PENTAX™
Service Manual

ENGLISH

PENTAX ✳ist DL2

PRODUCT No. 76670

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Summary

*istDL2 (76670) is basically same as *istDL (76570)

The information in this manual is only for istDL2. For other information, please refer to the service manual for istDL.

The service equipments are common use with istDL except service program soft.

1-1. Preparation for adjustment

Adjustment program soft for 76670   ist DL2   ---   Supply with CD-R

Computer

SD memory card x 2 --- The size of memory should be bigger than 8MB

SD card reader or Camera and USB cable   I-USB17   --- Connect to PC

Preparation for SD memory card

1. Two SD memory card for FW

The following SD card is common use with istDL/istDS

2. For SW test

3. For Test mode ON

4. For test mode OFF

5. For initial set

1-2.Setting the computer and copy the adjustment file to SD card

(1) Copy the [76670 SLR] folder from the Programmed software contained in the CD-ROM to [C: drive] as shown in the picture below. (For SLR adjustment)

(2) Copy the [76670] folder from the Programmed software contained in the CD-ROM to [C: drive] as shown in the picture below. (For Digital adjustment)
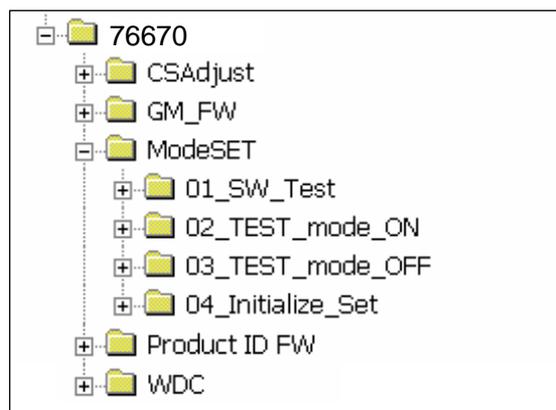
(3) Copy the file of [kb411b.bin] from [GM_FW] holder

(4) Copy the file of [kb392.bin] from [Product ID FW] --- FW for new T100

1-3 .Set up the VB run time

If your computer is not installed "VisualBasic" software, set up the VB run time is required as follow.

[Procedure]

Set the 76670 adjustment program soft into the computer

Execute the setup.exe in the folder of [vb6run_csx.x.x]
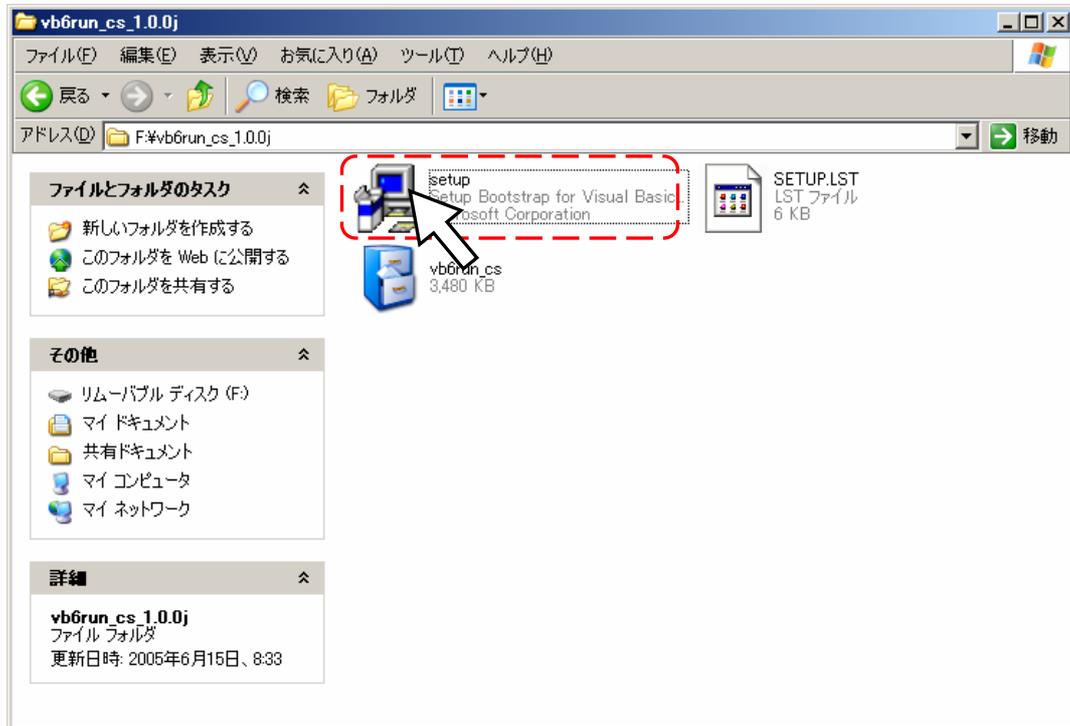
Installer will be started

* The Execute file and uninstall setting file will be generated

Click OK
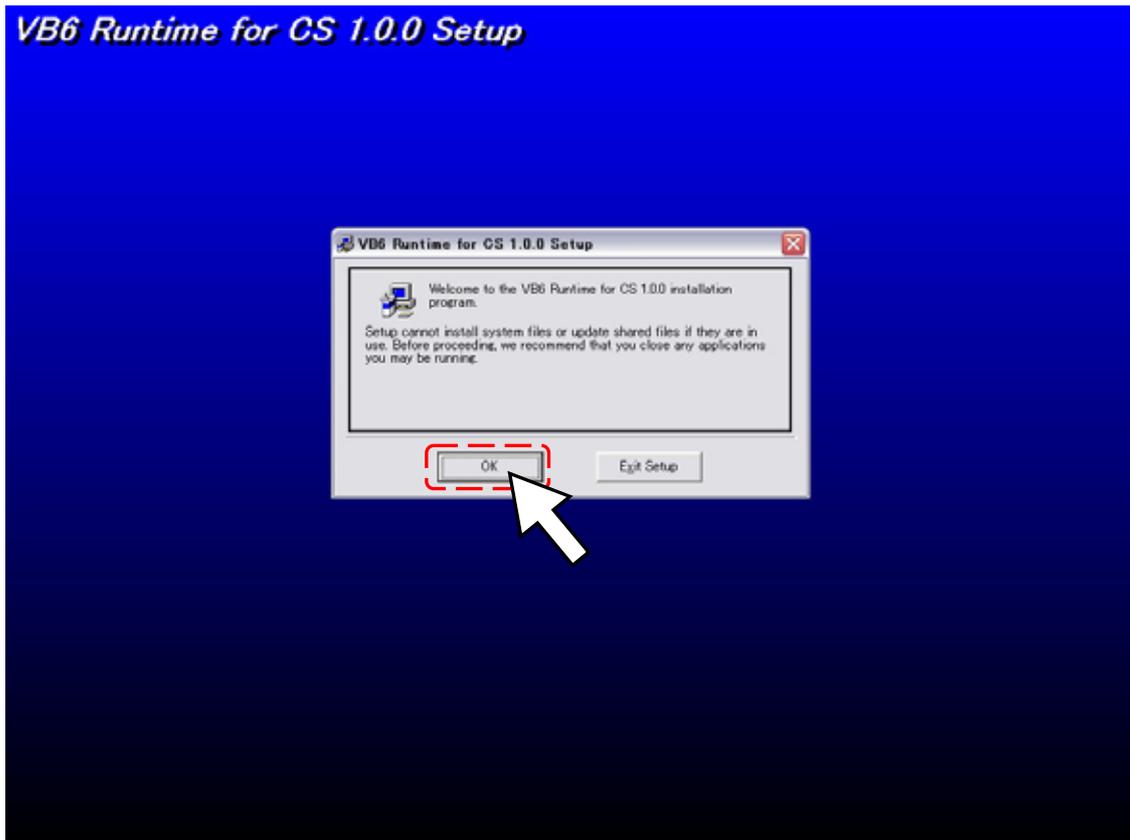
* Do not click Directory, Click installation button
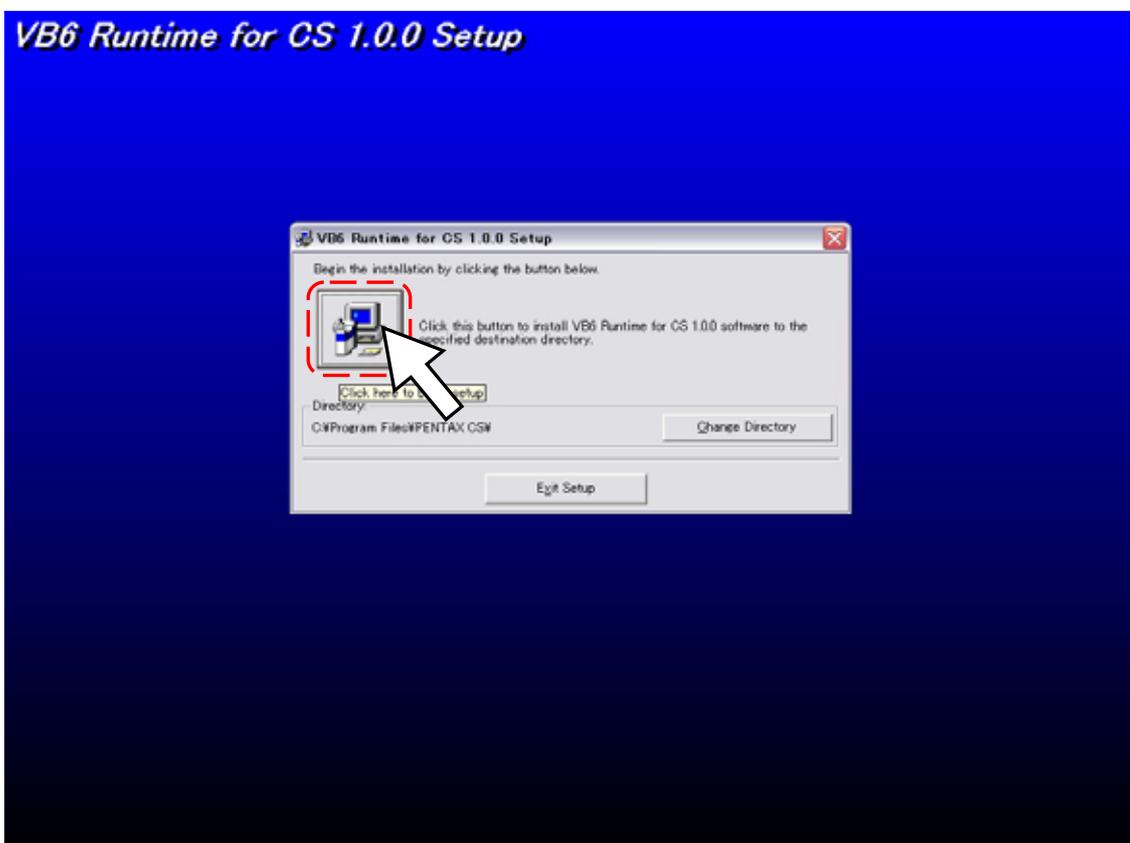
Set up will be started

Click OK to end the installation
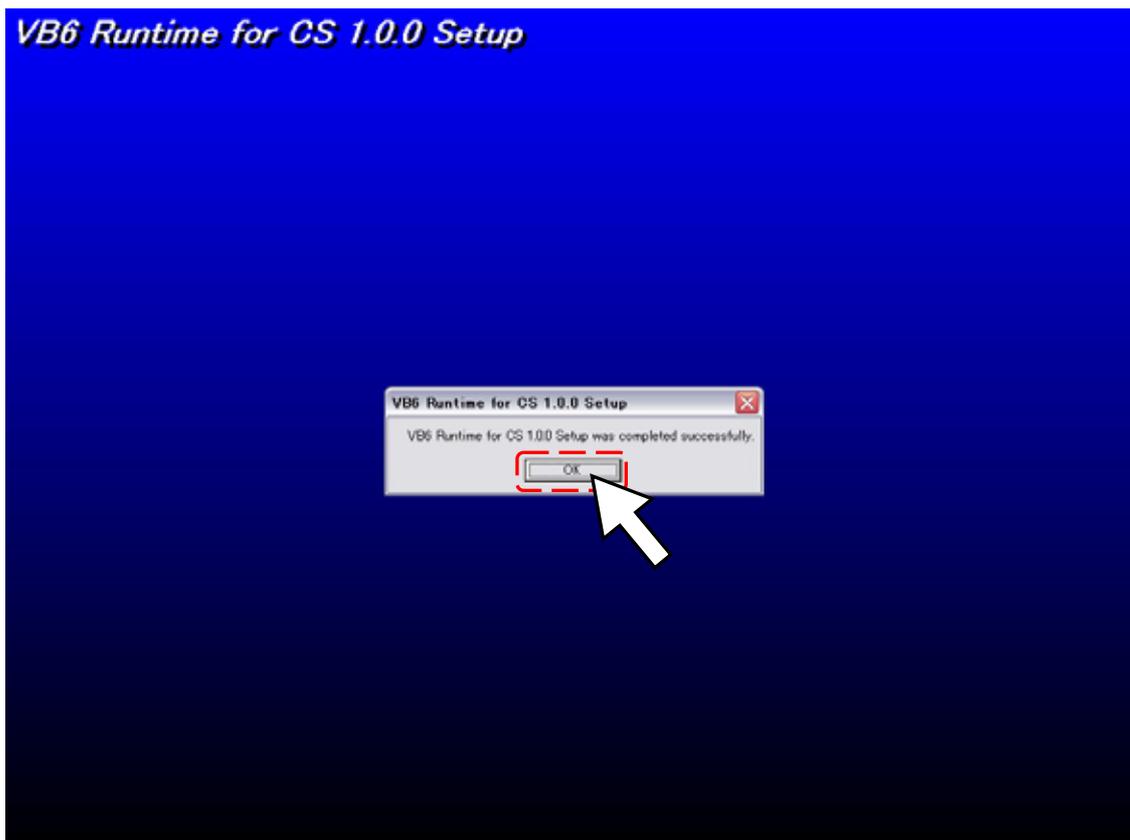
2. <u>DISASSEMBY AND ASSENBLY.</u>

2-1. Caution:

About FW installation and adjustment after replaced T100

The following procedure will be required (Same as istDS2 76640)

```
┌─────────────────────┐
│   FW for new T100   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│   FW for service    │
└─────────────────────┘
           │
           ▼
       Adjustment
```
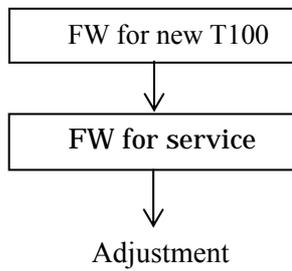
<u>2-2. Chart for Assemble, Adjustment and Confirmation.</u>

Procedure of Adjustment and confirmation is same as ist DL 76570

Refer to the ist DL 76570 Service manual

<u>3, Procedure for Disassemble/Assembly </u>

Procedure of Disassemble/Assembly is same as ist DL 76570

4. ADJUSTMENT THE PROGRAM SOFT (SLR function)

Caution: When replaced T100, the following procedure should be completed

Preparation

Programmed software for 76670 (for SLR operation), USB cable (I-USB17)

Computer (Windows 2000 / XP), AC-adaptor (D-AC10), Light source (Shutter tester)

Temporary bottom cover (Hand made/exclusive item), Power supply (8V,3A)

Shutter tester (1/4000 can be measured), Diaphragm set ring F8 (KA-0-1A), FA (F) 35-80mm F4-5.6,

AF positioning jig (Square) for 27830, AF positioning jig (Cross) for 27250, Power adaptor,

AF chart for 2m x2 (Exclusive item), AF master lens for 2m, FA Macro 50mmF2.8,

Driver1.5mm (HD-M1.5)
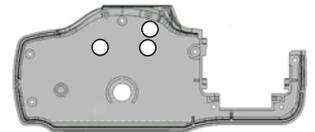
4-1. SETTING THE COMPUTER

● Setting the computer (Page2) and Set up the VB run time (Page3) should be completed
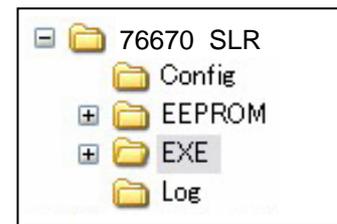
4-2. Preparation

When replaced T100 or CCD, the <u>CCD ID number</u> will be used for digital adjustment

Install battery cover for battery adaptor and temporally bottom cover to the camera

Set focus mode lever to [MF]

4-3. DISPLAY FOR ADJUSTMENT

When start the adjustment software, the following display will be opened

TOOL Bar

Op	Start the correspond with Camera
Cl	Close the correspond with Camera
p.s	Print screen
ver	Display FW version
end	End of adjustment
m.n	Display Menu screen

Display the status of USB connecting

Display the status of USB connecting

USB Connecting is ON   Connect

USB Connecting is OFF   Unconnect

4-4. MENU Display

When click the items, the detailed will be displayed as follows
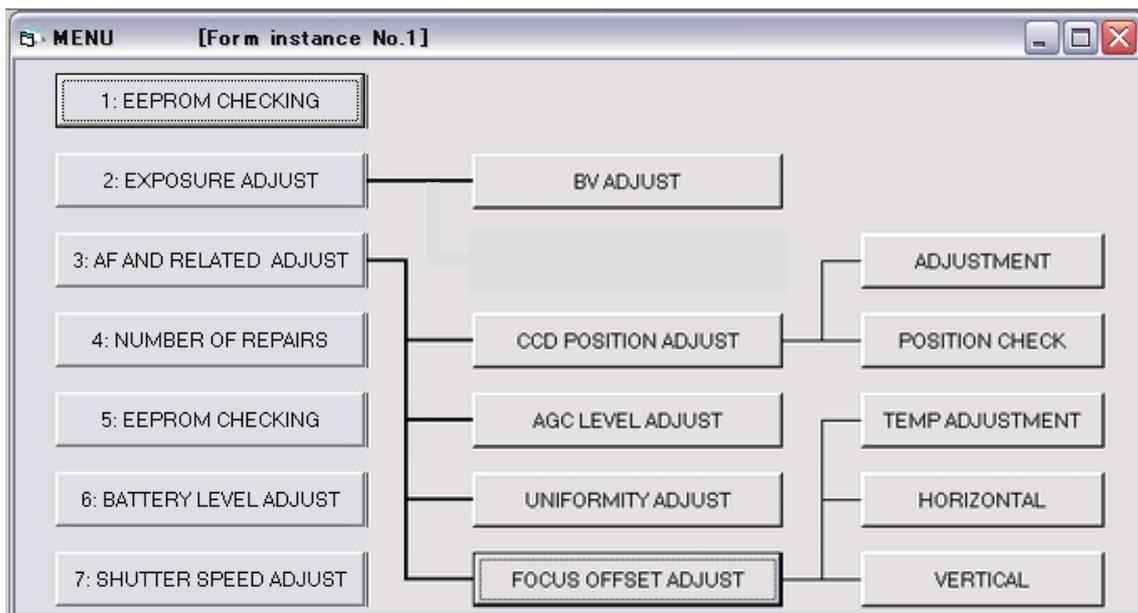
Detailed of adjustment items

1   [Eeprom checking] --- Check the data

2   [Exposure adjust] --- Adjustment of exposure

[BV adjust] (brightness value) --- Adjustment of measurement sensor

3   [AF and related adjust] --- Adjustment of AF

[CCD position adjust] --- Adjustment of CCD position

[AGC level adjust] --- Adjustment of AGC level

[Uniformity adjust] --- Adjustment of uniformity

[Focus offset adjust] --- Adjustment of AF focus

4   [Number of repairs] --- Record the number of repair

5   [Eeprom checking] --- Check the data

6   [Battery level adjust] --- Adjustment of Battery level

7   [Shutter speed adjust] --- Adjustment of High shutter speed

4-5. Adjustment procedure

Turn the power of the camera Off and then install AC adaptor

* Suggest installing battery to avoid the Power supply interception

Connect the camera to the computer via USB cable

Turn the power of the camera ON and confirm that the camera is recognized by computer

Click [PDCAdj01.exe] in the EXE folder

Adjustment screen will be displayed

Click [Op] to start correspond

*Confirmation: [Connect] should display as follow
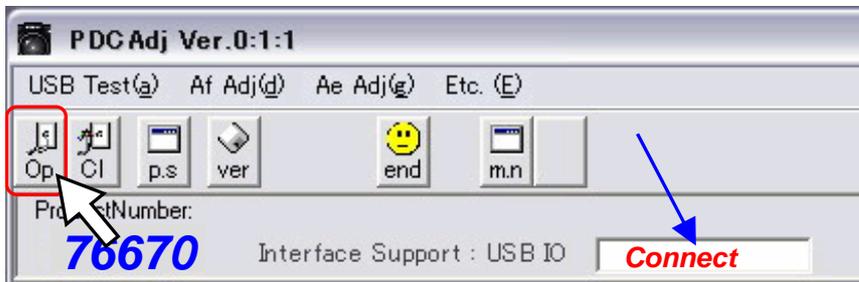
Execute the check/adjustment following the display screen as follows

Yes

Initialize the data
(Yes/No)

Replaced Main PCB
No

6   BATTERY LEVEL ADJUST

1   EEPROM CHECKING
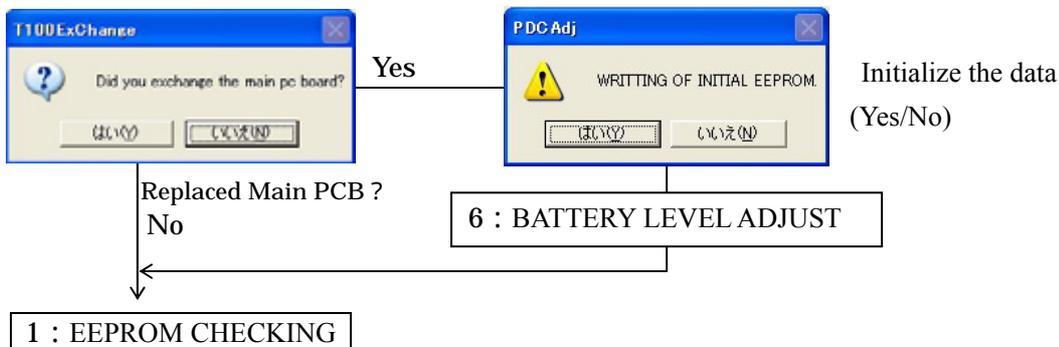
2   EXPOSURE ADJUST

[BV ADJUST]

Tools   Focus master lens for 35mm (KML-01), Diaphragm set ring F8 (KA-0-1A)

Light source   (LV6,LV8,LV12,LV15) or (LV6,LV9,LV12,LV16)

3   AF AND RELATED ADJUST

Tools: AF positioning jig (Square) for 27830, AF positioning jig (Cross) for 27250, Light source LV12

Driver1.5mm (HD-M1.5), AF master lens for 2m, FA (F) 35-80mm F4-5.6,

AF chart for 2m x2 (Exclusive item), FA Macro 50mmF2.8,

2m AF chart have to be set as follows

1   Distance between chart and mount of camera --- <u>1,954.5mm</u>   1.9545m

2   Chart should be set at perpendicularly against light axis of the lens

↓

[CCD POSITION ADJUST]

ADJUSTMENT

1) Alpha-CROSS --→- Dump Start --→ Adjustment --→ Stop

2) Beta-SQUARE --→- Dump Start --→ Adjustment --→ Stop

3) Focus --- Start -→- Next → Stop → Close

* When replaced M100, Click M100 button and then start adjustment

POSITION CHECK

[AGC LEVEL ADJUST]

[UNIFORMITY ADJUST]

[FOCUS OFFSET ADJUST]

TEMP ADJUSTMENT   Select   /F → Input temperature→ Temp Adjust → Close

HORIZONTAL   VERTICAL*

   START→ Adjust position of chart → STOP → ADJUST → Close

5   EEPROM CHECKING

When finished all adjustment, click   5   EEPROM CHECKING

* When replaced T100, the following adjustment should be done additionally

6   BATTERY LEVEL ADJUST

Tools: Battery adaptor, Power supply (8V, 3A)

        Follow the screen

   When open and close the battery cover, [Pc] will be displayed in the LCD panel of the camera

        Click Op and then start the correspond with camera. Display will change to   - - -

        Press BC Adjust and execute the adjustment

        After finished the adjustment, press Close button

        If the power turned ON again, execute above

7   SHUTTER SPEED ADJUST

Tools: Shutter tester

        Select the shutter tester

        Press RELEASE button and release the shutter several times, also measure the data

        Input Measurements data and press Input Data

        After finished the adjustment, press Close button

Finish the [5   EEPROM CHECKING] and execute [End procedure]

4-6. Procedure for Ending the program soft

Finish the program soft with following procedure

USB Close

Click "Cl"icon and disconnect the correspond with camera

Confirmation: Unconnect   should be display as follow
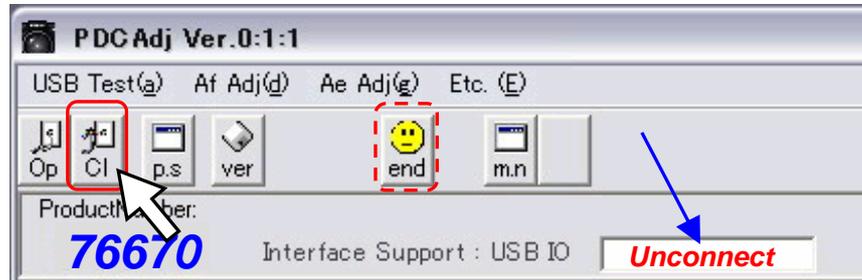
Click "end" icon and finish the adjustment program soft

Double-click hot plug icon of the taskbar at the lower right of a desktop, and then follow "safe removal of hardware." -> "PENTAX USB DISK Device"

Turn the power of the camera OFF and remove AC adaptor, USB cable

Battery cover and temporally bottom cover can be stayed for next adjustment

5. ADJUSTMENT THE PROGRAM SOFT   (Digital part)

5-1 .The procedure is same as 76570 except following adjustment procedure

When the setting and connecting is ready, start the "SLR MTest.exe" in the CSAdjust folder

Input Lens ID number

When the program soft start, the following screen will be displayed and then wait for 20 seconds
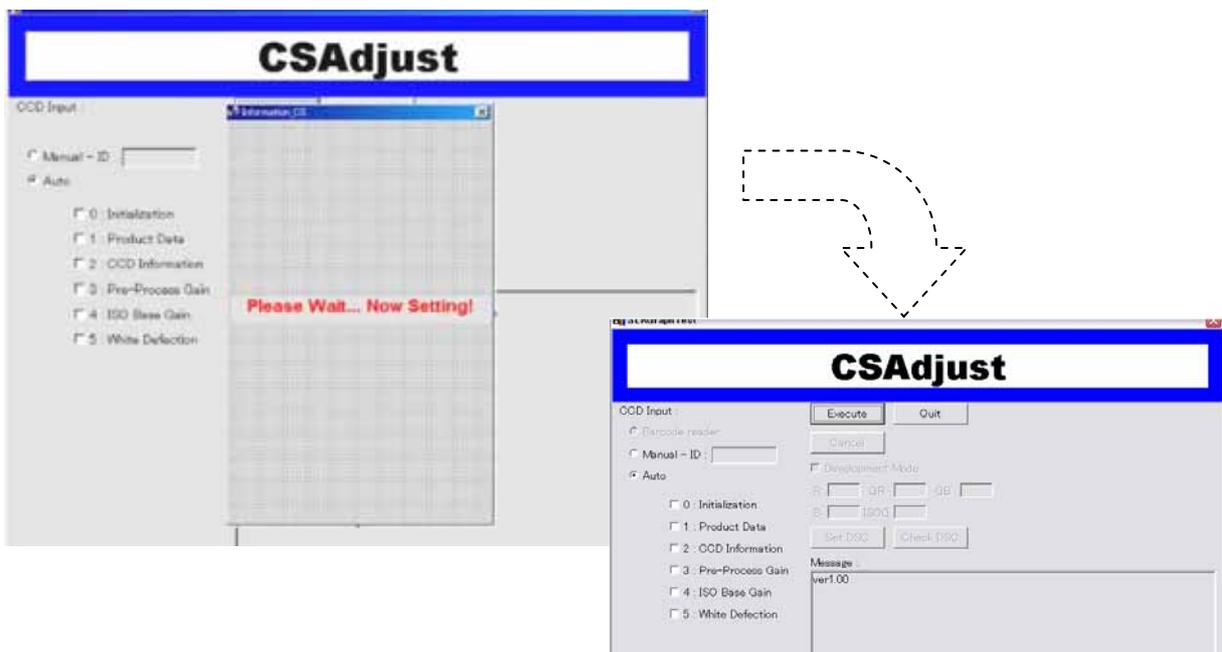
6. FW Firmware

Method of updating FW and how to check the FW version are same as istDL(76570)

But, SD card for FW of istDL2 should be prepared, refer to the " Setting the computer and copy the adjustment file to SD card" page 2

7. List of service equipments, tools for istDL2

<u>Ordering No</u>

Exclusive use for 76670   istDL2

Program soft for 76670 (SLR / Digital) ---- Supply with CD-ROM   No.95901-P407

For other equipments and tools are common use with istDL (76570), please refer to the service manual for istDL(76570)

But, the following tools are no need for istDL2 (76670)

* Camera multi adaptor II, or A

* Connecting cable for 27250 MZ-5)