog box is displayed.



Step 6. Designate the save destination, then enter and save the filename of the linked files.

Caution

Up to 8 alphanumeric characters can be entered as the filename, followed by the ".WAV" extension.



Step 7. Click the END button.

Tip

Numerous files can be linked together by repeating the above procedure. However, their total time length must be shorter than the Sound Repeater's maximum recording time.

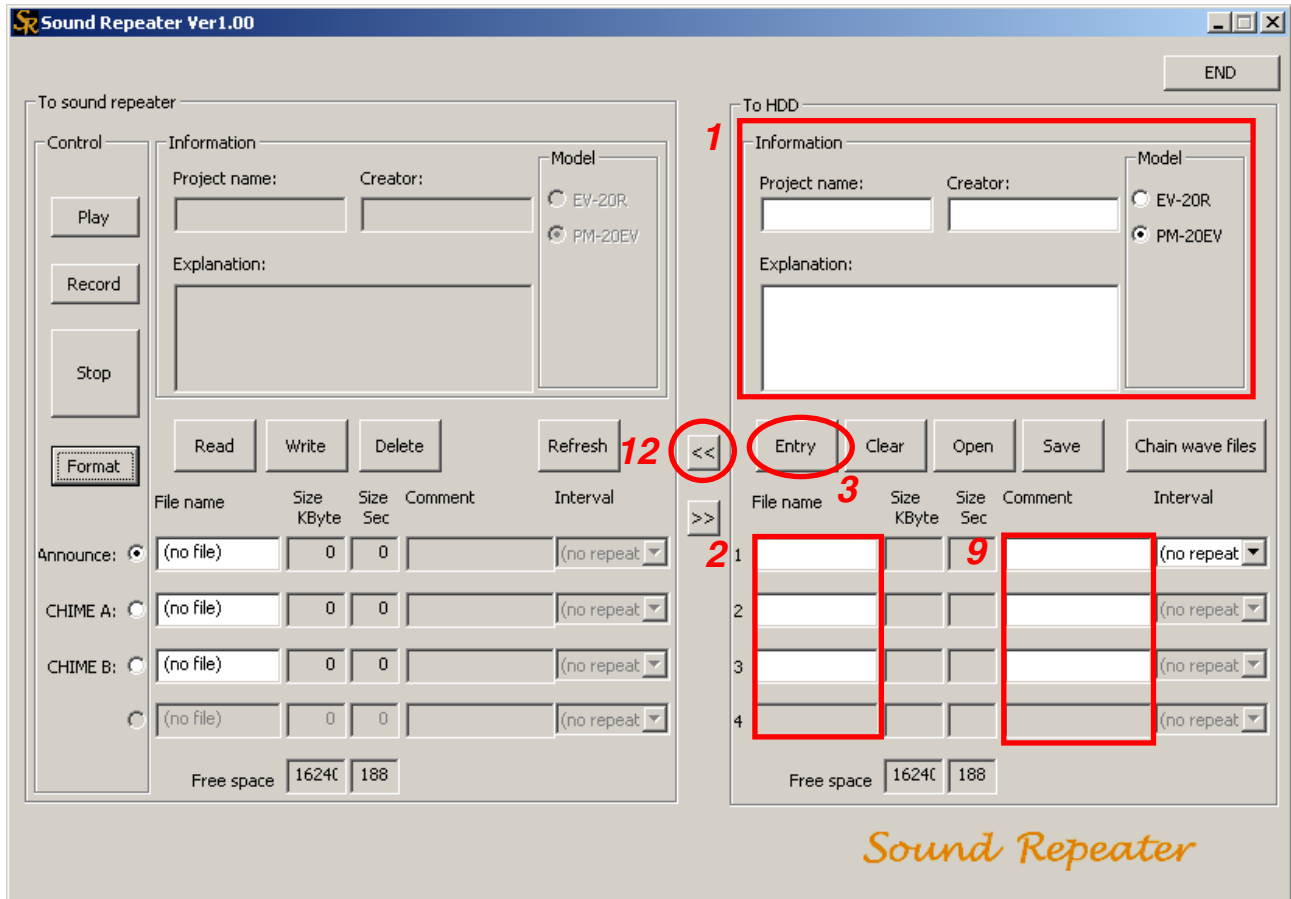
6. DOWNLOADING AUDIO DATA

6.1. Creating and Writing the Entire Repeater Data

Create the entire Repeater data and message contents (for individual projects) in the PC Hard Disk area, and transfer the created files to the Sound Repeater Memory area for writing.

Caution

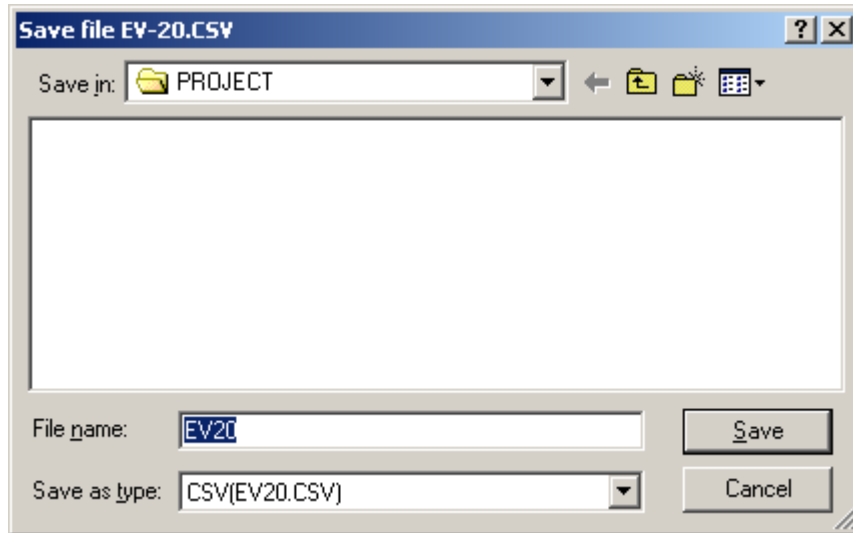
In this method, all data are written in a single operation. Be sure to back up files before transfer, especially for important data that must not be deleted on the Sound Repeater side.



Step 1. Select the Repeater model number and enter the project name in the PC Hard Disk area. Also enter the creator and explanatory comments as required.

Step 2. Click the File name column of the message number to be written in the PC Hard Disk area.

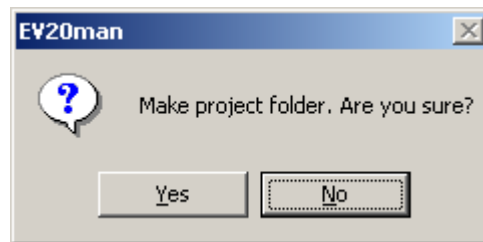
- Step 3.** Click the Enter button.
The dialog box for selecting the save destination is displayed.



Tip

When operating the Enter button a second time or thereafter, the dialog box for opening the file appears (as shown in **Step 6**) instead of the dialog box for selecting the save destination, omitting **Steps 4 – 6**.

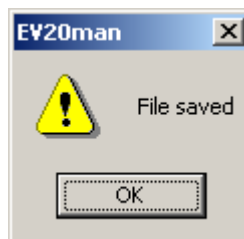
- Step 4.** Designate the file (EVF20.CSV) in which the project information is stored, then click the Save button.
The confirmation dialog box is displayed.



Caution

- Be sure to enter the project name. Files cannot be saved if no project name has been entered.
- Do not attempt to change the filename (EV20.CSV). If changed, the filename will automatically revert to its default EV20.CSV name before being stored.

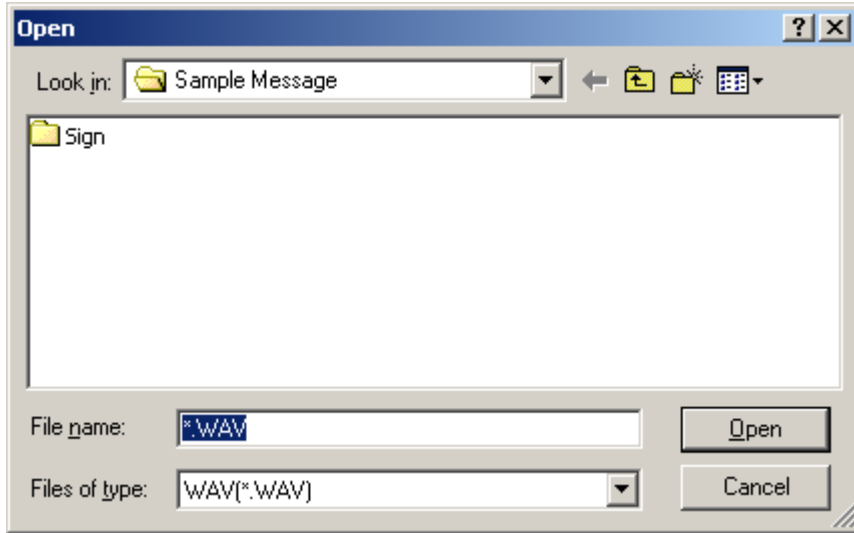
- Step 5.** Click Yes.
A folder with the same name as the project name is created, into which the EV-20.CSV file is stored.
A dialog box is displayed after storage completion.



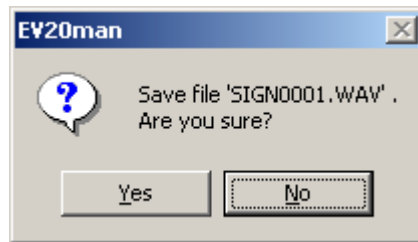
Caution

Do not delete the created file in the folder.

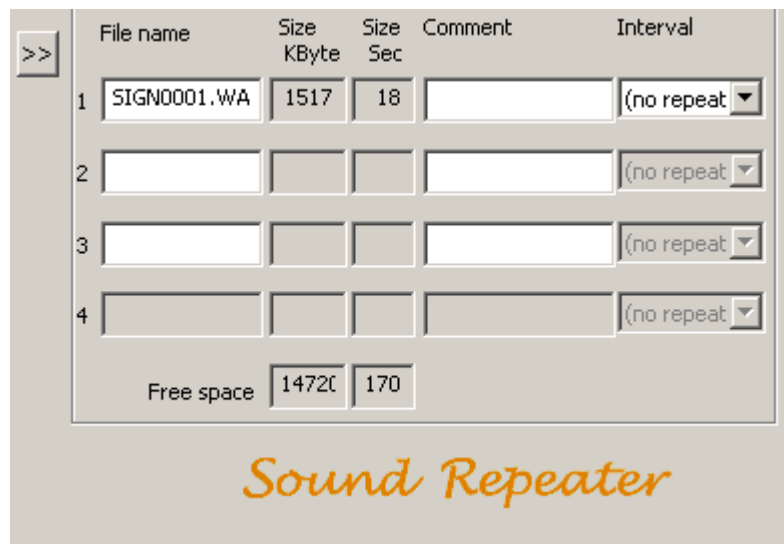
Step 6. Click the OK button.
A dialog box is displayed.



Step 7. Designate the names of the folder and file containing the message to be programmed, then click the Open button.
The confirmation dialog box is displayed.



Step 8. Click Yes.
The programmed message is displayed on the PC Hard Disk screen.



Caution

Two or more messages with the same filename cannot be programmed. Change filenames before programming.

Tip

Programming into a previously programmed message number replaces the original message of that number with a new message.

Step 9. Enter information in the Comment column as required.

Step 10. Click the Interval pull-down menu to select the repeat interval as required. (PM-20EV only)

Tips

- The term "Interval" refers to the repeat interval that represents the time between the end of the previous message and the start of the next message. Set delay times are not added to the repeat interval.
- The repeat interval is factory-preset to "no repeat" (announcement repetition disabled).

Interval Settings	Setting Contents
no repeat (Factory-preset position)	No repeat announcements are broadcast.
0 sec	Continuous broadcast with no intervals.
5 sec	Broadcasts are repeated after each 5-second pause.
10 sec	Broadcasts are repeated after each 10-second pause.
30 sec	Broadcasts are repeated after each 30-second pause.
1 min	Broadcasts are repeated after each 1-minute pause.
5 min	Broadcasts are repeated after each 5-minute pause.
10 min	Broadcasts are repeated after each 10-minute pause.
30 min	Broadcasts are repeated after each 30-minute pause.
1 hour	Broadcasts are repeated after each 1-hour pause.

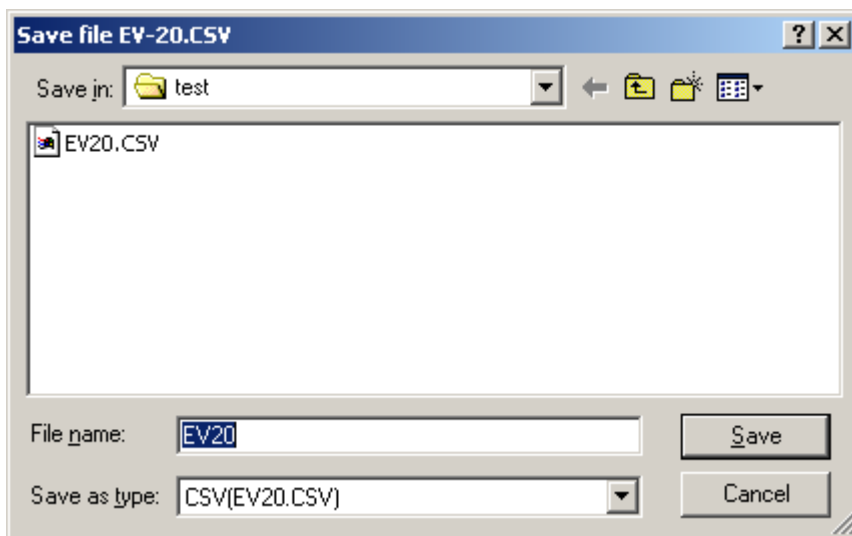
- To stop repeat broadcasts while in progress, press either the EV-20EV's Play key or the Stop button on the PC's Sound Repeater Memory screen.

Step 11. Repeat **Steps 2 – 10** and program the message into all desired message numbers.

Tips

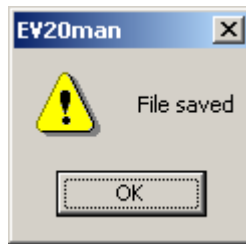
- Messages can also be programmed by dragging and dropping Wave files in the File name column.
- To delete a programmed message, click the File name column of the message number to be deleted and click the Clear button. A dialog box is then displayed. Click Yes after ensuring that the filename is correct.
- When programming a second time or thereafter, there is no procedure for designating the folder save destination. Programmed data are automatically written into the first designated project name folder.

Step 12. Click the One-Touch Write button [<<] in the center of the screen. The dialog for designating the save destination is displayed.



Step 13. Designate the save destination and click the Save button.

If the save destination is not changed, programmed data are stored in the folder created in **Step 5**. A dialog box is displayed after storage completion.

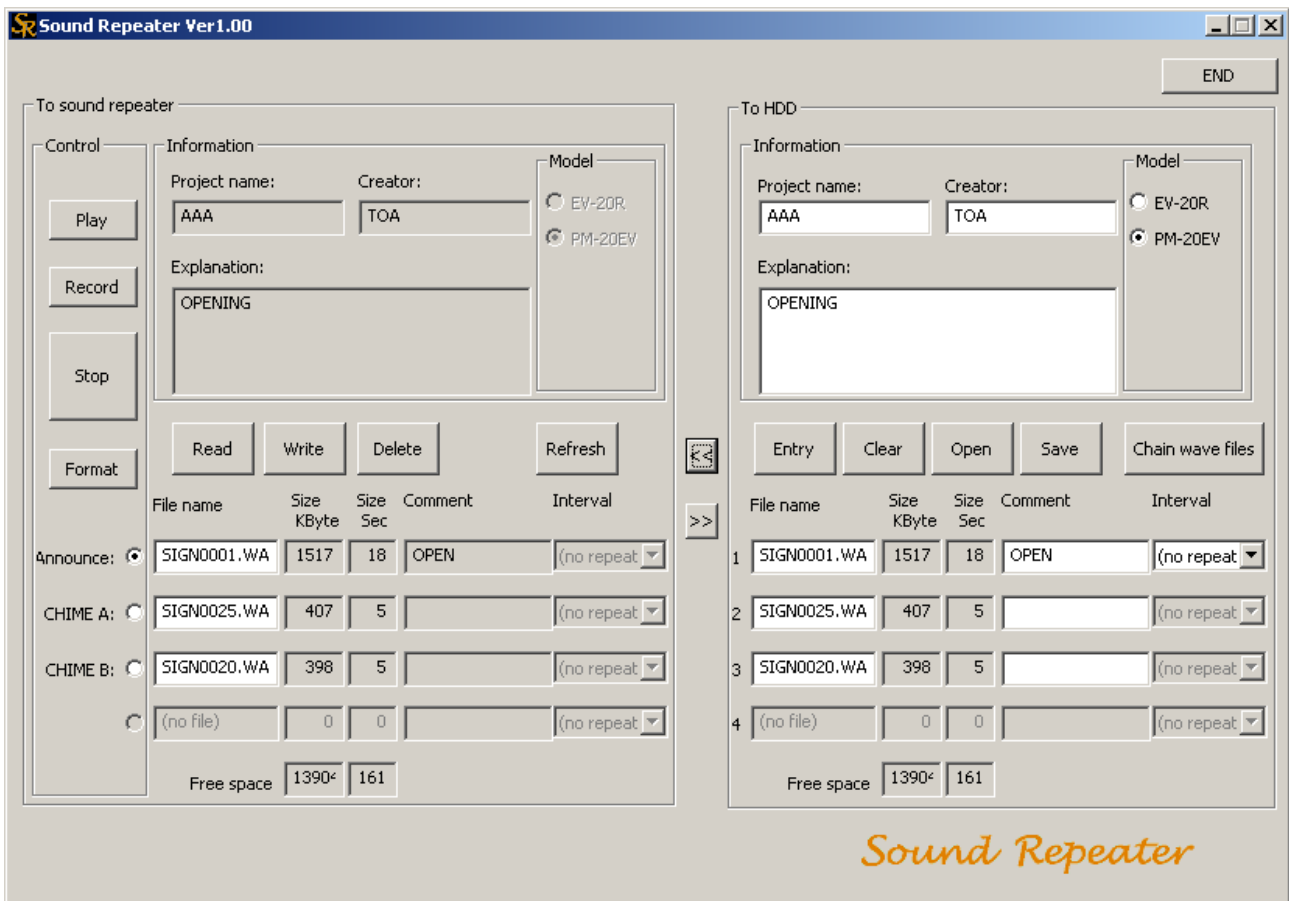


Step 14. Click the OK button.

After the Sound Repeater is formatted, files in the PC Hard Disk area are copied to the Sound Repeater Memory area and written into the Sound Repeater.

Tip

The time required for a One-Touch Operation Write differs depending on the size of the file to be transferred. (Minimum: 40 seconds; Maximum: 3 minutes)



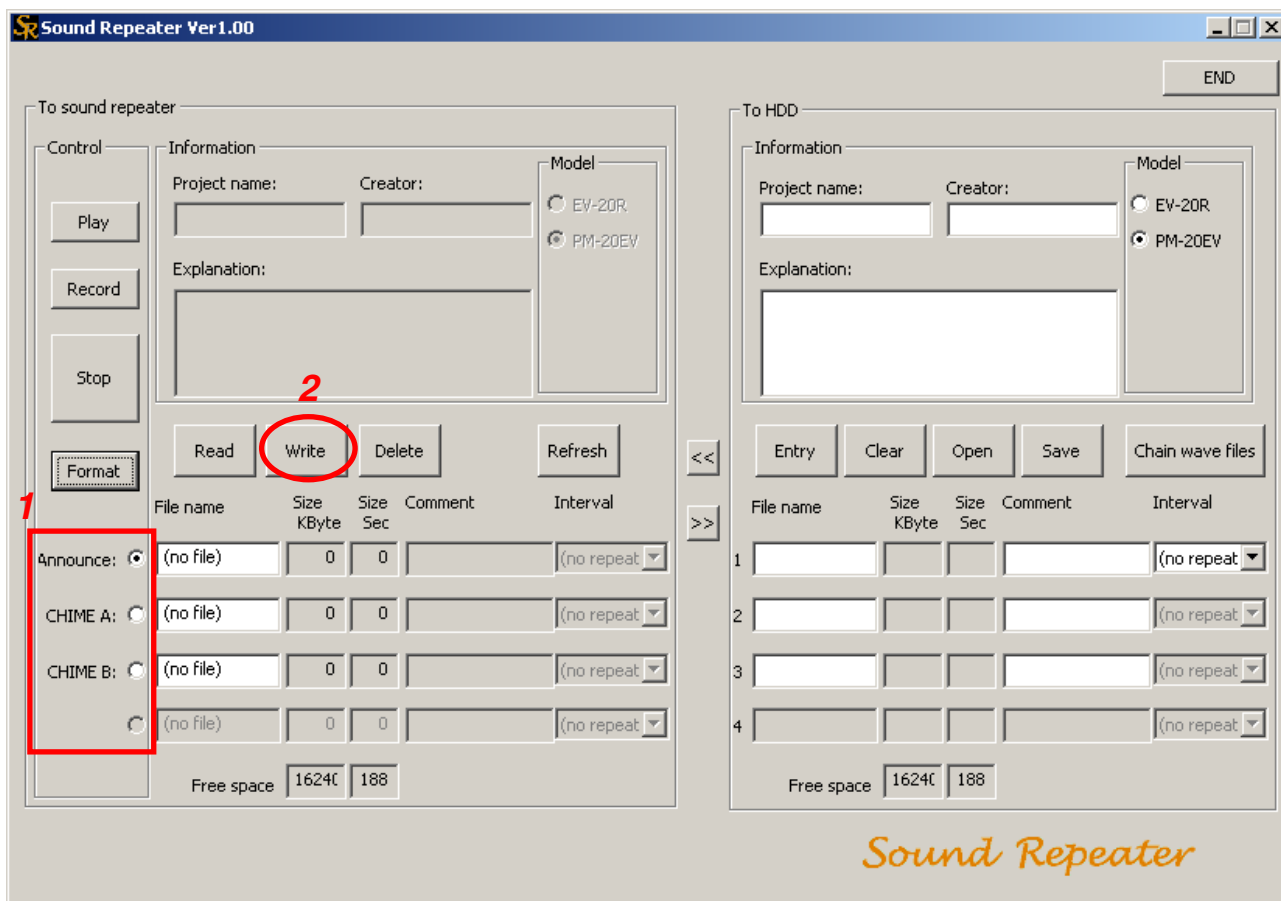
6.2. Writing Individual Messages to the Sound Repeater

Specific messages can be written to or deleted from only the Sound Repeater Memory area if the PC backup does not need. However, entries into the Comment column cannot be performed in the Sound Repeater memory area.

Note

Starting the data transfer software program with the Sound Repeater connected to a PC causes the data within the Repeater to be automatically read and displayed in the Sound Repeater Memory area. If not displayed, click the Refresh button. The data within the Sound Repeater is read and displayed.

6.2.1. Writing individual messages



Step 1. Click the message number to be written.

Note

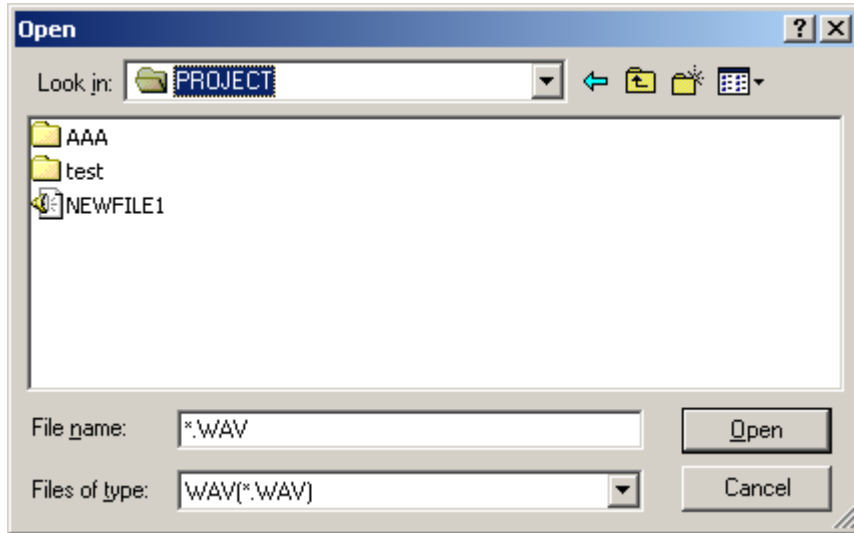
The display differs depending on the Sound Repeater model. The above screen is an example of the PM-20EV.

For the PM-20EV, CHIME A and CHIME B refer to as follows.

CHIME A: Pre-announcement chime tones

CHIME B: Post-announcement chime tones

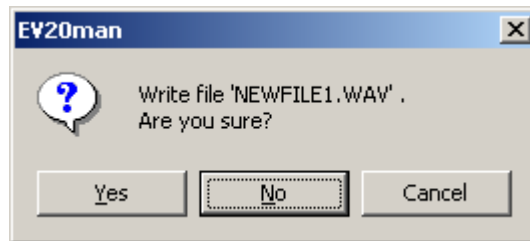
Step 2. Click the Write button.
A dialog box is displayed.



Step 3. Designate the names of the folder and file containing the message to be written, then click the Open button.
A confirmation dialog box is displayed.

Caution

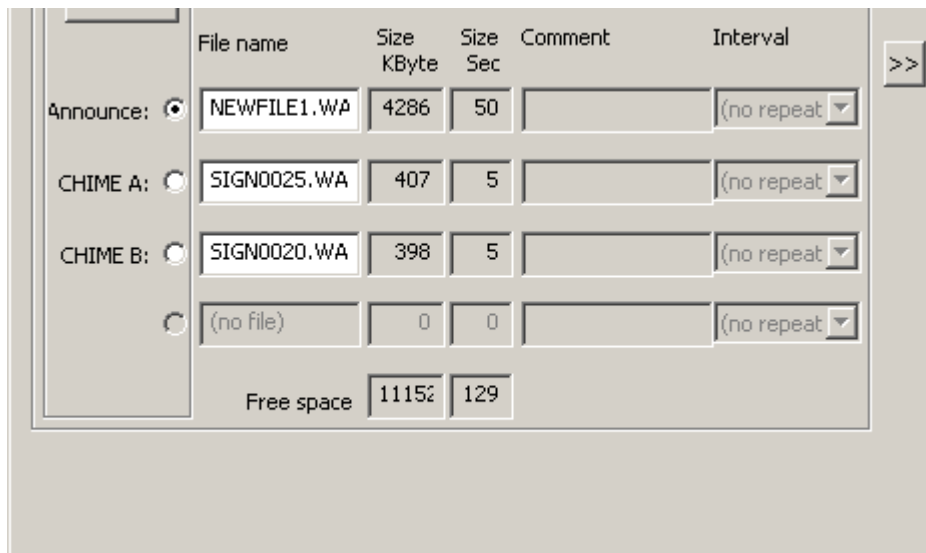
Two or more messages with the same filename cannot be programmed. Change filenames before programming.



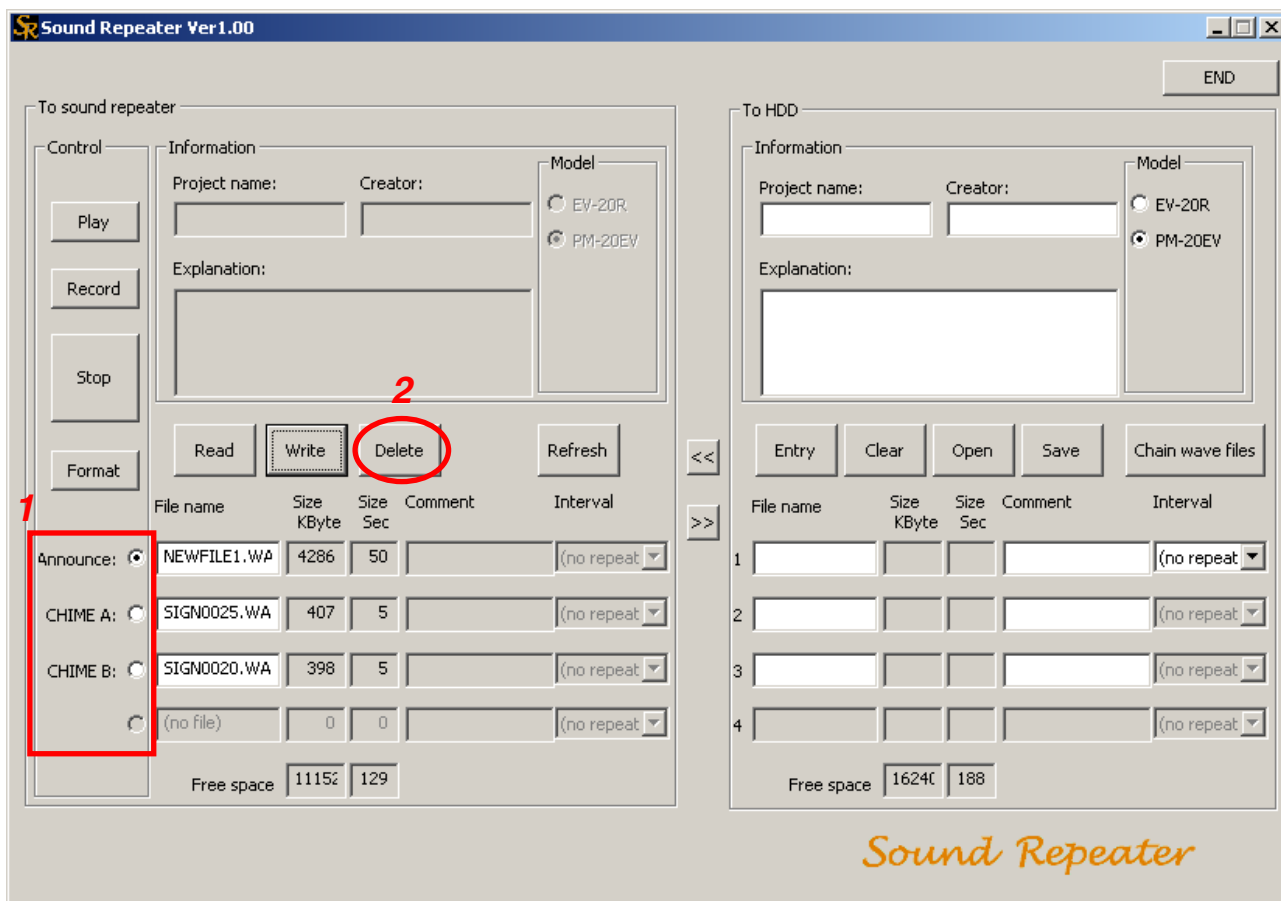
Step 4. Click Yes.
The filename is displayed, and the message is written into the Sound Repeater.

Tip

Writing a message in a previously recorded message number replaces the original message of that number with a new message.

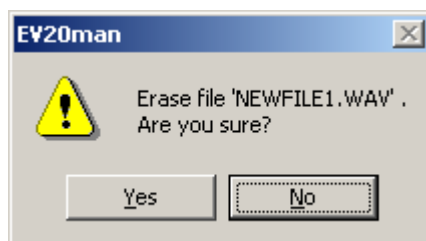


6.2.2. Deleting individual messages



Step 1. Click the message number to be deleted.

Step 2. Click the Delete button.
The confirmation dialog box is displayed.



Step 3. Click Yes if the displayed filename is correct.
The message recorded on the Sound Repeater is deleted.

	File name	Size KByte	Size Sec	Comment	Interval
Announce: <input checked="" type="radio"/>	(no file)	0	0		(no repeat) ▾
CHIME A: <input type="radio"/>	(no file)	0	0		(no repeat) ▾
CHIME B: <input type="radio"/>	(no file)	0	0		(no repeat) ▾
<input type="radio"/>	(no file)	0	0		(no repeat) ▾
Free space		16240	188		

>>

7. RECORDED DATA BACKUP

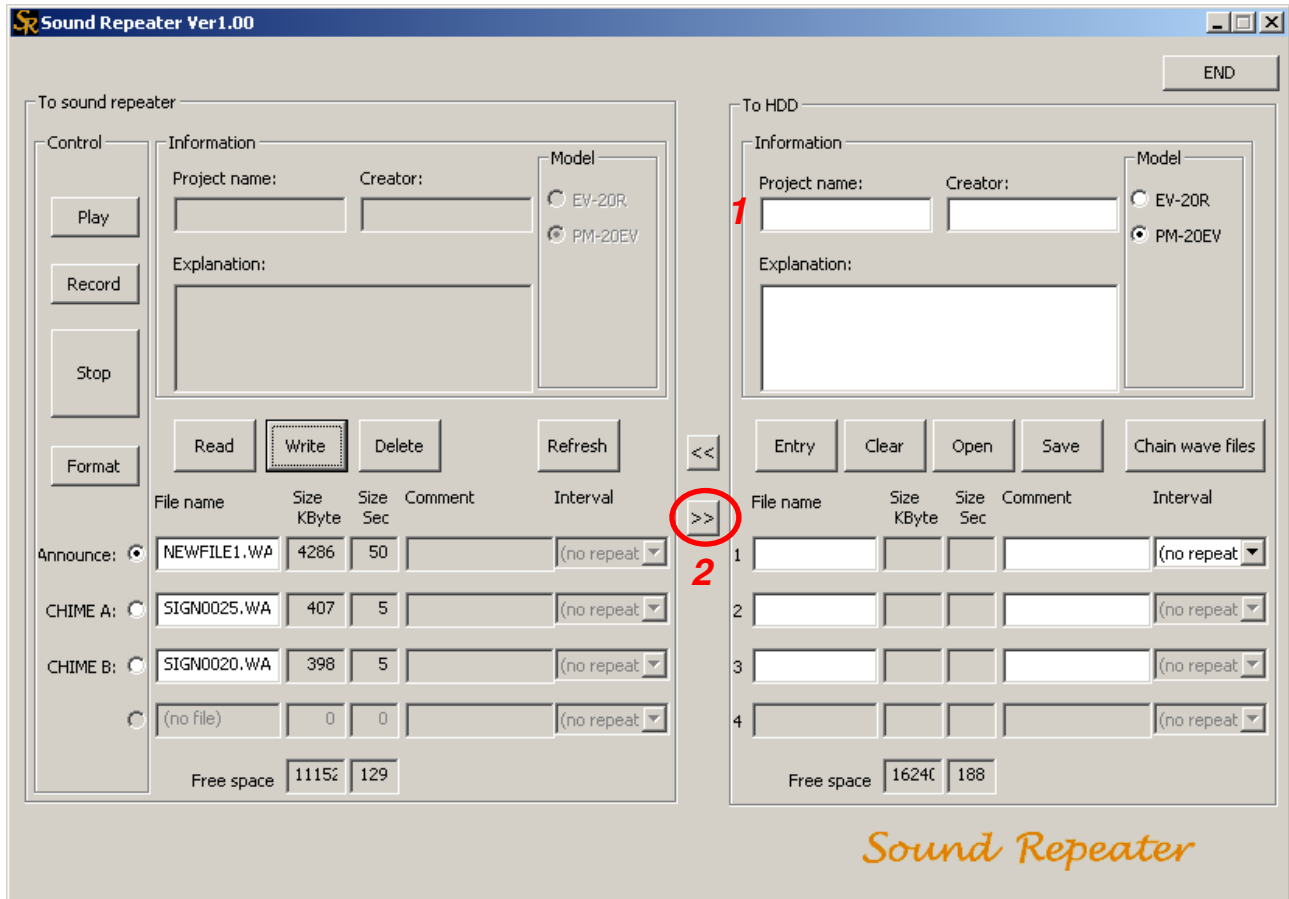
Data recorded with the Sound Repeater-whether individual messages or for the entire Repeater unit-can be backed up by uploading them to a PC.

Note

Starting the data transfer software program with the Sound Repeater connected to a PC causes the data within the Repeater to be automatically read and displayed in the Sound Repeater Memory area. If not displayed, click the Refresh button. The data within the Sound Repeater is then read and displayed.

7.1. Entire Repeater Data Backup

After copying entire Repeater data and message contents (for individual projects) to the PC Hard Disk area, save them to a PC or other external storage media.



Tip

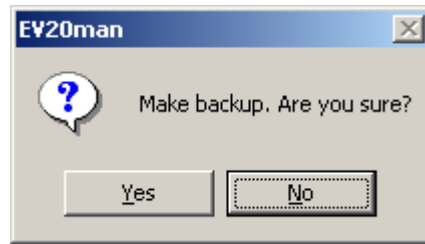
Messages recorded with the Sound Repeater are automatically assigned such filenames as "EVT0001.WAV" when read into the Sound Repeater Memory area.

Step 1. Enter the project name in the PC Hard Disk area.

Tips

- Project names can be up to 128 characters in length.
- The project name becomes a folder name when saving entire Repeater data.

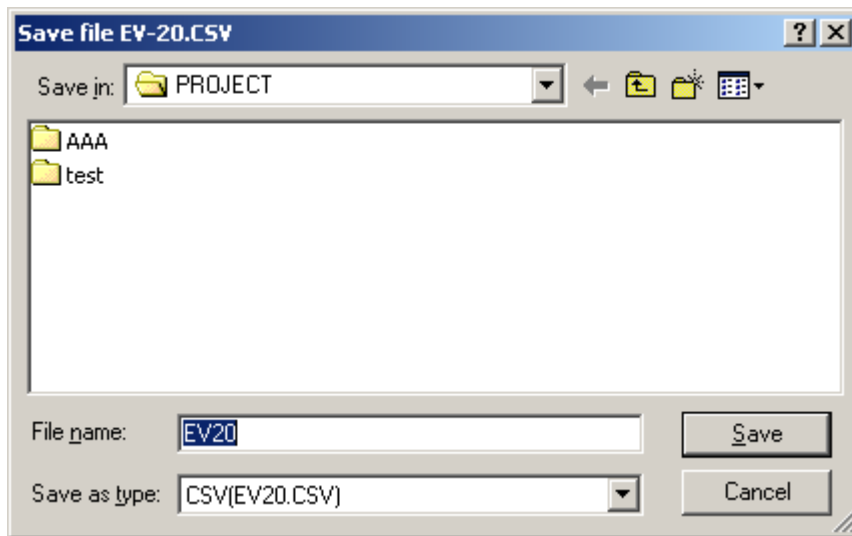
Step 2. Click the Backup button [>>] in the center of the screen.
The confirmation dialog box is displayed.



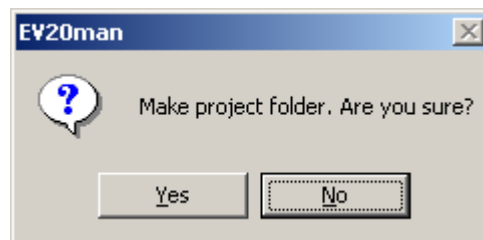
Step 3. Click Yes.
The dialog box for selecting the save destination is displayed.

Caution

Be sure to enter the project name. Files cannot be saved if no project name has been entered.



Step 4. Designate the destination to store the file (EV20.CSV) related to the project, then click the Save button.
The confirmation dialog box is displayed.

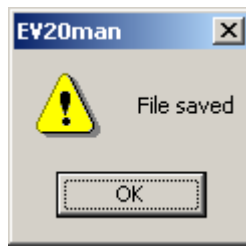


Caution

Do not attempt to change the filename (EV20.CSV). If changed, the filename will automatically revert to its default EV20.CSV name before being stored.

Step 5. Click Yes.

A folder with the same name as the project name is created, into which the EV-20.CSV file is stored. A dialog box is displayed after storage completion.



Caution

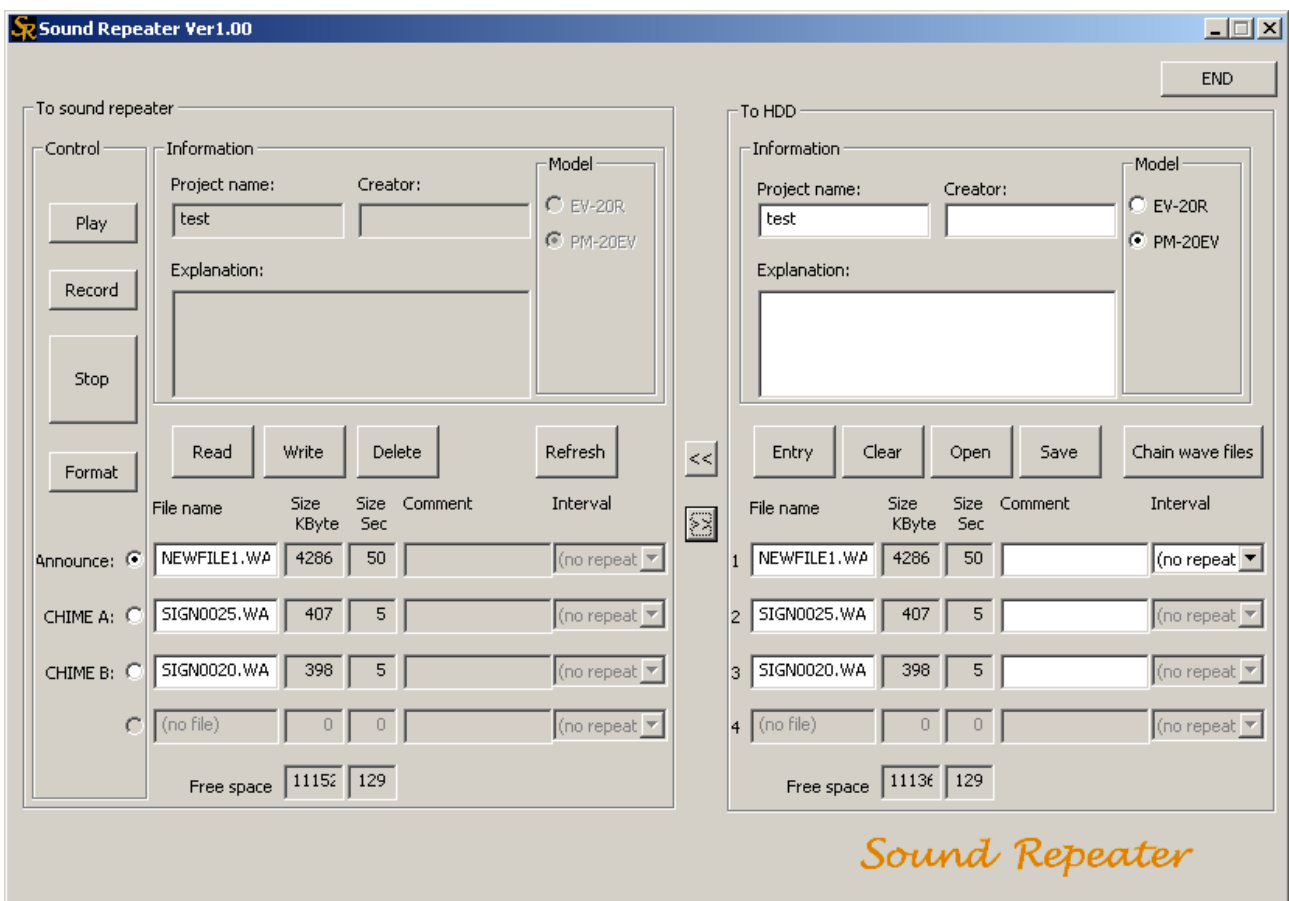
Do not delete the created file in the folder nor change the name.

Step 6. Click the OK button.

The Sound Repeater's memory contents are backed up in the created folder and displayed in the PC Hard Disk area. The project name entered in Step 1 is also used in the Sound Repeater Memory area.

Tip

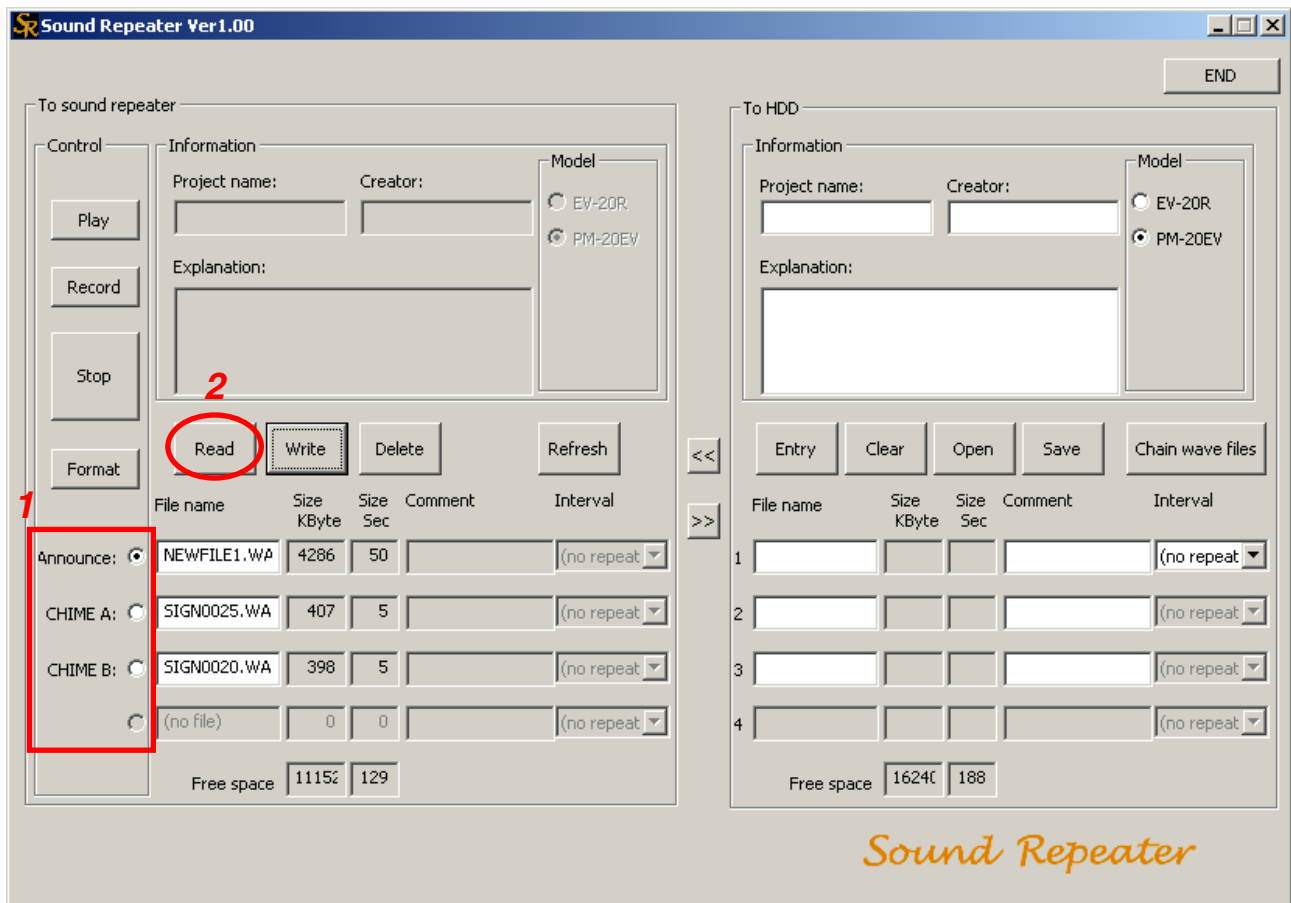
The time required for file transfer differs depending on the size of the file to be transferred. (Minimum: 40 seconds; Maximum: 3 minutes)



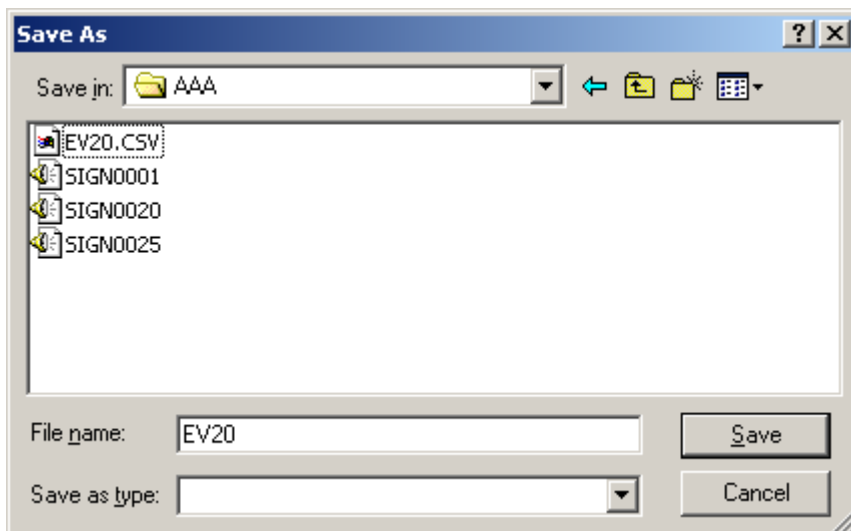
7.2. Individual Message Backup

Use the Sound Repeater Memory area to save only Sound Repeater's recorded messages in files to a PC or external storage medium.

Step 1. Click the message number to be backed up.



Step 2. Click the Read button.
The save destination dialog box is displayed.



Step 3. Designate the save destination and save after changing the filename as required.

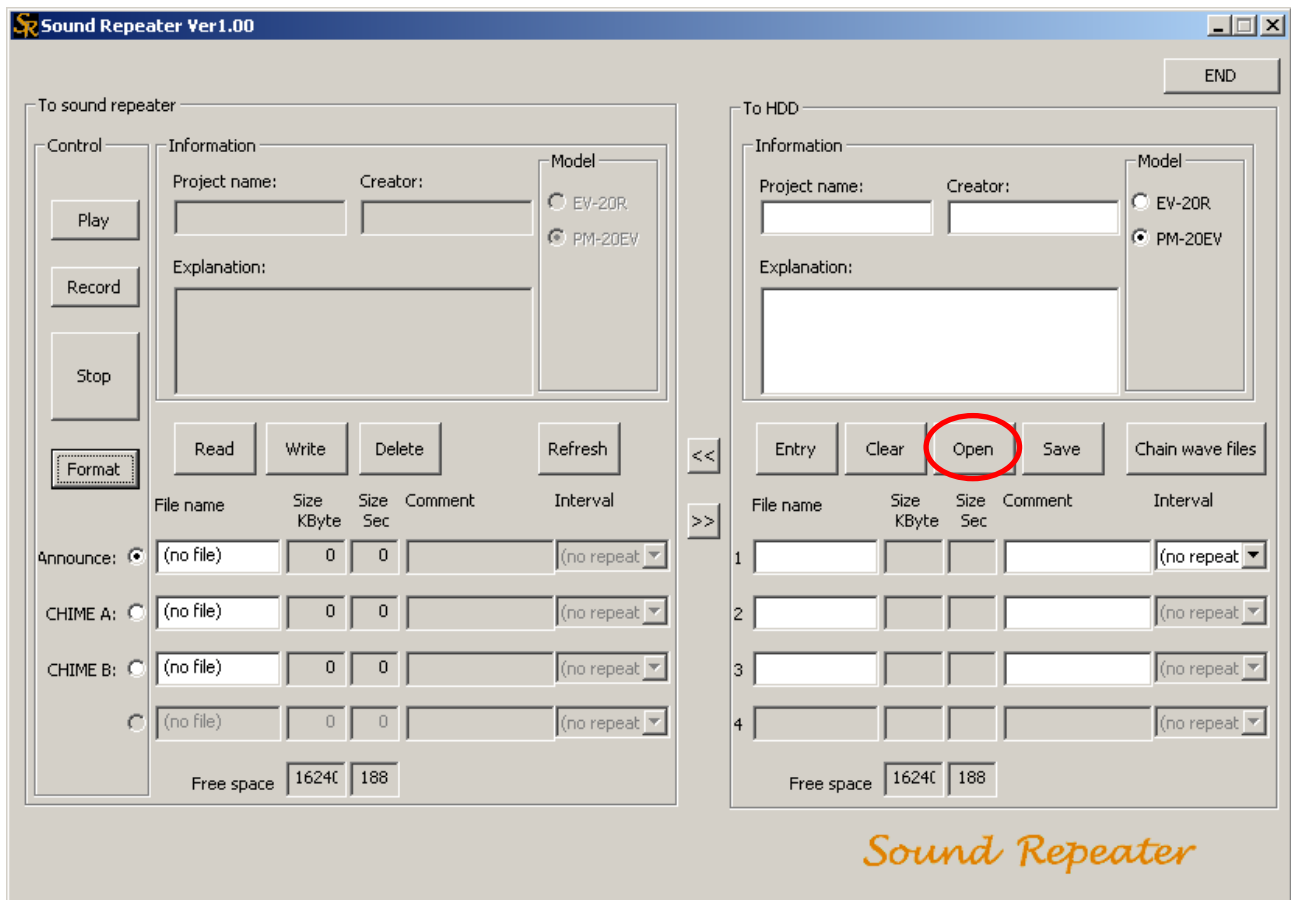
Caution

The filename of the file to be backed up can be changed, however the original filename existing in the Sound Repeater cannot be changed while in the Sound Repeater Memory area. To change the original filename, change the filename when reading, then write the file of which filename was changed.

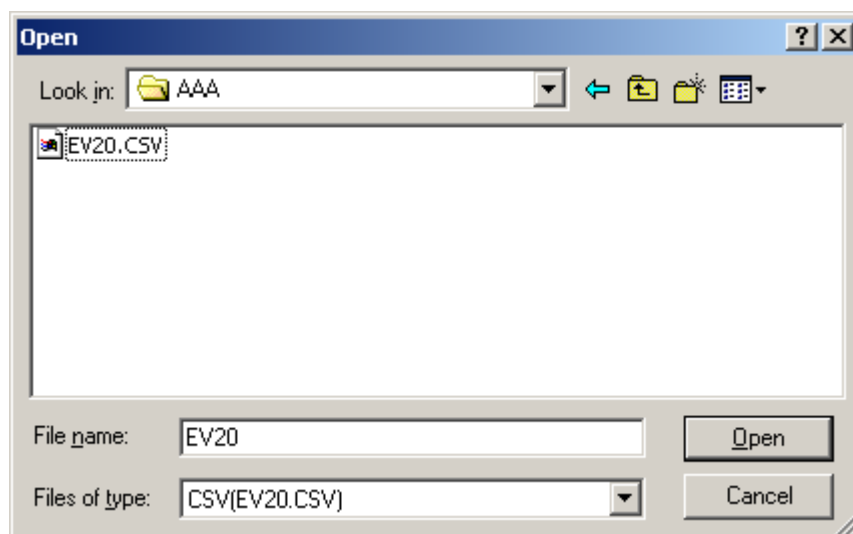
8. DOWNLOADING BACKED-UP DATA

Entire Repeater data (for individual projects) that has been backed up to a PC can be downloaded again to the Sound Repeater and reused.

Step 1. Click on the Open button.

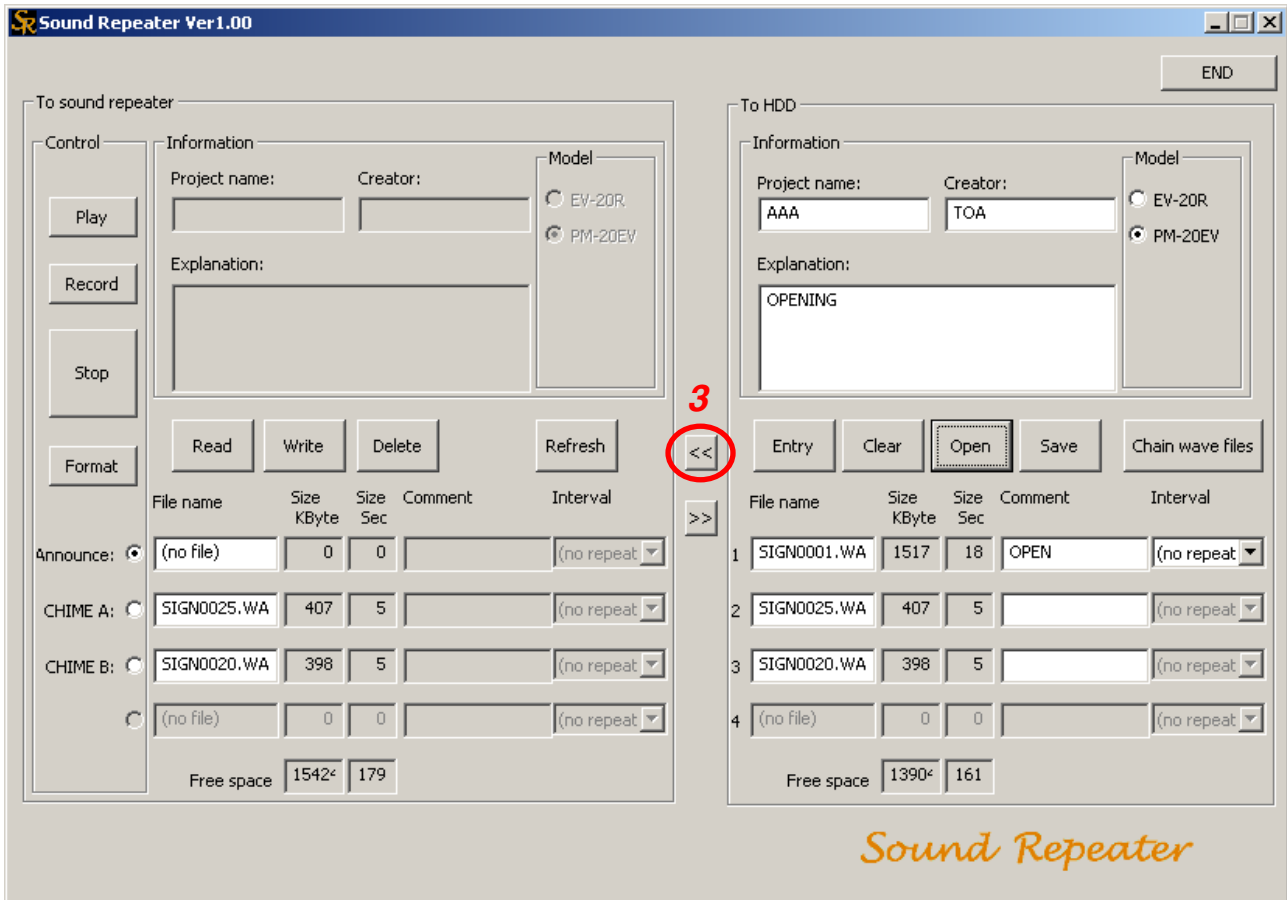


A dialog box is displayed.



Step 2. Select the "EV20.CSV" file located in the project name folder to be opened, then click the Open button.

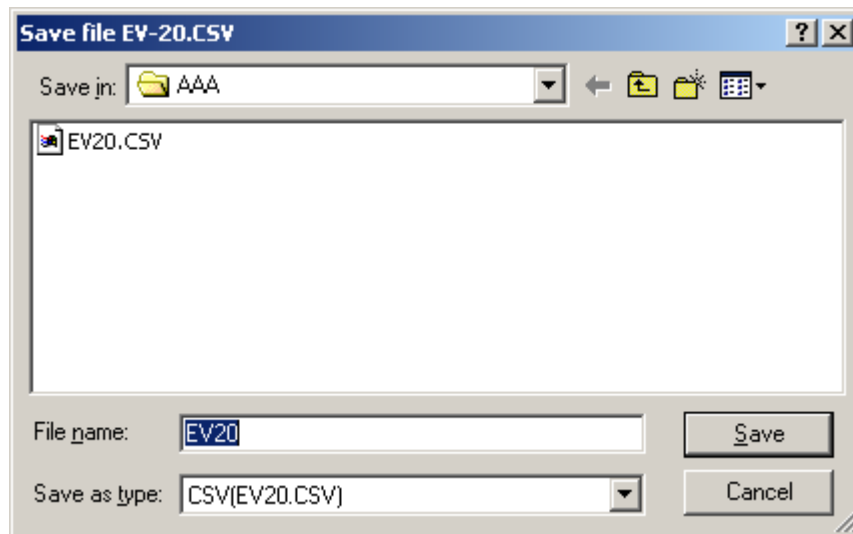
The stored entire Repeater data (for individual projects) is read and displayed on the PC Hard Disk screen.



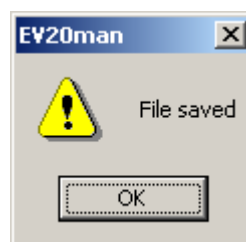
Step 3. Click the One-Touch Write button [<<] in the center of the screen. The dialog box for confirmation is displayed.



- Step 4.** Click Yes.
The save destination dialog box is displayed.



- Step 5.** Designate the save destination and click the Save button.
If no change is made to the save destination, programmed data is stored in the backed up folder.
A dialog box is displayed after storage completion.

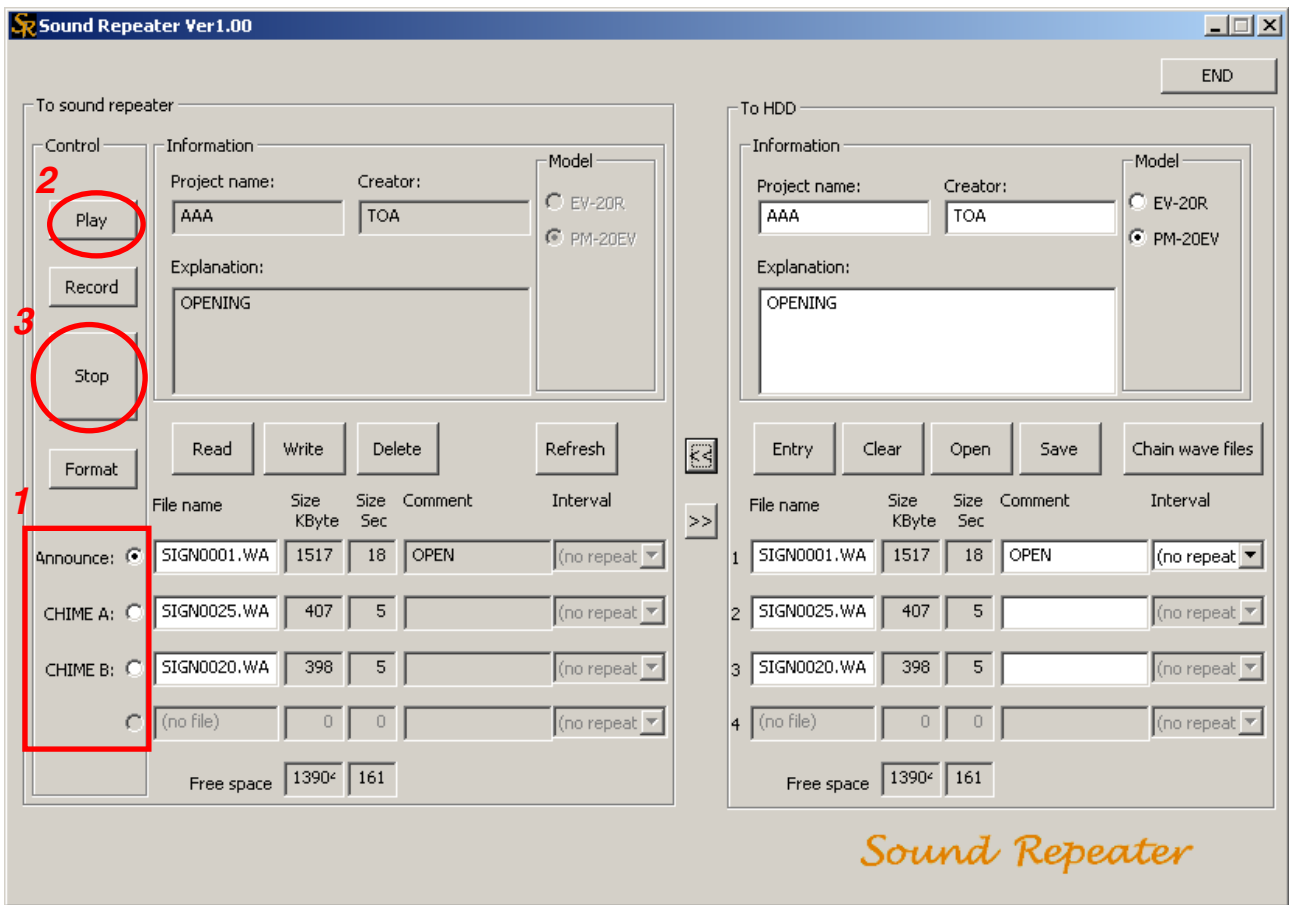


Step 6. Click the OK button.

After the Sound Repeater has been formatted, data in the PC Hard Disk area is copied to the Sound Repeater Memory area, allowing the data to be written to the Sound Repeater.

Tip

The time required for a One-Touch Operation Write differs depending on the size of the file to be transferred. (Minimum: 40 seconds; maximum: 3 minutes)

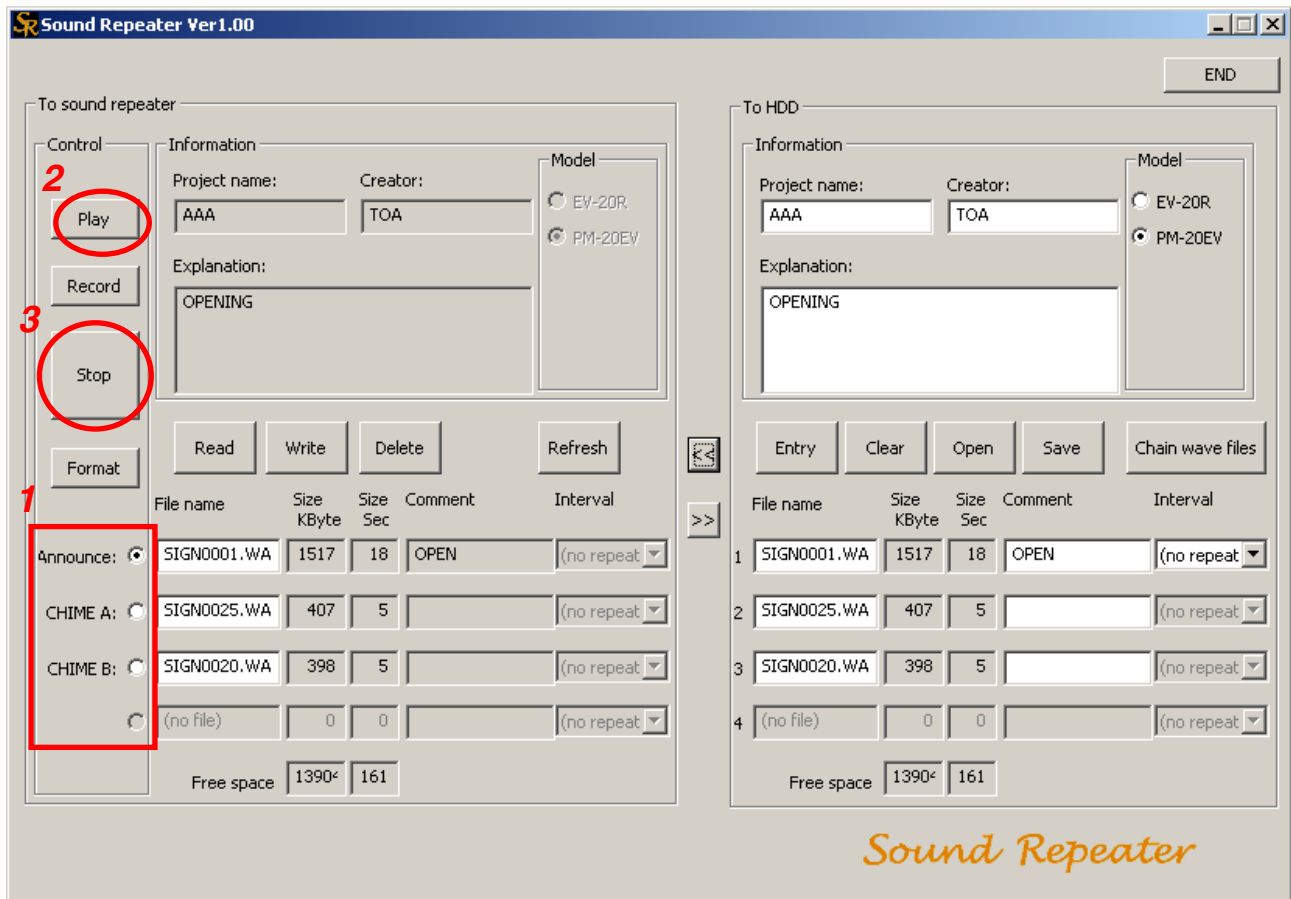


9. CONTROLLING THE SOUND REPEATER

Sound Repeaters can be remotely operated from a connected PC. (Only a portion of the Repeater's functions can be controlled.)

9.1. Playback

Recorded contents are activated from the PC and played back. This results in the same operation as when the Play key on the Sound Repeater is pressed.



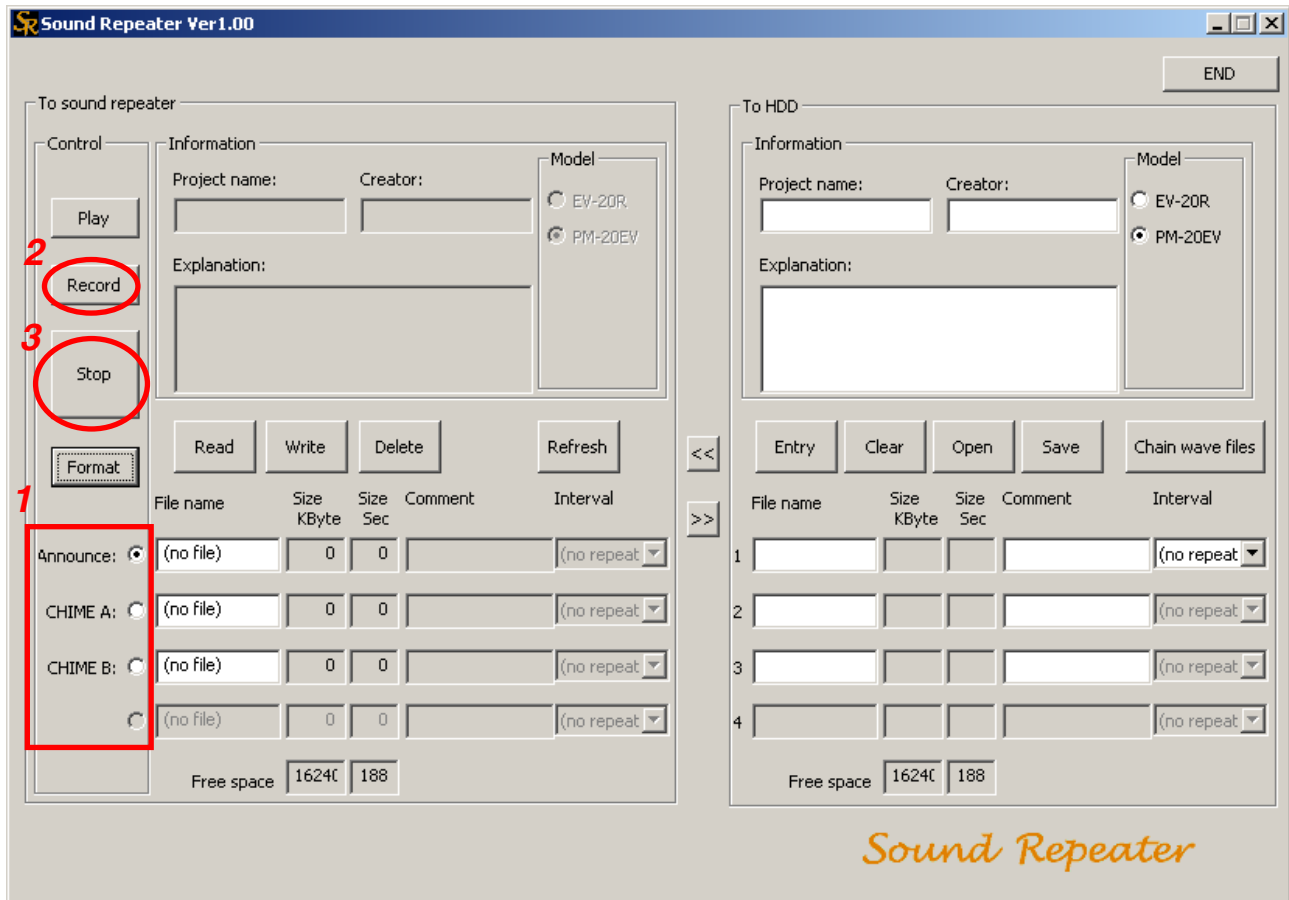
Step 1. Click the message number to be played back.

Step 2. Click the Play button.
The selected message number is played back.

Step 3. To interrupt the message playback, click the Stop button.

9.2. Recording

Recordings can be made for selected message numbers through PC activation. This results in the same operation as when the Record key on the Sound Repeater is pressed.



Step 1. Click the message number to be recorded.

Caution

If the Repeater is a PM-20EV, pre-announcement and post-announcement chime tones cannot be recorded.

Step 2. Click the Record button.

The confirmation dialog box is displayed.



Step 3. Click Yes. When the Sound Repeater's indicator changes from flashing to steady ON, start recording from the microphone or connected CD player.

Caution

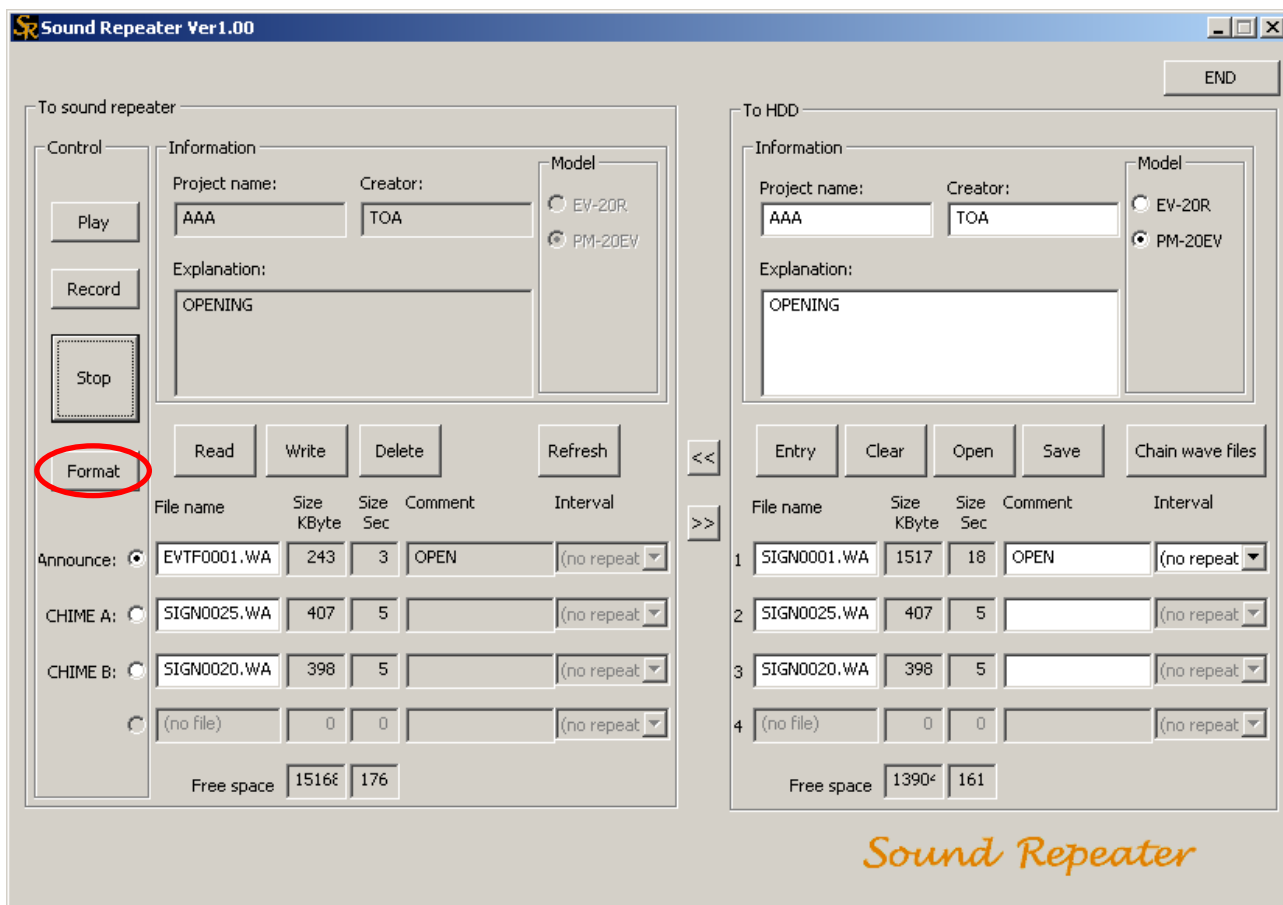
The Sound Repeater's recording operation is the same as when the Repeater's Record key is pressed. Use the indicator to confirm the timing of the recording. (In the case of the PM-20EV, timing can also be confirmed by means of a chime tone.)

Step 4. To stop the recording, click the Stop button.

9.3. Formatting

Initializes the Sound Repeater's internal memory. All messages are deleted in a single operation. This operation is identical to the simultaneous deletion performed using the Sound Repeater's key.

Step 1. Click the Format button.



The confirmation dialog box is displayed.



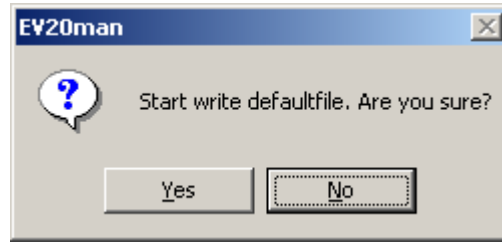
Step 2. Click Yes.

All messages recorded on the Sound Repeater are deleted.

Tips

- The time required for formatting is approximately 40 seconds.
- The Sound Repeater's operation during formatting is the same as when operating the Repeater's key to delete all messages in a single operation.

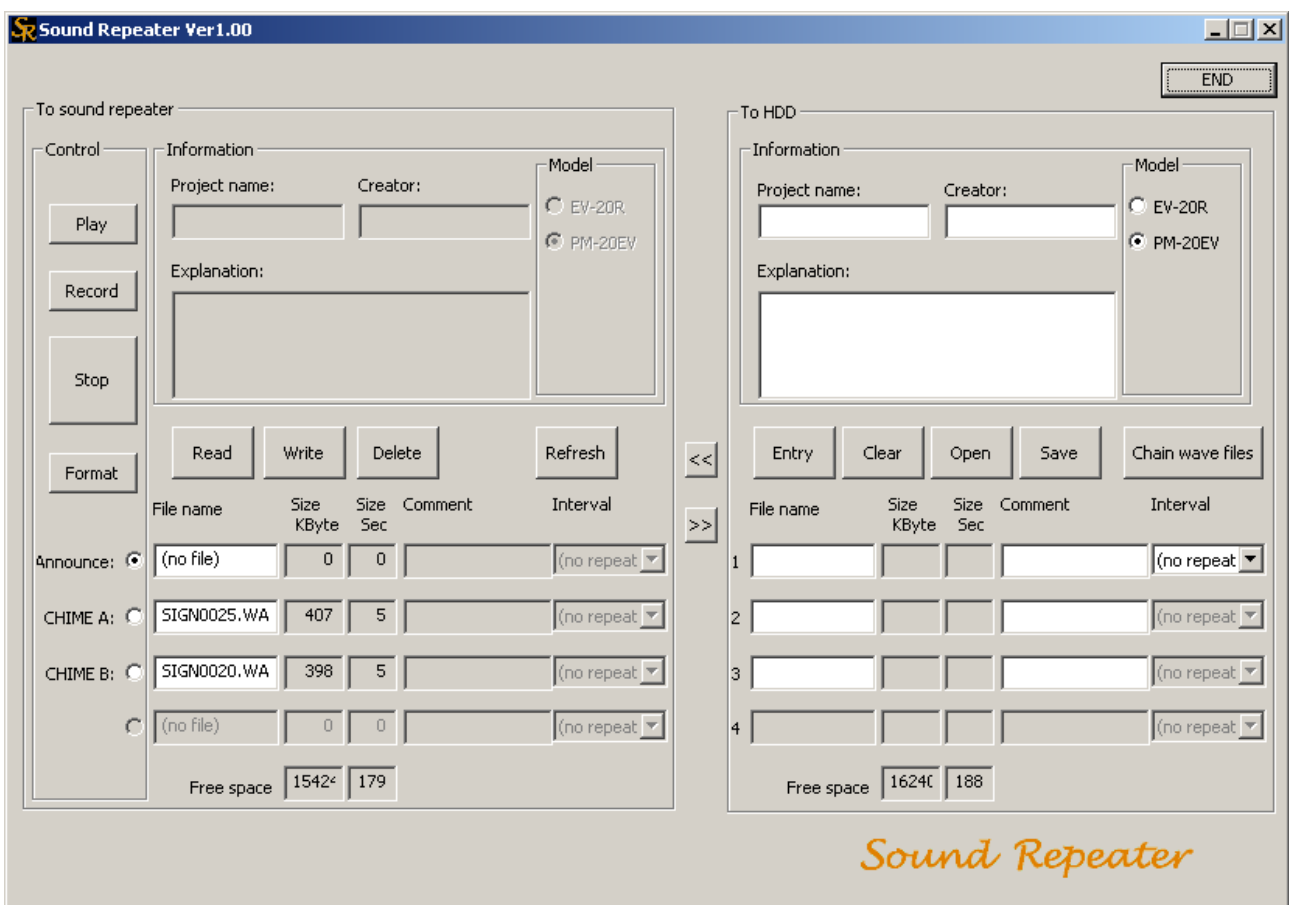
Step 3. When the PM-20EV Repeater is used, a dialog box is displayed to ask whether or not a chime function will be used. Click Yes when using the chime.



Tip

Formatting deletes chime data as well. Therefore, follow the above procedures to restore chime data to the initial status* at the time when shipped from the factory.

- * CHIME A (for pre-announcement): sign0025.wav Ascending 4-tone chime
- CHIME B (for post-announcement): sign0020.wav Descending 4-tone chime



10. TROUBLESHOOTING

Symptom	Cause	Remedy
Cannot transfer messages.	USB cable is not correctly connected.	Pull out the USB cable and reinsert it.
	Power is not supplied to the Sound Repeater.	Check to ensure that power is being supplied to the Sound Repeater.
Cannot program or write files.	The same filename as already saved is to be used.	Change filenames.