Service Manual

SD Card / Hard Disk Video Camera

Supplement

Model No. **SDR-H80P**
SDR-H80PC
SDR-H80EG
SDR-H80EE
SDR-H80EB
SDR-H80EP
SDR-H80EF
SDR-H80EC
SDR-H80GC
SDR-H80GN
SDR-H80GJ
SDR-H80GK
SDR-H80PU
SDR-H80PR
SDR-H81EE
SDR-H81EB

Subject : Change the parts No. of SUB P.C.B.

Please use this service manual together with the service manual for Order No. VM0812041CE.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 INTORODUCTION

The SUB P.C.B. is changed by the part change of G-SENSOR.
The new SUB P.C.B. is compatible with a original SUB P.C.B..
However, it is necessary to adjust it with the service software after it exchanges SUB P.C.B..

2 REPLACEMENT PARTS LIST

INTERCHANGEABILITY CODE								See the I/C column on the following Part Number List	
Parts	Production	Parts	Production	Parts	Production	Parts	Production	E	Addition
A Original → Early		B Original → Early		C Original → Early		D Original → Early		F	Deletion
New → Late		New → Late		New → Late		New → Late		G	Other

Parts Number List

Ref No.	Original Part No.	New Part No.	Part Name & Description	I/C	Remarks
17	LSEP8463P1	LSEP8463P2	SUB P.C.B.	A	H80EB,EC,EE,EF,EG,EP,GC,GJ,GK,GN

3 HOW TO DIFFERENTIATE

In a new SUB P.C.B, there is a description of "A" next to the SUB P.C.B name display.

4 ADJUSTMENT WITH SERVICE SOFTWARE

[1] Environment
   (PC)

Type:	IBM PC/AT Compatible
OS:	Windows 98SE / ME / 2000 / XP
CPU:	Intel Pentium class or more.
Memory:	Windows 98SE / Me: 64Mbyte or more. Windows 2000 / XP: 128Mbyte or more.
HDD:	3Mbyte or more.
PORT:	USB serial port.
VGA:	800 * 600 / 256 colour or more.

   (Software)
   Except PC and measuring instruments.

(1)Adustment software for SDR-H80 series.	Download from TSN-WEB.
(2)USB-SERIAL driver for adjustments.	Download from TSN-WEB.

   (Others)

Optics equipment.	Common for KDV2006 series.
Communications cable.	USB cable.
Measuring equipment.	Oscilloscope.

[2] How to setup the software and camera
   This camera adjustment uses USB Serial-port. RS-232C Serial-port is not used.

   <u>**Installation method of the USB-SERIAL driver (Panasonic DVC) used for adjustment**</u>
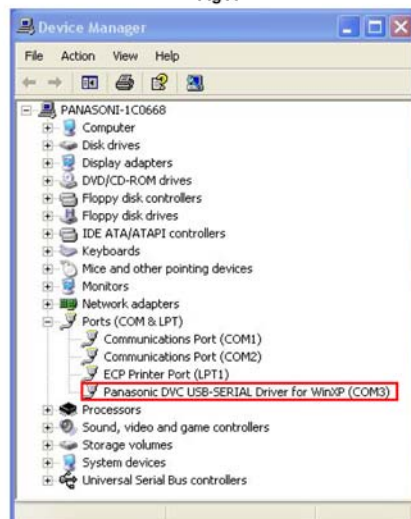   The USB driver for DVC is used.

   1. Download the "USB_COM.ZIP" file into your PC from TSN-WEB.
   2. Please execute "Setup.exe" in "ComMass" folder. Install it according to the message.
   3. Activate the camera following below procedures in order for the camera to communicate with PC.
      3-1. Turn the [Power SW] on.
      3-2. Set the normal record mode.
      3-3. "iA" and "OIS" button are pressing at the same time for three seconds or more while raising Joystick.
      3-4. If "COM" blinks under the LCD screen, it is OK.
      (attention)
         Please do the same operation without fail and release "COM communication mode" after completing the adjustment.
         Even if the power supply is turned off, it is not released.
   4. Connect the camera to PC with USB cable.
      "USB-SERIAL Driver" is automatically installed. (This is the case of WindowsXP)
   5. Confirm either the USB-SERIAL driver is properly installed or not by checking "System properties device manager" (Fig A).
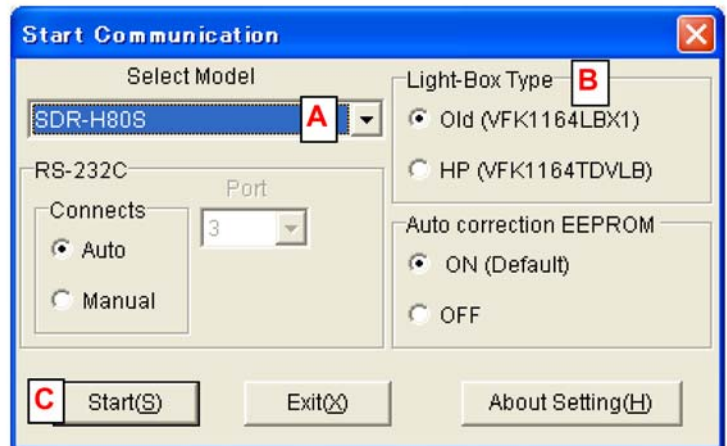   After competing the drive installation.

Fig A

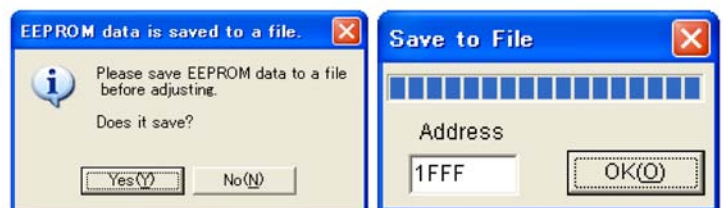COM-Number changes by the PC environment.

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[3] Connect communication

1) Choose a model. [A]
2) Choose the light box to be used. [B]
3) Click the "Start" button. [C]

Start Communication

Select Model
SDR-H80S [A]

Light-Box Type [B]
- Old (VFK1164LBX1)
- HP (VFK1164TDVLB)

RS-232C
Port
Connects
- Auto
- Manual
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Auto correction EEPROM
- ON (Default)
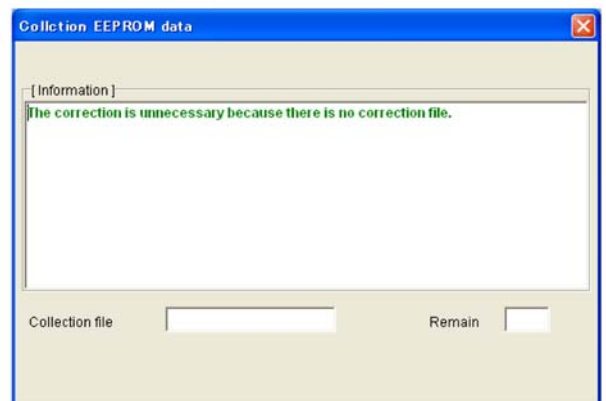- OFF

[C] Start(S)   Exit(X)   About Setting(H)

[4] Seve EEPROM data

1) When the communication connection completes the figure on the right is displayed.

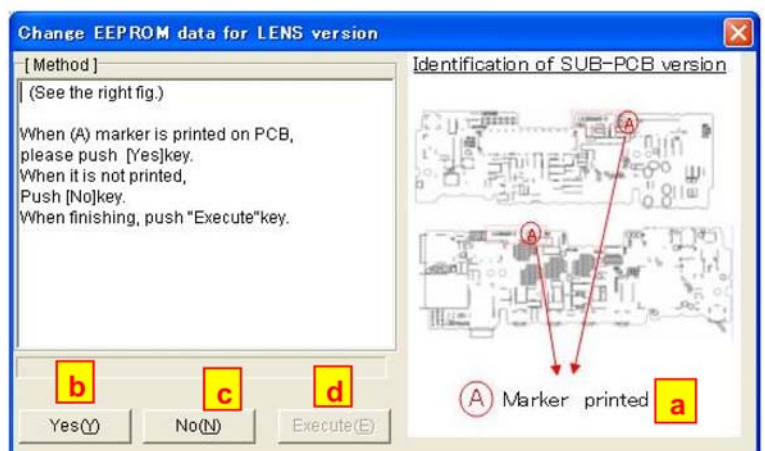2) Save with the file name currently displayed.

3) Click the [OK] button.

EEPROM data is saved to a file.
Please save EEPROM data to a file before adjusting.
Does it save?
Yes(Y)   No(N)

Save to File
Address
1FFF   OK(O)

[5] Automatic EEPROM correction

The right figure is displayed when it corrects automatically.
Please follow the contents of a display.

Collction EEPROM data
[Information]
The correction is unnecessary because there is no correction file.
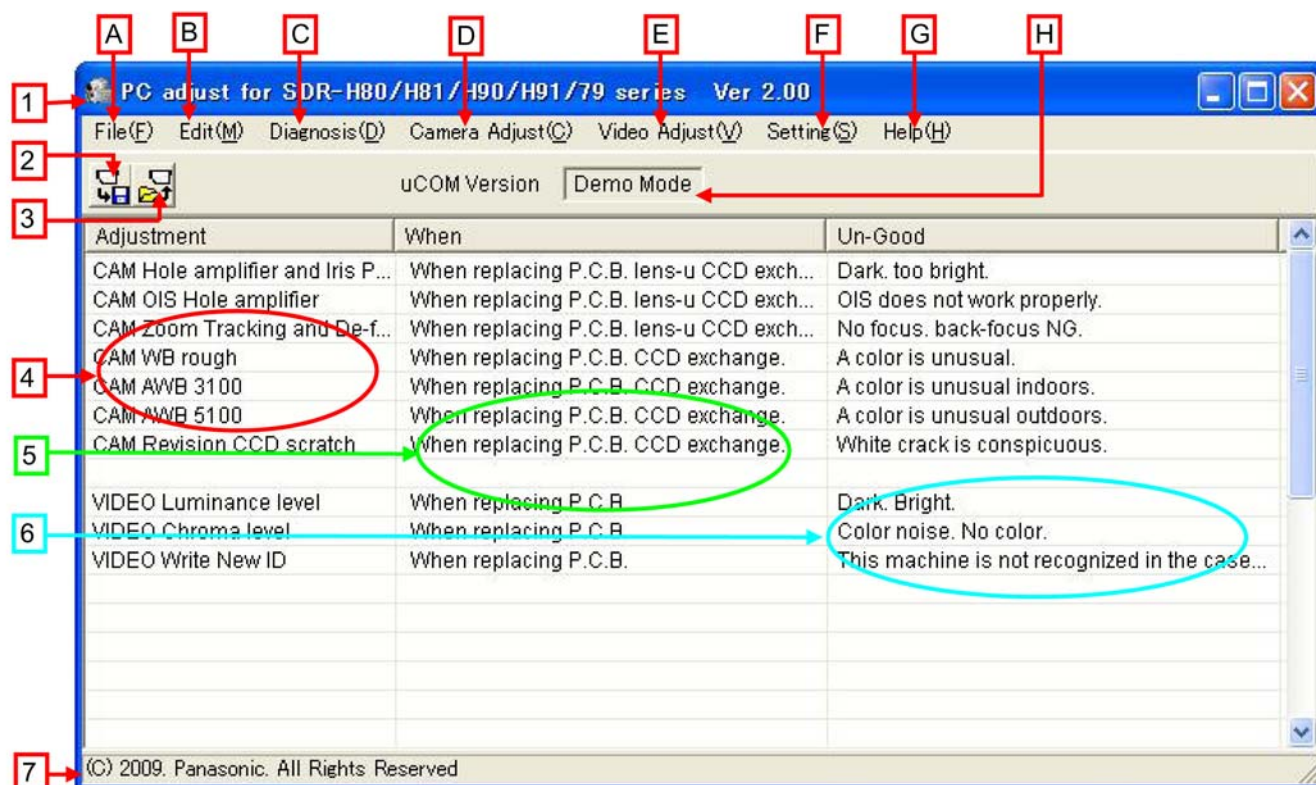
Collection file   Remain

[6] Check and optimize of the SUB-PCB version

1) Check the SUB-PCB version
   (Identification on SUB-PCB unit) [a]
2) When Ⓐ marker is printed on PCB,
   push [Yes] key. [b]
   When it is not printed, push [No] key. [c]
3) When finishing, push "Execute" key. [d]

Change EEPROM data for LENS version
[Method]
(See the right fig.)

When (A) marker is printed on PCB,
please push [Yes]key.
When it is not printed,
Push [No]key.
When finishing, push "Execute"key.

Identification of SUB-PCB version

[b] Yes(Y)   [c] No(N)   [d] Execute(E)

Ⓐ Marker printed [a]

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[7] Main menu

1. Software name and a version.
2. Save EEPROM data to the file.
3. Write EEPROM data from the saved file.
4. Adjustment item list.
   It can adjust, if it double-clicks.
5. When required.
6. When adjustment is imperfect.
7. Supplementary sentence etc.
A. EEPROM data save and writing.

B. Memory editor.
C. Ddiagnostic functions.
D. CAMERA adjustment.
E. VIDEO Adjustment.
F. Set a Calendar and clock.
G. Open the this PDF.
H. Main MPU-ROM version.

[8] Write EEPROM data.

The cautions in the case of writing data to EEPROM.

When there is no data which suits a CAMERA, the right figure displays.
If it writes compulsorily, a camera may break.
Especially when write other camera-data or initial value data, be careful.

[9] Edit
There are two kinds of editors. Usually, do not use it.
[10] Diagnosis
It is only an external control.
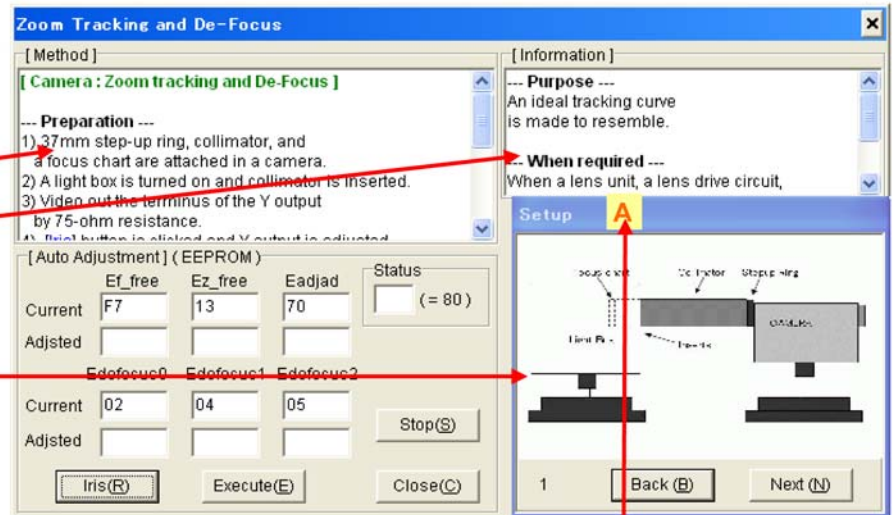
[11] Adjustment

The typical example of adjustment.

Case-1: Automatic adjustment.

Adjusts according to a [method].

Since [information] is important,
see well.

An setup figure, a waveform, etc.
display on the lower right.

Zoom Tracking and De-Focus

[Method]
[Camera : Zoom tracking and De-Focus]

--- Preparation ---
1) 37mm step-up ring, collimator, and
   a focus chart are attached in a camera.
2) A light box is turned on and collimator is inserted.
3) Video out the terminus of the Y output
   by 75-ohm resistance.
4) [Iris] button is clicked and Y output is adjusted.

[Information]

--- Purpose ---
An ideal tracking curve
is made to resemble.

--- When required ---
When a lens unit, a lens drive circuit,

Setup   A

[Auto Adjustment] (EEPROM)

	Ef_free	Ez_free	Eadjad	Status
Current	F7	13	70	(= 80)
Adjsted				

	Edofocuc0	Edofocuc1	Edofocuc2	
Current	02	04	05	Stop(S)
Adjsted				

Iris(R)   Execute(E)   Close(C)

1   Back (B)   Next (N)

It will be expansion if [A] is double-clicked. And if it double-clicks again, it will return.

Note. The contents can be edited if a right click is carried out on the screen of [Method] and [information].
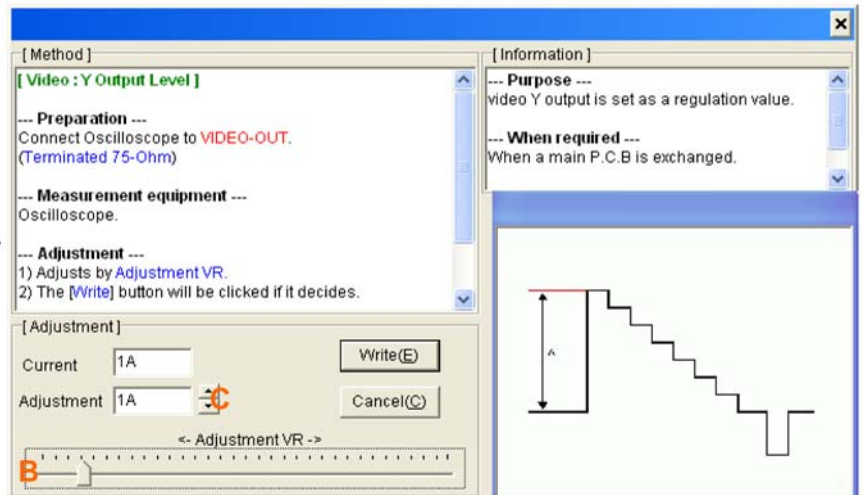
Case2: Manual adjustment.

[B] is dragged, or [C] is clicked
and adjusted.
Please drag slowly.

It can adjust also by the cursor key,
"Page Up", and the "Page Down" key.

Moreover, It can tune finely also with
a mouse wheel.

[Method]
[Video : Y Output Level]

--- Preparation ---
Connect Oscilloscope to VIDEO-OUT.
(Terminated 75-Ohm)

--- Measurement equipment ---
Oscilloscope.

--- Adjustment ---
1) Adjusts by Adjustment VR.
2) The [Write] button will be clicked if it decides.

[Information]

--- Purpose ---
video Y output is set as a regulation value.

--- When required ---
When a main P.C.B is exchanged.

[Adjustment]

Current	1A	Write(E)
Adjustment	1A C	Cancel(C)

<- Adjustment VR ->

B

[12] Trouble shoot (Symptom and remedy for Adjustmet Software usage)

CASE 1. The first communication connection is not succeeded.
  (1) Check whether the USB communication driver is installed correctly.
      Mainly, the reason of this symptom is due to this problem.
      In this case, see "[3]-1 important notice" noted above.
  (2) Check re-set it as maintenance mode.

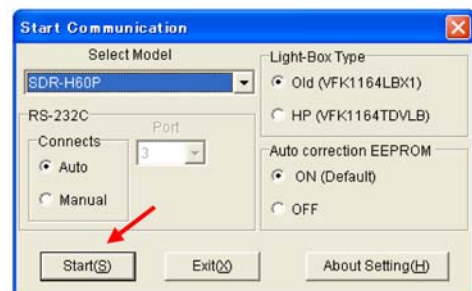**CASE 2.** Communication error occurs, even connection and setting seem to be ok.
  (1) Quit or remove the stationing style software. (ex: Virus detection software etc...)
  (2) As to the low performance capability of PC. In this case, operate the PC slowly.

CASE 3. No response even click any buttons.
  (1) Leave PC for about three minutes and try to close pressing [Close] button.
      If impossible, execute forced termination with pressing [Ctrl]+[Alt]+[Del] keys.

[13] Remarks

This software acts even if it is not connecting with the camera, when you crick the [Start] button while pressing the [Shift] key on the keyboard. It is useful for technical training etc.

End.

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