

# SHARP®

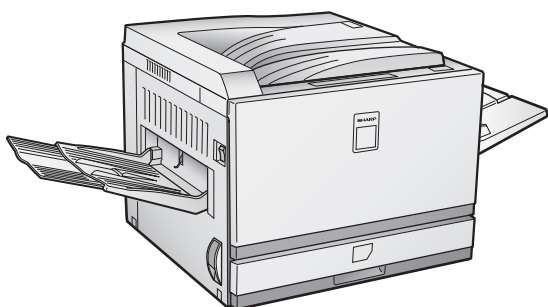
## KEY OPERATOR'S GUIDE

MODEL  
**AR-C260P**

### DIGITAL FULL COLOUR PRINTER

This manual describes programs for use by the key operator. The key operator should read this manual thoroughly to gain the maximum value from these programs provide.

	Page
• <b>KEY OPERATOR PROGRAMS</b> .....	<b>1</b>
• <b>KEY OPERATOR PROGRAM LIST</b> .....	<b>2</b>
• <b>DESCRIPTION OF PROGRAMS</b> .....	<b>6</b>



Be sure to become thoroughly familiar with this manual to gain the maximum benefit from the product.

Before installing this product, be sure to read the installation requirements and cautions sections of the "Operation manual for general information".

Be sure to keep all operation manuals handy for reference including this manual, the "Operation manual for general information" and operation manuals for any optional equipment which has been installed.

# KEY OPERATOR PROGRAMS

This guide explains special settings (called "key operator programs") that are used to customize the machine to better suit the needs of the user. The key operator programs are configured by the administrator of the machine, and can only be accessed after a key operator code number has been entered.

- The key operator should change the factory default key operator code to a new code before the machine is used.
- To change the key operator code, follow the procedure on page 3.

## Contents

	page
● KEY OPERATOR PROGRAMS .....	1
● KEY OPERATOR PROGRAM LIST .....	2
Using the key operator programs.....	3
● DESCRIPTION OF PROGRAMS .....	6
Detailed menu of key operator program settings .....	23

# KEY OPERATOR PROGRAM LIST

The following list shows the key operator programs that are used to change machine settings in the display.

## NOTE

The key operator programs that can be accessed depend on the optional equipment that is installed.

## ● Key Operator Programs

Program name	Page
<b>ACCOUNT CONTROL</b>	
AUDITING MODE	6
ACCOUNT LIMIT	6
PRINT PER ACCOUNT	7
RESET ACCOUNT	7
ACCOUNT NUMBER CONTROL	7
NO PRINT IF ACC'T # INVALID	7
<b>ENERGY SAVE</b>	
AUTO POWER SHUT-OFF TIMER	8
AUTO POWER SHUT-OFF	8
PREHEAT MODE	8
TONER SAVE (B/W)	8
<b>OPERATION PANEL SETTINGS</b>	
AUTO CLEAR SETTING	8
MESSAGE DISPLAY TIME	8
LANGUAGE SETTING	8
<b>DEVICE SETTINGS</b>	
DISABLE DUPLEX UNIT	9
DISABLE INVERTER UNIT	9
DISABLE STAPLER UNIT	9
DISABLE PAPER DESK DRAWERS	9
DISABLE FINISHER	9
DISABLE LARGE CAPACITY TRAY	9
DISABLE SHIFTER UNIT	9
SADDLE STITCH ADJUST	9
AUTO PAPER SELECTION SETTING	9
REGISTRATION ADJUSTMENT	9
SECURITY SETTINGS	11

Program name	Page
<b>COLOUR ADJUSTMENT</b>	
TEST PRINT	14
COLOUR BALANCE	16
EASY CALIBRATION	18
<b>KEY OPERATOR CODE CHANGE</b>	20
<b>PRINT KEY OPERATOR PROGRAMS LIST</b>	20
<b>SYSTEM SETTINGS</b>	
DEFAULT SETTINGS	20
INTERFACE SETTINGS	21
NETWORK SETTINGS	21
INITIALIZE/STORE SETTINGS	22
<b>PRODUCT KEY</b>	
SERIAL NUMBER	22
E-MAIL ALERT AND STATUS	22
PS3 EXPANSION KIT	22
DATA SECURITY KIT	22

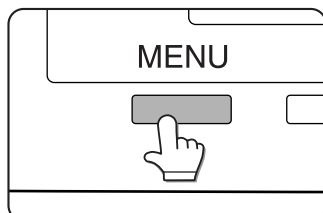
## Using the key operator programs

The general procedure for using key operator programs is explained below, using "KEY OPERATOR CODE CHANGE" as an example.

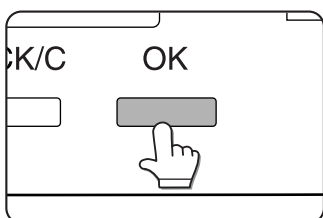
### NOTE

To use the key operator programs, you must first program a key operator code number. (See steps 3 and 4 below.)

- 1** Press the [MENU] key repeatedly until "KEY OPERATOR PROGRAMS" appears.



- 2** Press the [OK] key.



ENTER KEY OPERATOR  
CODE -----

This message will appear.

- 3** Press the [▼] or [▲] key repeatedly until the first digit of your key operator code number appears, and then press the [OK] key.

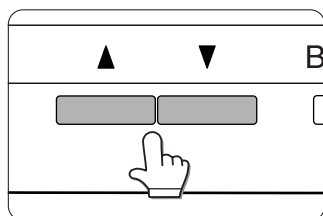
ENTER KEY OPERATOR  
CODE 0----

The factory default setting for the key operator code number is 00000.

When you press the [OK] key to enter the first digit after selecting it, "-" in the first digit will change to "\*" and "-" in the second digit will blink. If you need to correct the previous digit, press the [BACK/C] key to move back.

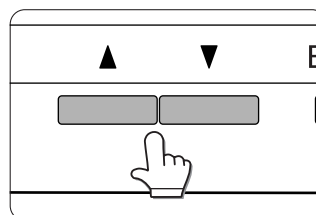
- 4** Repeat step 3 to enter the second through the fifth digits of your key operator code and then press the [OK] key.

- 5** Press the [▼] or [▲] key until the desired program appears and then press the [OK] key.



Example:  
To change the key operator code number, select "KEY OPERATOR CODE CHANGE" and then press the [OK] key.

- 6** Press the [▼] or [▲] key to select the desired setting for the program, and then press the [OK] key.



The settings of each program are explained on page 6 and following.

### Example: "KEY OPERATOR CODE CHANGE" is selected

In this example, the key operator code is changed from 0000 (the factory default code) to 98765. Select "KEY OPERATOR CODE CHANGE" in step 6 and press the [OK] key. The display shows the following:

SET CODE  
00000 - ----

Follow steps 1 through 5 below to enter 98765.

- 1** Press the [▼] or [▲] key until 9 appears and then press the [OK] key. The second "-" begins to blink.

SET CODE  
00000 - 9----

- 2** Press the [▼] or [▲] key until 8 appears and then press the [OK] key. The third "-" begins to blink.

SET CODE  
00000 - 98---

- 3** Press the [▼] or [▲] key until 7 appears and then press the [OK] key. The fourth "-" begins to blink.

SET CODE  
00000 - 987--

- 4** Press the [▼] or [▲] key until 6 appears and then press the [OK] key. The fifth "-" begins to blink.

SET CODE  
00000 - 9876-

- 5** Press the [▼] or [▲] key until 5 appears and then press the [OK] key.

SET CODE  
00000 - 98765

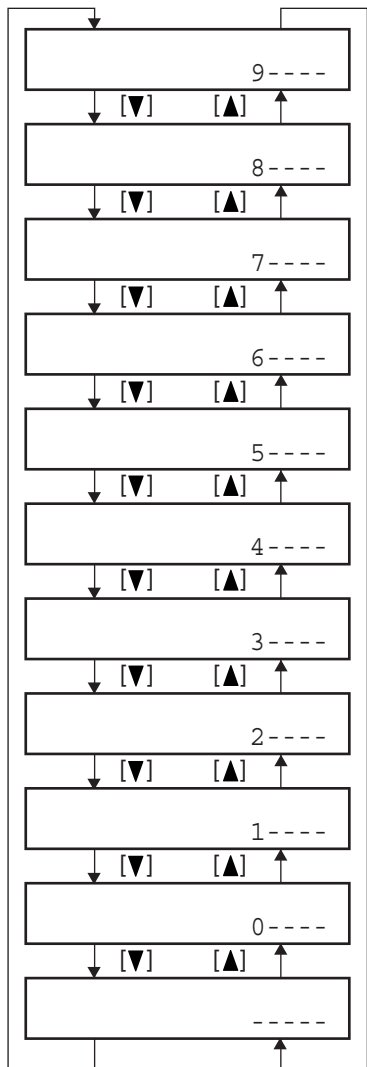
The key operator code changes to the new code.

- 7** To exit the program, press the [MENU] key.

How to enter numbers

When entry of a number is required in a key operator program, enter each digit as follows.  
The display shown below is an example. The display will vary depending on the program.

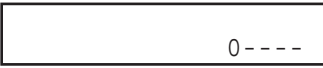
**1** In the number entry screen, press [▼] or [▲] until the desired digit appears.



The blinking "-" will change to a number from 0 to 9.

When entering a limit in the "Account limit" program, enter "0" for any upper digits that you do not need (entries must be made for all six digits).

**2** When the desired digit appears, press the [OK] key.



The digit is stored and "-" in the next digit begins to blink.

If you are entering the key operator code, the stored digit will change to "\*".

If a digit does not store when the [OK] key is pressed, the digit may be "-" (this appears after 0 through 9 when you press the [▼] or [▲] key). Check the display and reselect the correct digit.

If you accidentally enter an incorrect digit, press the [BACK/C] key to move back. The entered digit will blink, allowing you to select a new digit.

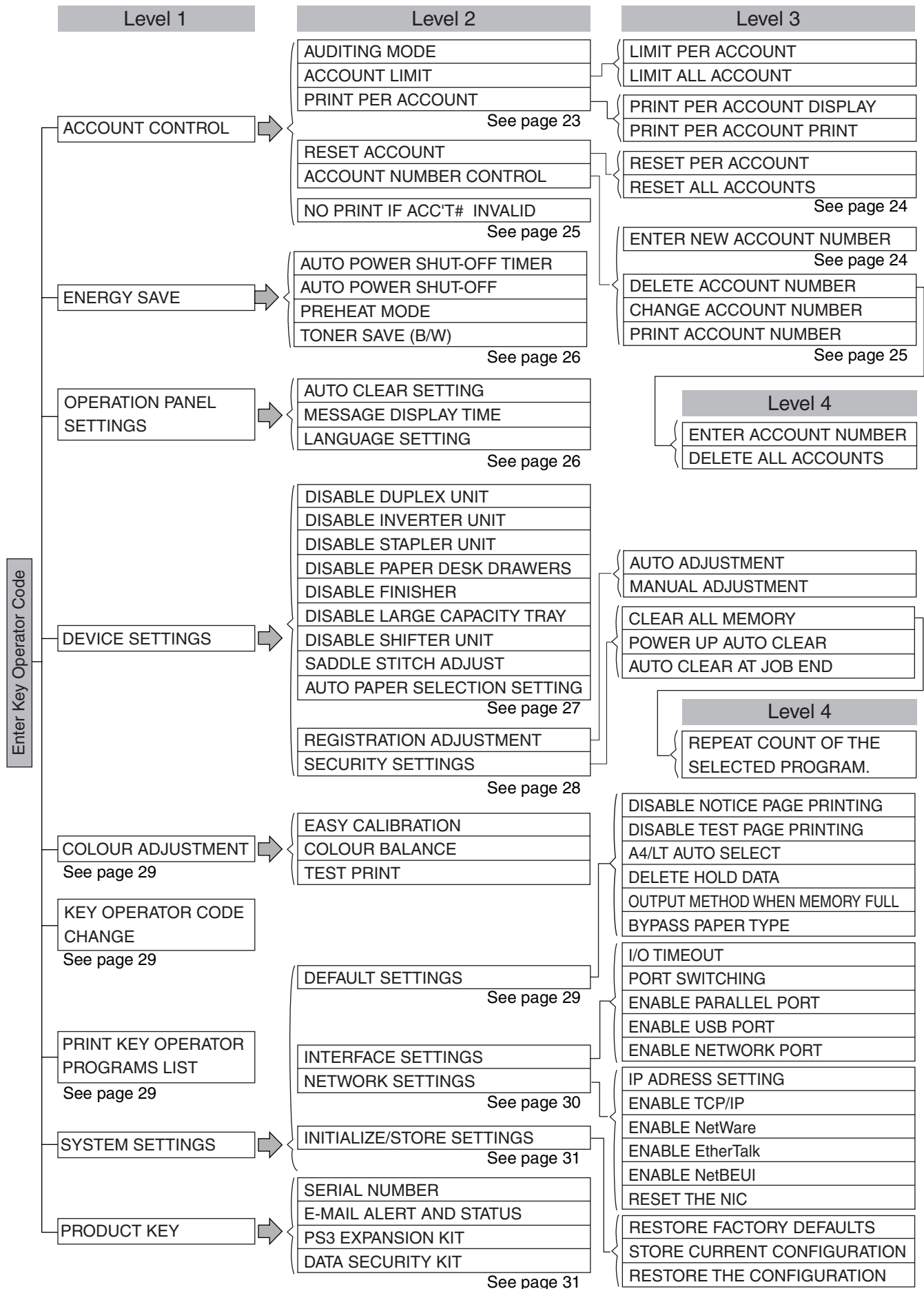
**3** Repeat steps 1 and 2 until all digits of the number are entered.



The number of digits to be entered varies depending on the type of number being entered.

## Structure of the key operator program menu

The menu for selecting key operator programs is shown below.



# DESCRIPTION OF PROGRAMS

The key operator programs are explained in the following.

Specific procedures and detailed information are provided for programs that typically require adjustment. For information on the other programs, see "Detailed menu of key operator program settings" on pages 23 to 31.

## ■ Account control

The program "Auditing mode" is used to set the internal auditor function. The other programs of this category can be set only if auditing mode has been enabled. (See pages 23 to 25)

### Auditing mode

When auditing mode is enabled, up to 200 five-digit account numbers can be stored and assigned to users. An assigned account number must be entered to access the machine for printing.

- 1 Display "AUDITING MODE" as indicated in the chart on page 23.

AUDITING MODE	▼
---------------	---

- 2 Press the [OK] key.

The current setting appears.

- 3 Press the [▼] or [▲] key to select "COLOUR & B/W" or "COLOUR ONLY", and press the [OK] key.

If you do not wish to use Account control, select "DISABLE".

The following programs cannot be used unless auditing mode is enabled and an account number is stored.

- Account limit
- Print per account
- Reset account

### Account limit

This program is used to set the maximum number of prints that can be printed by an account. Any number up to 999,999 can be entered for the maximum number of prints.

#### ● Limiting the number of prints per account

- 1 Display "LIMIT PER ACCOUNT" as indicated in the chart on page 23.

LIMIT PER ACCOUNT	▼
-------------------	---

- 2 Press the [OK] key.

- 3 Press the [▼] or [▲] key to select the account number and "B/W" for black and white prints or "CL" for colour prints, and press the [OK] key.

The [▼] or [▲] key can be held down to scroll through the accounts.

- 4 Enter the limit and press the [OK] key.

To enter numbers, see page 4.

You will return to the display of Step 3.

To exit the program, press the [MENU] key.

#### ● Limiting the number of prints of all accounts

- 1 Display "LIMIT ALL ACCOUNTS" as indicated in the chart on page 23.

LIMIT ALL ACCOUNTS	▼
--------------------	---

- 2 Press the [OK] key.

- 3 Press the [▼] or [▲] key to select "B/W" for black and white prints or "COLOUR" for colour prints, and press the [OK] key.

- 4 Enter the limit and press the [OK] key.

To enter numbers, see page 4.

You will return to the display of Step 3.

To exit the program, press the [MENU] key.

## Print per account

This program is used to display or print the total number of prints of each account. Misfed paper is not counted.

### ● Displaying the print count of individual accounts

- 1 Display "PRINT PER ACCOUNT DISPLAY" as indicated in the chart on page 23.

PRINT PER ACCOUNT  
DISPLAY ▼

- 2 Press the [OK] key.

- 3 Press the [▼] or [▲] key until "B/W" or "CL" of the desired account appears, and check the count.

The [▼] or [▲] key can be held down to scroll through the accounts.

To exit the program, press the [MENU] key.

### ● Printing out the counts of all accounts

- 1 Display "PRINT PER ACCOUNT PRINT" as indicated in the chart on page 23.

PRINT PER ACCOUNT  
PRINT ▼

- 2 Press the [OK] key.

The print counts of all accounts will be printed.

Printing can be cancelled by pressing the [BACK/C] key.

## Reset account

This program is used to reset the print counts of individual or all accounts.

### ● Resetting an individual account

- 1 Display "RESET PER ACCOUNT" as indicated in the chart on page 24.

RESET PER ACCOUNT ▼

- 2 Press the [OK] key.

- 3 Press the [▼] or [▲] key until "B/W" or "CL" of the desired account appears, and press the [OK] key.

The [▼] or [▲] key can be held down to scroll through the accounts.

- 4 Press the [OK] key again.

The print count is reset to zero.

You will return to the display of step 3 and can reset the counts of other accounts.

To exit the program, press the [MENU] key.

### ● Resetting all accounts

- 1 Display "RESET ALL ACCOUNTS" as indicated in the chart on page 24.

RESET ALL ACCOUNTS ▼

- 2 Press the [OK] key.

- 3 Press the [▼] or [▲] key to select "B/W" or "COLOUR", and press the [OK] key.

- 4 Press the [OK] key again.

The print counts are reset.

You will return to the display of step 3.

To exit the program, press the [MENU] key.

## Account number control

This program is used to store, delete, and edit account numbers, as well as print a list of the stored account numbers. Up to 200 account numbers can be stored.

### ● Enter new account number

Each account number has five digits. When you have finished storing one account number, you can continue storing other account numbers.

### ● Delete account number

Two methods are available for deleting account numbers: deleting an individual account number, and deleting all account numbers at once.

### ● Change account number

To change an account number, enter the account number to be changed and then enter a new account number. After changing one account number, you can continue changing other account numbers.

### ● Print account number

A list of the account numbers can be printed.

"ACCOUNT NUMBER CONTROL" is displayed as indicated in the chart on pages 24 to 25.

## No print if ACC'T # invalid

If "NO PRINT IF ACC'T # INVALID" is enabled and an invalid account number is entered or no account number is entered, the print job will not be printed. If this program is disabled, the job will be printed and the prints will be included in the "OTHERS" count.

"NO PRINT IF ACC'T # INVALID" is displayed as indicated in the chart on page 25.



## ■ Energy save

Two programs are provided for the purpose of saving energy: Auto power shut-off mode and preheat mode. These programs not only lower your electricity bill, but also help conserve natural resources and reduce pollution. Auto power shut-off mode enables more energy to be saved than preheat mode, but requires a longer recovery time.

This program is also provided for reducing toner consumption.

### Auto power shut-off timer

If the printer is not used for a programmed length of time after printing is finished, it will enter auto power shut-off mode to save energy.

The length of time until auto power shut-off occurs can be set to 15 minutes, 30 minutes, 60 minutes, 120 minutes or 240 minutes. For this setting to be effective, the "Auto power shut-off" program must be enabled.

"AUTO POWER SHUT-OFF TIMER" is displayed as indicated in the chart on page 26.

#### NOTE

Select a suitable time according to your pattern of use of the machine.

### Auto power shut-off

Use this setting to enable or disable auto power shut-off. If disabled, the time set in the "Auto power shut-off timer" program will be disregarded.

"AUTO POWER SHUT-OFF" is displayed as indicated in the chart on page 26.

#### NOTE

Rather than disabling the auto power shut-off feature, we suggest that you first try lengthening the time setting of the auto power shut-off timer. In most cases a suitable timer setting will allow work to proceed with minimal delay and still enable you to enjoy the benefits of power conservation.

### Preheat mode

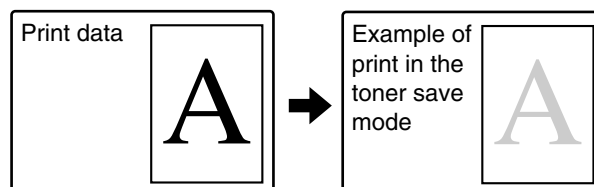
If the printer is not used for a programmed length of time after printing is finished, it will enter preheat mode.

The time until the printer enters preheat mode can be set to 15 minutes, 30 minutes, 60 minutes, 120 minutes, or 240 minutes. "No" can be selected to disable preheat mode. Select the most suitable setting to match your pattern of use of the printer. "PREHEAT MODE" is displayed as indicated in the chart on page 26.

### Toner save (B/W)

Toner save mode can be enabled to reduce black toner consumption. When toner save is enabled, black solid areas will be printed in halftone.

"TONER SAVE (B/W)" is displayed as indicated in the chart on page 26.



## ■ Operation panel settings

These programs are used to adjust the display on the operation panel.

### Auto clear setting

The auto clear function will return the printer to the standby mode or the job status mode if the operation panel is not used for a programmed length of time. Auto clear will not function when the printer is in custom setting mode or key operator program setting mode. The auto clear time can be set to 15 seconds, 30 seconds, 60 seconds or "NO".

"AUTO CLEAR SETTING" is displayed as indicated in the chart on page 26.

### Message display time

This program is used to adjust the time that messages are displayed (for messages that automatically disappear).

The time can be set to 3 seconds, 6 seconds, 9 seconds or 12 seconds.

"MESSAGE DISPLAY TIME" is displayed as indicated in the chart on page 26.

### Language setting

This program is used to switch the language of messages displayed on the operation panel. The following languages can be selected. :

AMERICAN ENGLISH, ENGLISH, GERMAN, FRENCH, SPANISH, DUTCH, ITALIAN, SWEDISH, DANISH, NORWEGIAN, FINISH, and JAPANESE  
"LANGUAGE SETTING" is displayed as indicated in the chart on page 26.

## ■ Device settings

These programs are used to enable or disable the use of a peripheral device, and select other modes, registration adjustment, and auto paper selection setting. (See pages 27 to 28)

### Disable duplex unit

This program is used to disable duplex printing when the duplex module malfunctions. When this program is enabled, only one-sided printing can be performed.

"DISABLE DUPLEX UNIT" is displayed as indicated in the chart on page 27.

### Disable inverter unit

Use this program when you need to prohibit the inverter function or when the duplex bypass/inverter unit has failed. When the program is enabled, pages are only output face-down to the centre tray of the machine. Duplex printing is also prohibited (only one-sided printing is possible).

"DISABLE INVERTER UNIT" is displayed as indicated in the chart on page 27.

### Disable stapler unit

This program is used to disable stapling when the stapler unit of the saddle stitch finisher malfunctions.

"DISABLE STAPLER UNIT" is displayed as indicated in the chart on page 27.

### Disable paper desk drawers

This program is used to disable use of the stand/1 x 500 sheet paper drawer, stand/3 x 500 sheet paper drawer or duplex module/2 x 500 sheet paper drawer when one of these units malfunctions.

"DISABLE PAPER DESK DRAWERS" is displayed as indicated in the chart on page 27.

### Disable finisher

This program is used to disable use of the saddle stitch finisher when it malfunctions.

"DISABLE FINISHER" is displayed as indicated in the chart on page 27.

### Disable large capacity tray

This program is used to disable use of the large capacity tray when it malfunctions.

### Disable shifter unit

Use this program when you need to prohibit the shifter (offset) function in the centre tray or when the shifter has failed.

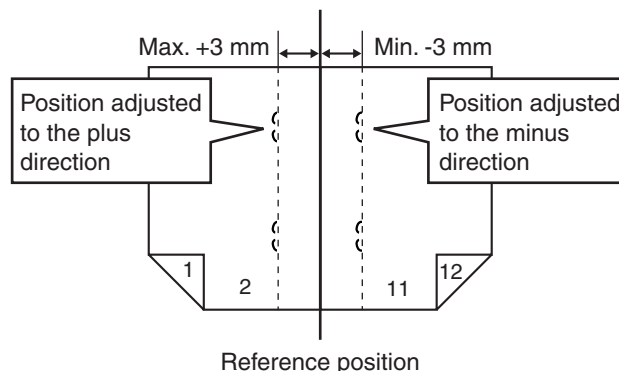
"DISABLE SHIFTER UNIT" is displayed as indicated in the chart on page 27.

### Saddle stitch adjust

This program is used to adjust the stapling position (folding position) when using the saddle stitch function of the optional saddle stitch finisher.

The value can be adjusted in 0.1 mm increments within  $\pm 3.0$  mm from the reference position for each paper size.

"SADDLE STITCH ADJUST" is displayed as indicated in the chart on page 27.



### Auto paper selection setting

Use this program to select the paper type\* for which the automatic paper selection function operates. Selections are "PLAIN", "R&P" (recycled and plain), and "RECYCLED".

\* This is the paper type set for each paper tray in the paper tray settings of the custom settings (page 2-11 of the OPERATION MANUAL (for general information)).

"AUTO PAPER SELECTION SETTING" is displayed as indicated in the chart on page 27.

### Registration adjustment

Use this program when the colour of characters and lines in colour printing is off. Registration adjustment can be performed in two ways: manually and automatically. Normally [AUTO ADJUSTMENT] should be used.

"REGISTRATION ADJUSTMENT" is displayed as indicated in the chart on page 28.

#### Auto adjustment

Use this program to perform automatic registration adjustment.

When "AUTO ADJUSTMENT HAS COMPLETED. [OK]" appears, press the [OK] key to end the program.

"AUTO ADJUSTMENT" is displayed as indicated in the chart on page 28.

#### Manual adjustment

Use MANUAL ADJUSTMENT when you require a higher degree of precision than can be obtained with AUTO ADJUSTMENT.

See page 10 for the procedure for manually adjusting the registration.

"MANUAL ADJUSTMENT" is displayed as indicated in the chart on page 28.

## ● Manually adjusting the registration

The procedure for manually adjusting the registration is explained here.

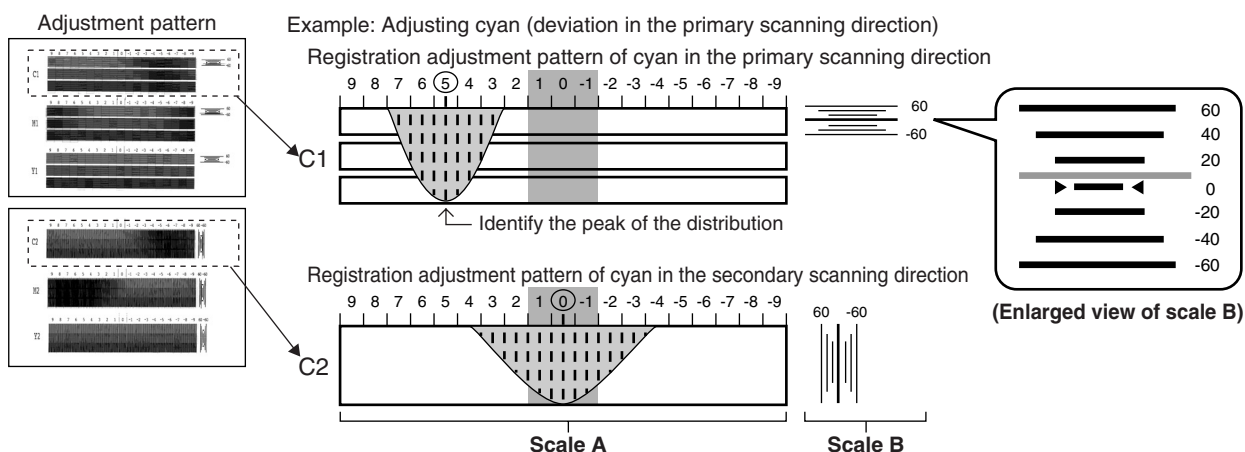
Display "MANUAL ADJUSTMENT" as indicated in the chart on page 28, and press the [OK] key. Press the [OK] key once again to print test pages for manual adjustment. Scales appear in the test pages that show the amount of deviation of each of the colours C (cyan), M (magenta), and Y (yellow). When there is a significant deviation, enter the value of the deviation to correct it.

Follow the steps below to manually adjust the registration.

### Understanding the adjustment pattern

The amount of deviation is given within a range of -60 to 60, where 60 represents the maximum deviation and "0" represents no deviation. (See the enlarged view of scale B.)

As shown below, the deviation of each colour is indicated by two scales. Scale A shows the "1's" component of the deviation and scale B shows the "10's" component.



The scales are printed twice for each colour, with one pair indicating the deviation in the primary scanning direction and one pair indicating the deviation in the secondary scanning direction (C1, M1, Y1 and C2, M2, Y2).

Adjustment is performed by entering the deviations. Each deviation is obtained by adding the value of scale A and the value of scale B. However, in most cases adjustment is possible using just the deviation value from scale A.

Follow these steps to perform adjustment.

- 1 Display "MANUAL ADJUSTMENT" as indicated in the chart on page 28.

MANUAL ADJUSTMENT ▼

- 2 Press the [OK] key.

TEST PAGE PRINT.  
-OK? ▼

- 3 Press the [OK] key.

Printing of the test pages begins. If you need to cancel printing, press the [BACK/C] key.

- 4 After the test pages are printed, the display for adjustment of C1 appears.

MANUAL ADJUSTMENT  
C1 0\* ▼

- 5 Press the [▼] or [▲] key until the value equal to the deviation of C1 is displayed, and press the [OK] key.

- Repeat this step to enter the deviations of M1, Y1, C2, M2, and Y2. (When all deviations have been entered, the display will show "TEST PRINT.")
- If the printed adjustment pattern is similar to the example of C2 shown above (the peak in scale A is between -1 and 1 and the value of scale B overlaps "0"), correction is not necessary.

- 6 Press the [▼] or [▲] key to select "YES" in the "TEST PRINT." display and press the [OK] key.

- 7 In the adjustment pattern printed in step 6, verify that the peak of the distribution in scale A is between -1 and 1 for each colour, and that the scale B value overlaps "0". If the patterns are acceptable, select "YES" in the "COMPLETE" display and press the [OK] key.

- If the scale B values do not all overlap "0", press the [▼] or [▲] key to select "Yes" in the "COMPLETE" display and press the [OK] key. Repeat steps 1 through 7.
- For scale B values that do not overlap zero, be sure to enter the correct the value for the "10's" digit of the deviation.

- 8 If you need to cancel the corrections that you have made and exit the program, press the [MENU] key in the display of step 1.

## Security settings

These programs are used to clear all data from the machine's memory and hard disk. The data can be cleared manually or automatically each time the power is turned on.

To use these programs, an optional data security kit is needed.

### ● Clear all memory

Use this setting when you wish to manually clear data stored in the unit's memory and on the hard disk.

#### NOTE

It is recommended that this program is executed before turning off the power.

- 1 Display "CLEAR ALL MEMORY" as indicated in the chart on page 28.

CLEAR ALL MEMORY ▼

- 2 Press the [OK] key.

CLEAR ALL MEMORY  
-OK? ▼

If you wish to select the number of repetitions, press the [▼] or [▲] key until the desired number appears. (See "Number of repetitions of clear all memory".)

- 3 Press the [OK] key once again.

When the data has been cleared, the power briefly turns off and then automatically turns on again.

#### NOTE

**If you wish to cancel after data clearing has begun**

Press the [BACK/C] key. When the [BACK/C] key is pressed, the key operator code entry screen appears. Enter your key operator code with the [▼] or [▲] keys. If data has already been cleared when you enter the key operator code, the data will not be restored. Data already cleared will be lost.

### Number of repetitions of clear all memory

This setting is used to enhance the security function by repeating the data clear operation. The number of repetitions of "CLEAR ALL MEMORY" can be set to any value from 1 to 7. The factory setting is 1.

In the display of step 2 ("CLEAR ALL MEMORY -OK?"), press the [▼] or [▲] key until "REPEAT COUNT OF THE SELECTED PROGRAM" appears and then press the [OK] key. When the message "SET THE NUMBER 1-7" appears, press the [▼] or [▲] key to select the number of data clear repetitions and then press the [OK] key.

### ● Power up auto clear

When this program is enabled, all data is automatically cleared each time the power is turned on. The program is initially disabled.

- 1 Display "POWER UP AUTO CLEAR" as indicated in the chart on page 28.

POWER UP AUTO CLEAR ▼

- 2 Press the [OK] key.

POWER UP AUTO CLEAR  
OFF\*▼

- 3 Press the [▼] or [▲] key to select ON, and press the [OK] key.

SET THE NUMBER  
1-7 1\*▼

- 4 Press the [▼] or [▲] key to select the desired number of repetitions of power up auto clear, and press the [OK] key.

This setting is used to enhance the security function by repeating the data clear operation.

#### NOTE

**If you wish to cancel after data clearing has begun**

Press the [BACK/C] key. When the [BACK/C] key is pressed, the key operator code entry screen appears. Enter your key operator code with the [▼] or [▲] keys. If data has already been cleared when you enter the key operator code, the data will not be restored. Data already cleared will be lost.

#### NOTE

This program is only effective when "POWER UP AUTO CLEAR" is enabled.

**● Auto clear at job end**

This program is used to enhance the security function by repeating data clearing after each job is finished. The number of data clear repetitions can be set from 1 to 7. The factory default setting is 1.

- 1** Display "AUTO CLEAR AT JOB END" as indicated in the chart on page 28.

AUTO CLEAR AT JOB END ▼
----------------------------

- 2** Press the [OK] key.

SET THE NUMBER 1-7 1*▼
---------------------------

- 3** Press the [▼] or [▲] key to select the desired number of repetitions of auto clear at job end, and press the [OK] key.

This setting is used to enhance the security function by repeating the data clear operation. See "About the number of repetitions setting" below.

**NOTE****About the number of repetitions setting**

The time required for data clearing increases when a higher number of repetitions is selected. Select number of repetition settings that are suitable for your conditions of use.

## ■ Colour adjustment

As the printer is used, ambient conditions and the depletion of consumables (the toner cartridge and drum cartridge) can gradually cause changes to occur in the four colour components of colour images, cyan, magenta, yellow, and black. This results in deviations in the colour balance.

These deviations in the colour balance occur gradually over a long period of time. Ambient conditions (temperature and humidity) and the number of times the printer is used can have a large effect on colour deviation.

### When should the colour balance be adjusted?

- Colour adjustment can also be performed whenever a noticeable change occurs in the colour balance.
- Colour adjustment should always be performed when one of the toner cartridges (cyan, magenta, yellow, or black) is replaced.
- It is recommended that colour adjustment be performed once every 500 prints.

## Colour adjustment functions

The printer has the following two colour adjustment functions, as well as a test print for colour adjustment:

### Easy calibration

This mode is used for fine adjustment of the grey balance at the mid density level of the colours cyan, magenta, and yellow. Use this mode to correct minor colour deviations. (see page 18)

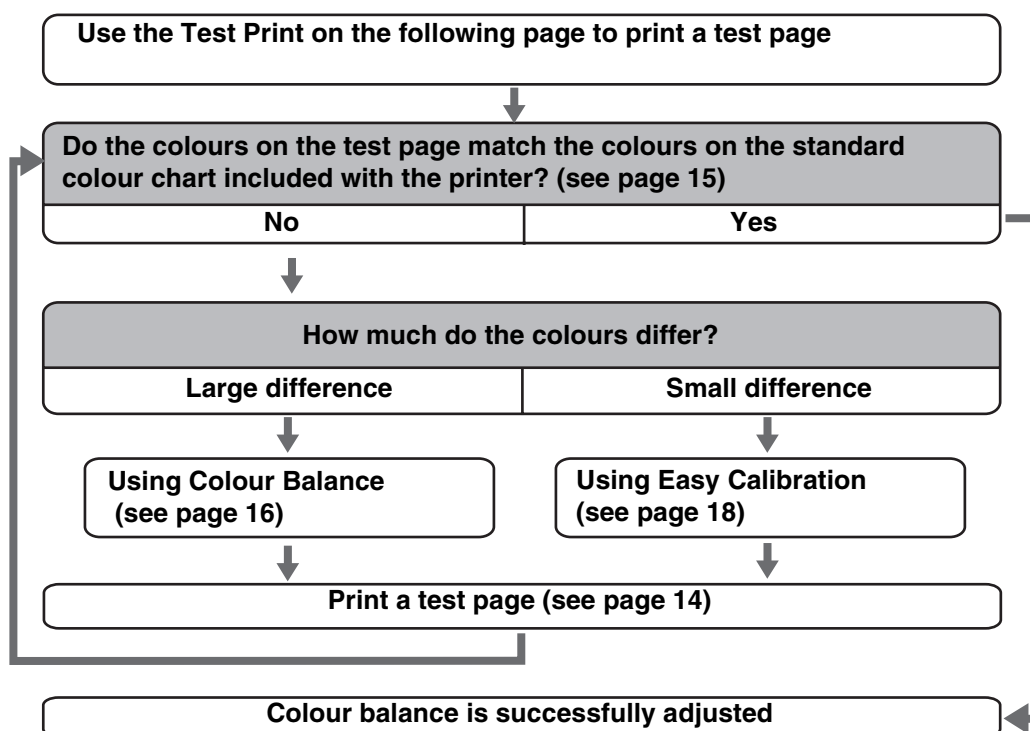
### Colour Balance

This function is used to adjust each of the density levels (low, mid, and high) of the four colour components, cyan, magenta, yellow and black. Use this mode when the colour deviation is significant. (see page 16)

### Test print

This program is used to determine whether "Colour Balance" or "Easy Calibration" should be performed on the machine. (see page 14)

## ● Colour Adjustment Flow Chart



Test Print

This program is used to determine whether "Colour Balance" or "Easy Calibration" should be performed on the machine. (see page 13)

Follow these steps to print a test page from the operation panel.

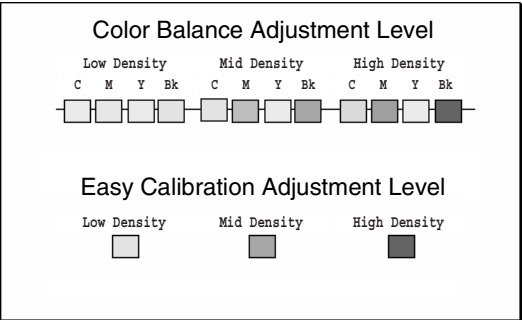
- 1 Display "TEST PRINT" as indicated in the chart on page 29.



- 2 Load A4 or letter-size paper in the tray and press the [OK] key.

When the [OK] key is pressed, "PRINTING." appears in the display. After a brief interval, a colour test page will be printed (see below).

[Test Page (printed by printer)]



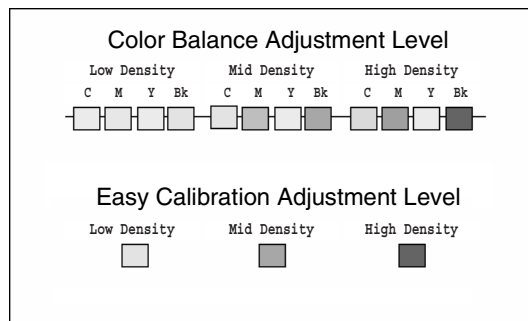
The top line of the test page shows the four colours (C (cyan), M (magenta), Y (yellow), and Bk (black)) at low density, mid density, and high density. The bottom line shows processed grey\* at low density, mid density, and high density.

\* Processed grey is the colour obtained when the cyan, magenta, and yellow colours on the top line are combined together.

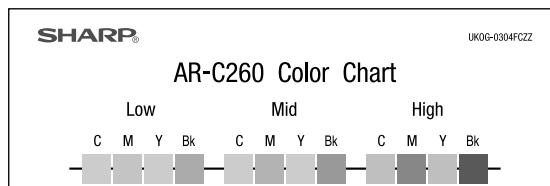
## ● Checking the Colours

The standard colour chart included with the printer is used to check the colours on the printed test page. Follow the steps below to check the colours.

[Test page (printed by the printer)]

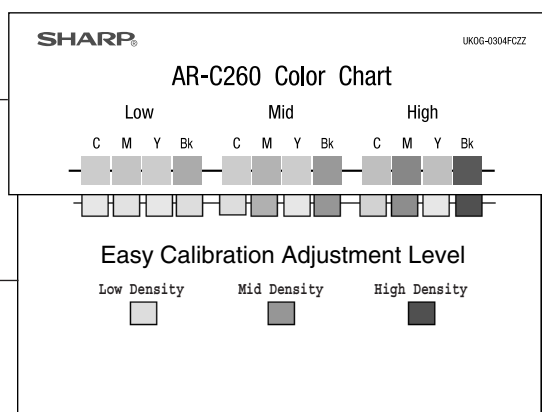


[Standard colour chart (included with the printer)]



Standard colour chart

Test page



Place the colour chart on the printed test page as shown. Check the density of the colours on the test page and see if they are adjusted to the same level as the colours on the standard colour chart.

**If the result of the comparison is that:**

- There is a large deviation in the colour densities, use the Colour Balance (see the following page).
- There is a small deviation in the colour densities, use Easy Calibration (see page 18).



## Colour balance

Use Colour Balance when there is a large difference between the colours in the colour chart and the test page that was printed as explained on page 14.

### NOTE

- Keep the colour chart near the printer. Do not discard it.
- Do not expose the Colour Chart to direct sunlight.

Follow the steps below to set the Colour Balance.

- 1 Display "COLOUR BALANCE" as indicated in the chart on page 29.

COLOUR BALANCE ▼

- 2 Press the [OK] key.

TEST PAGE PRINT  
-OK? ▼

This message will appear.

- 3 Load A4 or letter-size paper in the tray and press the [OK] key.

When the [OK] key is pressed, "PRINTING." appears in the display.

After a brief interval, the test page will be printed (see the following page).

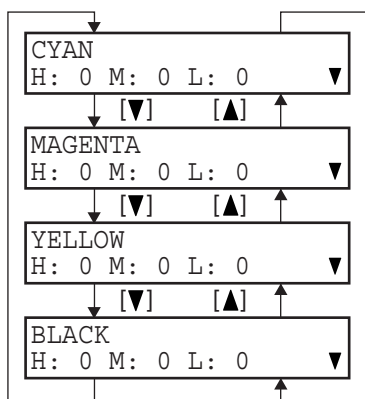
When printing is finished, all adjustment values return to "0".

- 4 Place the colour chart on the test page and compare the colour densities.

For a detailed explanation of adjusting the colour balance, see "Adjusting the colour balance" on the following page.

- 5 Select the colour that you wish to adjust with the [▼] or [▲] key.

"CYAN", "MAGENTA", "YELLOW" or "BLACK" can be selected.



First adjust the density of cyan.

- 6 Press the [OK] key.

The low density (L) value of the selected colour starts blinking.

SELECT LOW DENSITY  
CYAN 0 ▼

- 7 Use the [▼] or [▲] key to select a value from -4 to 4 for the low density.

- 8 Press the [OK] key.

The mid-density (M) value of the selected colour starts blinking.

SELECT MID DENSITY  
CYAN 0 ▼

- 9 Use the [▼] or [▲] key to select a value from -4 to 4 for the mid-density.

- 10 Press the [OK] key.

The high density (H) value of the selected colour starts blinking.

SELECT HI DENSITY  
CYAN 0 ▼

- 11 Use the [▼] or [▲] key to select a value from -4 to 4 for the high density.

- 12 Press the [OK] key.

You will return to the display of step 5.

- 13 In step 5, select another colour with the [▼] or [▲] key.

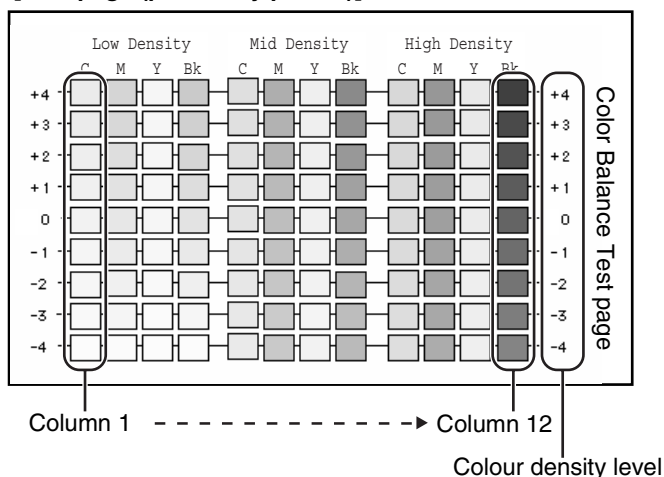
Repeat steps 5 through 12 until you have adjusted all of the colours.

### NOTE

- Print a test page as explained on page 14 and verify that the colours match the colours in the standard colour chart.
- The processed grey on the bottom line of the test page provides a good indicator of the colour balance when performing fine adjustment of the colour densities.

## Adjusting the colour balance (additional information for Steps 5 through 13 on the previous page)

[Test page (printed by printer)]



- 1 Place the colour chart on the test page and compare the colours.

For the placement of the colour chart, see page 15.

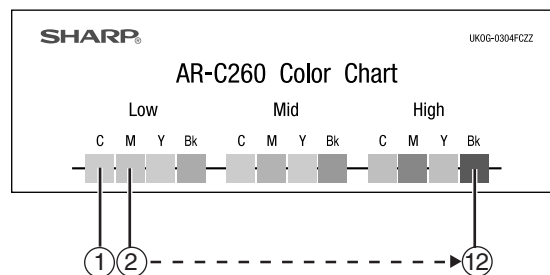
- 2 In column 1 of the test page, locate the colour density level that is the same as ① in the colour chart. Mark that level with a pencil or pen to help you remember it.

If none of the levels in column 1 match ① in the colour chart, do the following:

- If the density level of ① in the colour chart is darker than the maximum value (+4) in column 1, mark "+4" in column 1.
- If the density level of ① in the colour chart is lighter than the minimum value (-4) in column 1, mark "-4" in column 1.

- 3 Repeat the above step for columns 2 through 12 of the test page, comparing each column with the corresponding colour in the colour chart.

[Standard colour chart (included with printer)]



- 4 In Steps 5 through 13 on the previous page, enter the levels that you marked on the test page (enter each level as a number from -4 to 4).
- 5 If you selected "+4" or "-4" for a colour that does not have a density level that matches the level in the colour chart, repeat the procedure on the previous page.

## Easy calibration

Use Easy Calibration when there is only a small difference between the colours in the colour chart and the test page that was printed as explained on page 14.

**Follow the steps below to set the colour balance.**

- 1 Display "EASY CALIBRATION" as indicated in the chart on page 29.

EASY CALIBRATION ▼

- 2 Press the [OK] key.

TEST PAGE PRINT  
-OK? ▼

This message will appear.

- 3 Load A4 or letter-size paper in the tray and press the [OK] key.

When the [OK] key is pressed, "PRINTING." appears in the display.

After a brief interval, a test page for easy calibration will be printed (see the following page).

- 4 Select the colour of grey that you prefer in the test patterns (Test pattern 2 and Test pattern 3 on the following page).

For a detailed explanation of this procedure, see "Easy Calibration" on the following page.

- 5 Press the [▼] or [▲] key to enter the X-axis value (-3 to 3) of the preferred grey colour (this is the magenta component of the colour).

SELECTION X POSITION  
0 ▼

- 6 Press the [OK] key.

- 7 Press the [▼] or [▲] key to enter the Y-axis value (-3 to 3) of the preferred grey colour (this is the yellow component of the colour).

SELECTION Y POSITION  
0 ▼

- 8 Press the [OK] key.

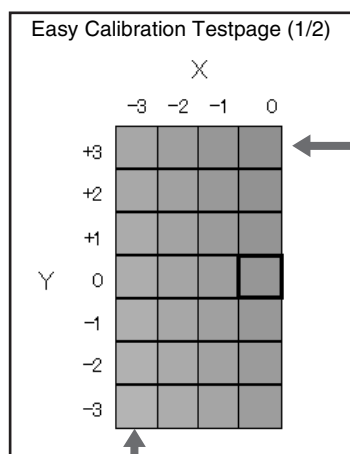
Your settings will be saved and you will return to the display of step 1. Print a test page as explained on page 14 and verify that the colours match the colours in the standard colour chart.

### NOTE

If you cannot find an acceptable colour of grey in the test patterns, adjust the colour balance using the Colour Balance settings as explained on page 16.

**Easy Calibration (additional information for Steps 4 through 8 on the previous page)**

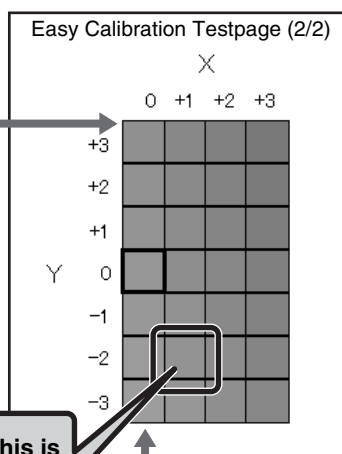
Easy Calibration is performed by selecting the desired colour of grey (processed grey), which is a combination of cyan, magenta, and yellow.

**[Test Pattern 2 (printed by printer)]**

Yellow  
(-3~+3)

Magenta  
(-3~±0)

Magenta  
(±0~+3)

**[Test Pattern 3 (printed by printer)]**

Yellow  
(-3~+3)

Example: if this is the desired colour, select "+1" for X and "-2" for Y.

**Test patterns 2 and 3 indicate processed grey colours with the current grey colour as the reference point or origin ("0").**

- The X axis shows the density of magenta in seven increments from -3 to +3 (-3 to 0 in test pattern 2 and 0 to +3 in test pattern 3).
- The Y axis shows the density of yellow in seven increments from -3 to +3.
- The density of cyan is constant.

**1 Select the processed grey colour that you prefer from test pattern 2 or test pattern 3.**

For example, if you prefer the colour indicated above in test pattern 3, select "+1" for X and "-2" for Y.

**2 Enter the X and Y coordinates of the colour you prefer in steps 5 through 8 on the previous page.**

## ■ Key operator code change

This program is used to change the key operator code.

The key operator must enter the key operator code to access the key operator programs. Only one key operator code number can be programmed. The key operator code is initially set to "00000". It is recommended that the key operator use this program to change the key operator code after accessing the programs with the initial code.

Display "KEY OPERATOR CODE CHANGE" as indicated in the chart on page 29.

## ■ Print key operator programs list

This program is used to print a list of the key operator programs.

"PRINT KEY OPERATOR PROGRAMS LIST" is displayed as indicated in the chart on page 29.

## ■ System settings

### Default settings

These programs are used to adjust the settings of various printer functions.

#### ● Disable notice page printing

This program is used to disable notice page printing. Enable this program when you do not want the machine to print the notice page explained in "NOTICE PAGE PRINTING" on page 4-6 of the Operation Manual (for printer).

"DISABLE NOTICE PAGE PRINTING" is displayed as indicated in the chart on page 29.

#### ● Disable test page printing

This program is used to disable test page printing. When the program is enabled, the Print list in the custom settings cannot be printed. (See page 2-17 of the Operation Manual (for general information).)

"DISABLE TEST PAGE PRINTING" is displayed as indicated in the chart on page 29.

#### ● A4/LT auto select

When this program is enabled, the printer will automatically substitute A4 paper if letter size paper is not available when printing a letter-size document. Note that letter size paper cannot be automatically substituted for A4 paper.

"A4/LT AUTO SELECT" is displayed as indicated in the chart on page 29.

### NOTE

When letter size is specified for a document attached to an E-mail that has been transmitted from a foreign country and letter size paper is not loaded in the printer, printing will not be possible without operator intervention. However, if this program is enabled, A4 paper will be automatically substituted for letter size paper and printing will take place without operator intervention.

#### ● Delete hold data

Use this program to manually delete all print hold jobs (jobs that are being held by the job retention function explained on page 4-2 of the OPERATION MANUAL (for general information).).

"DELETE HOLD DATA" is displayed as indicated in the chart on page 29.

#### ● Output method when memory full

When the internal memory becomes full, further print data cannot be stored and the print data stored to that point must be printed. This program is used to set the condition for printing. The factory default setting is "1 SET".

"OUTPUT METHOD WHEN MEMORY FULL" is displayed as indicated in the chart on page 29.

#### ● Bypass paper type

This program is used to select the default setting of paper type to be loaded in the bypass tray. The setting can be selected from "NONE", "PLAIN", "HEAVY 1", "HEAVY 2", "TRANSPARENCY S" or "TRANSPARENCY Q".

The factory default setting is "NONE".

## Interface settings

These programs are used to control data transmission to the parallel port, USB port or network port of the printer.

### ● I/O timeout

This program is used to set the length of time the machine will wait when receiving a print job on the parallel port, USB port or the network port. If no data is received for a length of time exceeding the timeout setting, the job will be cancelled and the next job will start.

Default setting: 20 seconds

"I/O TIMEOUT" is displayed as indicated in the chart on page 30.

#### NOTE

I/O timeout can be set to any number from 1 to 999 seconds.

### ● Port switching

The machine can use the three ports shown below for printing. This program is used to select when switching between ports will take place. "PER JOB" or "TIMEOUT" can be selected. When "PER JOB" is selected, the port will be automatically selected after each print job is completed. When "TIMEOUT" is selected, the port will be automatically selected if the time set in the I/O Timeout program elapses.

•Parallel port

•USB port

•Network port

"PORT SWITCHING" is displayed as indicated in the chart on page 30.

### ● Enable parallel port

This program is used to enable or disable printing from the parallel port.

Default setting: Yes (Enable)

"ENABLE PARALLEL PORT" is displayed as indicated in the chart on page 30.

### ● Enable USB port

This program is used to enable or disable printing from the USB port.

Default setting: Yes (Enable)

"ENABLE USB PORT" is displayed as indicated in the chart on page 30.

### ● Enable network port

This program is used to enable or disable printing from the network port.

Default setting: Yes (Enable)

"ENABLE NETWORK PORT" is displayed as indicated in the chart on page 30.

## Network settings

These programs are required when the machine is used as a network printer.

After changing the settings of any of these programs, the power must be turned off and then turned on to make the new settings take effect.

#### NOTE

To configure these settings, consult with your network administrator.

### ● IP address setting

When using the printer in a TCP/IP network, use this program to set the IP address (IP address, IP subnet mask, and IP gateway) of the printer. The default factory setting is ENABLE DHCP, which means that the machine obtains an IP address automatically. To use the printer on a TCP/IP network, the "Enable TCP/IP" program below must also be enabled.

"IP ADDRESS SETTING" is displayed as indicated in the chart on page 30.

#### NOTE

If DHCP is used, the IP address assigned to the machine may automatically change on occasion. If this happens, printing will not be possible.

### ● Enable TCP/IP

This program must be enabled to use the printer on a TCP/IP network. The IP address must also be set using "IP address setting".

Default setting: Yes (Enable)

"ENABLE TCP/IP" is displayed as indicated in the chart on page 30.

### ● Enable NetWare

This program must be enabled to use the printer on a NetWare network.

Default setting: Yes (Enable)

"ENABLE NETWARE" is displayed as indicated in the chart on page 30.

### ● Enable EtherTalk

This program must be enabled to use the printer on an EtherTalk network.

Default setting: Yes (Enable)

"ENABLE ETHER TALK" is displayed as indicated in the chart on page 30.

### ● Enable NetBEUI

This program must be enabled to use the printer on a NetBEUI network.

Default setting: Yes (Enable)

"ENABLE NETBEUI" is displayed as indicated in the chart on page 30.

### ● Reset the NIC

This program is used to restore the NIC (Network Interface Card or Print Server Card) settings to the factory default settings.

"RESET THE NIC" is displayed as indicated in the chart on page 30.

### Initialize/store settings

Use these programs to restore the CONDITION SETTINGS (page 3-2 of the OPERATION MANUAL (for general information)) and System settings (page 20) to the factory default settings. You can also store the current configuration of these settings in memory, and restore a stored configuration at a later time.

### ● Restore factory defaults

This restores the CONDITION SETTINGS (page 3-2 of the OPERATION MANUAL (for general information)) and System settings (page 20) to the factory default settings.

If you need a record of the settings prior to restoration of the default settings, print the CUSTOM SETTINGS list (page 2-19 of the OPERATION MANUAL (for general information)) and the key operator program list (page 2).

This does not affect "Colour adjustments".

"RESTORE FACTORY DEFAULTS" is displayed as indicated in the chart on page 31.

### NOTE

To make the restored settings take effect, you must turn off the power, wait briefly, and then turn on power again.

### ● Store current configuration

This program is used to store the current CONDITION SETTINGS (page 3-2 of the OPERATION MANUAL (for general information)) and System settings (page 20) in memory. The stored settings will remain in memory even if the power is turned off. To restore the stored settings, use [RESTORE THE CONFIGURATION] of the following program.

This does not affect "Colour adjustments".

"STORE CURRENT CONFIGURATION" is displayed as indicated in the chart on page 31.

### ● Restore the configuration

This program is used to restore the settings that were stored using the [STORE CURRENT CONFIGURATION].

"RESTORE THE CONFIGURATION" is displayed as indicated in the chart on page 31.

## ■ Product key

Use these programs to enter the product keys that are required to activate the following features.

### Serial number

Use this program to check the serial number of the machine.

"SERIAL NUMBER" is displayed as indicated in the chart on page 31.

### E-mail alert and status

This program is not currently used.

"E-MAIL ALERT AND STATUS" is displayed as indicated in the chart on page 31.

### PS3 expansion kit

This program must be used to activate the PS3 expansion kit. Your dealer will provide you with the product key to be entered.

"PS3 EXPANSION KIT" is displayed as indicated in the chart on page 31.

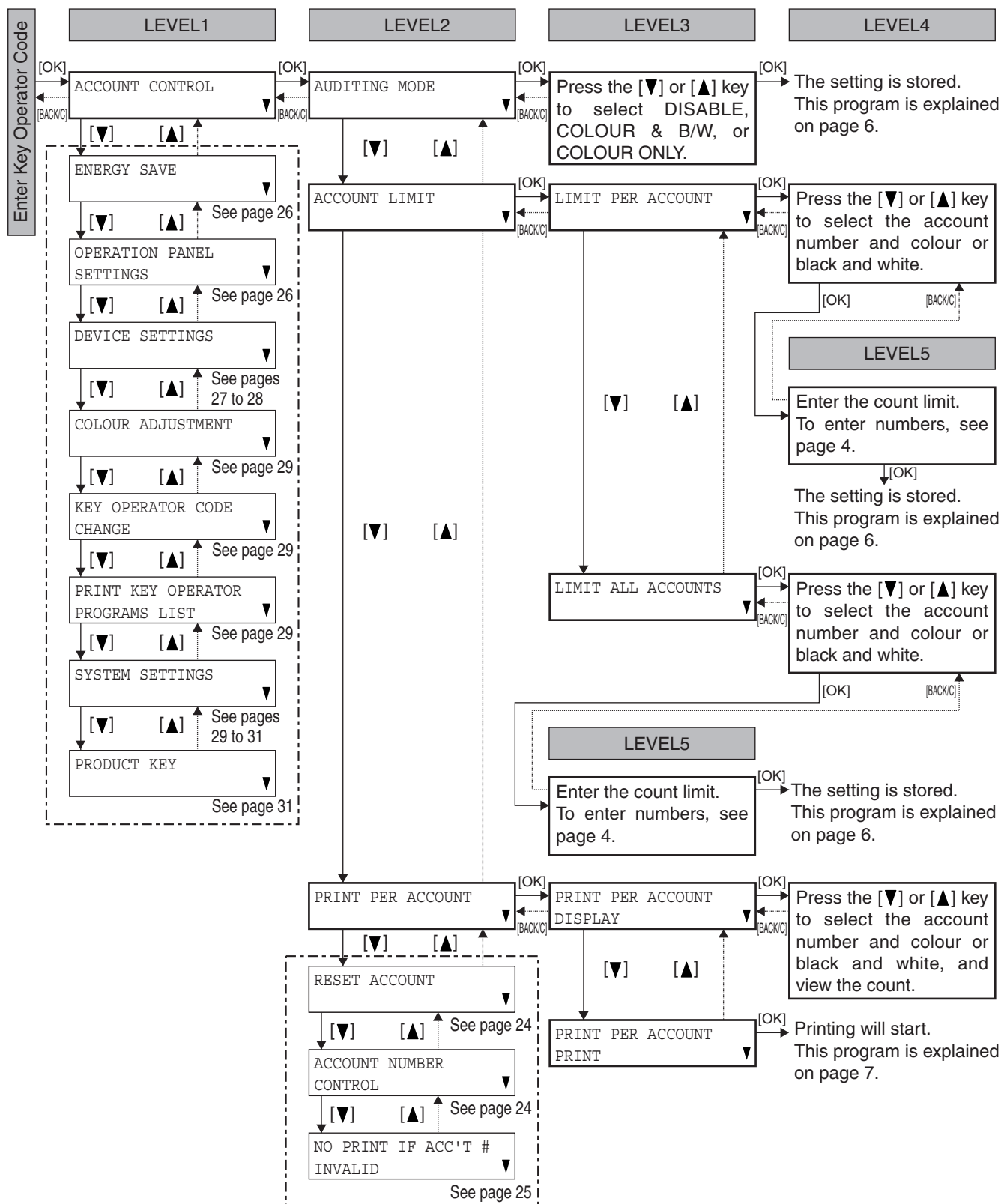
### Data security kit

This program must be used to activate the data security kit. Your dealer will provide you with the product key to be entered.

"DATA SECURITY KIT" is displayed as indicated in the chart on page 31.

## Detailed menu of key operator program settings

The menu is too large to fit on one page, and thus is shown in sections from page 23 to page 31. Items inside a broken-line frame   are explained on the page indicated in the frame.

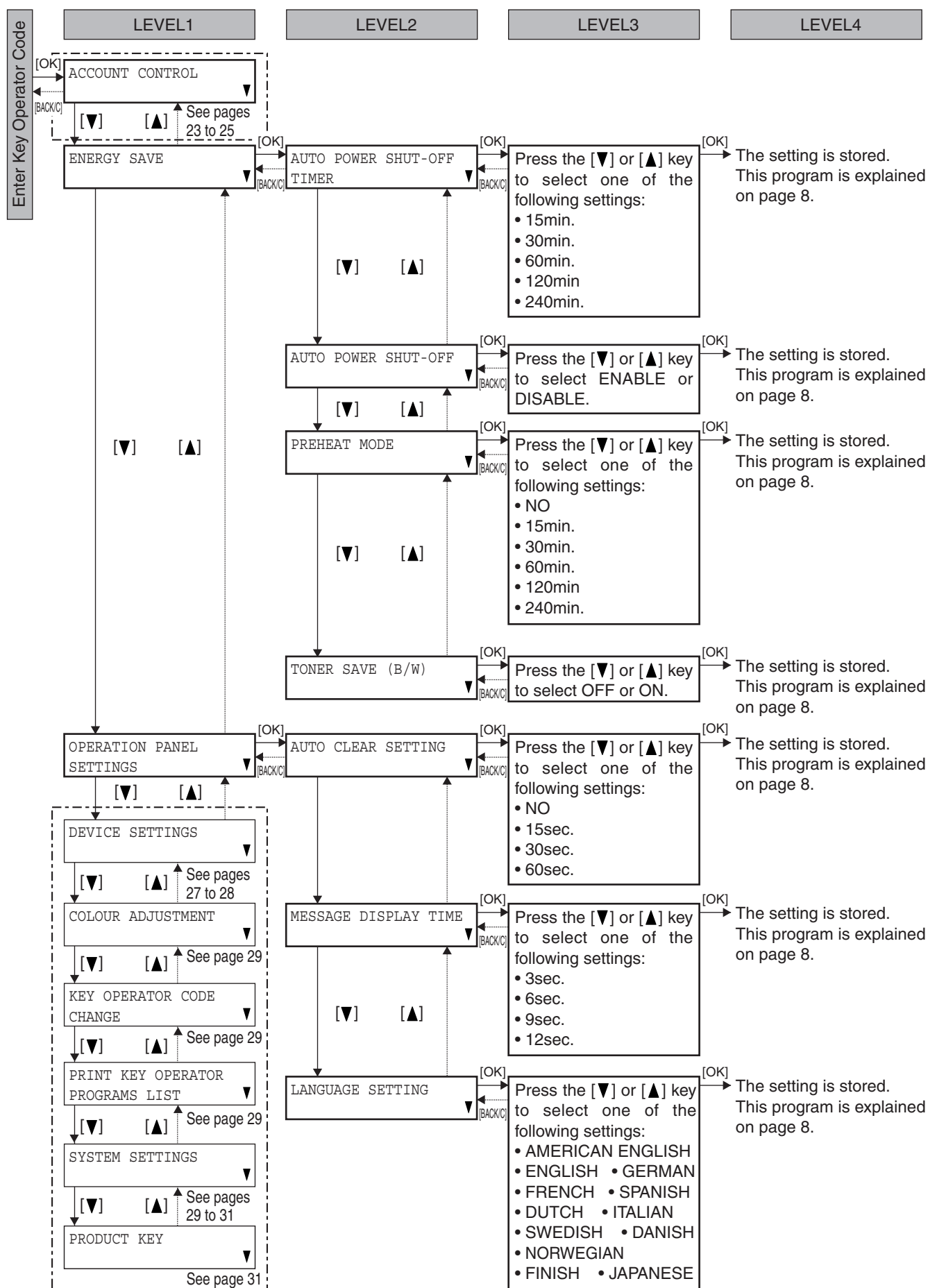




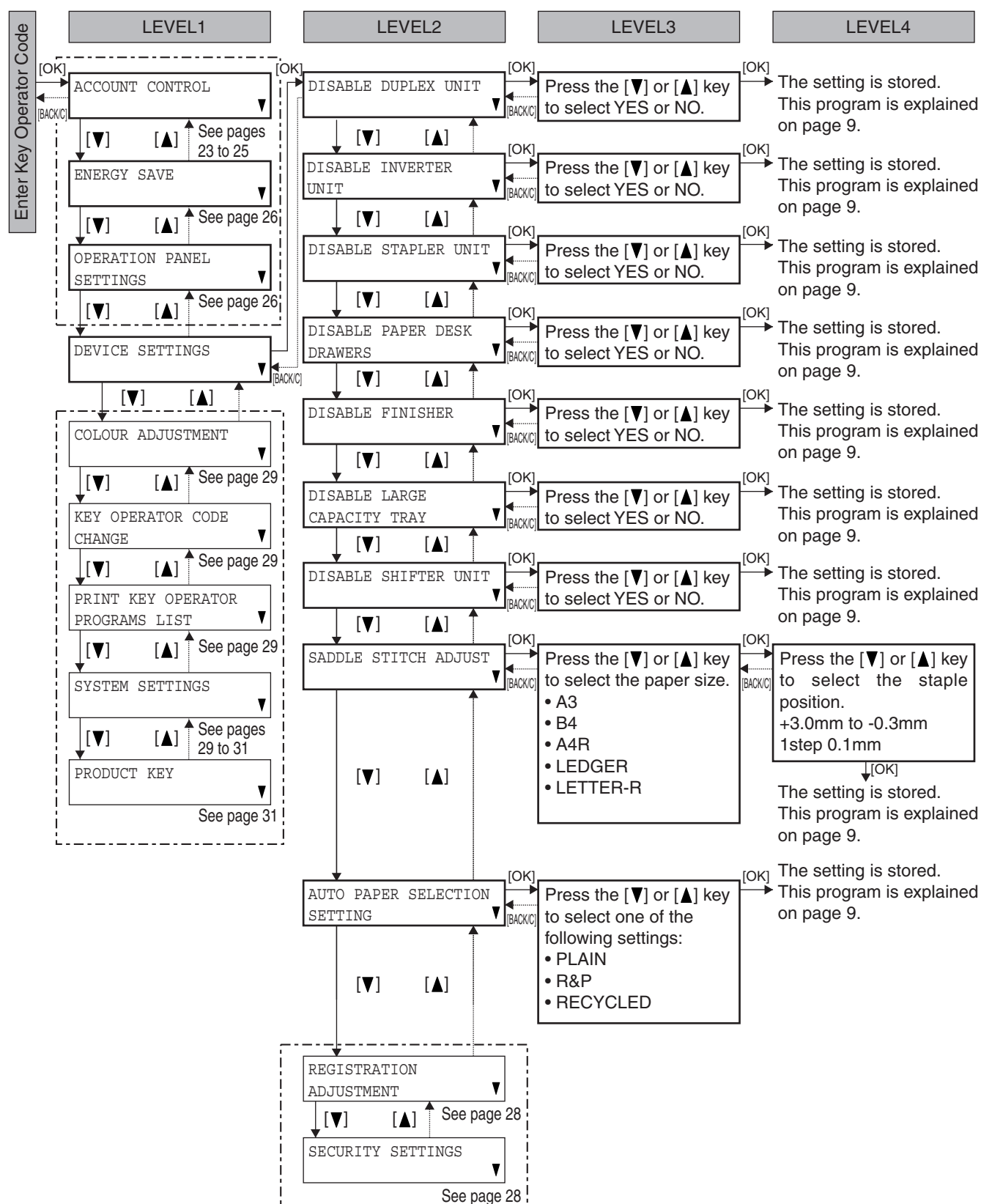




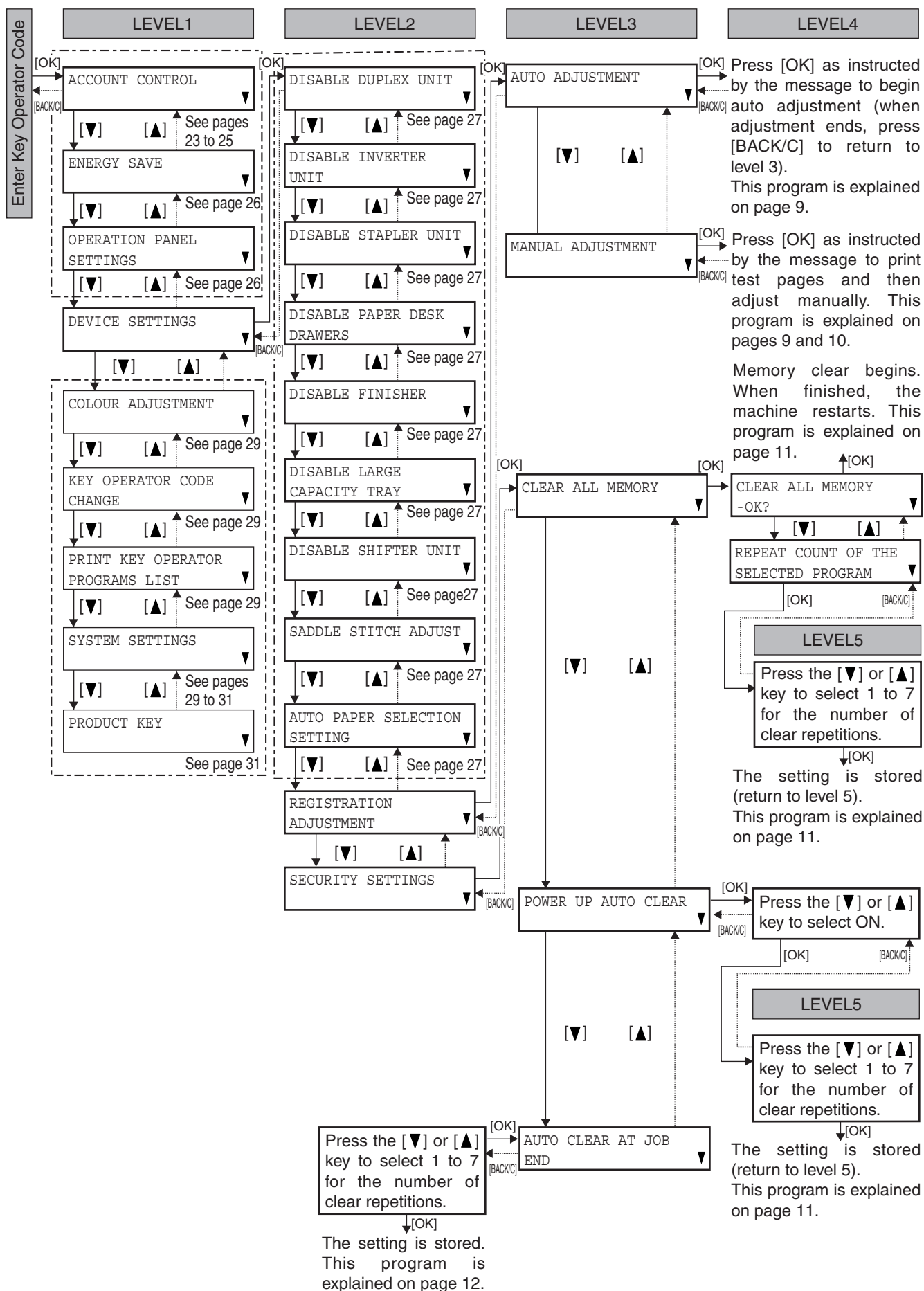
## Detailed menu of key operator program settings



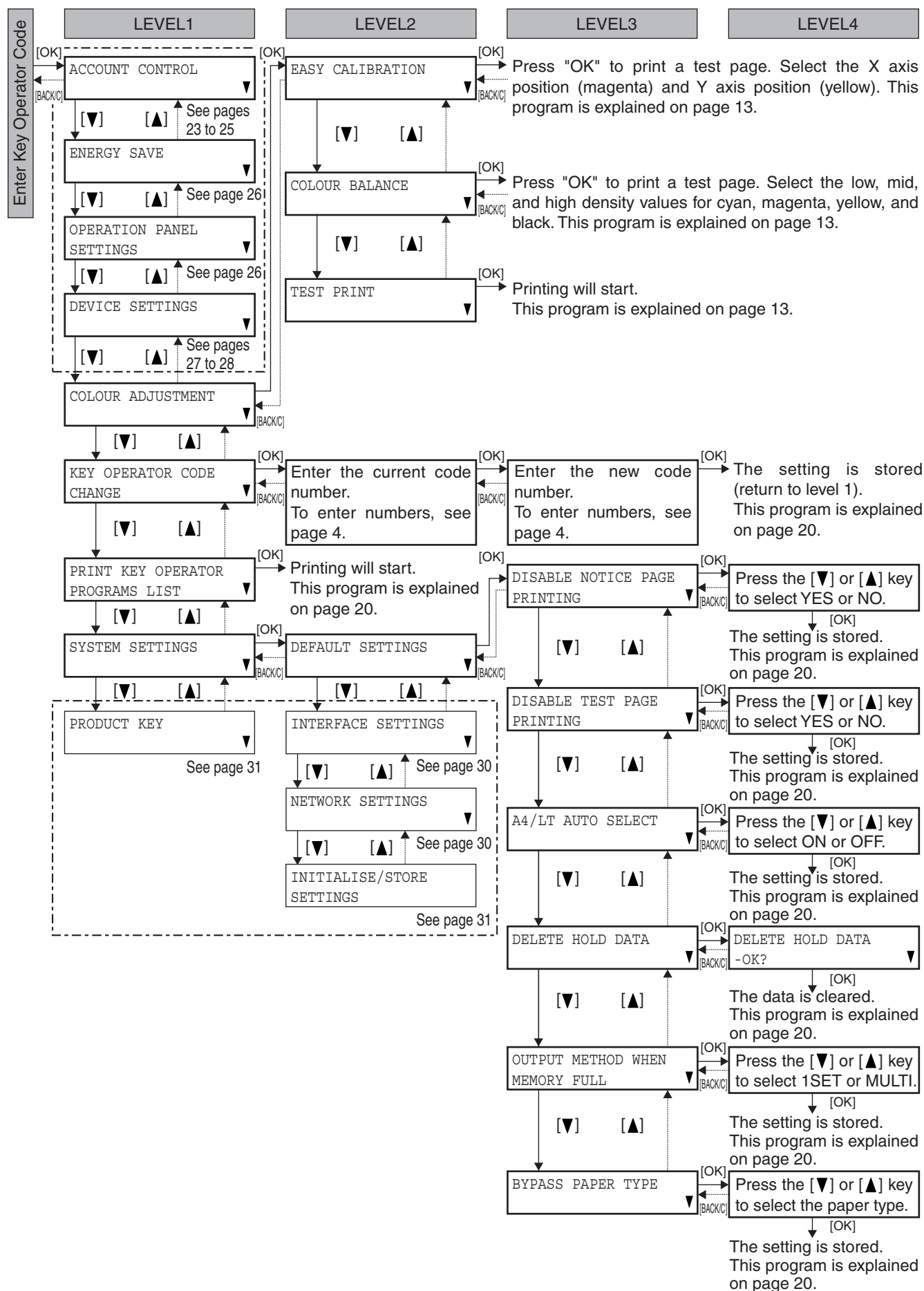
## Detailed menu of key operator program settings



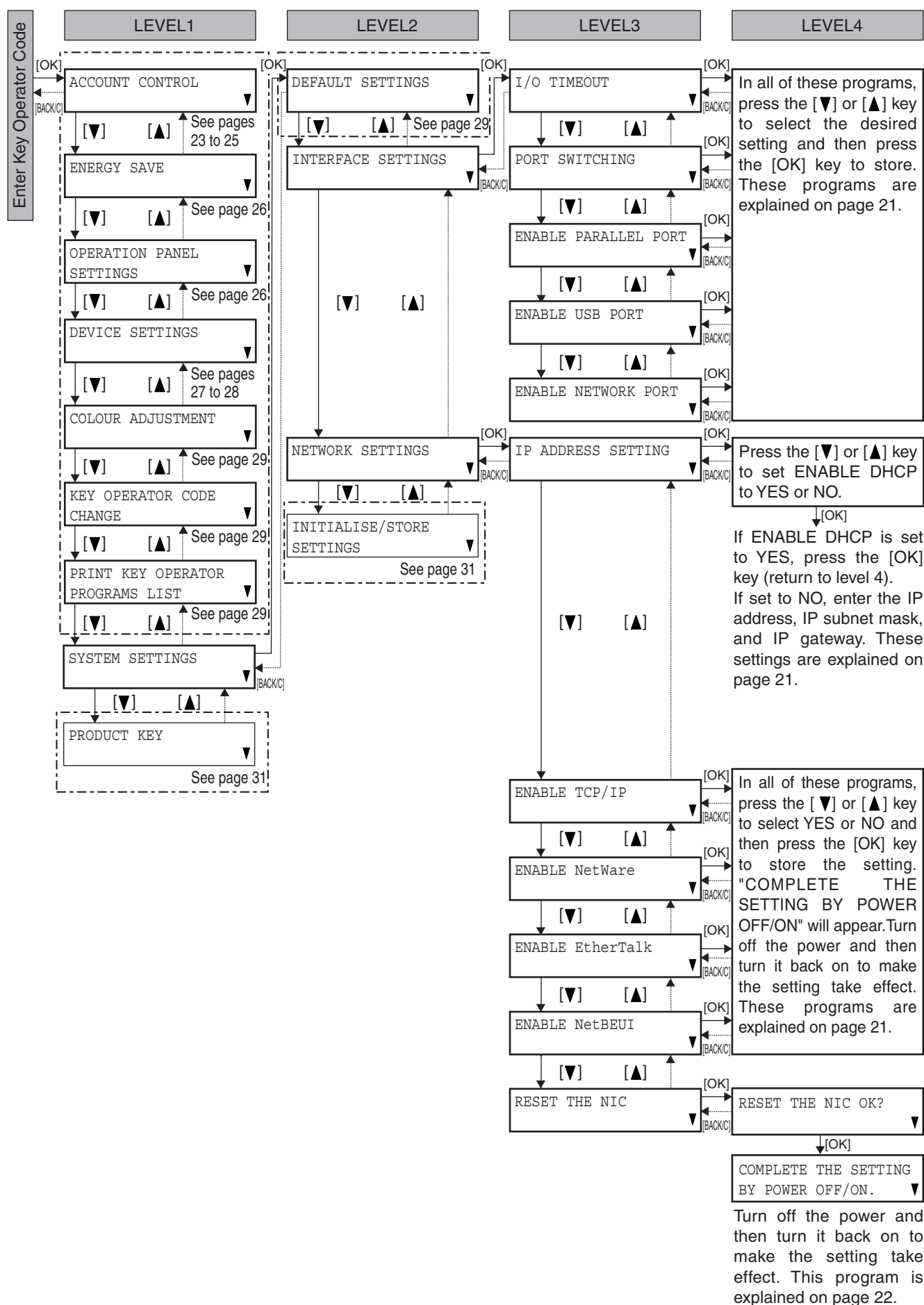
## Detailed menu of key operator program settings



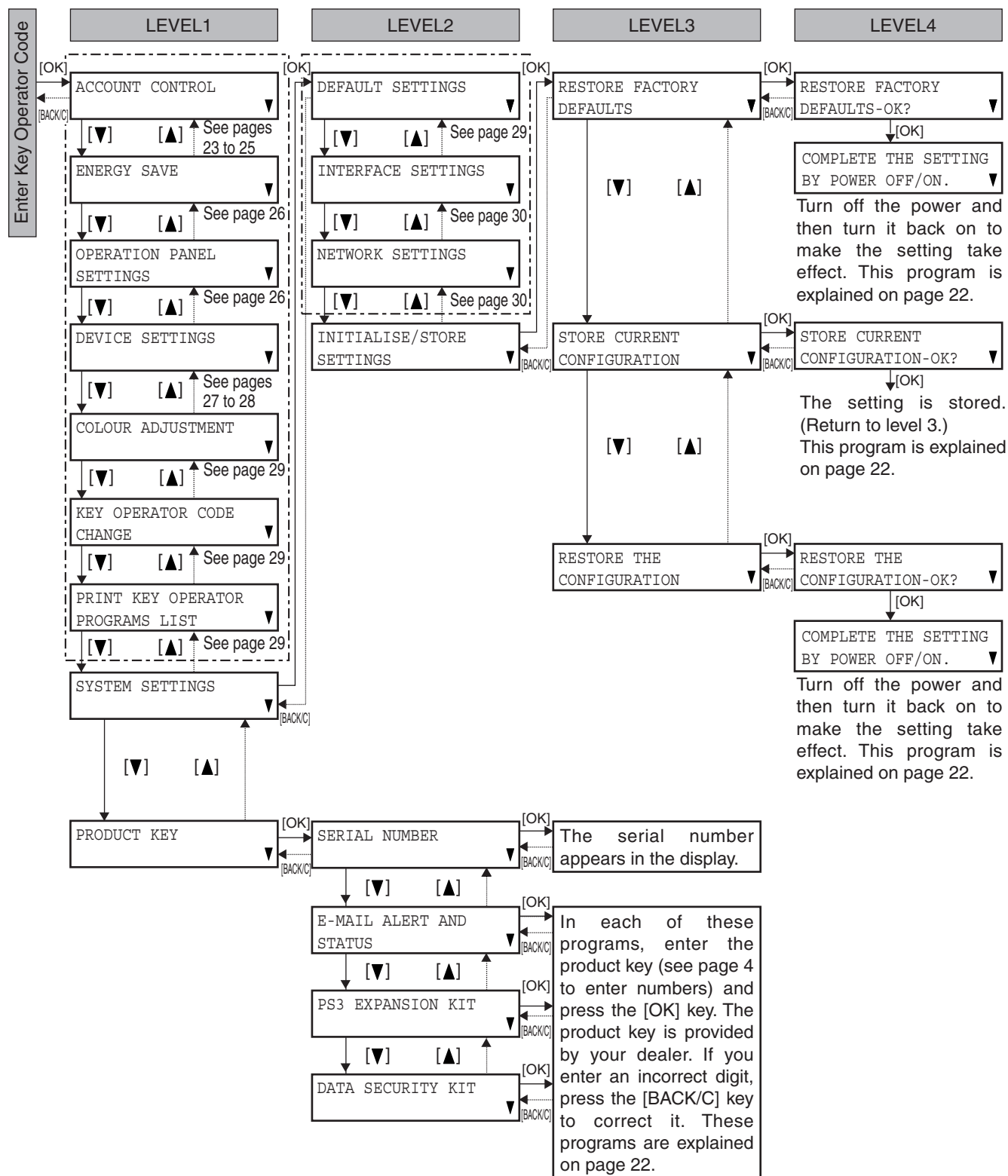
## Detailed menu of key operator program settings



## Detailed menu of key operator program settings



## Detailed menu of key operator program settings





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