

SERIAL NUMBER 288

REF : T9804017 / FVH.

Product(s)..... All CRT projectors.

Module(s)..... New important firmware updates.

Priority..... D

A - "Must" modification. Barco will provide the necessary components to perform this modification at no charge.

C - Improves the general working conditions of the product .

B - Improves the reliability of the product .

D - For information only.

RE : Important software updates in the CRT projectors with the introduction of the IRIS³, new "Soft edge" board, and the memorybank switching.

The updates of the firmware versions in the different types of chassis are necessary because of the introduction of some new options like the IRIS³ and the new SOFT EDGE. Besides these new options, we also introduce a new dedicated memory system : the *memorybank* switching.

Maybe the most important change will be the memorybank switching system. At the end of this paper you'll find an extensive explanation of this new memory management system.

The memorybank updates are implemented from following versions onwards :

- * **V7.30** or higher in the 808S projectors.
- * **V7.10** or higher for the 1208S / 1209S projectors.

1. These firmware versions or higher no more support the IRIS1.
2. The menu structure in the *ADJUSTMENT* Mode is slightly adapted

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as the IRIS now appears on top.

3. The menu of the IRIS is also adapted for the IRIS³.

Two new items appear in the menu :

An overview is found at the end of this paper.

Attention.

The first firmware versions V7.30 of the 808S and V7.10 in the 1208/9/S do not have above IRIS³ updates yet, hence, do not support the IRIS³ yet.

4. New SOFT EDGE.

a) Firmware.

At this moment we use an EPROM (27c040) with a 512Kbytes memory. The SOFT EDGE requires an important extension of memory capacity and we are obliged to use a 1Mbyte (27c080). This will mean that the implementation of the *soft edge board* in a projector requires a new 1Mbytes EPROM.

In practice, we'll continue with a 512Kbytes EPROM for all standard projectors without SOFT EDGE and we'll provide a 1Mbytes EPROM for those projectors equipped with a SOFT EDGE board.

b) Hardware.

Depending on the chassis type, some hardware adaptations / modifications will be necessary for the integration of the SOFT EDGE board.

Regarding the S versions, the RGB DRIVER version 3 is already adapted for SOFT EDGE (ref our Technical Note ref T980401).

Adaptations for other chassis will be mentioned in the mounting instructions.

5. Memorybank system.

The user now can create 8 memorybanks (or memory blocs) of one and the same source.

Attention ! There still exists a limitation of 32 memory blocs in total.

The user can now make up to 8 personalised memorybanks per source, name them and recall them at any moment.

See further in this paper for an in-depth explanation of the system.

B. The 708 chassis.

As the circuitry of these projectors are not adapted for SOFT EDGE, the versions mentioned hereafter do not support (yet) the IRIS³.

As a consequence, they are still IRIS1 compatible.

a) BV708MM.

As this is a new product, the memorybank option is implemented from the start, this is **V4.10**.

b) BD708 : Memory bank system from **V3.30** onwards

The Memorybank system.

As you may know, a "memory bloc" is identified by a header which contains information on the 5 parameters of an input source.

Making a copy of a memory bloc in order to proceed with small changes, was (and still is) possible with the "9*" selection.

Our customers now ask more memory blocs for one and the same input source. With our memorybank system we can create up to 8 memory blocs (let's call them *memorybanks* to avoid confusion with the "memory blocs") from the same source. The user can modify each memorybank at its own convenience, name them and recall them at any moment.

We remind you that the projectors have a limit of 32 memory blocs in total.

This system seems also to exhibit some inconveniences and therefore the possibility is foreseen to inactivate the bankmemory system (in the service menu).

A review of the different possibilities :

- a) The user never has created a memorybank and the "memorybank" is toggled to OFF in the service menu (note that the memorybank system is ON or OFF for all sources and cannot be switched on or off per source).

In this case nothing changes in the memory bloc management. The whole system remains unchanged.

- b) The user switches the "memorybank" ON in the service menu.

From that moment on, a new column "*memb*" appears in the table of the memory bloc overview (in the copy or delete modes) .

A number from 1 - 8 can be seen here, this is the memorybank number.

The existing memory blocs , created when the system was OFF , are now automatically converted to "memorybank nr 1".

In this table one can see an overview of all *closed* and *free* blocs. Only a "closed" bloc can have a memorybank number.

How can you create a memorybank ?

1. Select the input source by pushing the appropriated numeric button.
2. Push now the << ENTER >> button.

Now appears on the screen a new text :

Source xx
Memorybank
x

In order to create a memorybank you push the corresponding numeric button on the numeric keypad.

There are two possibilities :

- you push a number of an existing memorybank.

You select then that memorybank and you have maybe the intention to modify this memorybank.

You can check which memorybanks already exist with the ENTER button. Each time you push ENTER you jump to the next closed memorybank and you see the corresponding picture on the screen.

Let us illustrate this with an example:

Suppose we have following blocs in the projector :

Bloc	Input	H Freq	V Freq	memb	Conf
1	video	15.6	50	2	FT
2	video	15.6	50	7	FT
3	video	15.6	50	3	FT
4	video	15.6	50	1	FT
5	video	15.6	50	6	FT

Suppose bloc 3 is active and thus 'memb 3' is used.

When pushing the ENTER button we get consecutively

- bloc 5 and memb 6
- bloc 2 and memb 7
- bloc 4 and memb 1
- bloc 1 and memb 2

and now back bloc 3, memb 3

Above must help you to avoid overwriting or modifying an existing memorybank

- you push a number of a non-existing memorybank.

Now you create a new bank and just like in the past, the bank is closed from the moment you do a change of a setting (eg. increase of contrast).

A this moment the new memory bloc will be a copy of the first bloc that it finds in the overview as seen in the overview table (in the COPY or DELETE mode) with the same parameters, BUT, DISREGARDING THE MEMORYBANK NUMBERS.

(As an example, you do not automatically copy from memorybank nr 1).

- the memorybank number itself is not used as a selection parameter.

Nothing has changed in the copy, interpolation system. The user is master of the memorybanks and it is recommended to note the characteristics of each bank in order to recall the correct bank.

Some more informations.

- If the memorybank system is set ON in the service menu, one can copy or delete these memorybanks, just like you can copy and delete memory blocs.
- When a source is selected and you push the ENTER button, you can scroll through all existing banks with this ENTER button. Each time a bank is selected one can see immediately the picture with the settings of this bank.
- creation of a memorybank only can be achieved with the numeric keypad selection.
- The user has created some memorybanks and then inactivates the system.

When you create different memorybanks and you inactivate the system in the service menu (not very logic...) in the memory bloc overview you can see different memory blocs with the same 5 parameters.

These blocs have a different memorybank number, but , since the "memb" does not appear one has the impression that the blocs are identical (and that is impossible..).

Also, as a memorybank selection is not possible , with the selection

of the source the projector selects then the first created memorybank and disregards the rest of the banks.

- Pros and cons.

- An advantage is that the user can now create and recall at any moment his personalised settings (colour saturation, contrast...). He can create memorybanks associated to a typical source (4/3 and 16/9 formats, DVD or Laser, ...) on condition the parameters in the header are the same !!! (A PAL and an NTSC source ALWAYS are two different memoryblocs since the vertical frequency differs more than 5 hz)
- The system however has a small drawback : **the source dependency.**

We illustrate this with an example.

The user has connected a PAL video composite source (15.6khz, 50hz) straight to the projector and he has memorised this in a bank nr 4 of source 1.(--> source 1, memb 4)

He connects now an NTSC source (---> 60hz) also on source 1. As the vertical frequency is different, a new memory bloc is automatically created. As the memorybank system is active the bloc will be source 1 , bank nr 4.

The projector has now two different blocs with the same identification

source 1 - memorybank nr 4

and this may be confusing...

Where can you find the Memorybank ON / OFF switching ?

- a) In the BD708 and BV708MM : under the "COMMON SETTINGS" of the service menu.
- b) In the 808S and 1208S/9S in the second page of the service menu.

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