MANUAL SUPPLEMENT

EFFECTS PROGRAM UPDATE **MF-3000S**
MF-3000PS

FOR-A COMPANY LIMITED

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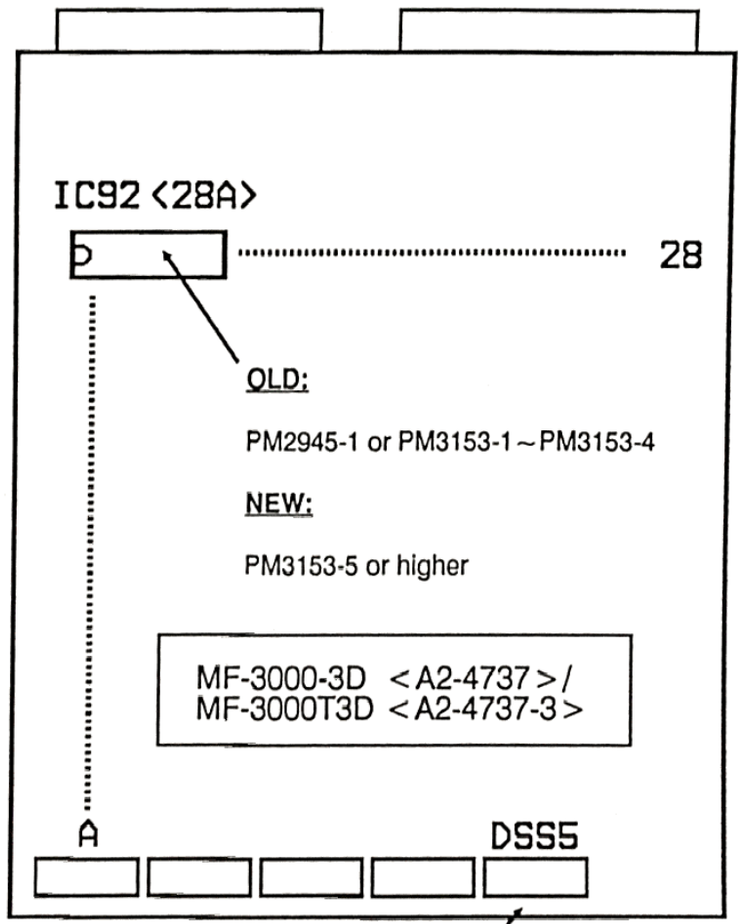
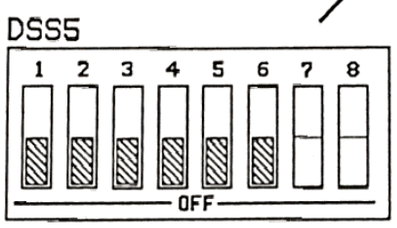
1. EPROM Information

Depending on the production run, the MF-3000-3D (3D EFFECT) and/or MF-3000T3D (PAGE TURN EFFECT) boards of your MF-3000S/PS will contain one of the EPROMs listed in the figure below at card address <A28> as IC92. Before using any program information contained in this supplement, first verify which EPROM your pc board contains.

If your MF-3000-3D/MF-3000T3D has EPROM PM2945-1 or PM3153-1 ~ PM3153-4 installed, you will not be able to properly perform A/B switch, DUAL mode, DUAL INTERLOCK mode, or the SINGLE mode effect programs described in this supplement. For example, A/B switch programs may stop in the middle or before completion.

However, if your board contains the newer software version, EPROM PM3153-5 or above, it is relatively simple to create A/B switch and the other programs covered in this supplement without performance problems.





(Shaded areas in figure above show dipswitch settings.)

DSS5 - 7:

Set to OFF on MF-3000-3D.
Set to ON on MF-3000-T3D.

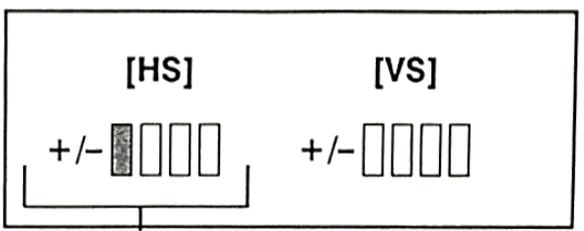
DSS5 - 8:

Set to OFF if MF-3000IT not installed.
Set to ON if MF-3000IT installed.

2. A/B Switch Programs

To create A/B switch programs, HS parameters must first be set for [CURVE] after first selecting [MODIFY]. The figure below shows which modes are determined by the first value.

Press [MODIFY], then [CURVE]:



NOTE

Always set [CURVE] HS and VS parameters interpolations to [ ] !

= 0XXX : Nonprogram mode

[MANUAL] and [AUTO] in the INPUT CHANGE section used to select the input channel during effect performance (not programmable).

= + 1XXX : Program mode

This parameter used to set CH A input change during effect performance.

=−1XXX : Program mode

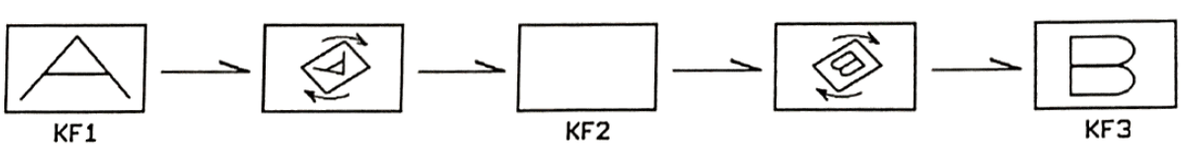
This parameter used to set CH B input change during effect performance.

REMEMBER

A/B switch programming can not be performed when the unit is set to DUAL or DUAL INTERLOCK mode! (Input priority change not performed.)

2-1. Single channel A/B switch program example

The single mode A/B switch effect illustrated below is performed the following program.



KF	CURVE		POS/SIZE			LOCAL ROT		
	HS	VS	SZ	HP	VP	X	Y	Z
1	[+1000]	[0]	<1000>	<0>	<0>	<0>	<0>	<0>
2	[−1000]	[0]	<0>	<0>	<0>	<0>	<0>	<2000>
3	[−1000]	[0]	<1000>	<0>	<0>	<0>	<0>	<4000>

REMEMBER

A/B switch programs can still be performed, even when the unit is in nonprogram mode. However, effect performance will sometimes occur incorrectly and use of this mode for A/B switch programming is not recommended.

3. Dual Channel System Programs

3-1. Command summary

Dual channel systems are capable of performing effects in the following three modes, if the MF-3000-3D/MF-3000T3D board installed in the main unit contain EPROM PM3153-5 or higher.

a) DUAL: Separate CH1/CH2 effects operation.

b) DUAL INTERLOCK: CH1/CH2 effects operation combined to create one effect. Five interlock operations possible.

c) SINGLE: Effects performed only one CH at a time. (Switched input.)

> **REMEMBER**
>
> SINGLE mode switches A/B inputs during effects performance, while DUAL or DUAL INTERLOCK switches CH1 and CH2 priority during effect program performance.

3-2. Performing DUAL channel effects

DUAL channel effects involve the [DUAL], [CH 1], [CH2] keys, [AUTO]/[MANUAL] keys in the INPUT CHANGE section, and the [CURVE] HS parameter value settings.

To select DUAL mode:

Verify [DUAL] key is set to On (lit green) and the [CH 1]/[CH 2] keys are active. Set CH1/CH2 performance parameters the same.

To select DUAL INTERLOCK mode:

Verify the [DUAL] key is OFF (not lit green) and set the last three values of the [CURVE] HS parameter to 100~500.

To select SINGLE mode:

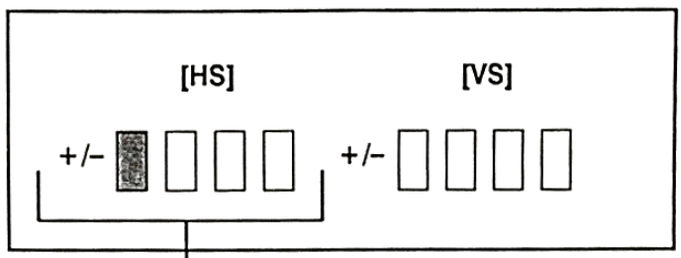
Verify the [DUAL] key is OFF (not lit green) and set the last three values of the [CURVE] HS parameter to 0000.

> **IMPORTANT**
>
> The four values of the [CURVE] parameter, plus the +/– setting, determine how priority change is performed (nonprogram and program modes).
>
> In order to create an effect for both channels using the priority change function, the [CURVE] HS parameter for CH1 must be set to +1000/–1000 (CH2 must be opposite polarity), as shown on the next page. (**Remember!** Parameter interpolation must always be set to [ ]!!)

3-3. Setting CH1/CH2 priority

CH1/CH2 priority when operating in DUAL or DUAL INTERLOCK mode, and A/B switch input change when operating in SINGLE mode, are both determined by the same setting procedure. The procedure involves the [MANUAL]/[AUTO] keys in the INPUT CHANGE section and changing the [CURVE] HS parameter values as shown below after first pressing [MODIFY].

Press [MODIFY], then [CURVE] :



= 0XXX : Nonprogram mode

[MANUAL] and [AUTO] keys in the INPUT CHANGE used to select priority during effect performance (not programmable).

= +1XXX : Program mode

This parameter is used to set CH1 priority during effect performance.

= -1XXX : Program mode

This parameter is used to set CH2 priority during effect performance.

IMPORTANT

#1) Always set HS and VS [CURVE] parameter interpolation to [ ] !!

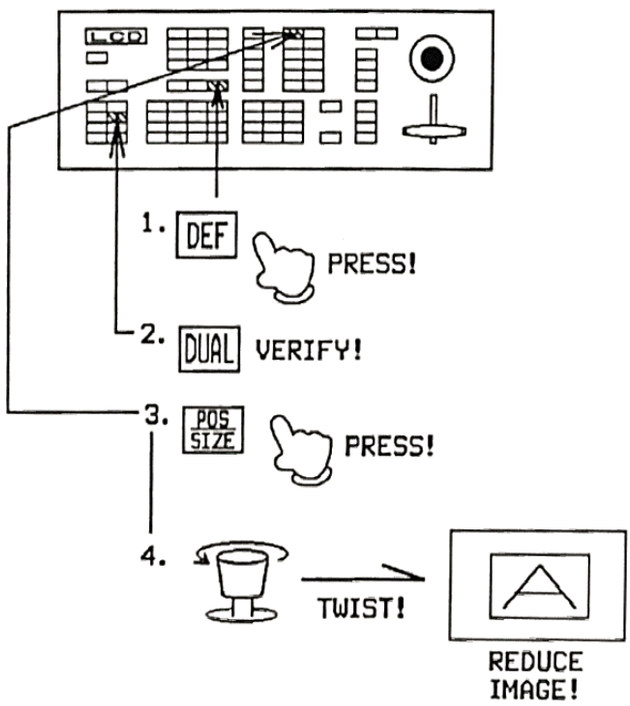
#2) Set HS and VS parameters according to CH1 performance. CH2 settings do not affect priority change !!

4. Operating in DUAL or DUAL INTERLOCK

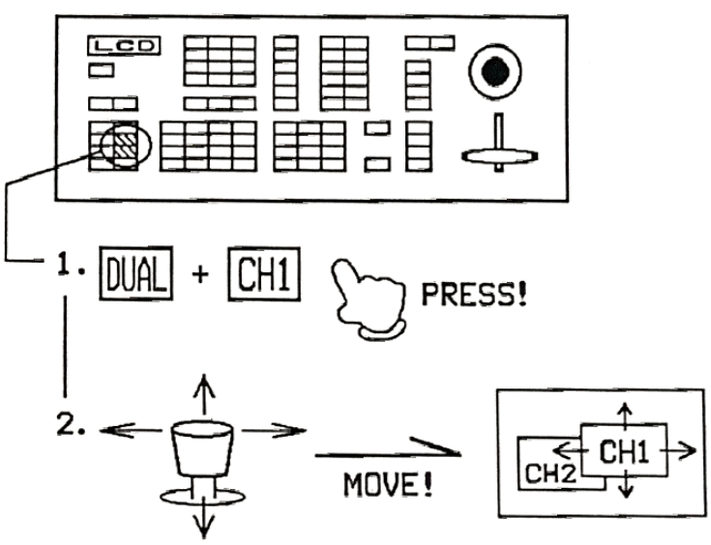
4-1. DUAL operation

CH1/CH2 will perform separately, but the same, when in DUAL channel mode. To perform effects in this mode, simply proceed as follows after verifying [CURVE] HS parameters are set to 0000.

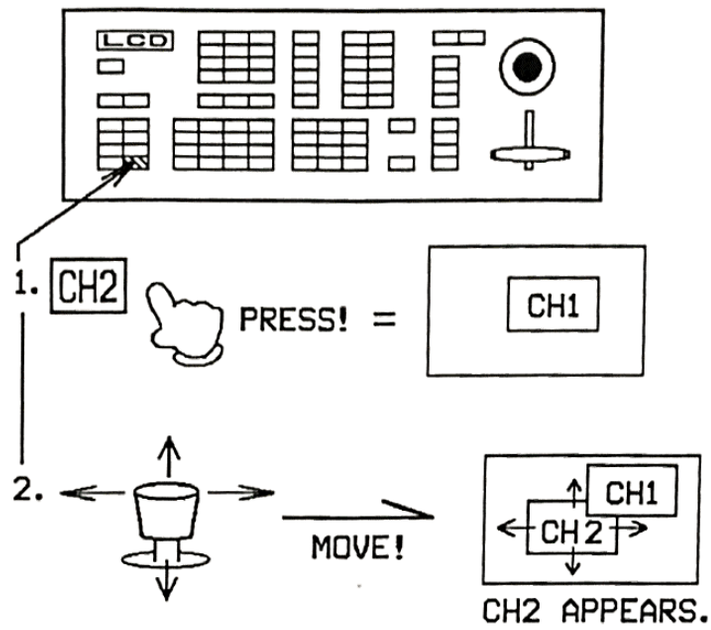
> **Step 1:** Press [DEF] key to clear all previous data. Verify [DUAL] key is lit orange. (If not, press until lit orange.) Next, while observing the effect image, twist joystick to reduce image size as shown.



> **Step 2:** Press [DUAL], then [CH1], (both keys should light green) and move the joystick up/down, left/right. The CH1 image should corresponding change position.



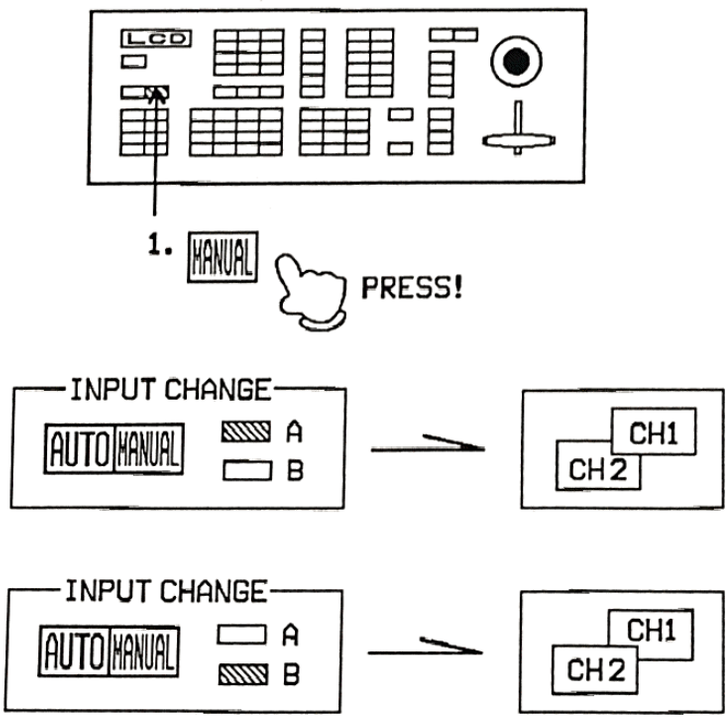
> **Step 3:** Next, press the [CH2] key and move the joystick up/down, left/right. The CH2 image should corresponding change position.



NOTE

When the [CH2] key is pressed, the CH2 image will occupy the same position as the [CH1] image and not be visible until the image is repositioned by moving the joystick.

> **Step 4:** Press [MANUAL] in the INPUT CHANGE section to change CH1/CH2 image priority. Indications should appear as shown in the illustration below. The A indicator should light when CH1 is in front and the B indicator when CH2 is in front.



> **Step 5:** Patterns for the [MOVE1] ~ [MOVE 4] keys in the DIRECT TAKE section can be performed in the DUAL mode. To do this, first verify the [DUAL] key is lit green. If it is not, press key until a green indication is shown. Then proceed similar to the following three examples.

a) Select in sequence:

[MOVE2] ⇒ [7] ⇒ [ENTER] for CH1 effect performance.

[MOVE2] ⇒ [REV] ⇒ [9] ⇒ [ENTER] for CH2 effect performance.

Then, [MANUAL] (and move the fader lever) or [AUTO] to perform the effect.

b) Select in sequence:

[MOVE3] ⇒ [7] ⇒ [ENTER] for CH1 effect performance.

[MOVE3] ⇒ [REV] ⇒ [9] ⇒ [ENTER] for CH2 effect performance.

Then, [MANUAL] (and move the fader lever) or [AUTO] to perform the effect.

c) Select in sequence:

[MOVE3] ⇒ [8] ⇒ [ENTER] for CH1 effect performance.

[MOVE3] ⇒ [REV] ⇒ [2] ⇒ [ENTER] for CH2 effect performance.

Then, [MANUAL] (and move the fader lever) or [AUTO] to perform the effect.

NOTE

Patterns in the DIRECT TAKE section were orginally designed for single channel use, but they can also be used to perform DUAL channel effects.

4-2. DUAL INTERLOCK Operation

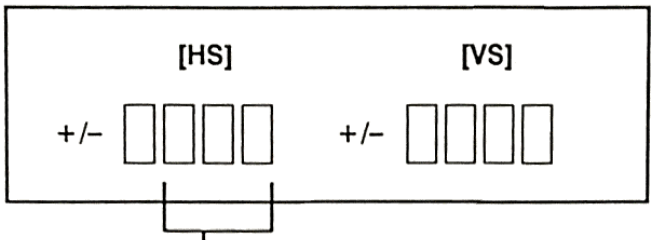
To operate in the DUAL INTERLOCK mode, first verify [DUAL] is OFF (lit orange or not lit). If it is ON (lit green), press until orange or no indication is obtained. The last three values of the [CURVE] HS parameter will then have to be set 100~500, depending on which of five dual interlock effect operations you want to perform.

REMEMBER

Both the CH1 and CH2 3D EFFECT/PAGE TURN EFFECT boards of your unit must contain EPROM PM3153-5 or higher to perform DUAL INTERLOCK effects!

4-2-1. To set DUAL INTERLOCK parameters

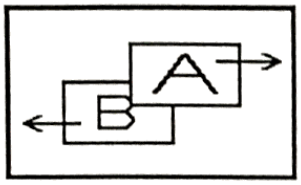
First select [MODIFY], then [CURVE].



= 000	SINGLE mode ⇒ [DUAL] lit orange or not lit DUAL mode ⇒ [DUAL] lit green
= 100	Inverts polarity of CH1/CH2 [AXIS] parameter settings. Sets CH1 to right/CH2 to left, CH1 to top/CH2 to bottom, CH1 to front/CH2 to back.
= 200/210	Changes CH1/CH2 [GLOBAL ROT] X axis parameter by 90°. H cube effect can be performed when the correct [AXIS] Z parameter is set and [GLOBAL ROT] is used.
= 300/310	Changes CH1/CH2 [GLOBAL ROT] Y axis parameter by 90°. V cube effect can be performed when the correct [AXIS] Z parameter is set and [GLOBAL ROT] is used.
= 400	H fold open or fold shut effect can be performed using [LOCAL ROT] operation.
= 500	V fold open or fold shut effect can be performed using [LOCAL ROT] operation.

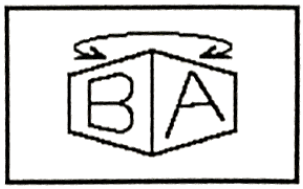
4-2-2. DUAL INTERLOCK effects

DUAL



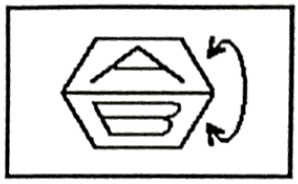
(HS = 100)

H CUBE



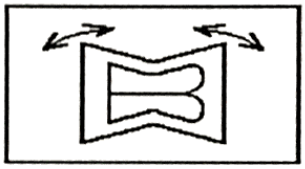
(HS = 200/210)

V CUBE



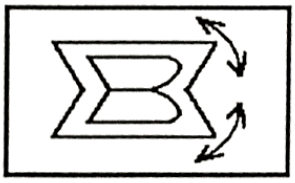
(HS = 300/310)

H FOLD OPEN/SHUT



(HS = 400)

V FOLD OPEN/SHUT



(HS = 500)

IMPORTANT

REMEMBER! Automatic priority changes can be performed in the DUAL INTERLOCK mode, even if [AUTO] in the INPUT CHANGE section and the HS [CURVE] parameter values are set for NONPROGRAM mode operation. However, some effects will be incorrectly performed!

Before performing any of the following DUAL INTERLOCK operations, first verify the [DUAL] key is not lit green (ON). If it is, press until indication is orange or key is not lit.

All of the following DUAL INTERLOCK procedures assume the unit is set to NONPROGRAM mode to simplify setting up your effect! However, not all effects perform correctly in this mode and your unit may have to be changed to PROGRAM mode for some DUAL INTERLOCK effects to perform correctly.

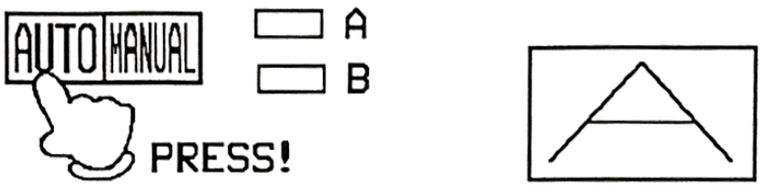
4-2-3. DUAL effect performance

The last three values of the HS parameter must be set to 100. [AXIS] parameter settings set CH1 to right/CH2 to left, CH1 to top/CH2 to bottom, CH1 to front/CH2 to right ([AXIS] X, Y and Z parameters, respectively). CH2 [AXIS] parameter relationships are set to opposite polarity. (I.E.; if CH1 is +, CH2 should be –.)

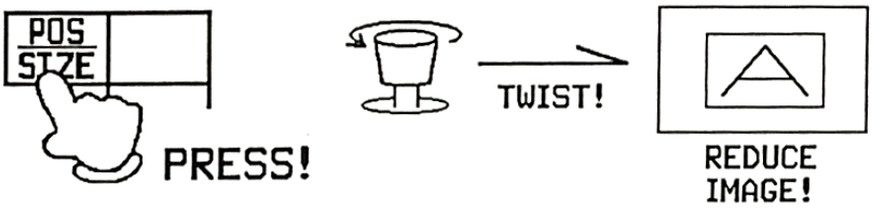
TO PERFORM THE EFFECT:

> **Step 1** Verify [DUAL] key is OFF (lit orange or not lit) and press [DEF] key to clear all previously set data.

> **Step 2** Press [AUTO] key in the INPUT CHANGE section (key should light).

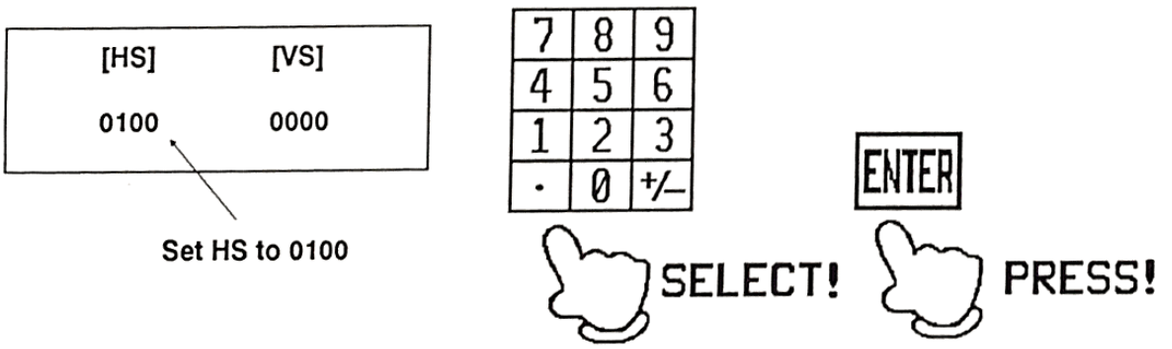


> **Step 3** Press [POS/SIZE] and twist the joystick CCW to change Z axis parameters and reduce image size.

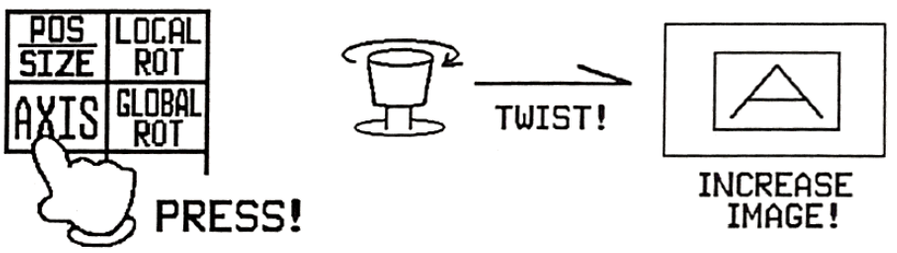


> **Step 4**

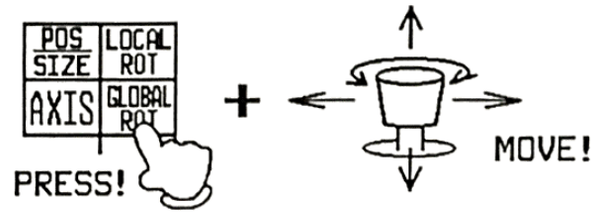
Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the last three values of the [CURVE] HS parameter to 0100, then press [ENTER].

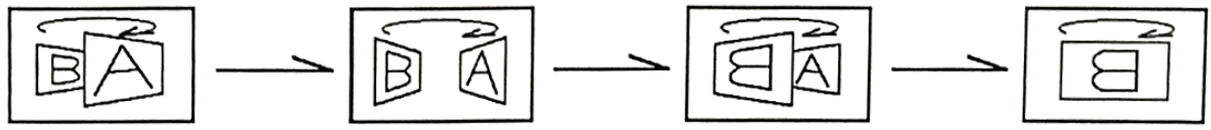


> **Step 5** Press the [AXIS] key and twist the joystick until the image appears to increase in size.



> **Step 6** Press the [GLOBAL ROT] key and move the joystick to change image rotation relationship to axis. CH1/CH2 image priority should change as shown below and the rotational patterns of the two images should be reciprocal.





NOTE

It is recommended that [LOCAL ROT] X and Y parameter values always be set to 0 when the automatic priority change function is used. If they are set to any other value then 0, effects will not be performed correctly in some cases!

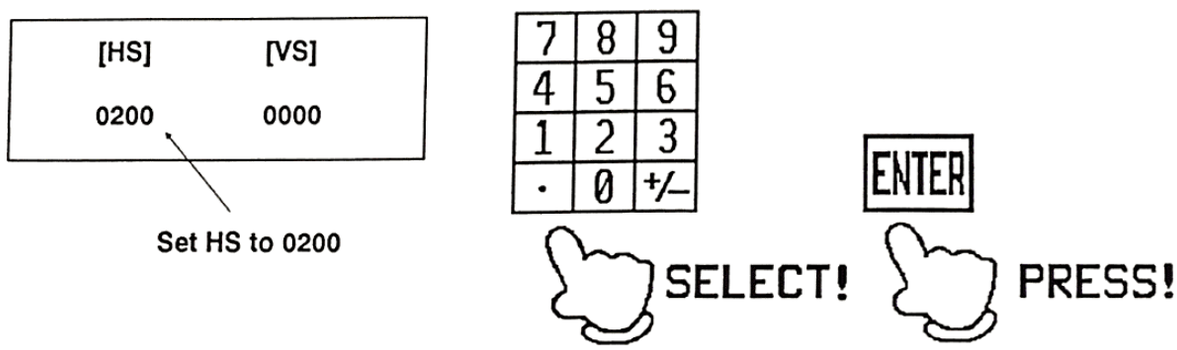
4-2-4. H CUBE effect performance

Last three values of the HS parameter must be set to 200/210. Changes CH1/CH2 [GLOBAL ROT] X axis parameter by 90°. [AXIS] Z parameter is correspondingly changed. Determines H cube effect performance.

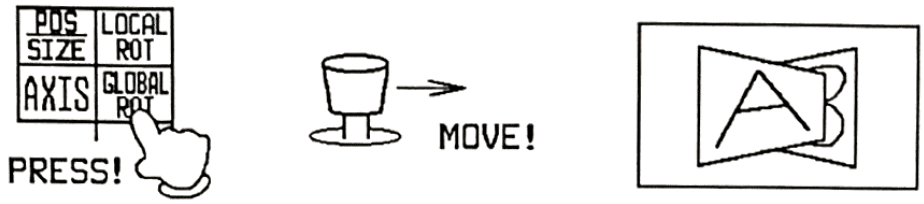
To perform the effect first make the front of the cube:

> **Step1** Perform steps 1~3 of the DUAL procedure on pages 9 and 10 of this manual.

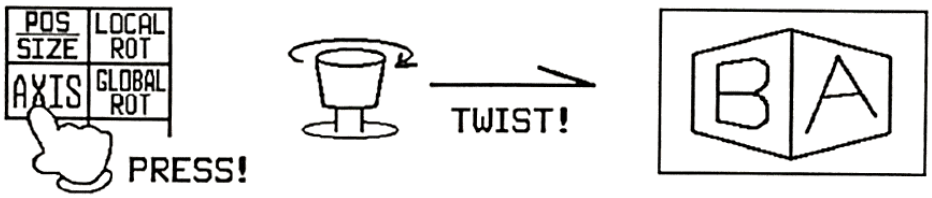
> **Step2** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 200, then press [ENTER].



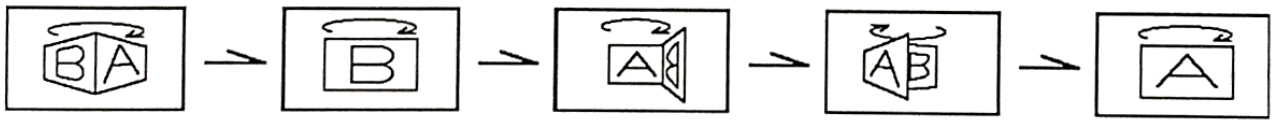
> **Step 3** Press the [GLOBAL ROT] key and move joystick to change X axis rotation of the image. CH1/CH2 images should both be visible.



> **Step 4** Press the [AXIS] key move the joystick to change Z axis rotation parameters. Both images should appear to meet edge to edge as in the illustration.

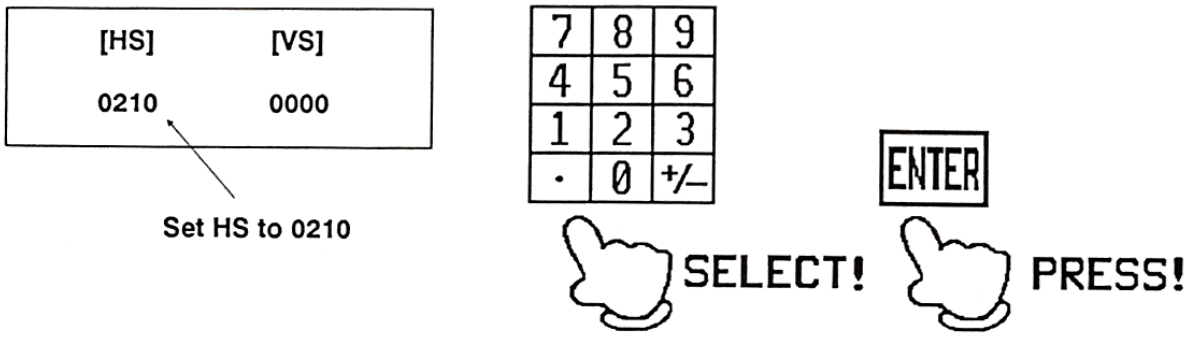


> **Step 5** Press the [GLOBAL ROT] key again and move the joystick to rotate the 'joined' images. CH1/CH2 priority should switch as the images rotate.



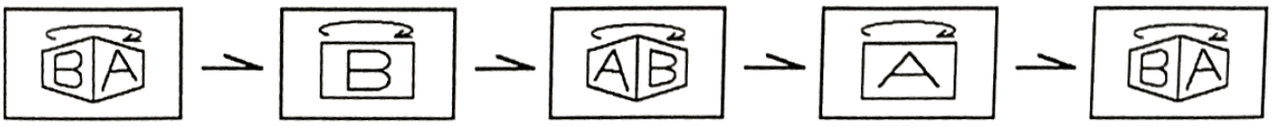
Next, make the rear of the cube to complete the effect:

> **Step 6** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 210, then press [ENTER].



> **Step 7** Verify cube edges meet (no gap). If not, repeat steps 2~3 of this procedure.

> **Step 8** Press the [GLOBAL ROT] key again and move the joystick to rotate both sets of 'joined' images. A cube effect should now appear during rotation.



NOTE

It is recommended that [LOCAL ROT] X and Y parameter values always be set to 0 when the automatic priority change function is used. If they are set to any other value then 0, effects will not be performed correctly in some cases!

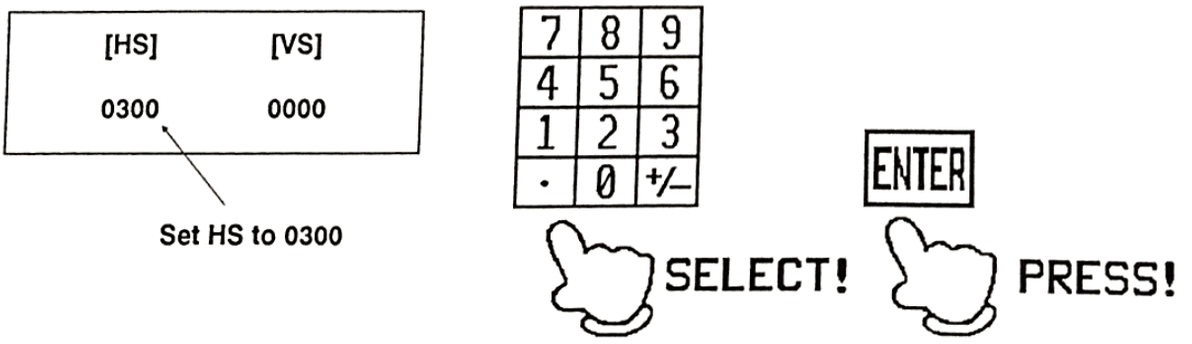
4-2-5. V CUBE effect performance

Last three values of the HS parameter must be set to 300/310. Changes CH1/CH2 [GLOBAL ROT] Y axis parameter by 90°. [AXIS] Z parameter is correspondingly changed. Determines H cube effect performance.

To perform the effect first make the front of the cube:

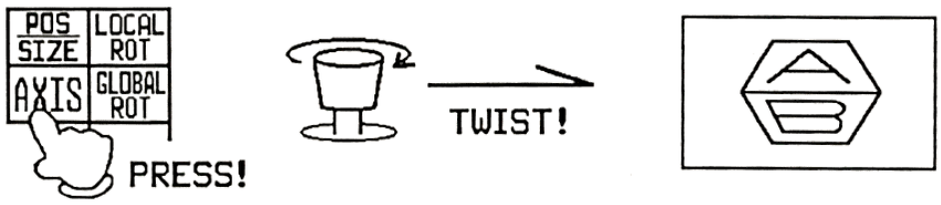
> **Step1** Perform steps 1~3 of the DUAL procedure on pages 9 and 10 of this manual.

> **Step2** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 300, then press [ENTER].

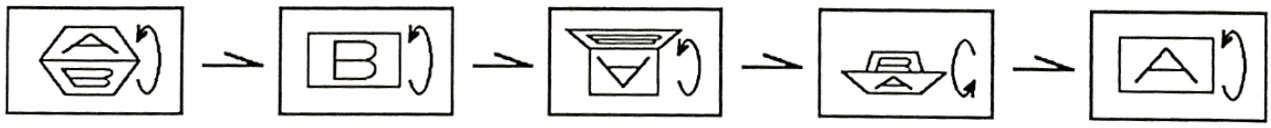


> **Step 3** Press the [GLOBAL ROT] key and move joystick to change Y axis rotation of the image. CH1/CH2 images should both be visible.

> **Step 4** Press the [AXIS] key move the joystick to change Z axis rotation parameters. Both images should appear to meet edge to edge as in the illustration.

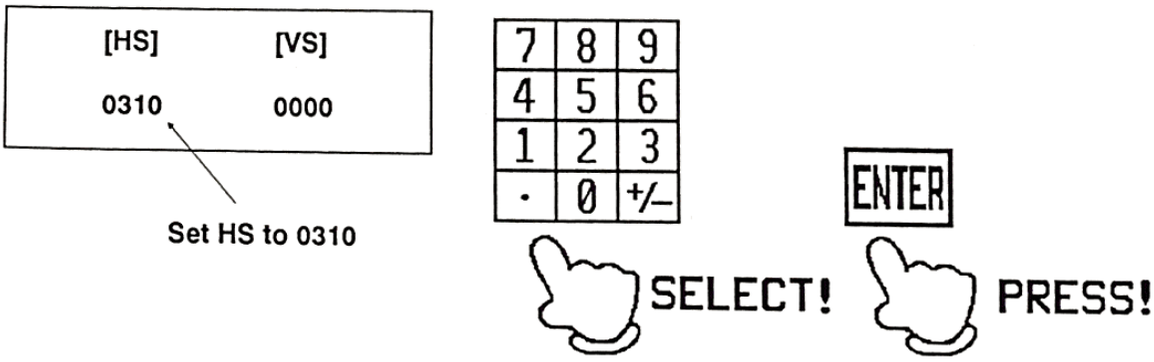


> **Step 5** Press the [GLOBAL ROT] key again and move the joystick to rotate the 'joined' images. CH1/CH2 priority should switch as the images rotate.



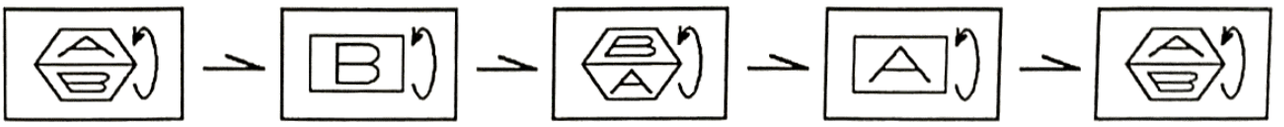
Next, make the rear of the cube to complete the effect:

> **Step 6** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 310, then press [ENTER].



> **Step 7** Verify cube edges meet (no gap). If not, repeat steps 2~3 of this procedure.

> **Step 8** Press the [GLOBAL ROT] key again and move the joystick to rotate both sets of 'joined' images. A cube effect should now appear during rotation.



NOTE

It is recommended that [LOCAL ROT] X and Y parameter values always be set to 0 when the automatic priority change function is used. If they are set to any other value then 0, effects will not be performed correctly in some cases!

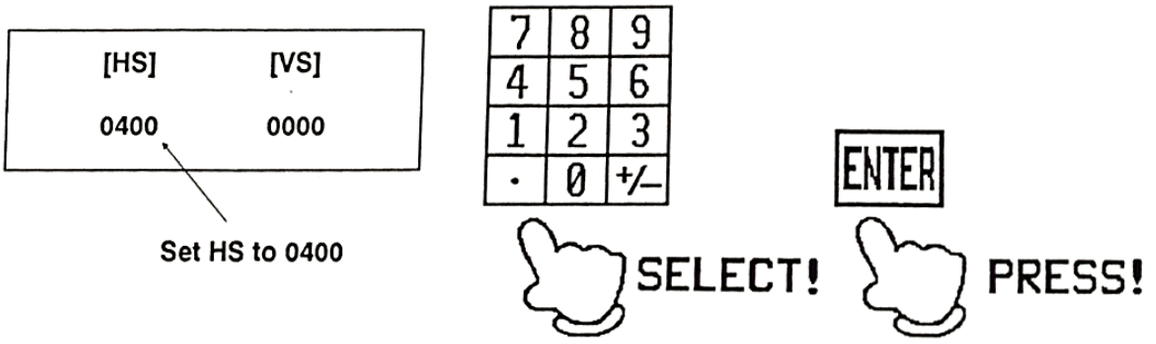
4-2-6. H FOLD effect performance

Last three values of the HS parameter must be set to 400. This effect is performed by cropping the CH1/CH2 images by 1/2, then joining the halved images. B input will automatically be selected during effect performance (A input can not be selected).

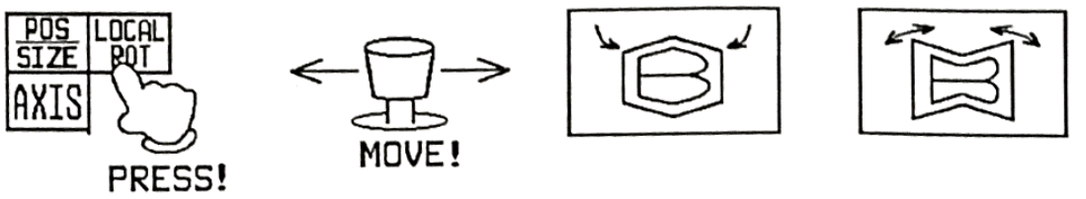
To perform the effect proceed as follows:

> **Step1** Perform steps 1~3 of the DUAL procedure on pages 9 and 10 of this manual.

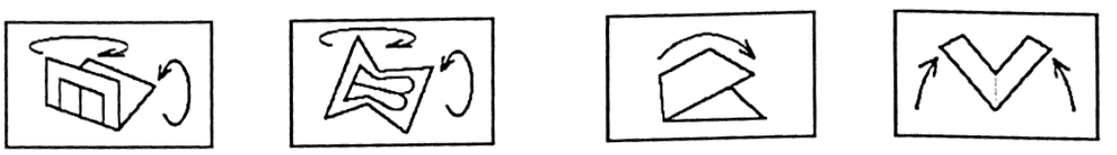
> **Step2** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 400, then press [ENTER]. (B signal input appears at this time.)



> **Step 3** Press the [LOCAL ROT] key and move joystick left/right to change X axis rotation. One direction will fold the image open and back, the other will fold it forward and closed.



> **Step 4** [LOCAL ROT] and [GLOBAL ROT] settings affect image movement differently during effects performance. Observe the image and set either or both of parameters according to the effect you wish to obtain.



NOTE

It is recommended that the [LOCAL ROT] Z parameter value always be set to 0 when the automatic priority change function is used. If it is set to any other value then 0, effects will not be performed correctly in some cases!

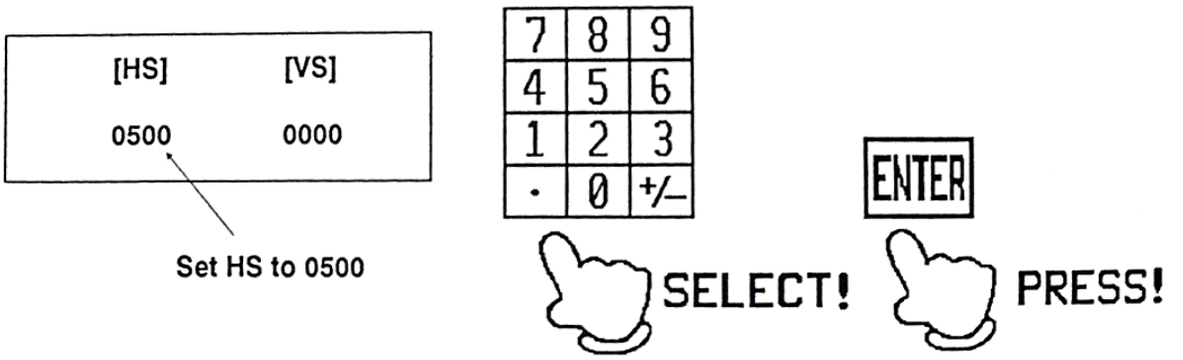
4-2-7. V FOLD effect performance

Last three values of the HS parameter must be set to 500. This effect is performed by cropping the CH1/CH2 images by 1/2, then joining the halved images. B input will automatically be selected during effect performance (A input can not be selected).

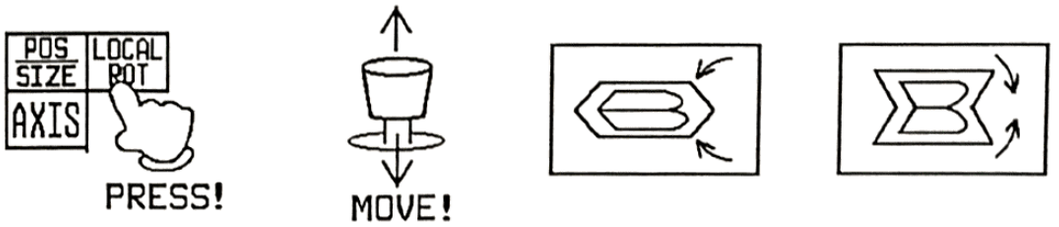
To perform the effect proceed as follows:

> **Step1** Perform steps 1~3 of the DUAL procedure on pages 9 and 10 of this manual.

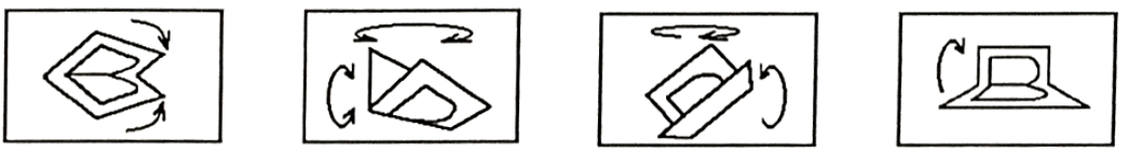
> **Step2** Press [MODIFY], then [CURVE]. (Use [PREV]/[NEXT] keys to move the LED display cursor to the value you need to change.) Use the numeric keypad to set the [CURVE] HS parameter to 500, then press [ENTER]. (B signal input appears at this time.)



> **Step 3** Press the [LOCAL ROT] key and move joystick left/right to change Y axis rotation. One direction will fold the image open and back, the other will fold it forward and closed.



> **Step 4** [LOCAL ROT] and [GLOBAL ROT] settings will affect image movement differently during effects performance. Set either or both of parameters according to the effect you wish to obtain.



NOTE

It is recommended that the [LOCAL ROT] Z parameter value always be set to 0 when the automatic priority change function is used. If it is set to any other value then 0, effects will not be performed correctly in some cases!

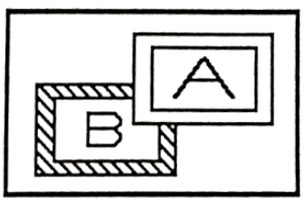
4-3. Setting CH1/CH2 Border Color

When performing DUAL channel effects, border color HUE can be set independently for each channel using the SETUP function of the MF-3000S/PS, if your MF-3000-3D/MF-3000T3D boards contain EPROM PM3153-5 or above.

To do this, press in sequence to change SC PHASE parameter values:

[SETUP] ⇒ [NEXT] ⇒ [ENTER] ⇒  ⇒ [SET] ⇒ [END]

Border color of the CH 2 image will change and be different from that of the CH1 image.



LCD SETUP DISPLAY

02	SC PHASE
	+/–0000

IMPORTANT

Dipswitch DSS1-position 4 of your MF-3000-3D/MF-3000T3D (CH2/card slot #7) MUST be set to ON to add border color independently.

5. DUAL Channel Program Examples

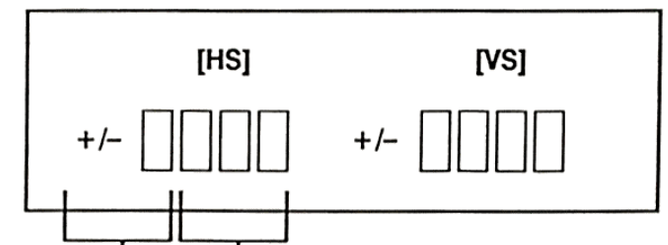
5-1. Setting DUAL effect control parameters

REMEMBER

#1) The 3D EFFECT/PAGE TURN EFFECT board(s) of your unit must contain EPROM PM3153-5 or higher to perform the following effects!

#2) Interpolation for the [CURVE] parameter should always be set to [ ] !

When performing DUAL effect programming, first press [MODIFY] + [CURVE], then set [CURVE] HS parameter values as shown below depending on the effect to be performed.



0 □□□ :

Nonprogram mode: [MANUAL] and [AUTO] in INPUT CHANGE section used to select priority during effect performance (non programmable).

+1 □□□ :

Program mode: This parameter is used to set CH1 priority during effect performance.

-1 □□□ :

Program mode: This parameter is used to set CH1 priority during effect performance.

= 000 SINGLE mode ⇒ [DUAL] lit orange or not lit

DUAL mode ⇒ [DUAL] lit green

= 100 Inverts polarity of CH1/CH2 [AXIS] parameter settings.
Sets CH1 to right/CH2 to left, CH1 to top/ CH2 to bottom, CH1 to front/CH2 to back

= 200/210 Changes CH1/CH2 [GLOBAL ROT] X axis parameter by 90°.

H cube effect can be performed when the correct [AXIS] Z parameter is set and [GLOBAL ROT] is used.

= 300/310 Changes CH1/CH2 [GLOBAL ROT] Y axis parameter by 90°.

V cube effect can be performed when the correct [AXIS] Z parameter is set and [GLOBAL ROT] is used.

= 400 Changes [LOCAL ROT] X axis parameter.

H fold open or fold shut effect can be performed using [LOCAL ROT] operation.

= 500 Changes [LOCAL ROT] Y axis parameter.

V fold open or fold shut effect can be performed using [LOCAL ROT] operation.

5-2. DUAL channel program notes

The following notes should be kept in mind during performance of the DUAL channel program examples.

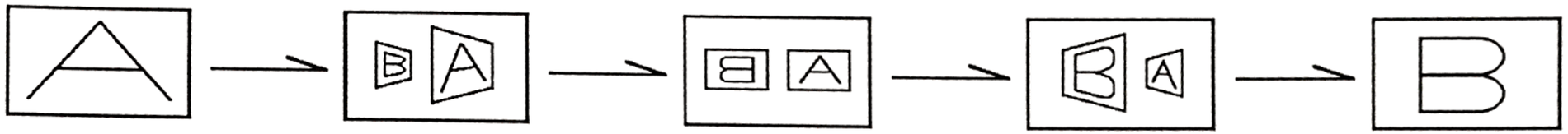
> 1) Any single channel program can be performed in DUAL mode. For example, all of the [MOVE] effect patterns in the DIRECT TAKE section were originally designed for single channel, but can still be performed as DUAL effect patterns.

> 2) Programs can be made and performed in the DUAL INTERLOCK mode by following a very simple procedure; however, CH1 and CH2 parameters can not be precisely set.

> 3) Some special effects must be programmed in sections and the programs performed simultaneously to create the desired effect. (For example, the intersecting image effect using programs 7 and 8 of the following program examples.) In cases like this, CH1 and CH2 parameters can be precisely set and the maximum DUAL effect performance obtained.

5-3. Program 1

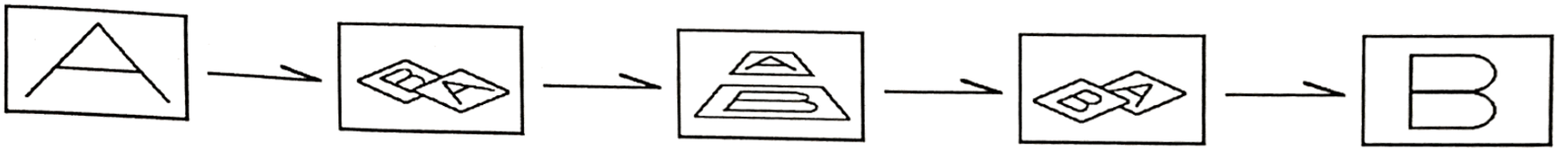
DUAL INTERLOCK mode (HS = 0100).



KF	CURVE HS	CURVE VS	POS HOR	POS VERT	SIZE (ASPECT) HOR	SIZE (ASPECT) VERT	GLOBAL ROT X	GLOBAL ROT Y	GLOBAL ROT Z	LOCAL ROT X	LOCAL ROT Y	LOCAL ROT Z	AXIS X	AXIS Y	AXIS Z	PERSPECTIVE DIR	PERSPECTIVE LEVEL
1	[+0100]	[0]	(0)	(0)	(1000)	(1000)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	[0016]	(1000)
2	[−0100]	[0]	(0)	(0)	(400)	(400)	(90)	(0)	(0)	(90)	(0)	(0)	(0)	(0)	(500)	[0016]	(1000)
3	[−0100]	[0]	(0)	(0)	(1000)	(1000)	(180)	(0)	(0)	(180)	(0)	(0)	(0)	(0)	(0)	[0016]	(1000)

5-4. Program 2

DUAL INTERLOCK mode (HS = 0100).



KF	CURVE		POS		SIZE (ASPECT)		GLOBAL ROT			LOCAL ROT			AXIS			PERSPECTIVE	
	HS	VS	HOR	VERT	HOR	VERT	X	Y	Z	X	Y	Z	X	Y	Z	DIR	LEVEL
1	[+1100]	[0]	(0)	(0)	(1000)	(1000)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	[0016]	(1000)
2	[−1100]	[0]	(0)	(0)	(500)	(500)	(0)	(60)	(−180)	(0)	(0)	(−180)	(0)	(300)	(500)	[0016]	(1000)
3	[−1100]	[0]	(0)	(0)	(1000)	(1000)	(0)	(0)	(−1000)	(0)	(0)	(−1000)	(0)	(0)	(0)	[0016]	(1000)

5-5. Program 3

DUAL INTERLOCK mode (HS = 0210).

NOTE: INPUT CHANGE section must be set to [AUTO] !!

KF	CURVE HS	VS	POS HOR	VERT	SIZE (ASPECT) HOR	VERT	GLOBAL ROT X	Y	Z	LOCAL ROT X	Y	Z	AXIS X	Y	Z	PERSPECTIVE DIR	LEVEL
1	[0210]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[0210]	[0]	<0>	<0>	<400>	<400>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<390>	[0]	<1000>
3	[0210]	[0]	<0>	<0>	<400>	<400>	<90>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<390>	[0]	<1000>
4	[0210]	[0]	<0>	<0>	<1000>	<1000>	<90>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>

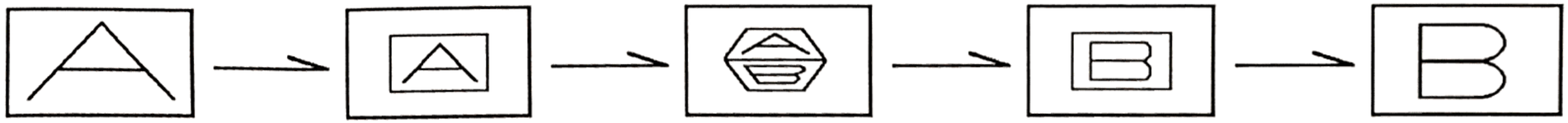
OR
500

965

5-6. Program 4

DUAL INTERLOCK mode (HS = 0310).

NOTE: INPUT CHANGE section must be set to [AUTO] !!



KF	CURVE HS	CURVE VS	POS HOR	POS VERT	SIZE (ASPECT) HOR	SIZE (ASPECT) VERT	GLOBAL ROT X	GLOBAL ROT Y	GLOBAL ROT Z	LOCAL ROT X	LOCAL ROT Y	LOCAL ROT Z	AXIS X	AXIS Y	AXIS Z	PERSPECTIVE DIR	PERSPECTIVE LEVEL
1	[0310]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[0310]	[0]	<0>	<0>	<400>	<400>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<293>	[0]	<1000>
3	[0310]	[0]	<0>	<0>	<400>	<400>	<0>	<90>	<0>	<0>	<0>	<0>	<0>	<0>	<293>	[0]	<1000>
4	[0310]	[0]	<0>	<0>	<1000>	<1000>	<0>	<90>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0	<1000>

5-7. Program 5

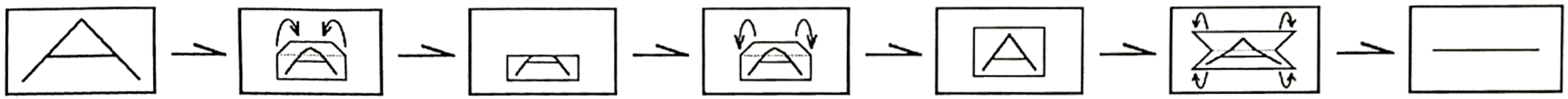
DUAL INTERLOCK mode (HS = 0400).

KF	CURVE HS	CURVE VS	POS HOR	POS VERT	SIZE (ASPECT) HOR	SIZE (ASPECT) VERT	GLOBAL ROT X	GLOBAL ROT Y	GLOBAL ROT Z	LOCAL ROT X	LOCAL ROT Y	LOCAL ROT Z	AXIS X	AXIS Y	AXIS Z	PERSPECTIVE DIR	PERSPECTIVE LEVEL
1	[−0400]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[−0400]	[0]	<0>	<0>	<600>	<600>	<90>	<90>	<0>	<−90>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>

5-8. Program 6

DUAL INTERLOCK mode (HS = 0500).

NOTE: INPUT CHANGE section must be set to [AUTO] !!

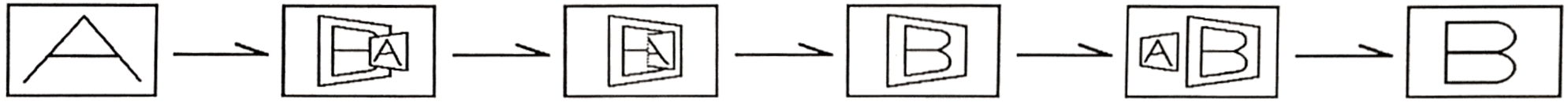


KF	CURVE HS	CURVE VS	POS HOR	POS VERT	SIZE (ASPECT) HOR	SIZE (ASPECT) VERT	GLOBAL ROT X	GLOBAL ROT Y	GLOBAL ROT Z	LOCAL ROT X	LOCAL ROT Y	LOCAL ROT Z	AXIS X	AXIS Y	AXIS Z	PERSPECTIVE DIR	PERSPECTIVE LEVEL
1	[+1500]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[+1500]	[0]	<0>	<0>	<800>	<800>	<0>	<-90>	<0>	<0>	<-90>	<0>	<0>	<0>	<0>	[0]	<1000>
3	[+1500]	[0]	<0>	<0>	<800>	<800>	<0>	<-180>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
4	[+1500]	[0]	<0>	<0>	<600>	<600>	<0>	<-180>	<0>	<0>	<+90>	<0>	<0>	<0>	<0>	[0]	<1000>

5-9. Programs 7 & 8

Used to perform cropped effects.

NOTE: CH1/CH2 perform the same.



KF	CURVE HS	CURVE VS	POS HOR	POS VERT	SIZE (ASPECT) HOR	SIZE (ASPECT) VERT	GLOBAL ROT X	GLOBAL ROT Y	GLOBAL ROT Z	CROP LT	CROP RT	CROP TP	CROP BT	AXIS X	AXIS Y	AXIS Z	PERSPECTIVE DIR	PERSPECTIVE LEVEL
1	[1000]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[1000]	[0]	<0>	<0>	<400>	<400>	<–30>	<0>	<0>	<0>	<0>	<0>	<0>	<+200>	<0>	<0>	[0]	<1000>
3	[–1000]	[0]	<0>	<0>	<400>	<400>	<–30>	<0>	<0>	[1000]	<0>	<0>	<0>	<–200>	<0>	<0>	[0]	<1000>
4	[–1000]	[0]	<0>	<0>	<400>	<400>	<–30>	<0>	<0>	<0>	<0>	<0>	<0>	<–360>	<0>	<0>	[0]	<1000>
5	[–1000]	[0]	<0>	<0>	<400>	<400>	<–30>	<0>	<0>	<0>	<0>	<0>	<0>	<–750>	<0>	<0>	[0]	<1000>
6	[–1000]	[0]	<0>	<0>	<400>	<400>	<–30>	<0>	<0>	<0>	<0>	<0>	<0>	<–1237>	<0>	<0>	[0]	<1000>
1	[–1000]	[0]	<0>	<0>	<700>	<700>	<–90>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
2	[–1000]	[0]	<0>	<0>	<700>	<700>	<50>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
3	[+1000]	[0]	<0>	<0>	<700>	<700>	<50>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
4	[+1000]	[0]	<0>	<0>	<700>	<700>	<50>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
5	[+1000]	[0]	<0>	<0>	<700>	<700>	<50>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>
6	[+1000]	[0]	<0>	<0>	<1000>	<1000>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	<0>	[0]	<1000>

5-10. Performing stored program examples

The following procedures assume program examples 1 ~ 8 have already been stored in memory.

5-10-1. Performing DUAL INTERLOCK programs

> 1) Verify [DUAL] key is not ON (should be it orange or not lit).

> 2) Then, press function keys in the sequence shown below.

[PLAY] ⇒ [1] ⇒ [ENTER] ⇒ [AUTO] or [MANUAL] and move fader lever.

EXCEPTION: Programs can be performed in the DUAL INTERLOCK mode with the [DUAL] key either ON or OFF. If ON, the procedure must be performed slightly differently.

In this case, [REV] must be selected for the CH2 effect in order to obtain the required performance. (Careful attention should be paid to the selection for each channel.) Press the function keys in the sequence shown below.

[PLAY] ⇒ [1] ⇒ [ENTER] ⇒ [REV] ⇒ [1] ⇒ [ENTER] ⇒ [AUTO] or [MANUAL] and move fader lever.

5-10-2. Performing DUAL channel effects with 2 interlocked images

DUAL mode is used to perform effects using two intersecting images. For example, to make the CH1 image pass throught the CH2 image.

> 1) Verify [DUAL] key is ON (lit green).

> 2) Then, press function keys in the sequence shown below.

[PLAY] ⇒ [7] ⇒ [ENTER] ⇒ [8] ⇒ [ENTER] ⇒ [AUTO] or [MANUAL] and move fader lever.

Entering the CH1 and CH2 programs in reverse sequence causes the CH2 image to pierce the CH1 image. Proceed as shown below.

[PLAY] ⇒ [8] ⇒ [ENTER] ⇒ [7] ⇒ [ENTER] ⇒ [AUTO] or [MANUAL] and move fader lever.