13-2 ADJUSTMENT OF TOSHIBA PROJECTOR

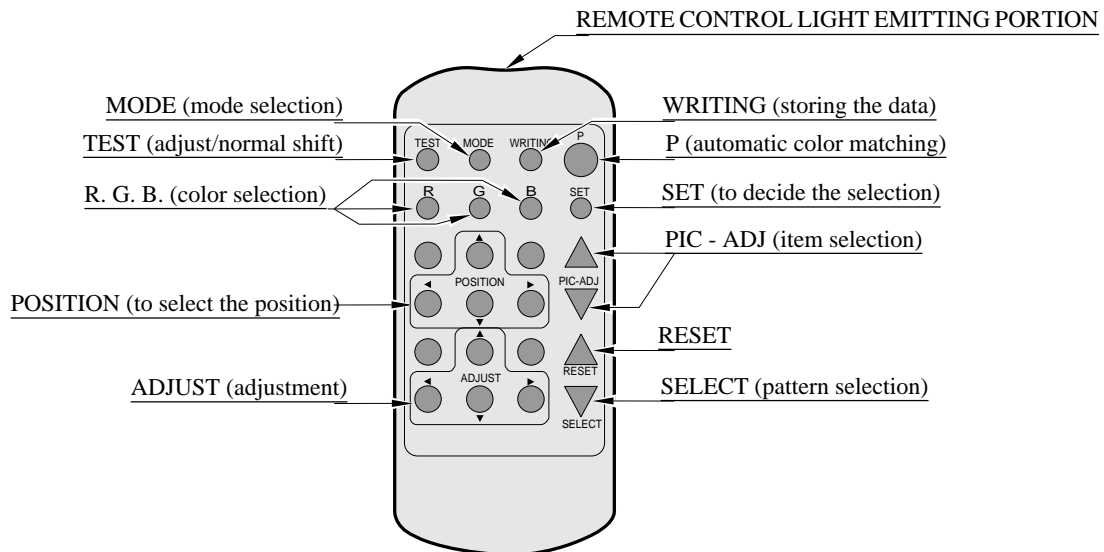| SETTING THE INTERFACE |

STOP
IMPORTANT

> In this product, set to INPUT LEVEL: 0.7V and IMPEDANCE: 75 Ω. Failure to observe this can cause CRT membrane to burn or Shutdown device to function resulting in power off.

The Projector's Connector Panel contains the Interface setting SW.

WINNER
LAMP
AC100-120V~

AC IN
AC100-120V~

COM

RGB IN

IMPEDANCE
HIGH   75Ω

INPUT LEVEL
0.7V   1~3V
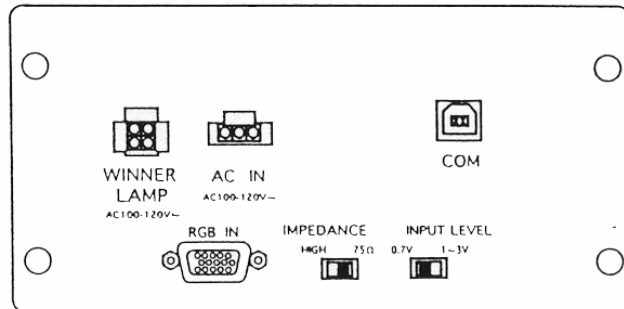
| REMOTE CONTROL BUTTONS |

When adjusting the Projector, direct the Remote Control's light emitting portion towards the Projector Screen.

REMOTE CONTROL LIGHT EMITTING PORTION

MODE (mode selection)
TEST (adjust/normal shift)
R. G. B. (color selection)

WRITING (storing the data)
P (automatic color matching)
SET (to decide the selection)
PIC - ADJ (item selection)

POSITION (to select the position)

ADJUST (adjustment)

RESET
SELECT (pattern selection)

TEST   MODE   WRITING   P
R   G   B   SET
POSITION   PIC-ADJ
ADJUST   RESET   SELECT

The Projector may be subject to color deviations affected by earth magnetism, the building steel frames, etc. When the Projector is initially installed or the Projector's installation position is changed, have the color matching performed automatically.

① Keep pressing the P button (red) for approximately 3 seconds to have the ensuing movements performed automatically.
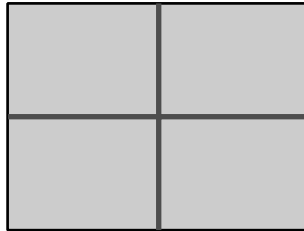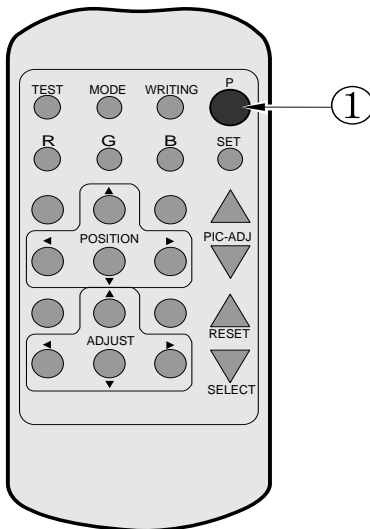
The Projector will shift to the color deviation correction mode from the game mode, with the green cross pattern appearing on the screen.
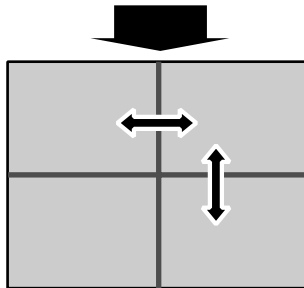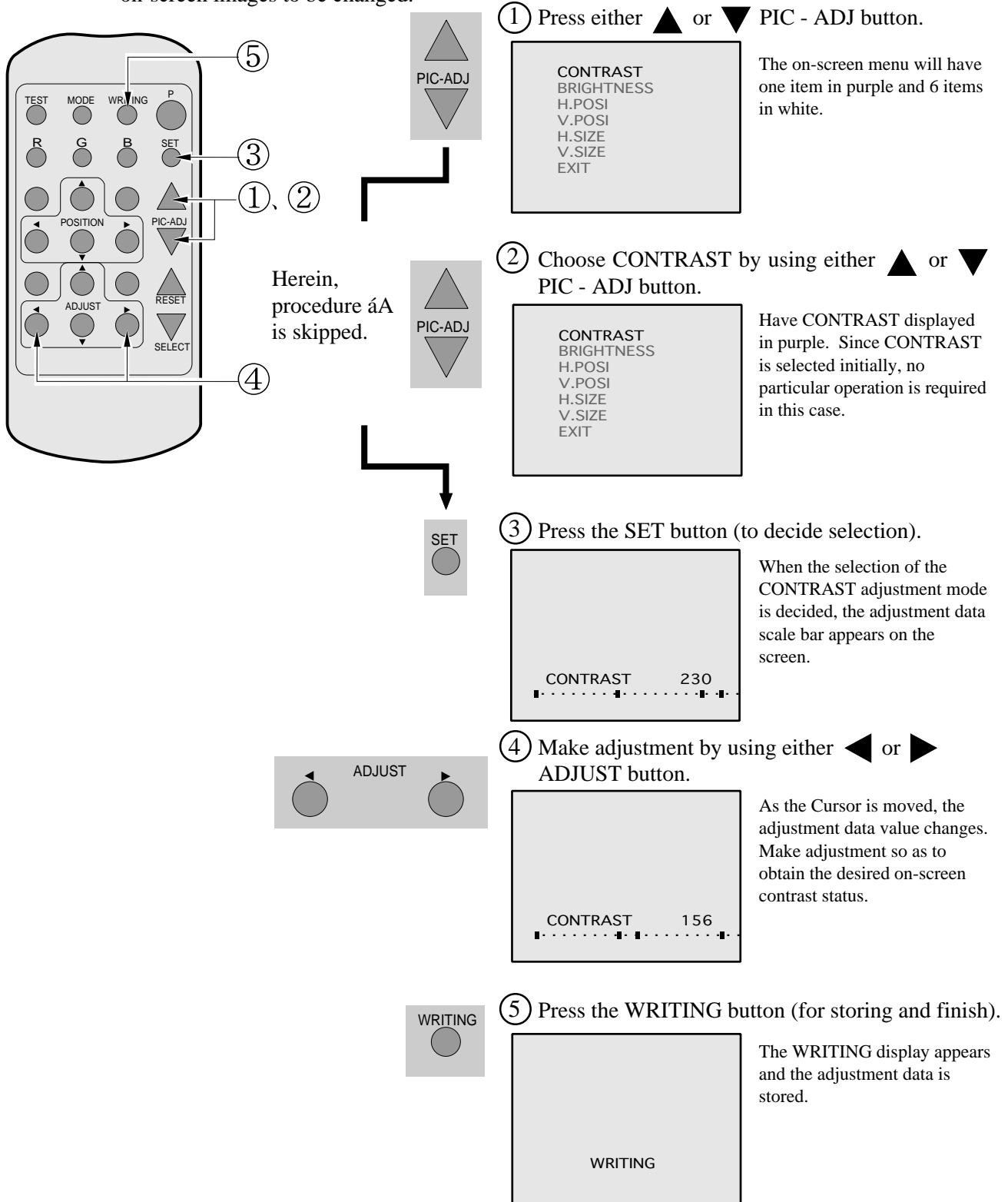
The cross pattern moves up/down and right/left to start the movement of searching the correct screen position and inclination.

When the green cross pattern movements are finished, similar detection is performed sequentially in order of red and then blue cross movements. After detecting by green, red and blue cross movements, the game mode returns with the color deviation status being corrected.

● Although very rarely, the TRY AGAIN error display in red may appear. At this time, press the P button (red) for approximately 3 seconds.
Even after the above operation is repeated, if the error condition still exists, then the display shifts to PLEASE ADJ. In this case, the auto color matching function can not be used. Contact the place of contact herein stated or where the product was purchased from.

● If the automatic color matching indicates an error, color matching can manually be performed. Refer to CONVERGENCE ADJUSTMENT (manual color matching).
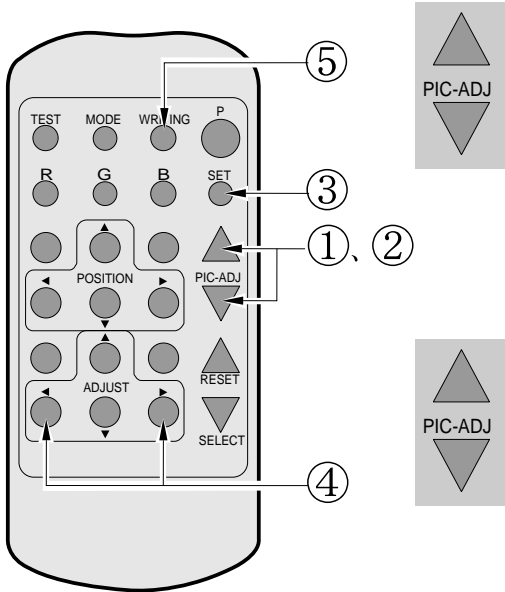
ADJUSTING THE ON-SCREEN CONTRAST

Although the on-screen picture quality has been adjusted at the time of shipment from the factory, the on-screen contrast can be readjusted if desired. When the Game Board is replaced, readjustment may be necessary. Changing the CONTRAST causes the light and shade of the on-screen images to be changed.
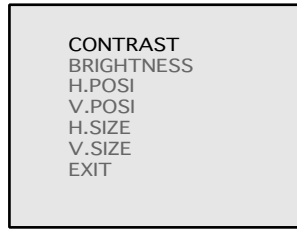
⑤

TEST   MODE   WRITING   P

R   G   B   SET   ③

①、②

POSITION   PIC-ADJ

Herein, procedure áA is skipped.

RESET

ADJUST

SELECT

④

① Press either ▲ or ▼ PIC - ADJ button.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

The on-screen menu will have one item in purple and 6 items in white.

② Choose CONTRAST by using either ▲ or ▼ PIC - ADJ button.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

Have CONTRAST displayed in purple. Since CONTRAST is selected initially, no particular operation is required in this case.

③ Press the SET button (to decide selection).

When the selection of the CONTRAST adjustment mode is decided, the adjustment data scale bar appears on the screen.

CONTRAST   230

④ Make adjustment by using either ◀ or ▶ ADJUST button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen contrast status.

CONTRAST   156

⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

WRITING

● When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure ② and press the SET button.
● To continue adjusting other menu items, repeat procedure ② - ④ .
● Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will remain when the power is turned on next time.

76

ADJUSTING THE SCREEN BRIGHTNESS

Although the on-screen picture quality has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustment may be necessary. Changing the BRIGHTNESS causes the brightness of the on-screen images of black portions to be changed.
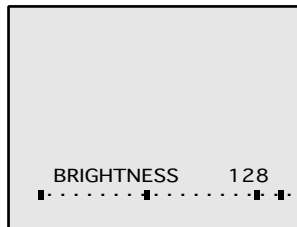
① Press either ▲ or ▼ PIC - ADJ button.

The on-screen menu will have one item in purple and 6 items in white.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

② Choose BRIGHTNESS by using either ▲ or ▼ PIC - ADJ button.

Have the BRIGHTNESS displayed in purple.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

③ Press the SET button (to decide selection).

When the selection of the BRIGHT-NESS adjustment mode is decided, the adjustment data scale bar appears on the screen.

BRIGHTNESS   128

④ Make adjustment by using either ◀ or ▶ ADJUST button.
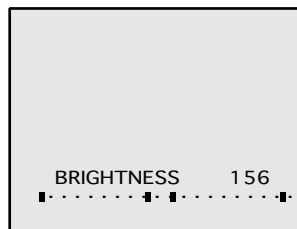
As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen brightness status.
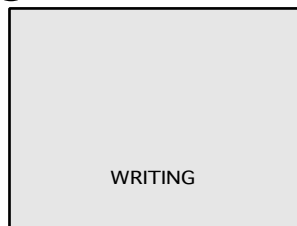
BRIGHTNESS   156

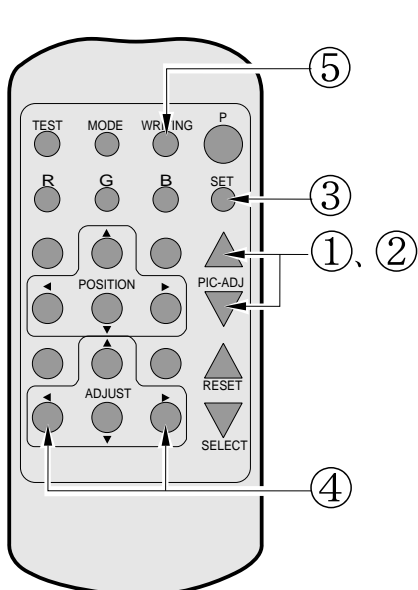⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

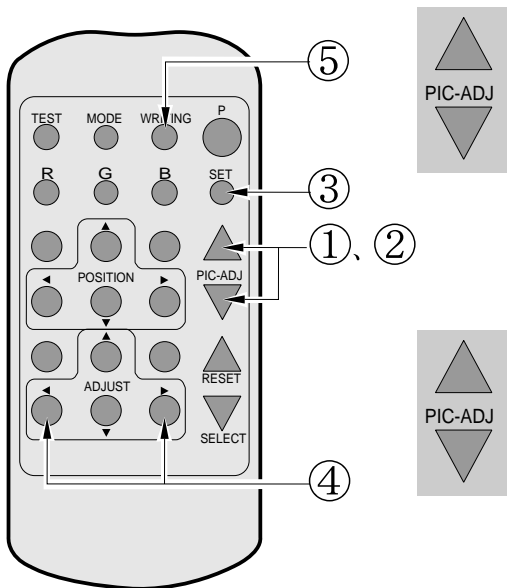WRITING

● When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure ② and press the SET button.

● To continue adjusting other menu items, repeat procedure ② - ④ .

● Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will remain when the power is turned on next time.

ADJUSTING THE ON-SCREEN DISPLAY POSITION

Although the on-screen display position (H. POSI, V. POSI) has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustments may be necessary.

① Press either ▲ or ▼ PIC - ADJ button.

The on-screen menu will have one item in purple and 6 items in white.

```
CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT
```

② Choose H. POSI or V. POSI by using either ▲ or ▼ PIC ADJ button.

Have the H. POSI or V. POSI displayed in purple. The Figure shows the status in which H. POSI is selected.

```
CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT
```

③ Press the SET button (to decide selection).

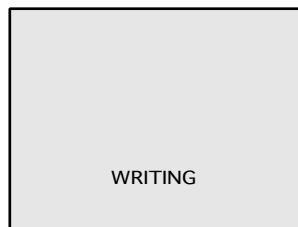When the selection of the H. POSI or V. POSI is decided, the adjustment data scale bar appears on the screen.

```
H.POSI      128
```

④ Make adjustment by using either ◄ or ► ADJUST button.

When making adjustments in vertical directions, also use either ◄ or ► ADJUST button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen position status.

```
H.POSI      156
```

⑤ Press the WRITING button (for storing and finish).

The WRITING display appears and the adjustment data is stored.

```
WRITING
```

● When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure ② and press the SET button.
● To continue adjusting other menu items, repeat procedure ② - ④.
● Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will remain when the power is turned on next time.

78

ADJUSTING THE SCREEN SIZE

Although the on-screen size (H. SIZE, V. SIZE) has been adjusted at the time of shipment from the factory, readjustment can be made if desired. When the Game Board is replaced, readjustments may be necessary.

⑤

PIC-ADJ

TEST   MODE   WRITING   P

R   G   B   SET   ③

POSITION

PIC-ADJ   ①、②

ADJUST

RESET

SELECT   ④

① Press either ▲ or ▼ PIC - ADJ button.

PIC-ADJ

The on-screen menu will have one item in purple and 6 items in white.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

② Choose H. SIZE or V. SIZE by using either ▲ or ▼ PIC - ADJ button.

PIC-ADJ

Have the H. SIZE or V. SIZE displayed in purple. The Figure shows the status in which H. SIZE is selected.

CONTRAST
BRIGHTNESS
H.POSI
V.POSI
H.SIZE
V.SIZE
EXIT

③ Press the SET button (to decide selection).

SET
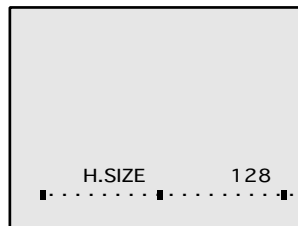
When the selection of the H. SIZE or V. SIZE adjustment mode is decided, the adjustment data scale bar appears on the screen.

H.SIZE   128

④ Make adjustment by using either ◀ or ▶ ADJUST button.

ADJUST

◀   ▶
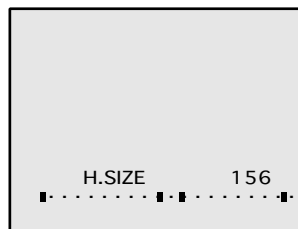
When making adjustments in vertical directions, also use either ◀ or ▶ button.

As the Cursor is moved, the adjustment data value changes. Make adjustment so as to obtain the desired on-screen position status.

H.SIZE   156

⑤ Press the WRITING button (for storing and finish).

WRITING

The WRITING display appears and the adjustment data is stored.

WRITING

● When discontinuing the adjustment, choose EXIT from the menu at the stage of procedure ② and press the SET button.
● To continue adjusting other menu items, repeat procedure ② - ④ .
● Unless the adjustment data is stored, the data in the adjusted status will be erased at the time the power is turned off and the pre-adjustment status will remain when the power is turned on next time.

CAUTION!

To avoid circuitry malfunctioning due to electrical load increase, never utilize CONVERGENCE ADJUSTMENT (Line Convergence Adjustment in particular) for adjusting screen size changes.

There is no means to restore the Convergence Adjustment data once stored, to its original state. To avoid changing the screen size by erroneously using convergence adjustment, do not perform the green Line Convergence Adjustment.

As such, be sure to perform the adjustment work from this page onward by the Technical staff and the location's Maintenance Personnel who are well versed in such adjustment work. In the Static Convergence Adjustments, if satisfactory adjustments can not be performed, do not make another convergence adjustments inadvertently. Contact the office herein stated or where the product was purchased from.

STOP

IMPORTANT

- To avoid making the adjustment work ineffective, do not press the RESET button during adjustment.

- To discontinue adjustment work, keep pressing the TEST button for approximately 3 seconds at the stage before storing the adjustment data by pressing the WRITING button.

- Should the screen be abnormally disturbed by noise due to static electricity, etc., turn the power off without storing the adjustment data.

- Pressing the ▲ or ▼ PIC - ADJ button in the Convergence Adjustment mode status will display the Adjustment Menu shown right. Do not utilize this Adjustment Menu as this is the one applied at the factory.

  Adjusting this menu causes the Customer's adjustment range to be deviated.

  Should the menu shown right be displayed by mistake, first choose EXIT by using either ▲ or ▼ PIC - ADJ button and then press the SET button.

```
----- ADJUST MODE -----



        SUB V SIZE
        SUB H SIZE
        SUB BRIGHT
        EXIT
```
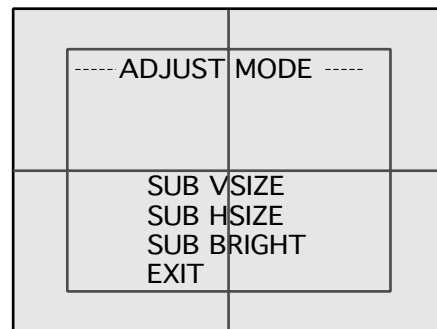
Adjustment menu used in the factory.

STATIC CONVERGENCE ADJUSTMENT

In the static convergence adjustment, each of red and blue images is comprehensively moved to and superimposed on the green color. If automatic color matching function is not sufficiently satisfactory, perform this adjustment. Be sure to perform automatic color matching before starting the above adjustment.


DO NOT PUSH THIS.
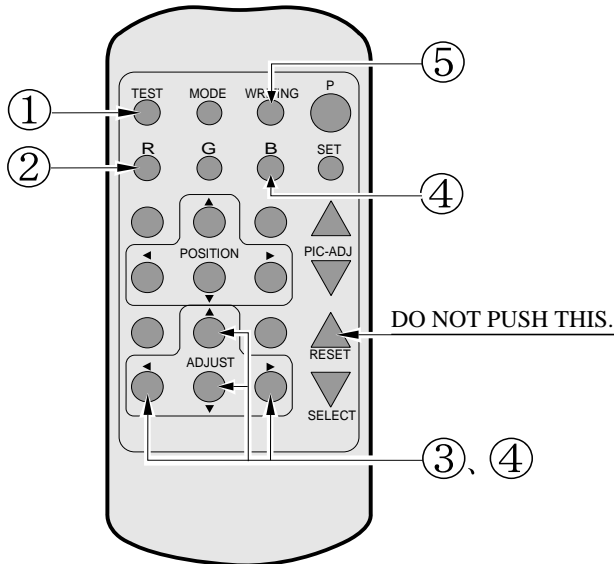
When either of ② ④ COLOR SELECT buttons (R, B) is pressed, if the color desired to be adjusted disappears, press that particular button again. For example, if the red color needs to be adjusted again at the stage of ④ , the R button need to be pressed twice.

① Keep pressing the TEST button for approximately 3 seconds.
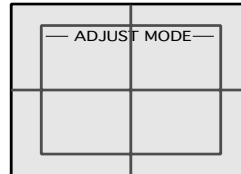
The screen will change to ADJUST mode from the Game mode to cause the green test pattern to be displayed on the screen.

② Press the R button to have the red adjustment mode.
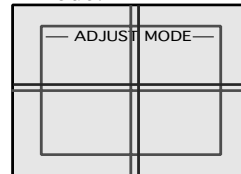
The red test pattern is added to the display. The frame color turns red and this signifies the red adjustment mode.

③ Make adjustment by using the ▲ ▼ ◀ ▶ ADJUST buttons.
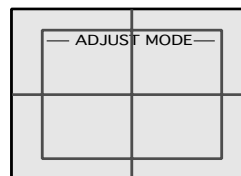
Make adjustment so as to have red superimposed on green. When red is superimposed on green, the color becomes yellow.

④ Press the B button to have the blue adjustment mode.
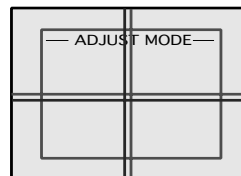
Similarly as in the case of red, adjust the blue color. When green, red, and blue are superimposed, the color becomes white.
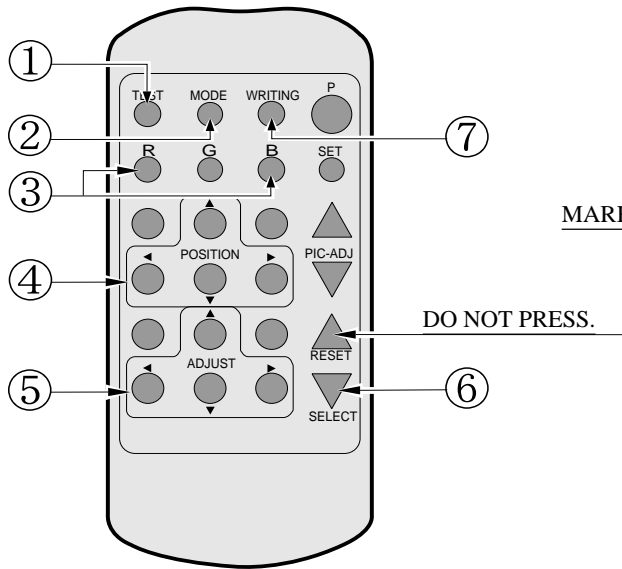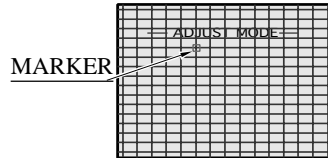
⑤ Press the WRITING button (for storing and finish).
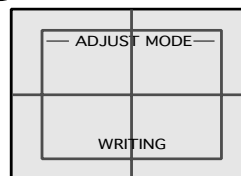
The WRITING display appears and the adjustment data is stored. After the data is stored, the Game mode returns.

81

In the POINT CONVERGENCE adjustment, each of red, green and blue images is partially moved for color matching. The adjustment may be necessary when the Game Board is replaced or changed, or screen size is changed. Be sure to perform automatic color matching before starting the adjustment.

① Keep pressing the TEST button for approximately 3 seconds.

The screen changes to ADJUST mode from the Game mode and displays the green test pattern.

② Press the MODE button twice to have the POINT ADJUSTMENT mode. Note 1

MARKER

The crosshatch test pattern appears and the MARKER indicating the adjustment point is displayed.

③ Using either R or B button, select the desired color to be adjusted. Note 2 By using the G button, the green color can also be selected.
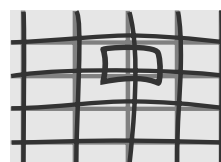
The selected color is displayed by superimposing on green. The MARKER will be in the color selected.

DO NOT PRESS.

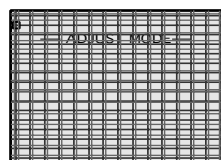④ By using the ▲ ▼ ◄ ► ADJUST buttons, move the MARKER to the position to be adjusted.
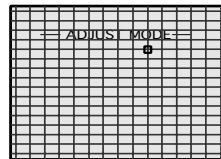
The MARKER moves in the direction of the button's arrow. However, the movable point is predetermined.

Note 1 When the MODE button is repeatedly pressed, the adjustment modes will circulate as follows:

STATIC ADJUSTMENT MODE

LINE ADJUSTMENT MODE

POINT ADJUSTMENT MODE

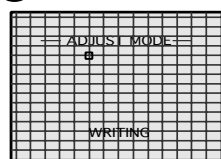⑤ Make adjustment by using the ▲ ▼ ◄ ► ADJUST buttons.

Although the direct vicinity of the MARKER's center moves most conspicuously, make adjustment by paying attention to the periphery area also. Shown left is the magnified MARKER periphery.

Note 2 When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted disappears, press that particular button again.

⑥ Press the SELECT button as necessary to superimpose Game Board images. Note 3

If the test pattern is not displayed in the periphery of the screen, adjustments can be made by pressing the SELECT button to superimpose the test pattern and the Game Board's CRT test screen.
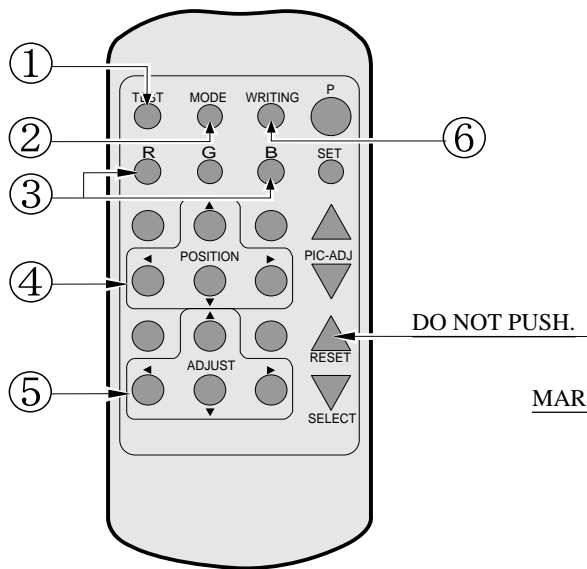
Note 3 By repeatedly pressing the SELECT button, only the Projector's TEST pattern screen and the screen superimposing the Game Board Test pattern can be alternately displayed.

⑦ Press the WRITING button (for storing and finish).

WRITING is displayed and the adjustment data is stored. After the data is stored, the Game Board screen returns.

LINE CONVERGENCE ADJUSTMENT

In the LINE CONVERGENCE ADJUSTMENT, the adjustment point of the column line (vertical) or row line (horizontal) is comprehensively moved for color matching. It is convenient to utilize this adjustment when the color of the column line or row line is uniformly deviated.
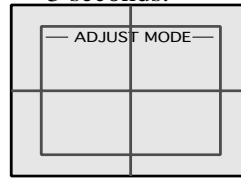
① Keep pressing the TEST button for approximately 3 seconds.

The screen changes to ADJUST mode from the Game Board mode and displays the green test pattern.

② Press the MODE button once to have the POINT ADJUSTMENT mode. Note 1
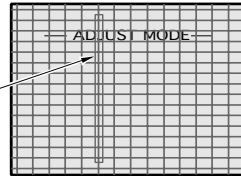
The crosshatch test pattern appears and the vertically long MARKER is shown.

MARKER

③ Using either R or B button, select the desired color to be adjusted. Note 2 Although the green color can also be selected by using the G button, to avoid the screen size change adjustment, do not choose green.
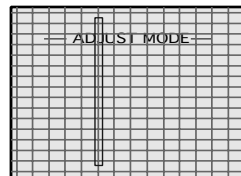
The selected color is displayed by superimposing on green. The MARKER will be in the color selected.

④ By using the ▲ ▼ ◀ ▶ POSITION buttons, move the MARKER to the position to be adjusted.
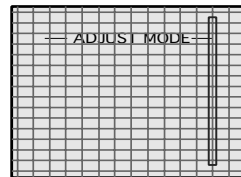
Use the ◀ ▶ buttons to select the column line, and the MARKER moves in the right/left direction. However, the movable range is predetermined.

Use the ▲ ▼ buttons to select the row line and the MARKER moves in the up/down direction. However, the movable range is predetermined.

DO NOT PUSH.

Note 1 When the MODE button is repeatedly pressed, the adjustment modes will circulate as follows:

STATIC ADJUSTMENT MODE
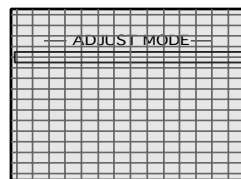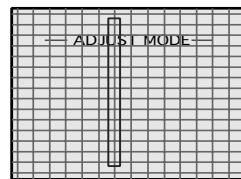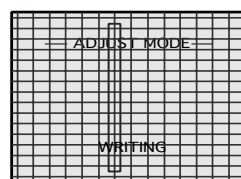
LINE ADJUSTMENT MODE

POINT ADJUSTMENT MODE

Note 2 When either of the COLOR SELECT buttons (R, B) is pressed, if the desired color to be adjusted disappears, press that particular button again.

⑤ Make adjustment by using the ▲ ▼ ◀ ▶ ADJUST buttons.

The selected column line or row line (shown left is the column line) can be moved in the desired up/down or right/left directions as applicable.

⑥ Press the WRITING button (for storing and finish).

WRITING is displayed and the adjustment data is stored. After the data is stored, the Game Board screen returns.