8. When charging the battery pack with the charger adapter (sold separately)

8-1. Installing the charger adapter

(1) Install the battery pack in this machine.

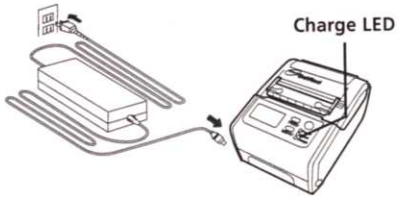
(2) Remove the DC input terminal cover of this machine in the power-off state, and connect the DC output terminal of the charger adapter with the DC input terminal of this machine.

(3) Connect the power plug of the charger adapter with the AC outlet.

(4) The Charge LED lights up and the battery charge starts.

- Charge time: 5 hours
- Number of charge times: 300 times

* Use the charge time and number only as a guide. They may vary according to status of use.



(5) The Charge LED turns off when the battery pack is fully charged.
- Remove the charger adapter by using the method of "8-2" on the next page.

8-2. Removing the charger adapter

(1) Remove the power plug of the charger adapter from the AC outlet.

(2) Remove the DC output terminal of the charger adapter from the DC input terminal of this machine, and close the DC input terminal cover of this machine.

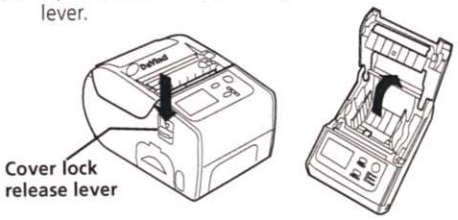
⚠ CAUTION

Make sure to turn off the power of this device when removing the DC output terminal of the charger adapter from the DC input terminal of this machine, or removing the plug of the charger adapter from the AC outlet.

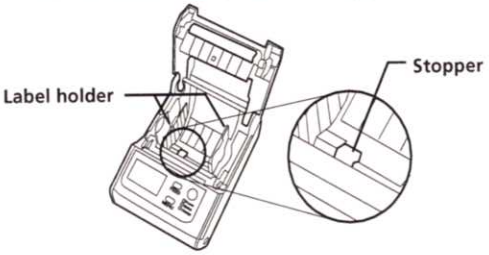
9. Setting the media roll

9-1. In the case of printing labels in the Tear-Off mode

(1) Open the cover by pressing the cover lock release lever.



(2) Lift up the stopper and adjust the label holder to the media width. After confirming that the holder fits the media width, lower the stopper.

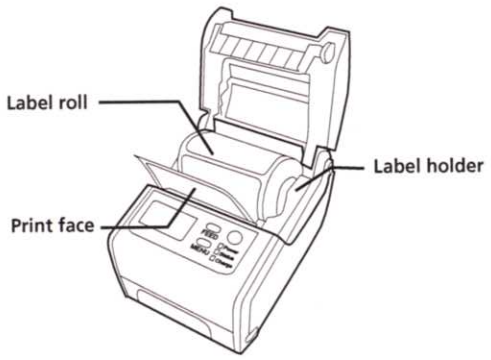


⚠ CAUTION

Moving the label holder without raising the stopper may cause damage.

(3) Place the label roll so that the print face directs downward (thermal print head side).

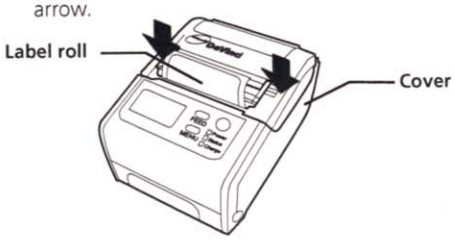
See the machine specifications about the size of the label that can be placed.



⚠ CAUTION

- Do not touch the thermal print head because it will be exposed when the cover is opened. When replacing labels immediately after using the machine, be careful not to get burned due to overheating of the thermal print head.
- Do not touch the thermal print head as your hand oil may cause the deterioration.

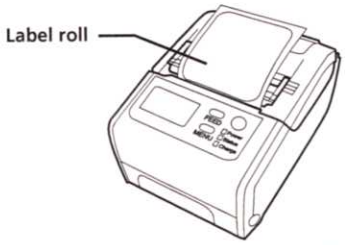
(4) Pull out the label roll and gently close both ends of the cover until they click as indicated by an arrow.



⚠ WARNING

- Closing the cover strongly may cause trouble or damage.
- Caution should be exercised so as not to get your hand caught.

(5) Press the FEED key
The label is fed to the fixed position.

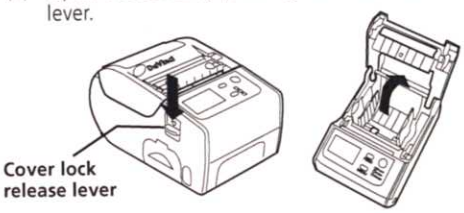


A mark error will occur if the label size or the sensor type is different.

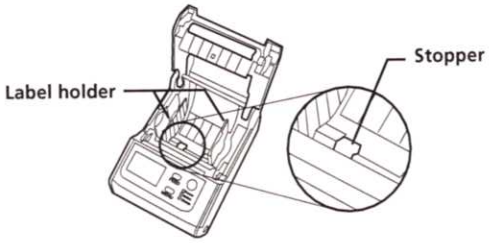
9-2. In the case of printing labels in the Peel-Off mode

When issuing labels in the Peel-Off mode, it is necessary to set the main body settings to the Peel-Off mode from a personal computer etc. (not possible to set it with this machine alone).

(1) Open the cover by pressing the cover lock release lever.



(2) Lift up the stopper and adjust the label holder to the label width. After confirming that the holder fits the label width, lower the stopper.

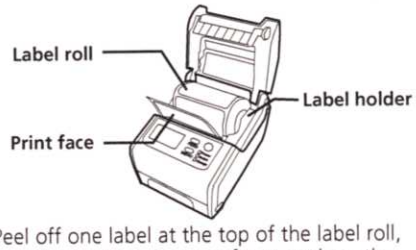


⚠ CAUTION

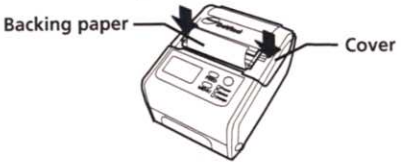
Moving the label holder without raising the stopper may cause damage.

(3) Place the label roll so that the print face directs downward (thermal print head side).

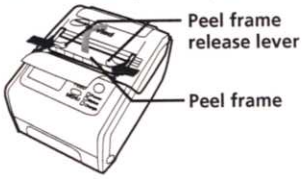
See the machine specifications about the size of the label that can be placed.



(4) Peel off one label at the top of the label roll, pull the backing paper to front, and gently close both ends of the cover until they click as indicated by an arrow.

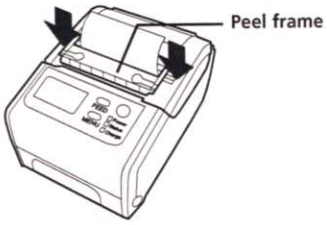


(5) Slide the peel frame release levers on both sides inward and lift it to open the peel frame.



(6) Thread the backing paper from which one label was peeled off between the peel frame and the cover.

(7) Close the peel frame gently until it clicks. The peel frame is fixed.

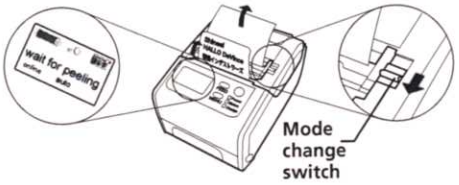


⚠ WARNING

Closing the peel frame strongly may cause trouble or damage.

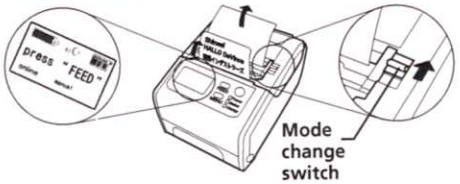
(8) Slide the switch to either "Auto issue" or "Manual issue" position.

1. "Auto issue" setting
   Slide the switch to front to set the automatic label issuing mode.



- In "Auto issue" mode, the label's presence will be detected by the peel sensor. Therefore, the next label is automatically peeled off from the backing paper, and fed out of the label outlet every time current label is removed.

2. "Manual issue" setting
   Slide the switch to rear to set the manual label issuing mode.



- The next label is peeled off from the backing paper and fed out of the label outlet every time the [FEED] key is pressed.

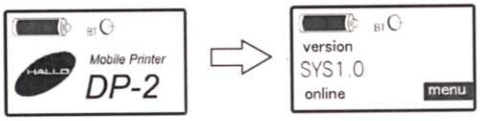
10. Power ON-OFF

10-1. Turn on the power

Hold down the POWER key for about one second and release it when the green Power LED lights up.

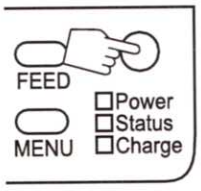
- The following standby screen appears as shown in the figure below after the logo mark is displayed for a few seconds, and the version of the machine continues to be displayed till the first operation.

  * Here, the remaining battery level is displayed to indicate the charging state.



10-2. Turn off the power

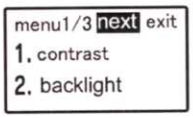
Hold down the POWER key and release it after the Power LED turns off.



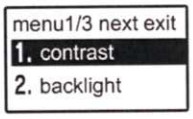
11. Contrast adjustment of the liquid crystal display

(1) Turn on the power.
The standby screen appears.

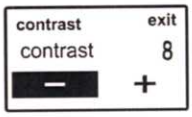
(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the FEED key.



(3) Confirm that [1. contrast] is selected and press the MENU key.

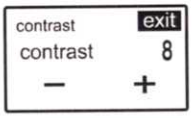


(4) Each time you press the FEED key under this condition, [-], [+], or [exit] is selected in this order.



Select [+] to increase the contrast, or [-] to decrease the contrast, and press the MENU key to change the numeric value for changing the contrast. (1 ~ 16)

(5) After completing the setting, select [exit] by using the FEED key and press the MENU key.

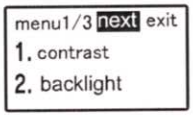


(6) The display returns to the Menu 1/3 screen. Press the MENU key for about one second to return to the standby screen.

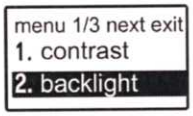
12. Adjustment of the backlight lighting time

(1) Turn on the power.
The standby screen appears.

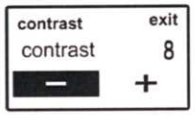
(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the FEED key.



(3) Select [2. backlight] by using the FEED key, and press the MENU key.

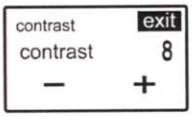


(4) Each time you press the FEED key under this condition, [-], [+], or [exit] is selected in this order.



Select [+] to lengthen the lighting time, or [-] to shorten the time, and press the MENU key to change the numeric value (0 - 90 seconds).

(5) After completing the setting, select [exit] by using the FEED key and press the MENU key.



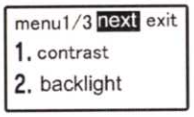
(6) The display returns to the Menu 1/3 screen. Press the MENU key for about one second to return to the standby screen.

13. Test Printing

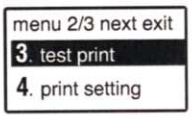
13-1. Test printing method 1

(1) Turn on the power.
The standby screen appears.

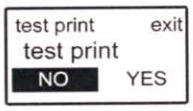
(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the MENU key.



(3) The Menu 2/3 screen appears. Select [3. test print] by using the FEED key, and press the MENU key.

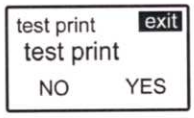


(4) Each time you press the FEED key under this condition, [NO], [YES], or [exit] is selected in this order.



Select [NO] by using the FEED key for not printing, and press the MENU key.
Then, the Menu 2/3 screen appears.
Select [YES] by using the FEED key for printing, and press the MENU key. Then, the test pattern is printed.

(5) When completing the operation, select [exit] by using the FEED key and press the MENU key.



(6) The Menu 2/3 screen appears.
Press the MENU key for about one second to return to the standby screen.

13-2. Test printing method 2

(1) Hold down the POWER key while holding down the FEED key to turn on the Power LED, and release both FEED and POWER keys when the test pattern is displayed.

(2) Confirm that the normal pattern is printed.
- Contact our dealer if the abnormal pattern should be printed.

Normal pattern

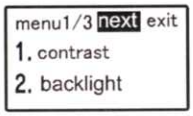
Abnormal pattern

14. Printing the Configuration List

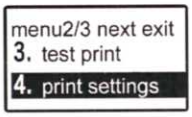
- The set value list is printed in 200mm long and 48mm wide. The print might overflow depending on labels. Receipt paper of 48mm or more in width is recommended.

(1) Turn on the power.
The standby screen appears.

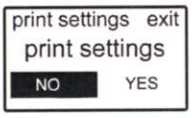
(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the MENU key.



(3) The Menu 2/3 screen appears. Select [4. print settings] by using the FEED key, and press the MENU key.



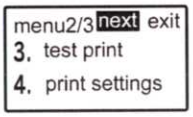
(4) Each time you press the FEED key under this condition, [NO], [YES], or [exit] is selected in this order.



Select [NO] by using the FEED key for not printing, and press the MENU key.
Then, the Menu 2/3 screen appears.
Select [YES] by using the FEED key for printing, and press the MENU key. Then, the set value is printed on the journal paper.

(5) When completing the operation, select [exit] by using the FEED key and press the MENU key.

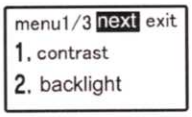
(6) The Menu 2/3 screen appears.
Press the MENU key for about one second to return to the standby screen.



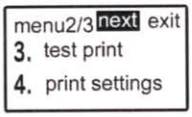
15. Confirmation of RS-232C set value

(1) Turn on the power.
The standby screen appears.

(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the MENU key.



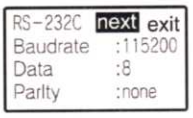
(3) The Menu 2/3 screen appears. Confirm the cursor is located on the [next] button, and press the MENU key.



(4) The Menu 3/3 screen appears. Select [5. RS-232C] by using the FEED key, and press the MENU key.

(5) Set values of Baud rate, Data, and Parity are displayed.

To display the next set value, confirm the cursor is located on the [next] button, and press the MENU key.



(6) The set value of Flow is displayed. Select [exit] by using the FEED key, and press the MENU key.

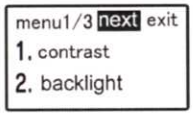
(7) The display returns to the Menu 3/3 screen.

Press the MENU key for about one second to return to the standby screen.

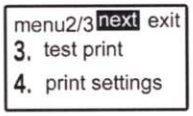
16. Confirmation of Bluetooth™ communication set value

(1) Turn on the power.
The standby screen appears.

(2) Press the MENU key for about one second to display the Menu 1/3 screen. Confirm the cursor is located on the [next] button, and press the MENU key.



(3) The Menu 2/3 screen appears. Confirm the cursor is located on the [next] button, and press the MENU key.

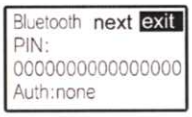


(4) The Menu 3/3 screen appears. Select [6. Bluetooth] by using the FEED key, and press the MENU key.

(5) Set values are displayed.

To display the next set values, confirm the cursor is located on the [next] button, and press the MENU key.

(6) The next set values are displayed. Select [exit] by using the FEED key, and press the MENU key.



(7) The display returns to the Menu 3/3 screen.

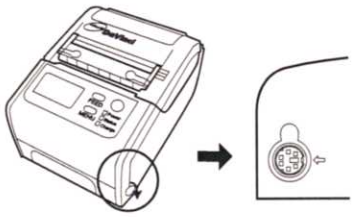
Press the MENU key for about one second to return to the standby screen.

17. Connecting the RS-232C

(1) Open the connector cover for RS-232C.

(2) Connect the data transfer cable (option) with the connector for RS-232C.

- Fit the arrow mark position of the data transfer cable and the arrow mark position of the RS-232C connector for insertion.



18. Using the Bluetooth™ communications

When printing by the use of Bluetooth™ communications, the use distance is different according to the use environment or the hand-held portable data terminal.

Caution should be exercised because communication distance might shorten remarkably or communications might not be possible particularly around microwave oven, place where interference occurs, or wireless LAN equipment

19. Label issuing mode

(1) Data is sent from the personal computer or the hand-held portable data terminal.

(2) In the case of Tear-Off mode
The specified number of labels is printed and fed.

(3) In the case of peeled issue Peel-Off mode
You can select "Automatic issue" or "Manual issue" using the change switch.
Slide the switch to either "Auto issue" or "Manual issue" position.
* Refer to 9-2-(8) for more information about "Auto issue" and "Manual issue".

20. Error messages

If an error occurs with this machine, the red Status LED lights up, and the state is displayed. Take measures according to the dealing process.

No.	LCD	LED	Status	Measures
1	cancel / resume printing	Off	This indicates a suspended label issue state.	Make a selection using the FEED and MENU keys.
2	cool down (count down)	Off	This indicates a resting state due to over-heated motor at the normal issue.	The label will be automati-cally issued after the motor is cooled.
3	head over heated	Off	This indicates a resting state for cooling due to overheated head.	The label will be automati-cally issued after the motor is cooled.
4	paper end	On (red)	This indicates a label end detecting state.	Replace with new labels.

No.	LCD	LED	Status	Measures
5	cover open	On (red)	This indicates a cover opening state.	Close the cover.
6	low battery	On (red) for about 10 seconds	This indicates a battery low detecting state. The power will be turned off in 10 seconds.	Charge the battery.
7	head error	Off	This indicates a head failure state.	Contact our dealer.
8	label error	On (red)	This indicates a mark un-detectable state.	Replace with a correct label.

21. Daily Check and Cleaning Method

21-1. Printing check (Test pattern printing)

First of all, print the test pattern before issuing labels. Check that the thermal print head works normally and the pattern is printed correctly.

(1) Turn on the power of this machine.

(2) Print the test pattern according to the procedure described in Section 13 "Test Printing".

(3) Check that there is no white line on the printed test pattern.

Normal pattern

Abnormal pattern

21-2. Execution of the head check

The head is automatically checked when the machine power is turned on. If the message "head error" is displayed, contact our dealer.

- Use this head check as a guide. Test printing can be normal If the message "head error" is displayed, or the message will not appear if test printing is abnormal. In this case, prioritize test printing.

21-3. Cleaning of the thermal print head

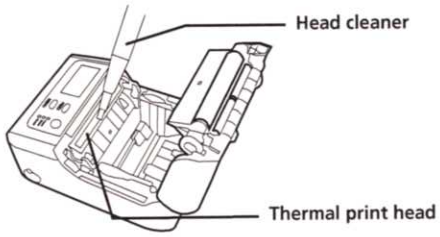
Normal printing cannot be made when glue or dust adheres to the print head, clean the thermal print head.

(1) Open the cover by lowering the release lever and take out the media roll.

(2) Check that glue or dust does not adhere to the print head.

(3) Carefully wipe off extraneous objects if any with the attached head cleaner.

(4) Use the head cleaner after cutting the dirty part when the cleaner gets dirty.



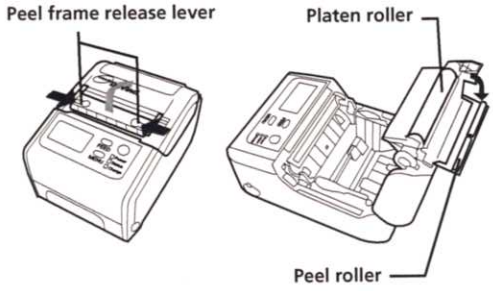
⚠ CAUTION

- Do not use anything other than the specified head cleaner.
- Do not remove extraneous objects with a stiff-pointed thing such as a driver or pencil. Doing so may cause damage of the thermal print head.
- Do not clean the machine when the thermal print head is still high in temperature. Doing so may cause a burn.

21-4. Cleaning of the platen roller and the peel roller

(1) Open the peel frame by sliding the peel frame release lever.

(2) Open the cover by pressing the release lever. Then, take out the media roll.



(3) Clean the platen and peel rollers with a soft cloth wringed after being soaked in neutral detergent.

⚠ CAUTION

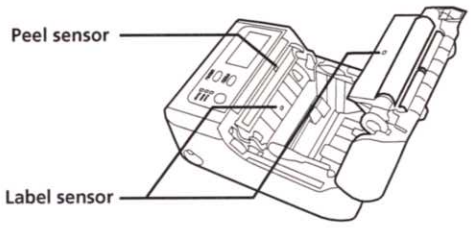
Do not use organic solvents such as benzene and thinner may dissolve the machine or platen roller. Doing so may cause a trouble.

21-5. Cleaning of each sensor

(1) Open the cover by lowering the cover release lever, and take out the media roll.

(2) Clean the label sensor and peel sensor with the attached brush.

- There is a possibility that dusts adhere to the label sensor if the red Status LED lights up even though labels are correctly set.

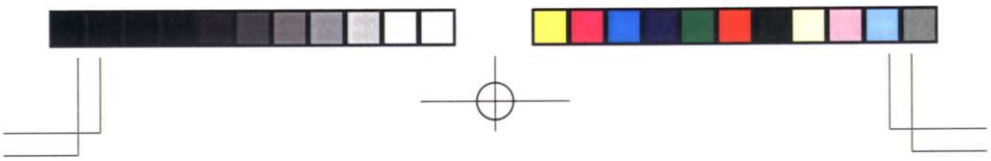


22. Specifications of this machine

Specifications/Model name		DP-2
Printer unit	Print method	Direct thermal
	Resolution	8 dots/mm (203dpi)
	Print speed	Max. 100mm/second (standard printing)
	Effective print range	Width: 48mm Length: 100mm
External dimensions	123mm(L) x 85mm(W) x 64mm(H) (excluding protruding portions) • **DP-2/L type** 146mm(L) x 85mm(W) x 76mm(H) (excluding protruding portions)	
Weight	398g (including battery pack) • **DP-2/L type** 411g (including battery pack)	
Power supply	Battery	Special lithium-ion battery (7.4V, 2500mAh)

Display unit	LCD	128 x 64 dot Dot matrix liquid crystal display (with backlight)
	LED	3 LEDs (Power, Status, Charge)
Operation panel	Buttons	3 buttons (Power, MENU, FEED)
Interfaces	Bluetooth™	Bluetooth™ Conforming to Ver.1.2 (Class 2)
	RS-232C	Use of exclusive use cable
Communication method	SPLM (command method using special protocols)	
Label printing mode	Tear-off, Peel-off	
Label (Outside wound label/paper only)	Label backing paper width	24 - 58mm
	Media roll outside diameter	58mm or less (mobile standard label) • **DP-2/L type** 70mm or less (desk-top standard label)
	Label mark type	I mark/Black mark, Gap, No black mark

Barcode type		EAN 8, EAN 13, JAN 8, JAN 13, UPC-A, UPC-E, NW-7, Interleaved 2 of 5(ITF), CODE 39, CODE 128, EAN 128, RSS
Two-dimensional code		QR Code, PDF417
Font		**Bit map fonts:** SSF1: 16x24 dots SSF2: 24: 24x32 dots **Outline fonts (scalable):** A Gothic, F European, C European, Gothic, MINCHO, OCR-B **Pop font** **Bit map Kanji fonts (JIS Level 1 & 2):** Gothic: 16x16, 22x22, 24x24 dots MINCHO: 22x22, 24x24 dots **Outline Kanji fonts (JIS Level 1 & 2):** Gothic (Scalable within 127 dots)
Functions	Self-diagnosis	Error message is displayed on the LCD.
	Power saving	Sleep mode Auto power off Remaining battery level indication
Optional accessories		Charger adapter, Extra battery pack, Rainproof case, Data transfer cable



23. Important Notices

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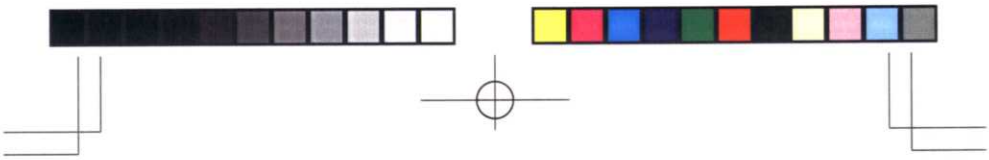

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MM0501

First Edition 2007.05