YAMAHA commercial audio

PM5D/PM5D-RH

Quick Start Guide

A guide for people using PM5D in the real world.

Part 2

Store, edit and save guide.

PM5D DIGITAL MIXING CONSOLE

This is a “quick continue guide” designed for people who have used Yamaha PM5D for their first time and need advice on saving storing and editing their data. It is a continuation to the “Quick Start and Walk Through Guide”. It does not cover all features or all approaches to PM5D use, nor does it replace the manual; we recommend referring to the manual if further information is required.

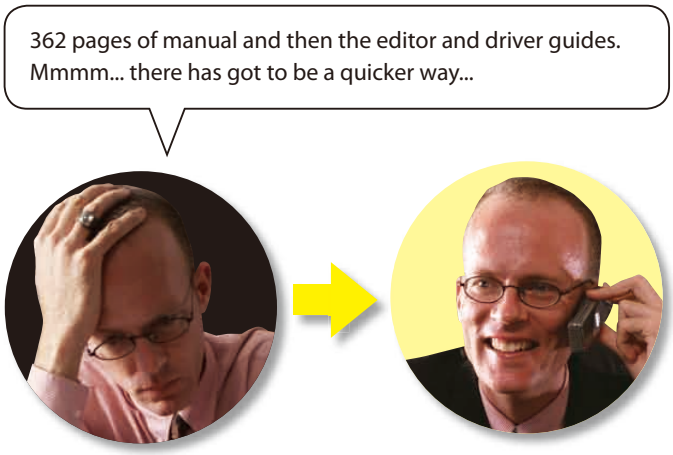
The PM5D / PM5D-RH Quick Start Guide is in three parts.

Part 1 (Introduction and set up walk through guide);

1) An overview of the PM5D connections, the layout of the surface and main mix features.
2) A quick explanation of storing / recalling and saving / loading.
3) A walk through example of how a band's engineer could set up the console for a specific show. The walk through goes as far as the creation of the first scene of the show.

The set up walk through guide covers;

1) Inputs naming and patching
2) Phantom set
3) Outputs naming and patching
4) Effects patching
5) Matrix naming and patching
6) GEQ patching
7) User defined keys programming
8) Assignable faders assignment
9) Monitor on fader if required
10) Storing all that as a starting scene



Part 2 (Store edit and save);

1) Storing and editing stored scenes using PREVIEW mode, Global Paste and Tracking Recall.
2) Recalling scenes and limiting the recall with Recall Safe or Selective Recall.
3) Saving and loading with a PCMCIA card; how to save individual libraries or scenes and load them into another console without loss of audio or data on the receiving console.

Part 3 (PM5D Studio Manager and Editor quick start);

The guide covers the PM5D Editor and how the set-up and actions covered in parts one and two can be achieved with the Studio Manager Software.

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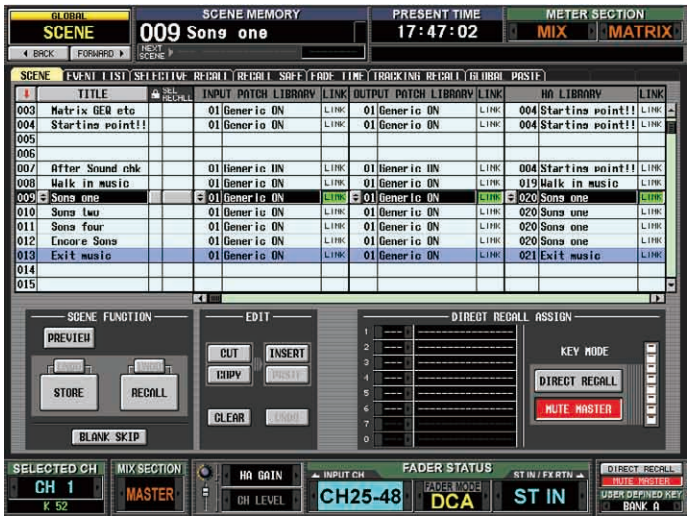
Part 1 of the guide covered how to set up a PM5D ready for parameter information to be set; more often called the soundcheck! This part covers storing, editing and saving that data.

As the first soundcheck proceeds, either with technicians or artists playing the instruments, channel parameter data like EQ, dynamics and level are set; just as with an analog console. At the end of the soundcheck this can be stored; the analog equivalent of "marking up" the desk. This storing or "snapshot" represents the best positions for all the parameters at that particular point in time.

If soundcheck and rehearsal time allow, it is possible to create a scene snapshot for each song or act of the performance, including the preshow walk-in music and end show exit music.

However never forget that live show mixing is a dynamic activity and that a series of scene recalls cannot cope with the unexpected performance change or react to the change in room acoustics due to the audience. This part of the guide explains how to take advantage of the scene snapshot system whilst maintaining the flexibility to keep dynamically mixing the show.



A typical scene list

When to store?

At the end of the set up walk through we recommended a store of the data entered so far; mostly naming and patching activities. After the soundcheck is the next time to store; this can be either over-stored to the same number or stored to a new location. It's good to give this scene a descriptive name like "SC End," or even "Show start". If in doubt do a "store", you don't ever have to recall that scene but if you mess up later you don't have to return too far. If you want to produce a song-per-scene then use song titles as scene names, but effective song-per-scene mixing requires thorough preparation, rehearsal and experience.

Below is a revision of the storing process.

Store a scene.

Use the console SCENE MEMORY panel to store scenes; use arrow keys to choose a location and press the [STORE] key to store.

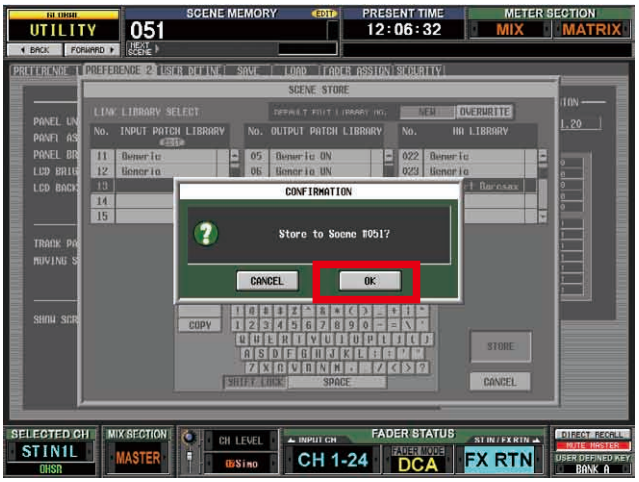
There are 500 user scenes available.

To recall scene xxx, press the up / down keys until "xxx" flashes in the SCENE MEMORY panel. Then press the [RECALL] key.

To see the scene list, press the [SCENE] key in the DISPLAY ACCESS area until scene list appears.

The SCENE STORE pop-up appears;

Type a scene name using a computer keyboard (connection point under the arm-rest), then press the [ENTER] key to store. Or click on the screen keyboard and press the [STORE] button with the track pad. Confirm with the [OK] button.



Scene storing short cuts and tips;

1) To speed up the scene storing process, disable the [STORE CONFIRMATION] in the PREFERENCE 1 tab of UTILITY menu.
2) To speed up even more, enable [AUTO STORE] in the same preference section. This does not actually auto store, but means a double click of the [STORE] key stores without renaming etc.
3) When storing a scene, the PATCH and HA LIBRARY data are stored automatically if a change has been made. In the SCENE STORE pop-up, there is an option to [OVERWRITE] the current libraries (useful when working towards one final patch and HA setting) or [NEW] useful when each scene has its own patch and HA settings... but be aware that there are less patch and HA memory positions than there are scenes.
4) However it might just be easier to leave the setup preferences as default and remember STORE > ENTER > OK on three buttons.

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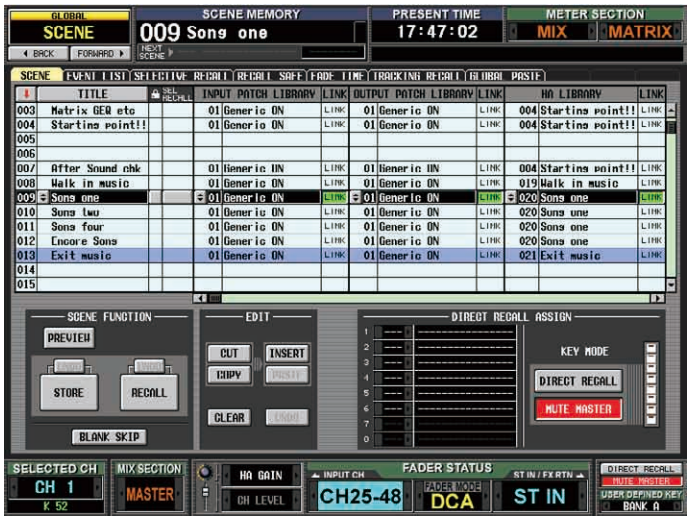
To check which locations are used go to DISPLAY ACCESS > SCENE.



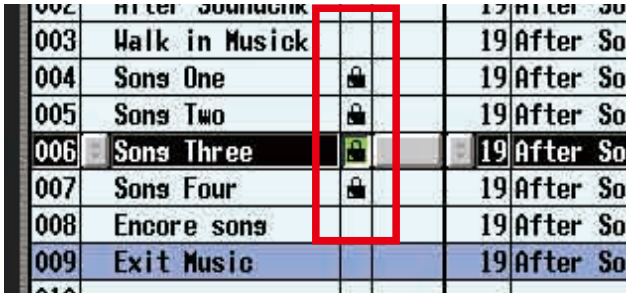
EDITING; scenes are not carved in stone.

Most scenes need some editing done to them after they are stored; either something has changed or some channel was not checked in the soundcheck. It is quite easy to call the scene back and edit it.

Editing a single scene;

A scene can be over-written at any time with new values simply by storing the new information to that scene number location.

Note; Scenes can be locked against this over-writing by checking the "padlock" symbol column next to the scene name on the SCENE page.

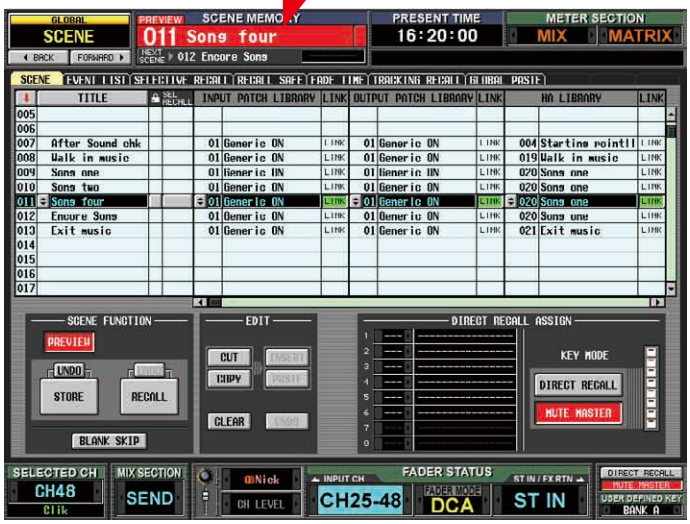


Editing during a performance;

If you are using the scene at the time just press the [STORE] key and follow the usual store procedure.
If you wish to edit a particular scene WHILST AT THE SAME TIME using a different scene for the performance, you must first enter PREVIEW mode.

PREVIEW mode.

PREVIEW mode is a powerful feature that lets you view and edit scene parameter information other than the scene being currently used.
Enter PREVIEW mode with the pink button in the SCENE MEMORY panel. The red LED comes on and the screen indicates PREVIEW by showing the scene name in red.



When PREVIEW mode is first activated PM5D shows the current console settings; **but these no longer have any effect on the audio!** You can now recall scenes, view them, edit them, and store them again whilst the audio continues unaffected. Pressing the [PREVIEW] key again exits PREVIEW mode and the console returns to the state it was in before **and control is regained**.

Notes about PREVIEW mode;

During preview it is not possible to adjust the mix of the active scene using the PM5D controllers, but Studio Manager and other MIDI devices would remain connected to the active scene so that you can keep control over the audio mix. User defined keys generally relate to the recalled PREVIEW scene not the active scene.

Editing multiple scenes; GLOBAL PASTE.

Sometimes if an instrument or player is changed it is necessary to make the same change across multiple or all scenes. This is done with the Global Paste function. DISPLAY ACCESS > SCENE >>>>>>> GLOBAL PASTE.

To edit a single or multiple parameters;

1) Select the type of channel to be edited; input, output, DCA, GEQ or effect.

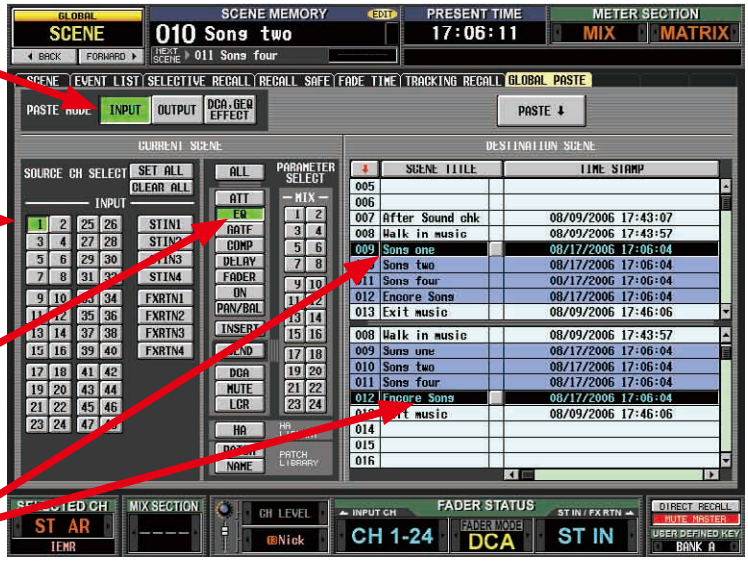
2) Select the particular channels or unit. E.g. CH 1.

3) Select the particular parameters of that channel. E.g. EQ and dynamics or select ALL.

4) Select the range of scenes to be edited; from the scene selected in the top window to the scene selected in the lower window.

5) Adjust the current console controls to the desired settings.

6) Press the [PASTE] button and confirm.



All the selected scenes will be changed to the new parameter settings for the selected channels.

Notes about Global Paste;

1) When selecting scenes to paste to it must be a continuous block of scenes. Sometimes multiple global pastings might be necessary.
2) The paste always rewrites the parameter as a new absolute value it can not take into account the previous value and add or subtract from it. (This is available as Tracking Recall).
3) Not all scene controlled parameters are included in the GLOBAL PASTE page; for example direct out on / off cannot be globally pasted.

TRACKING RECALL or relative editing.

Tracking Recall is a special kind of editing function; Global Paste deletes old values and replaces them with a new value, but Tracking Recall retains old values, but adds or subtracts a +/-dB amount to them.

Tracking Recall can be applied on an individual channel basis or to all channels.

Tracking Recall typical use example;

A percussion overhead mic is recalled at different levels by scene recall according to which song and instrument the percussionist plays. The stand gets knocked and the mic is much nearer than before making the percussion too loud. The engineer can;

1) Reduce the channel fader each time a new scene is recalled or
2) Reduce the channel and apply Recall Safe, then reset the correct level after each recall or
3) Use Tracking Recall. Tracking Recall can reduce the channel level to “compensate” for the mics new position and whilst still allowing the scene to turn the channel up or down as before.

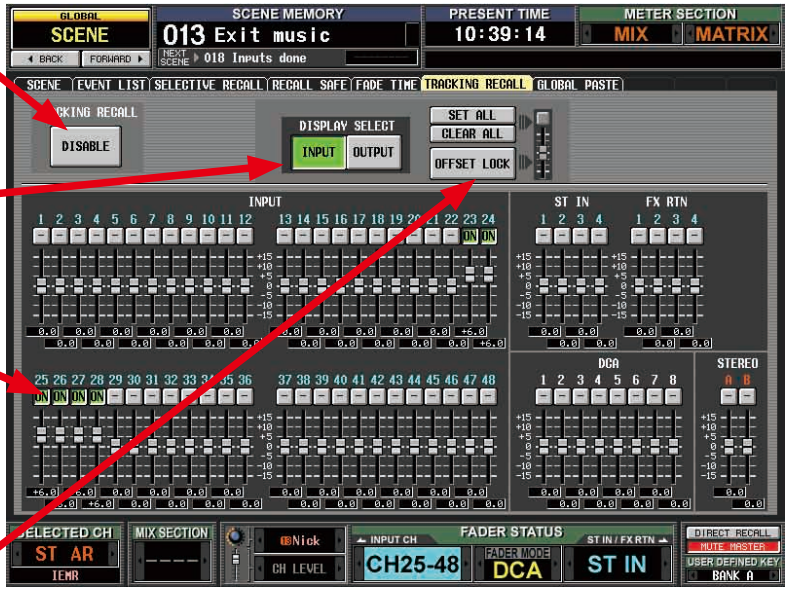
1) Enable the Tracking Recall.

2) Select the type of faders to edit; input, DCA or output.

3) Turn on the tracking faders for the channels you wish to edit.

4) Continue to mix normally! The screen indicates the offset you created for each fader, which will be applied to all subsequent scene recalls.

5) Apply the offset lock if you now want to prevent console fader movements becoming offsets. Now the offset is kept but new fader movements are back to being scene specific.



Access the TRACKING RECALL page; DISPLAY ACCESS > SCENE >>>>>> TRACKING RECALL.

Notes about Tracking Recall;

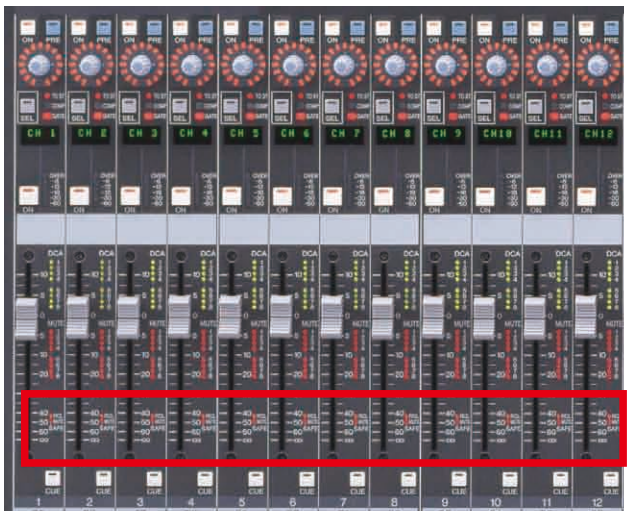
1) Tracking Recall is applied to all scenes.
2) Tracking Recall is available only for input and output channel masters and the DCAs, it is not implemented for AUX sends or EQ gain.
3) Tracking Recall does not affect faders influenced by Recall Safe.
4) Tracking Recall cannot boost faders above the +10dB point!
5) If you store a scene with Tracking Recall on, the value is stored absolutely with the tracking +/-dB included. If this scene is recalled when Tracking Recall is still on, then the tracked value will be applied again, doubling the change!
6) Tracking Recall is a powerful but potentially confusing tool. Think hard about what you are doing, especially when storing!

RECALL SAFE and SELECTIVE RECALL.

Global Paste and Tracking Recall are powerful tools for editing existing scenes, but the use of Recall Safe and Selective Recall functions can sometimes negate the need for constant editing.
When a scene is stored all the parameters of all the channels are memorized regardless of the consoles settings, but when a scene is recalled with Recall Safe or Selective Recall settings applied, the specific parameters or channels to be recalled are limited by those settings and the parameters remain unchanged by recall.
Recall Safe affects the parameter in all scenes but Selective Recall affects the parameter only when that specific scene is recalled.

Applying Recall Safe to a channel;

When the channel is [SEL] selected; simply press the [RECALL SAFE] key. This applies the Recall Safe setting which as a default includes all channel parameters. Check on the RECALL SAFE page the parameters included for this button.

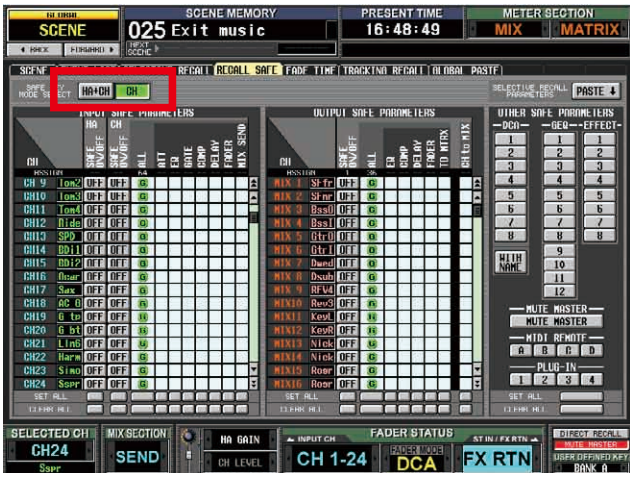


On PM5D-RH models you might want to change the default and add the HA setting to this.
Press the [HA+CH] button to add HA gain safe to the channel safe when the SELECTED CHANNEL [RECALL SAFE] key is pressed. If there is any kind of Recall Safe applied to a channel the orange [RCL SAFE] LED by the channel fader will light.

Changing the Recall Safe default;

DISPLAY ACCESS > SCENE >>>> RECALL SAFE.

Hint; Use a user defined key to bookmark this page.



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Recall Safe typical use example 1; whole channel safe;

"THE EXAMPLES" appear at a radio station party and a wireless mic channel is added for the "host". The "host" mic must be kept on at all times whilst "THE EXAMPLES" engineers check scenes and line check. There are two possibilities;

1) Use Global Paste editing to add the channel in an "on and up" setting to all scenes or
2) Add the mic "on and up" and then use Recall Safe to prevent it changing when other scenes are recalled.

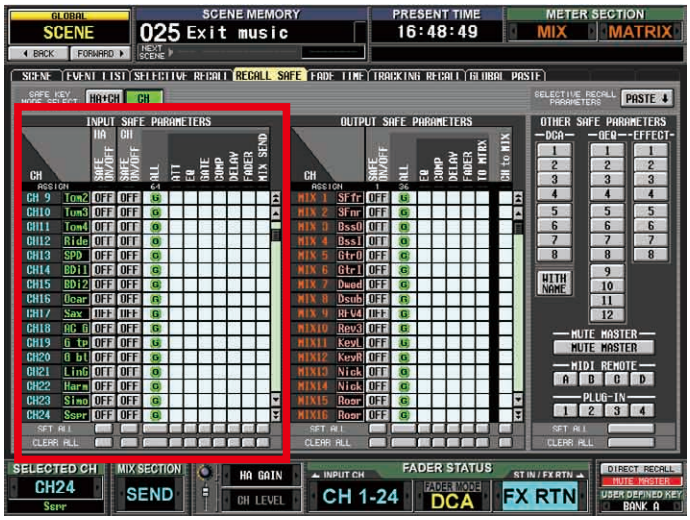
Using Recall Safe method has the advantage that any changes to the "host" mic like EQ improvements or adding compression are not lost when scenes are recalled.

Recall Safe typical use example 2; individual parameter safes;

A scene memory is stored for each song in "THE EXAMPLES" set.

The set begins with "Song One" but the sound engineer decides he can improve the kick drum sound by making an EQ change. The changed EQ sounds better but when "Song Two" starts the less good EQ is recalled and the sound engineer must quickly repeat the changes he made in "Song One". The same thing happens when "Song Two" ends together with any other EQ improvements. To avoid this, the sound engineer can;

1) Not use scene recall but operate like an analog console. (But this loses all other changes like effects and levels etc.)
2) Use Recall Safe applied to the kick drum EQ so that this parameter is unchanged by any recall.



Apply a Recall Safe to an individual parameter;
DISPLAY ACCESS > SCENE >>>> RECALL SAFE.
This screen permits selection of Recall Safe down to a single parameter type of a single channel. Useful [SET ALL] and [CLEAR ALL] buttons appear at the bottom of the screen.

Recall Safe typical use example 3; other common uses;

GEQ settings for the main system and monitor mixes are generally not required to change on a scene basis and can be "safed." If all the Recall Safe channel parameter boxes are checked then this leaves only the channel on / off switches under scene control creating mute scenes; just like the feature of an advanced analog console.

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Recall Safe typical use example 4; the spare channel;

"THE EXAMPLES" and other bands have a spare backup vocal channel in case of UHF or other technical problems. As this is muted in all scenes, it is necessary to use Recall Safe when it is required. Alternatively use Global Paste to change "on" status in all scenes. Similarly the faulty main vocal needs Recall Safe to keep it turned off!

Where are Recall Safes saved?

Recall Safe settings are saved in the [SETUP] memory.
They will always be saved by a BASIC ALL DATA save but remember to add [SETUP] memory when doing ADVANCED or non BASIC ALL DATA saves. See the section on save and load for more details.

Notes about Recall Safe;

If you load an ALL DATA session file into a PM5D when there are Recall Safes set, for example on the kick drum EQ, then you might expect that the kick drum EQ will not be recalled with its EQ, rather it will have the desks default "flat" EQ. However, this is **not the case** because the "current scene" is always loaded before the Recall Safes are applied. It is important to remember when doing the save procedure to make sure the scene showing on the console, the "current scene" has the appropriate parameters for your Recall Safed channels.

If the session is stored with the "wrong" current scene then all is not lost as the stored parameters are in the console memory; it's just that are not being recalled. In order to recall them you must remove the Recall Safes, recall the scene and then re-apply the safes.
It is relatively easy to remove a large selection of Recall Safes using the [CLEAR ALL] buttons, but it can be laborious to re-set them if there are a lot of individual channel / parameter combinations selected. If this is the case remember that Recall Safe settings are stored in the [SETUP] portion of session memory which can be saved and loaded independently.

SELECTIVE RECALL; an introduction.

One of the great advantages of digital consoles has been that many bands can share the same console on the same show, each band using different scenes. However problems arise with Recall Safe as it is global to all scenes;

1) One band engineer may require Recall Safe and another not and
2) If Recall Safes are set then later bands in the show will “inherit” the settings of earlier bands.

To avoid these problems Recall Safes can be removed and re-applied between each band, if necessary by reloading the SETUP file, or rather than using Recall Safe you can opt to use Selective Recall.

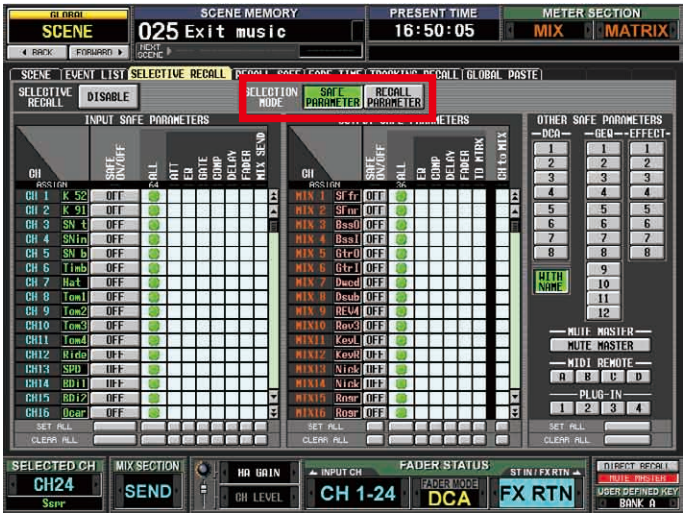
SELECTIVE RECALL;

Selective Recall adds another layer of control to the SAFEing of channels; the settings are assigned and remembered on a scene by scene basis. There are two ways of looking at Selective Recall settings;

1) SAFE PARAMETER or
2) RECALL PARAMETER.

These are just different ways of looking at the actions of your settings; checking the box either causes the parameter to be made safe or the check means the parameter will be recalled. The choice is made with the on screen buttons but it cannot be switched between without clearing the settings.

The SELECTIVE RECALL page;
This can be found at; DISPLAY ACCESS > SCENE >>> SELECTIVE RECALL.
The menu shows the parameters of each channel that can be kept “safe” or “recalled” when the scene is recalled.
Remember to enable Selective Recall when it is required and store the settings along with the scene data by pressing the [STORE] key and following the store procedure.



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Selective Recall typical use example 1; safed scenes in multi-band bill;

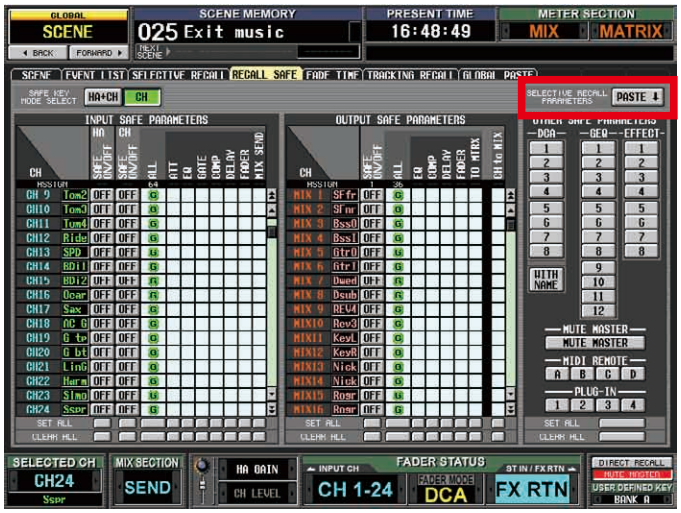
A scene memory is stored for each song in “THE EXAMPLES” set and “THE EXAMPLES” engineer would like to use a number of Recall Safe settings on EQ parameters so that he can change and improve EQ during the band’s set without scene recall “undoing” his changes.

However, a familiar problem arises when sharing the console with support bands. The support band engineer uses a different kick drum mic and has a radically different EQ. When “THE EXAMPLES” engineer recalls his first scene he “inherits” the support EQ as a Recall Safe would prevent his chosen EQ being recalled. To avoid this situation there are two solutions;

1) Before recalling Examples Scene 1, remove Recall Safe settings and then re-apply settings after recalling the scene.
2) Do not use Recall Safe but use Selective Recall; Selective Recall must be applied to all scenes in “THE EXAMPLES” set, except the first scene to be recalled. Support band engineers can use any combination of Selective Recall settings too.

The engineer must remember two key operations; to make sure that the most up to date soundchecked settings are stored to the special “non-safed” scene and to make sure this “non-safed” scene is recalled before any other.

Selective Recall and Recall Safe together;
Both can be used together but this can lead to some confusion so the option is available to “up-grade” Selective Recall settings to all scenes and become Recall Safe by using the Selective Recall parameters [PASTE] key.



Selective Recall typical use example 2; the hat song;

In “THE EXAMPLES” set the singer performs one song wearing a stiff peaked hat. The peak causes significant reflections and monitoring/feedback problems. This situation is also common in theatrical work with hats and wigs. For this reason a different EQ must be recalled for mic and monitor. Selective Recall allows a new EQ setting to be recalled even when EQ changes are not being recalled for other songs. Remember; prior to the hat song the ongoing improved EQ must be stored ready to be recalled after the hat song. You could use the EQ library for this.

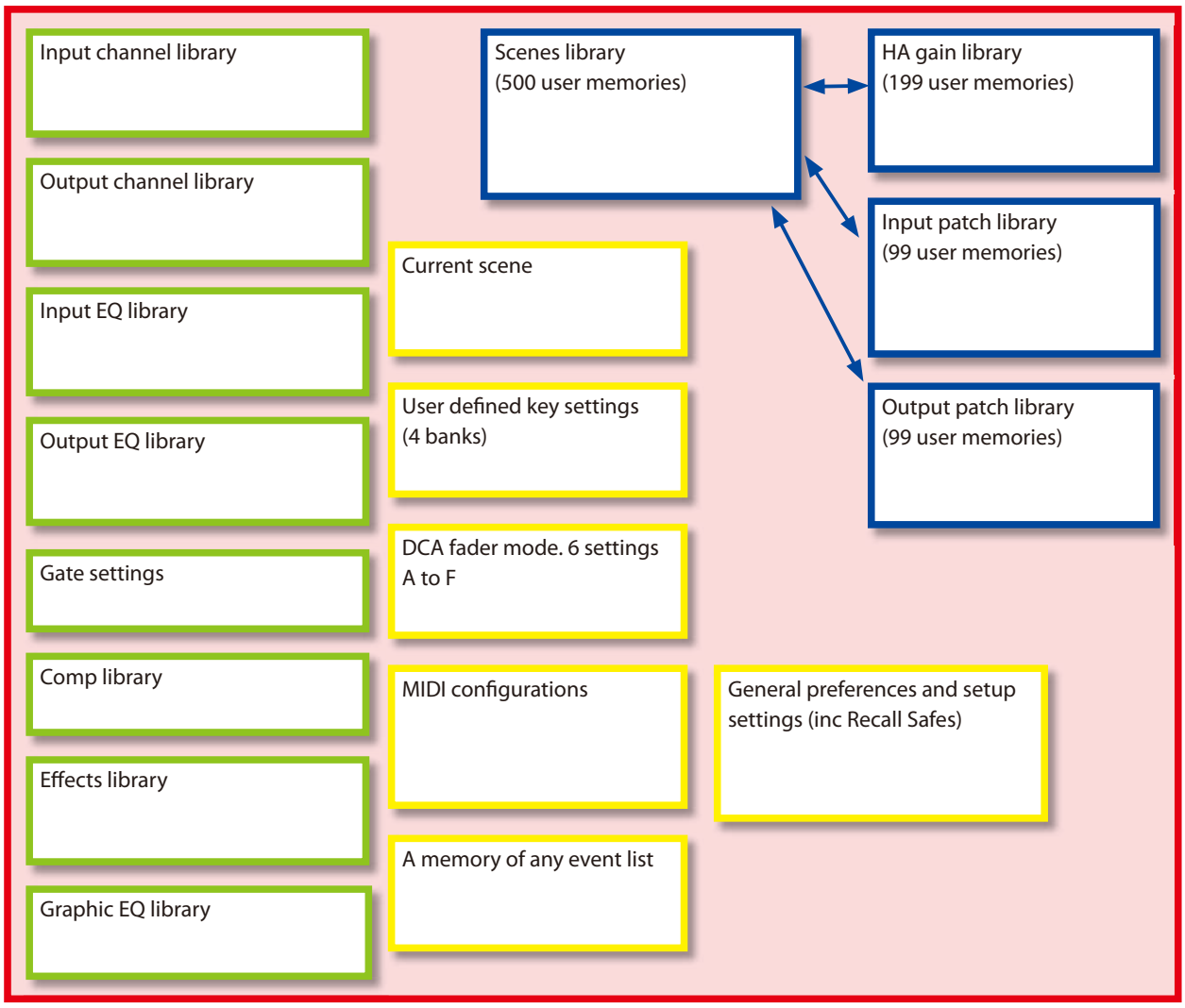
With knowledge of scene storing, scene editing and the use of channel and parameter safe techniques it should be possible to achieve a showfile with the correct balance of preset recalled snapshots and on-going mixing reacting to the live situation. Once this is set up it is important to save it to a PCMCIA card for backup or transfer to another console.

The next session covers saving to a card issues.

What makes up a console or session file?

The session is made up of a whole group of libraries.

Console or session file



The green boxes contain a mix of read only and user stored settings, the user contents are stored when they are entered.

The blue boxes include all the items stored when the console [STORE] key is used to store a scene. They can be linked for store and recall. Scenes can be saved individually.

The yellow box contents are stored as they are created and there is only one version stored per console or session file.

The red box is the whole session made up of the libraries.

Why are there all these separate library files?

Or “Wouldn’t it be simpler to have just one big red box with everything in it?”

When a console file is saved to a PCMCIA card as a BASIC ALL DATA file this is what happens. However there are many advantages to be had from being able to save the various parts individually. For example you can transfer just your user defined key preferences and channel library settings to another session or add some scenes from one session to another session whilst keeping everything else the same and most importantly; keep the audio running.

Save and load to a PCMCIA card; for scene and set-up transfer and back up.

Save to PCMCIA card;

PM5D will remember all the settings even after a power cycle, but to back up the data in case of accidental or malicious erasure and of course to transfer to a different console you can save to a PCMCIA card or a compact flash card and PC card adaptor. Yamaha don't manufacture these; get them from a local computer supply store or from an internet source.

You don't need a big capacity card; even many scenes is unlikely to pass 1MB. The files can easily be stored on other media for additional back up and emailed to others if necessary. If access to a PCMCIA card is impossible data transfer is possible via the USB port to a computer equipped with Yamaha Studio Manager and PM5D editor. (PC or Mac)

SAVE (BASIC ALL DATA save).

Access the SAVE page from DISPLAY ACCESS > UTILITY >>> SAVE.
Click on the [SAVE] button and enter an eight character name. Click the [ENTER] button. If the [BASIC] and [ALL DATA] boxes are checked then the whole session is saved to the card.

and LOAD;

in a similar way! The console will be a "cloned copy" of the one you saved. Only the rotary pots of the MONITOR section, the HA section on a regular PM5D and the +48V MASTER switch on the back of PM5D-RH are not necessarily the same.

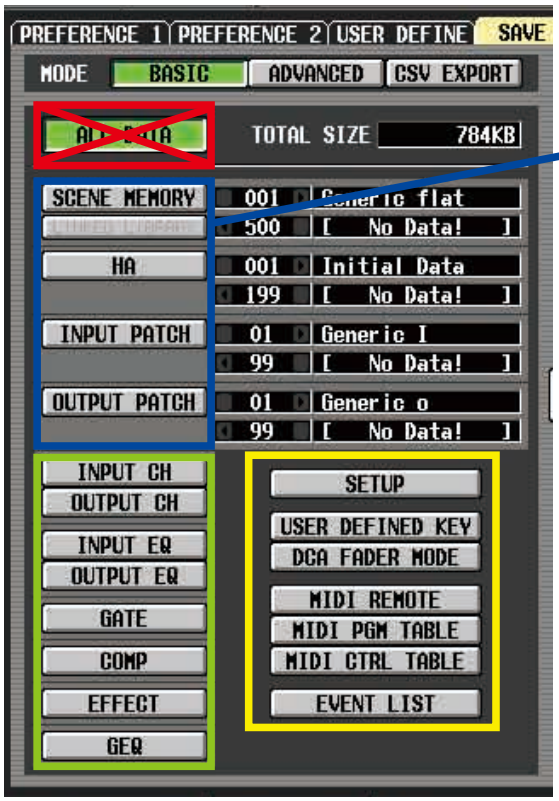
Notes on ALL DATA loading;

ALL DATA in the receiving console is lost when a new session is loaded! A console can only hold one session at a time. However new firmware available in Summer 2007 will provide LOAD LOCKING features so certain scenes or output channel data can be locked against "Over-loading".
ALL DATA files have the file extension **.PM5**, but be warned; not all **.PM5** files are all data.
ALL DATA files can be opened in a PM5D or PM5D Editor in the Studio Manager application. When a BASIC ALL DATA session is loaded audio will be lost for a short time. You can avoid this by loading libraries and scenes individually. This way the current "active" scene is never over-written or "disturbed."

Saving; more than just a “BASIC ALL DATA file.”

Or perhaps that should be “less than an ALL DATA file”.

The BASIC ALL DATA file is the best way of backing up your console data or “cloning” one console to another. However sometimes it is desirable not to transfer every bit of data that necessarily wipes out every bit of data in the receiving console. Also some setup data is not specific to a particular show and it’s good to be able to transfer it to a different session.



DISPLAY ACCESS > UTILITY >>>> SAVE > LOAD.

When [ALL DATA] is <u>not</u> checked;

and one of the library buttons is pressed, it is possible to save libraries individually.
This is still called basic saving, all library numbers / positions are fixed. If you need to load scenes or libraries to different numbers you need advanced loading.

Scenes library
(500 user memories)

HA gain library
(199 user memories)

Input patch library
(99 user memories)

Output patch library
(99 user memories)

Limit the number of scenes stored with the black boxes.

Input channel library

Output channel library

Input EQ library

Output EQ library

Gate library

Comp library

Effects library

Graphic EQ library

General preferences and setup settings (inc Recall Safes)

User defined key settings (4 banks)

DCA fader mode. 6 settings A - F

Various MIDI configurations

A memory of any event list

Saving scene memories only.

If scene memories are saved it is usual to save HA and patch libraries as linked libraries; the channel names are in the input and output patch libraries! The black boxes to the right allow you to limit the number of scenes you store; this is useful, not only to avoid storing many 100s of blank scenes, but to prevent having to load those blank scenes into another console where the scene locations might be being used.

Avoiding scene clashes!

Even if you just basic save your few used scene memories, a problem will arise if those scene numbers are in use on the console you wish to load to. To avoid this clash of scenes; the receiving console's scenes can be cut and pasted to different numbers or ADVANCED mode saving and loading must be used. New firmware available in Summer 2007 will offer greater "Load lock out" functions so that user scenes can be designated "read-only" and they will not be over-written by loading.

Note; If the scene memory save was done without limiting the number of scenes, then all 500 scenes will be loaded, even if they are "empty". There will be no locations for the receiving console to put its scenes. Advanced saving and loading is the way to avoid any potential clashes.

ADVANCED save and load.

Advanced saving and loading is not as complicated as it might sound! All the libraries are available as with basic, but the option is available to change the scene or library number when saving. When scenes are saved in ADVANCED mode then they can also be loaded in ADVANCED mode.

Note; Basic saved scenes cannot be advanced loaded.

Merging sessions / console files.

By using advanced save and load it is possible to merge two sessions; if, for example, a new support band joins an existing tour, or if a touring band wants to use an installed mixer with "house settings" on it.
Save the data in ADVANCED mode and then library by library load into the existing session in available library locations. **Remember** there are 4 banks of user defined keys so load to a different bank. There is only one setup library so agreement will have to be made on whose setup to use! Try Selective Recall rather than Recall Safe to avoid setup disputes! You will also have to share the 6 DCA/assignable fader banks!

CSV EXPORT mode;

This allows the data to be exported as a CSV data file which can be opened and edited in programs such as Microsoft Excel or similar.

PM5D Editor and Studio Manager.

Management and editing of PM5D files can also be achieved with a PC using Yamaha's software. Versions are available for PC and Mac computers. The software can "break into" an ALL DATA file and extract scenes and even "advanced load" them into new sessions with different scene numbers. By connecting on-line with the PM5D you can insert scenes into active sessions without losing any audio. The software can also be used to change parameter data like EQ or levels and set up patches. There is more detail of this in Part 3 of the guide.