

Model PD606 Owner's Manual

<Version 1.10 supplementary manual>

With the software upgrade to V1.10, the PD606 now supports ES bus. Accordingly, the "RS422 SETUP" menu in the MENU mode is now available, while the "Default file name" item in the SYS SETUP menu of the MENU mode has been expanded.

In addition, the new version provides the interpolation facility for the internal TC generator in the Free Run mode, as well as you can now cancel post recording.

Note that this document only describes the functions upgraded with version 1.10, therefore, please read it together with the original and supplementary manuals.

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Default file name menu item

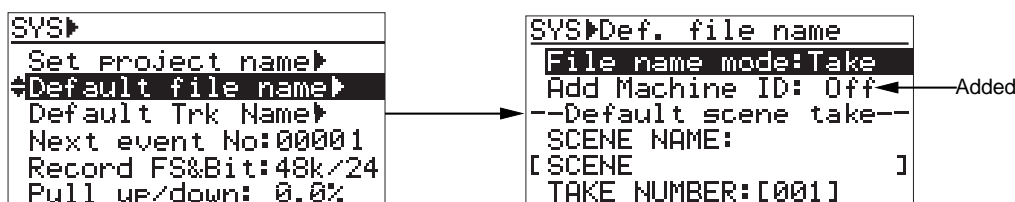
In the "Default file name" menu item in the SYS SETUP menu of the MENU mode, the "Add Machine ID" item has been newly added.

Because the PD606 V1.10 supports ES bus, you can connect multiple PD606 units (or the PD606 with PD204 or DV824) in the ES bus system. When you start recording of multiple machines in the ES bus system, this item prevents creating an audio file with the same name on each unit.

By setting this item to "On", a device ID is automatically added before the file extension of each file name. So even if you make recording of multiple units simultaneously, a unique file name is given to each audio file.

<Accessing the "Add Machine ID" item>

While the unit is stopped, press the [SHIFT] key followed by the [ENTER/YES] key to enter the MENU mode. Highlight "SYS SETUP" and press the [ENTER/YES] key to bring up the SYS SETUP menu screen. Highlight "Default file name" and press the [ENTER/YES] key to bring up the Default file name setting screen as shown below. You can see the newly added "Add Machine ID" item. (Note that, in the original owner's manual, the screen before the version upgrade is shown.)



<Setting item details>

• File name mode

By pressing the [ENTER/YES] key while "File name mode: ***" is highlighted, the currently selected file name mode starts flashing and you can now select the desired mode from the following using the [MENU] dial.

Date	The internal realtime clock data is given as the file name.
Take	"<Scene name>+<Take Number>" is given to as file name.
Reel	"<Reel number>+ <File number>" is given as the file name.

* See page 140 of the original manual for details.

• Add Machine ID (newly added item)

Selects whether or not adding the ES Device ID (which is set by the "RS422 SETUP" menu of the MENU mode) to a file name. By highlighting "Add Machine ID: ***" and pressing the [ENTER/YES] key, the currently selected setting starts flashing and you can now make on/off setting (the default is "Off"). When you set it to "On", the device ID is added to the file name and displayed on the Home screen (see the next page). The setting is stored to the Flash ROM.

• SCENE NAME

By highlighting "SCENE NAME:" and pressing the [ENTER/YES] key, you can enter a scene name using the numeric keys, [MENU] dial or a USB keyboard. The length of a scene name must be within 17 characters. See page 140 of the original manual for details about how to edit a name.

• TAKE NUMBER

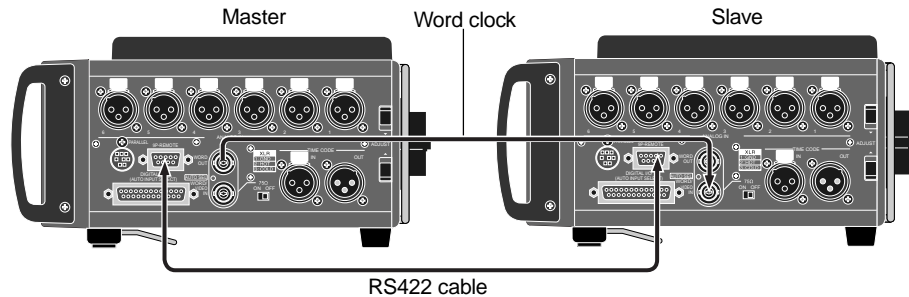
By pressing the [ENTER/YES] key after entering a scene name, you can enter a take number using the numeric keys, [MENU] dial or a USB keyboard.

By default, the take number is "001".

A take number is used as a part of a file name when the file name mode is set to "Take", as well as used as take data of meta data in any file name modes. When new recording is made, the number increases by one. See page 140 of the original manual for details.

RS422 SETUP menu

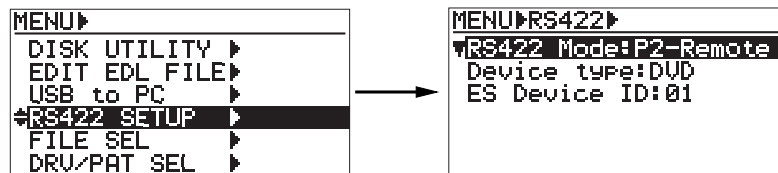
With the software upgrade to V1.10, the PD606 now supports ES bus and the "RS422 SETUP" menu in the MENU mode is available. You can record or play back multiple PD606 units (or the PD606 with PD204 or DV824) simultaneously via the RS422 connection. In the RS422 SETUP menu, you can set three items: "RS422 Mode", "Device type" and "ES Device ID".



* In the ES-bus connection, it is recommended to provide the word clock from the master unit to the slave unit(s) in addition to the RS422 cable connection.

<Accessing the RS422 menu>

While the unit is stopped, press the [SHIFT] key followed by the [ENTER/YES] key to enter the MENU mode. Select the "RS422 SETUP" menu and press the [ENTER/YES] key to bring up the RS422 setup screen.



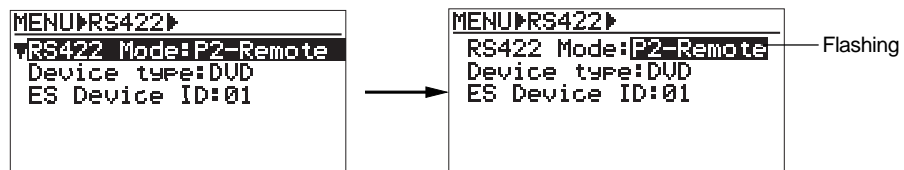
<Setting item details>

• RS422 Mode

This item selects the control mode via the RS422 port.

By pressing the [ENTER/YES] key while "RS422 Mode: ****" is highlighted, the currently selected RS422 mode starts flashing and you can now select the desired mode.

Use the [MENU] dial to select the desired mode and press the [ENTER/YES] key to confirm your selection.



You can select from the following modes.

P2-Remote (default)	The unit acts as a controlled device of Sony P2 protocol. You can also control the unit via the panel key operation. Refer to <Note> of next page.
Local	The unit only can be controlled via the panel key operation. The RS422 is ignored.
ES-Slave	ES-bus + Fostex Exclusive Slave. The unit acts as a slave device of the ES bus. You can also control the unit via the panel key operation.
ES-Master	ES-bus + Fostex Exclusive Master. The unit acts as a master device of the ES bus. It can arm or disarm tracks of all devices (including all ES slaves).

(*) To disable the PD606 panel keys, set the [PANEL LOCK] switch on the top panel to "LOCK".

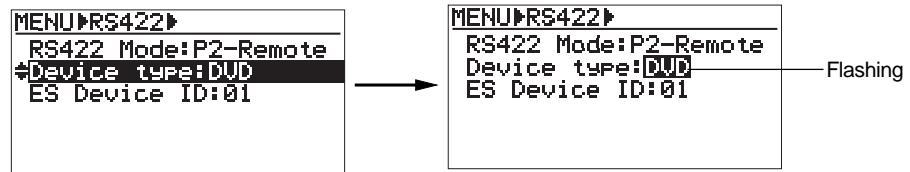
<Notes>

- When the RS422 mode is set to ES-Master and the unit is stopped, "-ES MASTER-" is shown in the file name display area on the Home screen. (Note that, however, when the unit is in pause or record mode, the file name is shown normally.)
- The "P2-Remote" mode conforms to the Sony P2 protocol but does not support external editors. You can execute only basic controls between PD606 units (or PD204 or DV824) or from a PC.

• Device Type

Sets the device type of the PD606.

By highlighting "Device type: ***" and pressing the [ENTER/YES] key, the currently selected device type starts flashing and you can now select the desired type. Use the [MENU] dial to select the type and press the [ENTER/YES] key to confirm your selection.



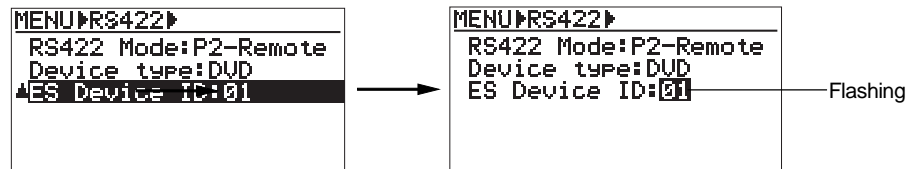
You can set the device type to "DVD" (default) or "BVW75".

DVD (default)	The device type is set to the PD606.
BVW-75	The device type is set to BVW-75.

• ES Device ID

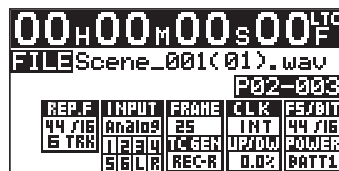
When you connect multiple PD606 units on the ES-bus system, you must set unique device ID to each PD606.

By highlighting "ES Device ID: ***" and pressing the [ENTER/YES] key, the currently selected device ID starts flashing and you can now select the desired ID. Use the [MENU] dial to select the ID and press the [ENTER/YES] key to confirm your selection.



You can set the device ID to any number between 01 and 99.

By setting the newly added "Add Machine ID" item in the default file name screen (described on page 3 in this supplementary manual) to "On", the device ID you set here is reflected to the file name shown on the Home screen (see the screen examples below).



A Home screen example when the ES Device ID is set to "01"



A Home screen example when the ES Device ID is set to "03"

<Notes>

- For the purposes of identification, it is recommended that each master or slave device controlled via ES-bus should have a unique device ID.
- To add a device ID to each file name when you control master and slave units via ES-bus, you must set the "Add Machine ID" item in the "Default file name" setting screen for the master unit to "On".

ES master/slave control function

The ES master/slave control function allows making simultaneous recording/playback of all slave PD606 units from a master PD606.

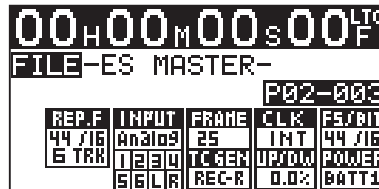
In order to make it possible, all ES master and slave units must receive the same word clock or video sync clock and lock to the sync signal (or all slave units must lock to the word clock from the master unit). If they are not locking to the same clock, the master and slave units may run out of sync. The PD606 guarantees that the deviation between master and slave units is within 1 ppm.

<Note>: In the ES-bus connection, one-master, one-slave configuration is ideal. However, you can connect multiple (two or three) slave units without any malfunction.

Displays of the ES master and ES slave

ES master:

When the unit is assigned to the ES master and stopped, "-ES MASTER-" is shown in the file name display area on the Home screen. Note that, when the unit is in pause or record mode, the next file name (or the currently recorded file name) is shown.



ES slave:

When the unit is assigned to an ES slave and configured in the ES bus system, "-ES GRP SELECTED-" is shown in the file name display area on the Home screen.



Commands issued from the master unit to the slave unit(s)

PLAY key	"Instant Play" command All ES master and ES slave units start playback from the same address at the same timing.
STOP key	"Stop" and "Set Song Position" or "Instant Locate" commands
PAUSE key	In stop or pause mode: "Bus Select" and "Standby ON" commands The ES master issues the Bus select command and all slave units are bus-connected via the Sony P2 protocol and enter the pause mode. In any modes except in stop and pause modes: "Stop" and "Set Song Position" or "Instant Locate" commands
ABS 0 LOCATE	"Instant Locate" command
ABS END LOCATE	"Instant Locate" command

REC key	<p>"Set New File Name" and "Instant Rec" commands The ES master unit sends the same file name or the file name with each ES device ID to each ES slave units.</p> <p>"Set LTC Start Position" command Immediately after recording starts, the ES master unit sends the same LTC start position to all ES slave units.</p>
CUE key	<p>"Instant Locate" command (CUE search) The key operation is only effective during playback.</p>
LOCATE key	<p>"Instant Locate" command</p>
FALSE START key	<p>"False Start" command The ES slave units execute False start with the same false start mode as the ES master unit.</p>
 << FILE >> keys	<p>"Load Song File" command (File Skip)</p>
PREV CUE NEXT keys	<p>"Instant Locate" command (CUE Skip) The key operation is only effective during playback.</p>
FILE SEL key	<p>"Bus Select" and "Load Song File" commands The audio file in the ES master is selected, and before loading the file, all ES slave units are "Bus Select"ed and ES bus-connected via the Sony P2 protocol. Then the command for loading the same audio file name is issued to ES slave units and each unit loads the file. In this procedure, the "{Machine ID}" is converted to "*" (wild card) so a file with the same name but with a different ID is also loaded. If a file with the same file name does not exist in a slave unit, the ES-bus connection returns to the idle condition and the unit cannot receive commands from the ES master until it receives another Bus select command.</p>
F FWD key, REW key	<p>"STOP" command When the ES master enters fast forward or rewind mode (including cue speed playback mode), ES slave units stop and wait.</p>
PRE REC switch	<p>"Set Pre-Rec" command The ES master sends the set command for the pre-record mode to the ES slaves. If a slave is the PD606, only the pre-record time is set while on/off setting of the pre-record mode is ignored. To turn on or off the pre-record mode of a PD606 slave, press the [PRE REC] switch on the unit manually.</p>
PRE REC TIME Set	<p>"Set Pre-Rec" command The ES master sends the set command for the pre rec time which is set in the SYS SETUP menu of the MENU mode to all ES bus-connected slaves.</p>
FS/BIT Set PULL UP/DOWN Set	<p>"Set FS/BIT PULL UP/DOWN" commands The ES master sends the set command for the pre rec time which is set in the SYS SETUP menu of the MENU mode to all ES bus-connected slaves, allowing making the same setting to all units.</p>
EDIT FILE NAME Set	<p>"Rename File Name" command After editing a file name using the "File name edit" item in the DISK UTILITY menu, the result is reflected to the current file name of all ES slave units. Note that however, the "{Machine ID}" part is converted to "(##)" when sending the command. When an ES slave unit receives the command, it replaces "(##)" with its Machine ID.</p>

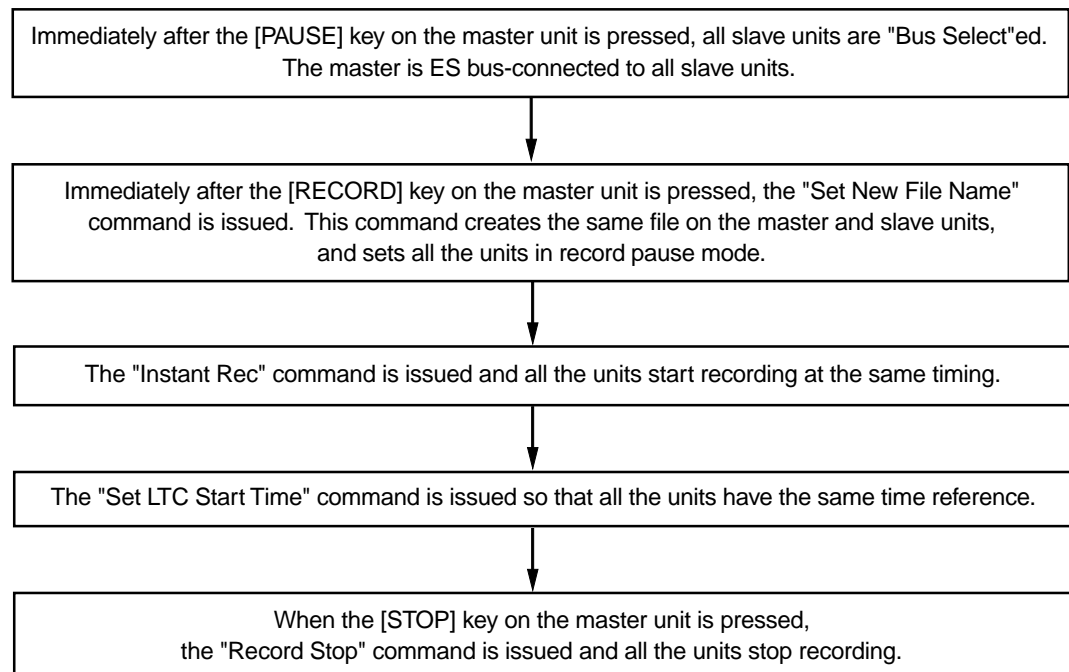
Applications

1. Simultaneous recording

When the master unit enters record mode, it issues the record command to all the ES slave units. In this case, the following rules are applied.

- 1-1. The ES bus connection between the master and slaves is established by pressing the [PAUSE] key of the master unit. All the ES slave units accomplish Group bus select. With the ESC command, one way communication via the Sony P2 protocol is established.
- 1-2. All the slave units have the same file name as the master unit. Note that however, if the "Add Machine ID" item of the "Default file name" screen is set to "On" on the master unit, each file name has a unique device ID before the file extension, preventing creating files with the same name.
- 1-3. All the slave units have the same time stamps as the master unit. The time stamps are stored in the BEXT Chunk time reference (LTC time). Therefore, all units have the same time reference. The time accuracy is less than 100 μ sec (which is caused by transmission process delay).
- 1-4. The master unit sends all commands by "Broadcast" and does not monitor the status information of slave machines.

Recording procedure: The master sends the record command.



2. Simultaneous playback (normal song playback)

Before executing simultaneous playback, the following preparation has to be made.

- All the master and slave units are powered on.
- On the slave units, the song you attempt to play back is stored in the current partition.

2-1. When the song is selected by the file select function on the master unit, the "Group Select" command is issued and the bus connection between the master and slave units is made. The master can now control the slaves via the one-way Sony P2 protocol. Then the "Load Song File" command is issued for loading the same file as the master on each slave unit. If a slave does not have the appropriate file, the slave cancels the bus connection.

The "{Machine ID}" part in the file name is converted to "***" (wild card) when transmitted.

2-2. When the master locates to the desired playback position, it issues the Instant Locate command to the slave units. The master unit secures ample time for locating.

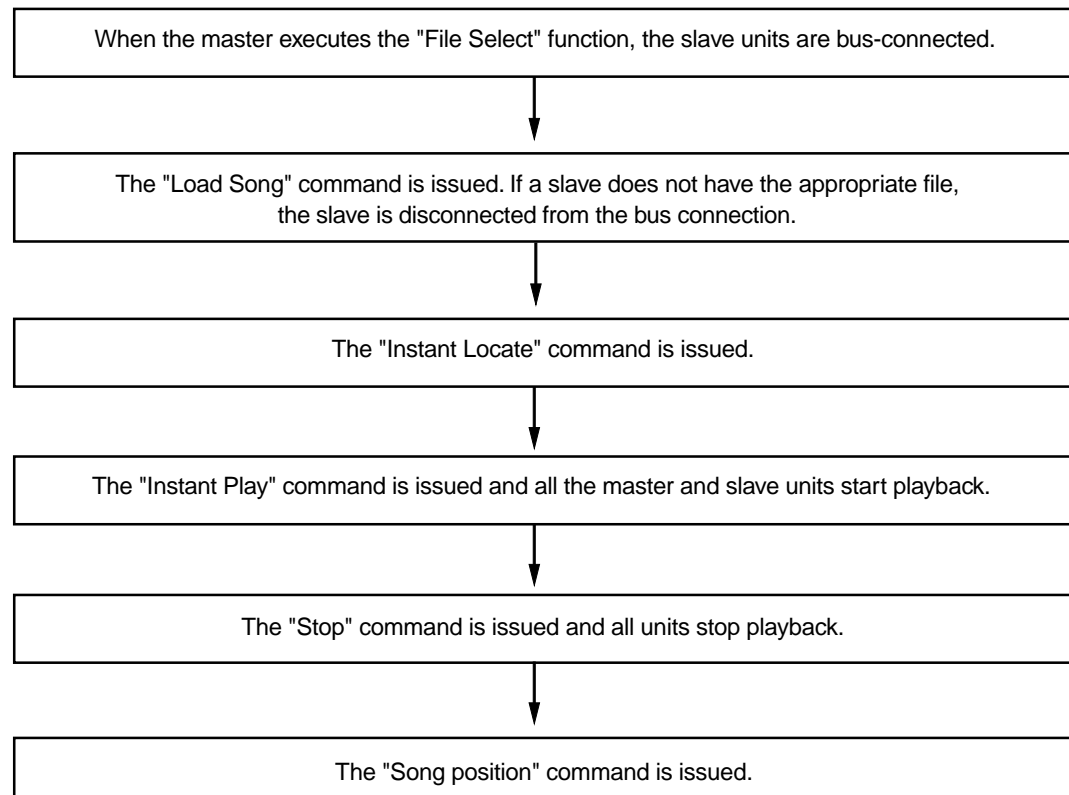
The slave units accomplish locating to be ready for accepting the "Instant Play" command issued by the master.

2-3. When the [PLAY] key of the master unit is pressed, the master unit issues the "Instant Play" command, which makes all the master and slave units start playback simultaneously.

2-4. When the [STOP] key is pressed, the master unit issues the "Stop" command, which stops all the master and slave units.

2-5. The master unit issues the "Song position" command to the slave units in order to stop at the precise position.

2-6. In order to ensure precise lock among all units, steps 2-2 and 2-3 above are repeated automatically.



3. Editing a file name

When the master and slave units are ES bus-connected and each unit have a file for the same project, editing the file name of a file on the master unit reflects the related file on the slave units.

This is accomplished by sending the "Rename File Name" command to the slave units. If you add "(##)" to the file name, the device ID is automatically added to the file name of each master or slave unit. (The ES bus connection must be established beforehand.)

The "Rename File Name" command is issued.

4. False Start

During multi-unit recording process using ES-bus connection, when the master unit executes False start, the "False Start" command for the same false start mode is sent to the slave units.

Interpolation of the internal TC generator

In the Free Run mode, the internal TC generator runs precisely regardless of whether the unit is powered on or off. With the older software version, however, if the battery is removed and no connection is made to the [DC IN] connector, the internal TC generator completely stops. Therefore, if you connect a power source and turn on the unit after such a condition, the TC generator in the Free Run mode restarts from "00h 00m 00s 00f", which causes time discontinuity.

To solve this problem, with version 1.10, the internal TC generator can be interpolated by the internal realtime clock. That is, if the internal TC generator stops by the reason described above, the internal realtime clock automatically interpolates the TC generator with realtime clock accuracy. When you connect a power source and turn on the unit later, the TC will start from the appropriate time without time discontinuity.

<Note>: When PD606 is powered off with no power (AC adaptor, battery) being supplied, the Free Run TC is interpolated by the internal RTC. If any power is supplied, the internal TC generator continues to generate the Free Run TC. Since there is a difference in clock accuracy between the internal TC generator and the internal RTC, the restart TC address after powering on may be slightly different in two situations.

Post recording cancel function

In Pre rec mode, after you quit recording, the unit automatically executes "Post recording" and then stops. During "Post recording" with the old software version, the popup screen is shown on the display and all keys are disabled.

With the new software version (V1.10), only the [REC] key is enabled. Pressing the [REC] key cancels Post recording and returns to normal recording mode. If you press the [REC] key while the display shows the popup screen for Post recording, pressing the [REC] key continues recording to the same file.

This function can be done in the ES bus system using multiple units. (Note that, however, the DV824 does not support this function, while the PD606 and PD204 support it.)

<Note>: Post recording is performed for the time period set by the "Pre rec time" item in the "SYS SETUP" menu of the MENU mode (the default is 10 seconds). Note that if you set "Pre rec time" to small amount (such as two or three seconds), you have to be in a hurry to press the [REC] key. Otherwise you cannot cancel Post recording.

Fostex

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