SERVICE MANUAL

DiMAGE Scan Elite 5400 II

COMMON MODEL : DiMAGE Scan Elite 5400 II (2892-100)

TECHNICAL ILLUSTRATION

PARTS NOTICE WITH PARTS LIST

TECHNICAL REPAIR MANUAL

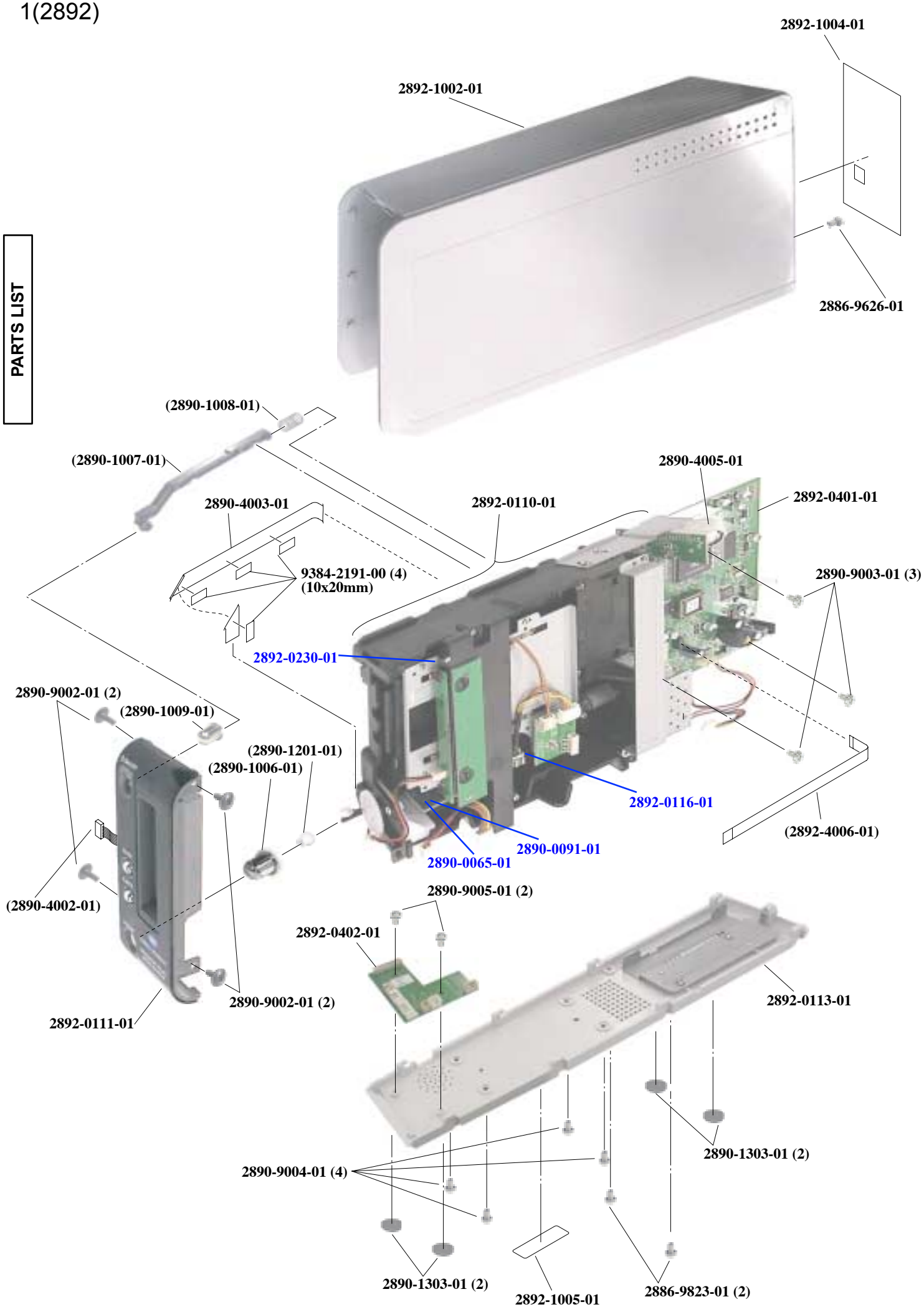
KONICA MINOLTA PHOTO IMAGING, INC.

Specifications

Type	Scanner type	35mm film scanner
Image sensor	Type	3-line color CCD
	Total pixels	5340 pixels/ line
	Filter	Primary color filter
Scanning system	Film type	35mm film (Color/ B&W, Negative/ Positive)
	Scan type	Moving film, fixed sensor, single-pass scan
	Optical resolution	**5400x5400 dpi**
	Maximum input pixels	5328x7920 pixels
	Scan size	25.0x37.25mm, 35mm Film Holder scan area: 24x36mm
	A/D conversion	16 bit per color channel
	Output	8 bit and 16 bit per color channel
	Dynamic range	3.8 (Tested value)/ 4.8 (Calculated value)
	Continuous scan	All/ selected frames
Interface	Interface	USB 2.0 (USB 1.1 compatible)
	Connector	Type-B receptacle connector
Focus	Focus method	Autofocus and manual focus (motor drive/ manual)
	Focus area	Center/ Spot
Light source	Light source	White LED
Holder	Holder type	35mm Film Holder (For sleeve film [Up to 6 framws]), Slide Mount Holder (For slide mounted film [Up to 4 frames])
	Insert/ Eject	Auto loading, Eject
Image correction	Image correction	Tone Curve and Histogram correction/ Brightness, contrast, and color-balance correction/ Hue, saturation, and Brightness correction/ Variation correction/ Selective-color correction/ Unsharp mask
	Additional feature (Scratch/ dust reduction)	Digital ICE (Image Correction Enhancement)
	Additional feature (Auto image correction)	Pixels Polish (Automatic or custom image correction)/ Digital ROC (Reconstruction Of Color)/ Digital GEM (Grain Equalization & Management)/ Digital SHO (Shadow and Highlight correction)
Color matching	Output device	Monitor
	Output color space	rRGB/ AppleRGB/ SMPTE-C/ PAL/ SECAM/ ColorMatchRGB/ AdobeRGB/ Wide Gamut RGB/ NTSC/ CIE RGB/ Monitor RGB
Dimentions/ Weight	Dimensions	70 (W) x 165 (H) x 345 (D) mm
	Weight	Approx. 1.5Kg
Power	Power requirements	100 - 120V AC, 50/ 60Hz for North America, Canada, Taiwan, and Japan/ 200 - 240V AC, 50Hz for England, Hong Kong, and China/ 200 - 240V AC, 50/ 60Hz for continental Europe, Oceania, and Asia (except for Taiwan, Japan, Hong Kong, and China) With supplied AC adapter. The adapter unit varies with the destination.
	Power consumption	20W
Operating environment	Operating temperature	10 - 35 degrees cenfigrade
	Operating humidity	15 - 85% humidity without condensation
Storage environment	Storage temperature	-20 - 60 degree cenfigrade
	Storage humidity	10 - 85% humidity without condensation
Others	Standard accessories	Driver software/ 35mm Film Holder/ Slide Mount Holder/ USB Cable/ AC Adapter/ Reset Tool/ Bundle software
	Optional accessories	None
	Environmental protection	ENERGY STAR compliant

INDEX

PARTS LIST


2892-1004-01
2892-1002-01
2886-9626-01
(2890-1008-01)
(2890-1007-01)
2890-4005-01
2892-0401-01
2890-4003-01
2892-0110-01
9384-2191-00 (4)
(10x20mm)
2890-9003-01 (3)
2892-0230-01
2890-9002-01 (2)
(2890-1009-01)
(2890-1201-01)
(2890-1006-01)
2892-0116-01
(2892-4006-01)
2890-0091-01
2890-0065-01
(2890-4002-01)
2890-9005-01 (2)
2892-0402-01
2892-0113-01
2892-0111-01
2890-9002-01 (2)
2890-1303-01 (2)
2890-9004-01 (4)
2890-1303-01 (2)
2892-1005-01
2886-9823-01 (2)

PART NO	PART NAME		QTY.
2892-0110-01	IMAGE TAKING BLOCK	撮像ボディユニット	1
(2890-1006-01)	FOCUS DIAL	フォーカスダイアル	1
(2890-1007-01)	ARM	アーム	1
(2890-1008-01)	POWER SW. SP	電源ＳＷ　ＳＰ	1
(2890-1201-01)	GEAR 12T	ギア１２Ｔ	1
(2892-4006-01)	FFC CABEL 8P	ＦＦＣケーブル８Ｐ	1
2892-0111-01	FRONT HOUSING ASSY	前カバーセット	1
(2890-1009-01)	POWER BUTTON	電源ボタン	1
(2890-4002-01)	CABEL 6P	ケーブル６Ｐ	1
2892-0113-01	LOWER CASE ASSY	下カバーセット	1
2892-0401-01	MAIN PCB ASSY	メイン基板セット	1
2892-0402-01	IF PCB ASSY	ＩＦ基板セット	1
2892-1002-01	UPPER CASE	上カバー	1
2892-1004-01	RATED LABEL	定格ラベル	1
2892-1005-01	SERIAL NUMBER LABEL	ボディＮｏ．ラベル	1
2890-1303-01	RUUBER STAND	ラバースタンド	4
2890-4003-01	FFC CABEL 18P	ＦＦＣケーブル１８Ｐ	1
2890-4005-01	CABEL 30P	ケーブル３０Ｐ	1
2890-9002-01	SCREW	ねじ	4
2890-9003-01	SCREW	ねじ	3
2890-9004-01	SCREW	ねじ	4
2890-9005-01	SCREW	ねじ	2
2886-9626-01	SCREW	ねじ	1
2886-9823-01	SCREW	ねじ	2
9384-2191-00	DOUBLE-FACED TAPE (PER ROLL)	両面テープ	4
2890-0065-01	GEAR 24		
2890-0091-01	FOCUS MOTOR		
2892-0116-01	MOTOR		
2892-0230-01	HOLDER HOLD SP		

Parts Modification List

About the written contents of a PARTS MODIFICATION LIST.

Description for each item in PML.

(1) Code number of the model and page number.
(2) Reference No..
(3) Relevant page of Parts List.
(4) Reference No. of its creation post is shown.
(5) Number of relevant Supplementary Information if any.
(6) Reason of modification.
(7) Models in which the part is used in common.
(8) Previous parts number.
(9) New parts number.
(10) The part marked as "~~Previous~~ " is no longer available as a service part. Use new Part.
(11) Arrow (→, ←) show parts interchangeability.
→ ○ (×) : Previous part can be (cannot be) replaced with new part.
× (○) ← : New part cannot be (can be) replaced with previous part.
(12) Name of the newly added part. See Parts List for the name of current Parts.
(13) Description of the modification.
(14) When the part cannot be replaced as a single one, vertical colum shows the related parts to be replaced as a set.
Arrows (→, ←) at base of table show interchangeability or parts as a set.
(15) Continued on the next page.

部品変更連絡票の記載内容について

記載項目の説明

(1) 機種コードと版（改訂）およびページを示します。
(2) 管理Ｎｏ.を示します。
(3) 記載されているパーツリストの該当ページを示します。
(4) 作成部署の管理No.を示します。
(5) 関連情報、修理情報等がある場合は、サプリメンタリーインフォメーションNo.等を右上に示します。
(6) 変更理由を示します。
(7) 代表機種を含む共通機種を示します。
(8) 変更前の部品番号を示します。
(9) 変更後の部品番号を示します。
(10) "~~Previous~~" は、供給不可を表します。その場合は"NEW" 部品を使用して下さい。
(11) 矢印（→, ←）は互換性を示しています。
→ ○(×) : 旧部品を新部品に交換しても良い(交換してはいけない)。
×(○)← : 新部品を旧部品に交換してはいけない(交換しても良い)。
(12) 新設部品は部品名称を記載します。それ以外の部品は、パーツリストを参照して下さい。
(13) 参考事項がある場合は、記載します。
(14) その部品単独の変更でなく、関連変更部品がある場合は、表の縦の列で関連部品変更を示しています。
表の（→, ←）は、関連部品セットでの互換性を示しています。
(15) 次ページに続くことを示します。

Ex.

(1234)A 1 (1)

(2)

管理No. REF No.	QS FA 1234-P001
主管部署 Divison	カメラCS部 Camera CS Division
施行年月日 Valid from	August 1,2003

PARTS MODIFICATION LIST

Approved by 承認	Verified by 審査	Written by 作成

(3) Parts List P.1

(4) ****-* SUPPLEMENTARY INFORMATION No. QS FA 1234-S01J (5)

変更理由 REASON	(6)			共通機種 COMMON MODEL	(7)
~~Previous~~	(8)	→○(×)	(○)×←	(9)	New

(10) (11)

(12) Added./新設
1234-5678-90 (Parts No.)
ABC ASSY (Part name)
ABC セット(部品名称)

(13)

(14) セットでの互換性/ Interchangeability as a set.	Previous	→○(×)	(○)×←	New

(15) Continued on the next page./次ページにつづく

PARTS MODIFICATION LIST

REF No. 管理No.	QS FA 2892-P001

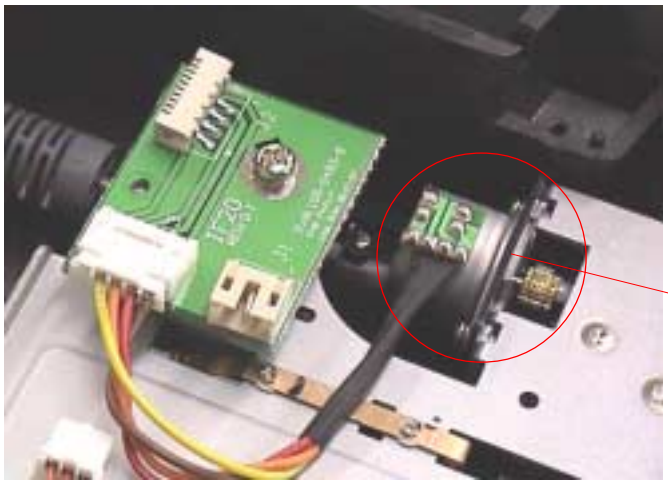
Division 主管部署	Camera CS Division カメラCS部
Valid from 施行年月日	July 15. 2005

Approved by 承認	Verified by 審査	Written by 作成
Yata		Ueno

Parts List P. 1

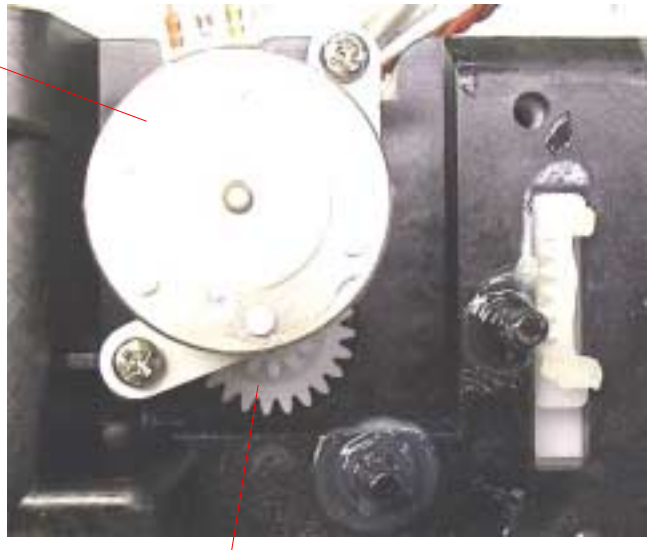
仮-939

REASON 変更理由	サービス供給として設定する To supply as a spare part			COMMON MODEL 共通機種	2892-100
Previous	――――――	――	――	2892-0116-01	New
Previous	――――――	――	――	2890-0065-01	New
Previous	――――――	――	――	2890-0091-01	New



2892-0116-01
MOTOR
モータ
NEW/新規設定

2890-0091-01
FOCUS MOTOR
フォーカスモータ
NEW/新規設定



2890-0065-01
GEAR 24
ギヤ24
NEW/新規設定

PML

■本案内状に従い、パーツリストへの転記等、メンテナンスを行なってください。

According to this list, correct “Parts List” in Service Manual for effective parts management.

REF No. 管理No.	QS FA 2892-P002

PARTS MODIFICATION LIST

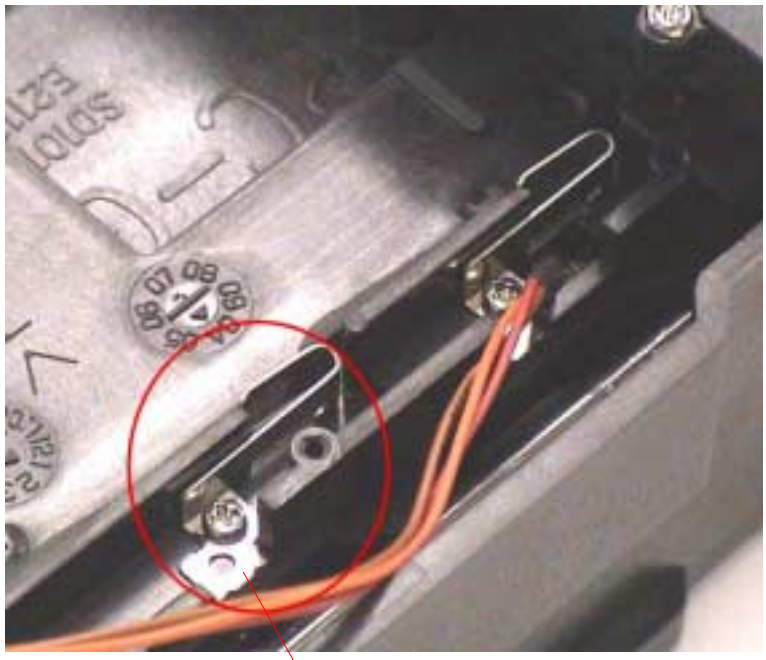
Division 主管部署	Camera CS Division カメラCS部
Valid from 施行年月日	July 15. 2005

Approved by 承認	Verified by 審査	Written by 作成
Yata		Ueno

Parts List P. 1

Supplementary Information 2892-S01E/J 仮-931

REASON 変更理由	インデックス画像の歪み改善 How to improve the distortion of index images			COMMON MODEL 共通機種	2892-100
Previous	――――――	――	――	2892-0230-01	New



2892-0230-01
HOLDER HOLD SP
ホルダー押えＳＰ
NEW/新規設定

PML

■本案内状に従い、パーツリストへの転記等、メンテナンスを行なってください。

According to this list, correct “Parts List” in Service Manual for effective parts management.

REPAIR GUIDE

Contents of this manual are in accordance with the assembly procedure.
Therefore, follow the reverse procedure when disassembling.

SYMBOLS
■ : Caution and key points of assembly
[A] : Anti-diffusion agent
[B] : Adhesive
[G] [O] : Grease
[T] : Tools

TABLE OF CONTENTS

PRECAUTIONS

Chemicals

Handle chemicals of high volatility with care, use of which will affect to your health and environment.
1. Store them sealed in a specific place to prevent from exposure to high temperature or direct sunlight.
2. Avoid dividing them into small containers and prevent from vaporization.
3. Keep containers sealed when not in use.
4. Avoid using them as much as possible. When required, remove only required amount from the container to make full use.

Plastic Parts

1. When cleaning the plastic parts, use cleaning paper or cloth. Never apply thinner, ketone, ether.
2. When installing the plastic parts, insert the specific screws vertically to the parts. (Be careful not to tighten too much.)

PCBs

Since PCBs use MOS IC, you must reduce static electricity.
When repair a PCB itself, or when wiring, please perform your work as illustrated below.
If grounding is impossible, connect a cable to a steel desk or shelf.

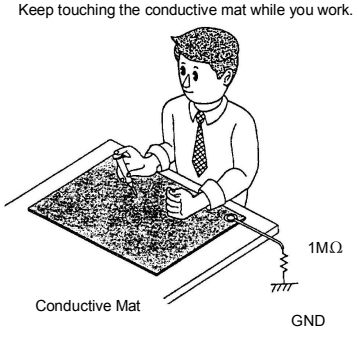
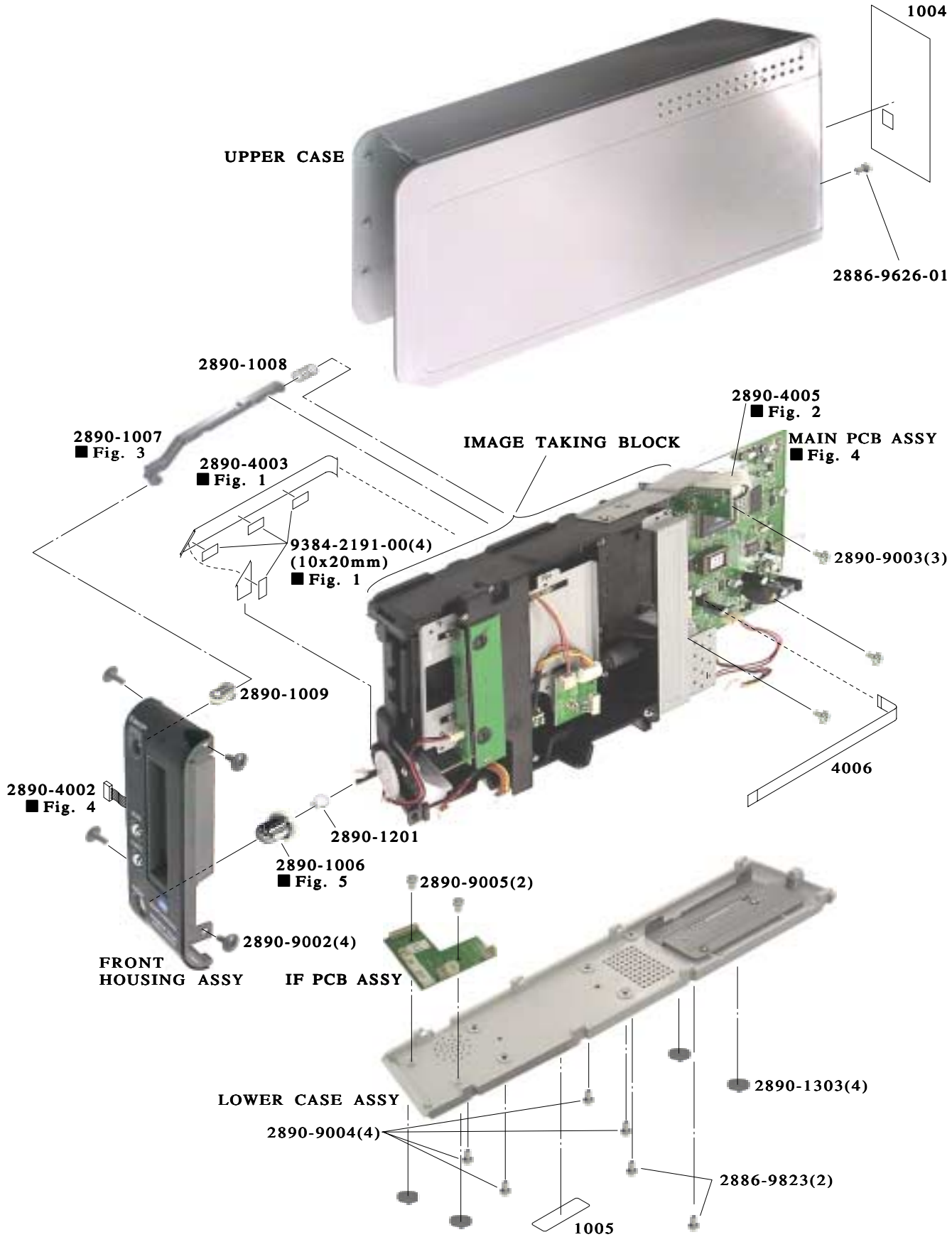
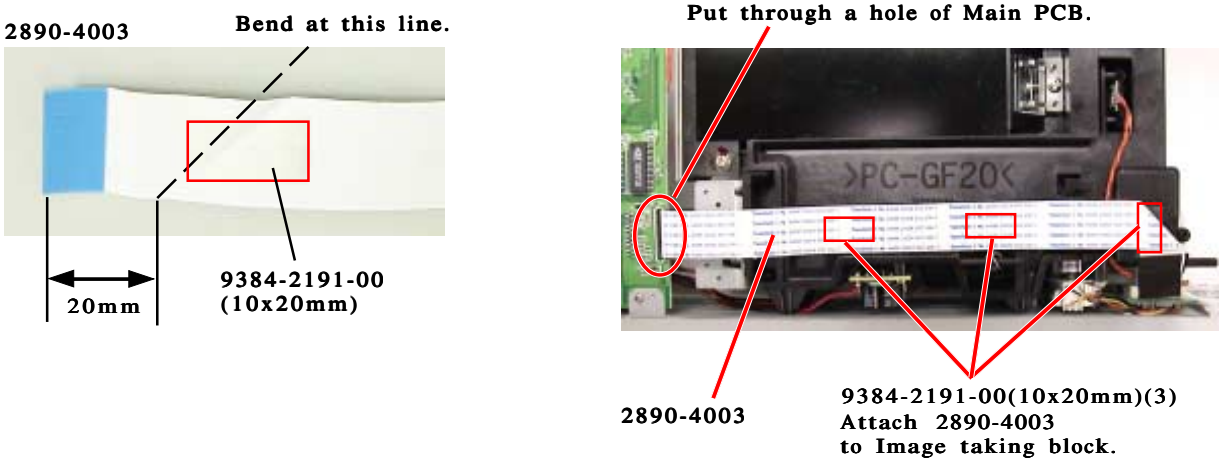


Image taking block/ Main PCB Assy/ Exterior Parts Installation

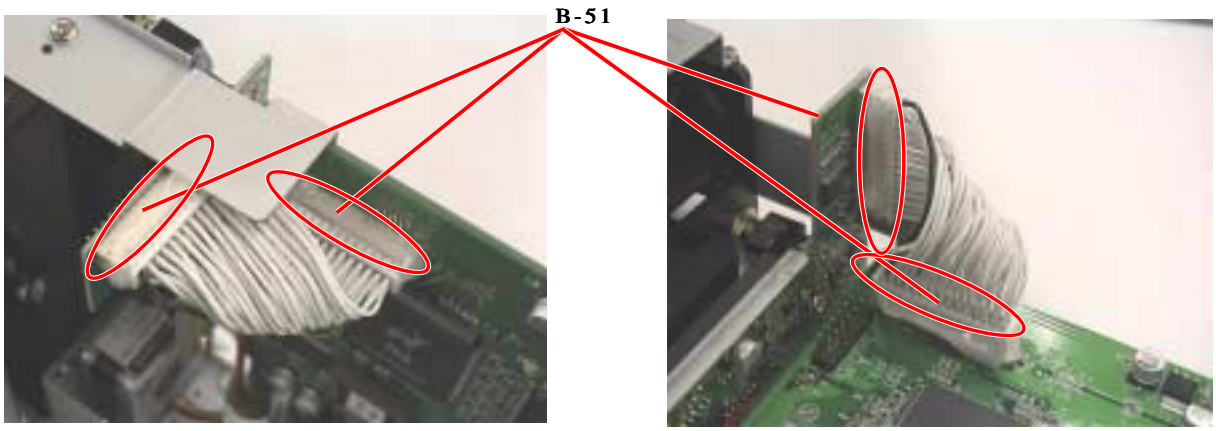


■ Fig. 1



■ Fig. 2

After connectig Main PCB Assy and 2890-4005, apply B-51 to the connector of PCB as shown.

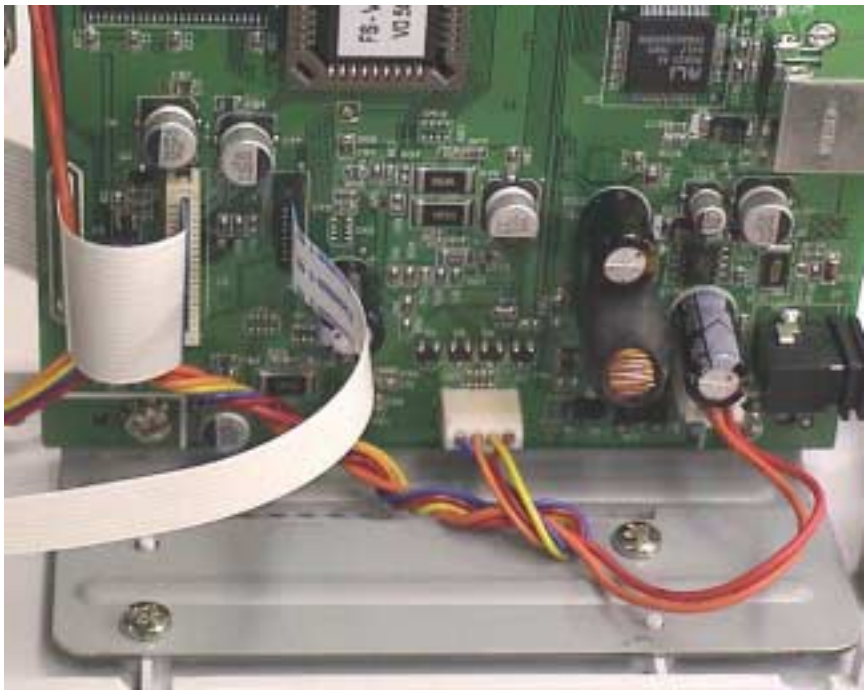


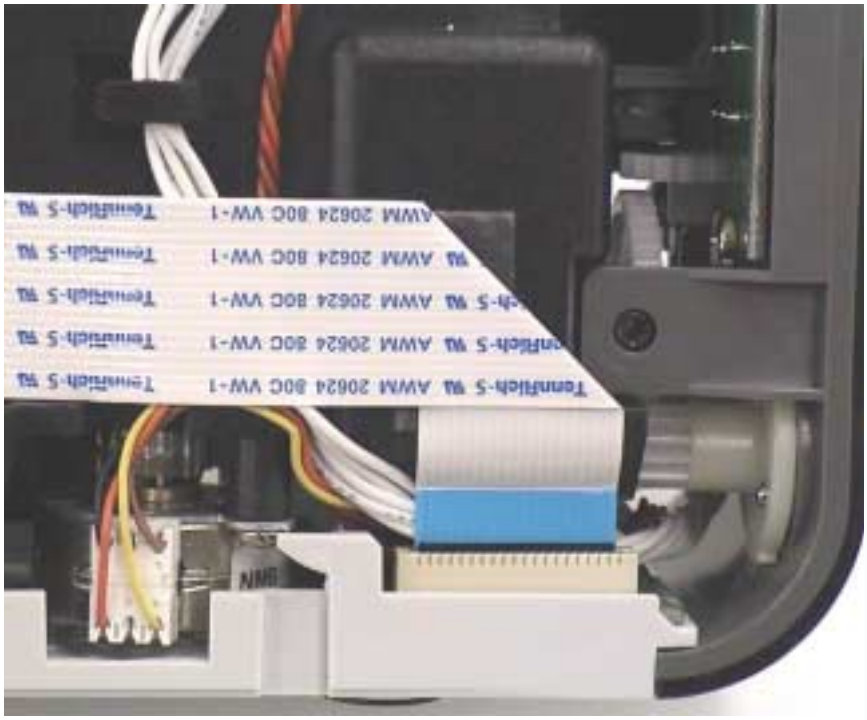
■ Fig. 3

2890-1007 installation.
Install the 2890-1007 notch aligning with the Image taking block. (in the circle)

■ Fig. 4

Connect the connector by the position as shown.





■ **Fig. 5**

Focus dial Assembly Procedure.
DiMAGE Scan Utility is necessary for this procedure. Please install "DiMAGE Scan" Software from CD-ROM to your PC.

Preparations

1. Remove Upper case, Front housing assy, focus dial and gear 12T.
2. Keep the Front housing assy connected to the Image taking block with cable 6P. (Fig. 9-1)
3. Connect scanner (2892) and PC via USB cable.
4. Power on the scanner.
5. Start "DiMAGE Scan Utility", and be standby for scanning.

Assembly

1. Keep the front door being opened with tape. (Fig. 5-2)
2. Insert a holder (35mm film holder or a slide mount holder) in a scanner. (it's arbitrary to set film or not) Holder moves in right and left direction, and stops at a central position.
3. Install gear 12T to Focus dial.
   Align a groove of gear 12T. (two places) with a projection of the focus dial inside, and install it. (Fig. 5-3)
4. Make an index (a dent) of a focus dial (a set with gear 12T) just above, and install it to a gear shaft. (Image taking unit).
5. Mark on the engaged part of gear teeth adjacent to the gear 12T with a felt pen. (Fig. 5-4)
6. Push an Eject button, and pull out a holder.
   After ejecting, Focus dial turns clockwise, and stops at the initial position.
7. Turn Focus dial manually in counterclockwise direction so that the index (a dent) appears just above.
   Check that position of the gear 12T and adjacent gear tooth (marked position) are fit.
8. Be sure to peel off the tape which was put in Assembly step 1 (Fig. 5-2).
9. Install the Front housing assy and tighten with 4 screws (2890-9002).

Check

Check the position and operation of the Focus dial.
Connect an USB cable same as normal image bringing in,
power on the scanner to start "DiMAGE Scan Utility".

1. Set an image in a holder (35mm film holder or a slide mount holder), and insert it in a scanner.
   The holder stops at a center position after moving in right and left.
2. Confirm that the index (a dent) of Focus dial is within a illustrated range. (between arrows) (Fig. 5-5)
   If it was out of the range, repeat from Assembly procedure step 1.
3. Preview the image set in step 1 on DiMAGE Scan Utility, and perform AF at any point.
   Check that the holder moves in left and right, moves again in short range, and then stops at the best focus point.
4. Push Eject button. Confirm that Focus dial returns to the initial position after ejecting. (the end position in clockwise direction)
5. Arrange cable 6P as shown. (Fig. 5-6)

Fig. 5-1

Fig. 5-2

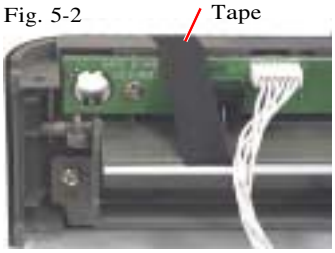


Fig. 5-3

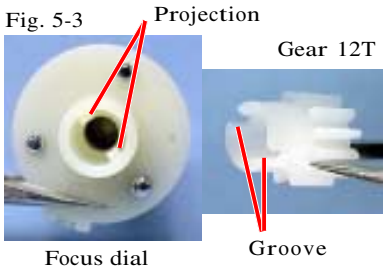


Fig. 5-4

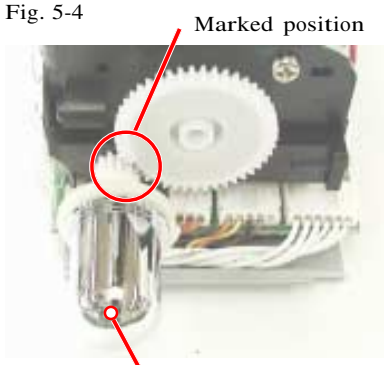


Fig. 5-5

Fig. 5-6

Measuring Instruments, Tools and Jigs

Slide Mount Holder (SH-M20)
DiMAGE Scan Elite 5400 II (CD-ROM)
AC Adapter
PC/AT compatibles
CPU: Pentium III or later
RAM: 500MB or more
HDD: Approx. 2GB or more of available hard-disk space
OS: Windows 98, 98SE, Me, 2000 Professional, XP Professional, XPHE
Monitor: 1024 x 768 (pixels) is recommended. High Color (16-bit)

Subsidiary Materials

Adhesive
B-51 <7984-2051-01>

2892 Supplementary Information Index

Division	Camera CS Division
Issued	July 15, 2005

Approved by	Verified by	Written by
Yata		Ueno

Issued/Code/Version/Page			Title	Approved by	Verified by	Written by
'05.07.15	QS FA 2892-S01E	1	Repair information for distortion of index images	Yata		Ueno

SERVICE MANUAL SUPPLEMENTARY INFORMATION

CODE NO. 2892-100

MODEL DiMAGE Scan Elite 5400 II

Repair information for distortion of index images

Contents

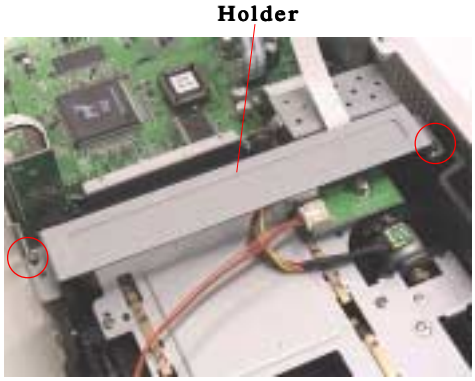
With 35mm film holder, the subject's slanting line in the 6th (or 4th) frame of index image may be distorted like wave.

Service

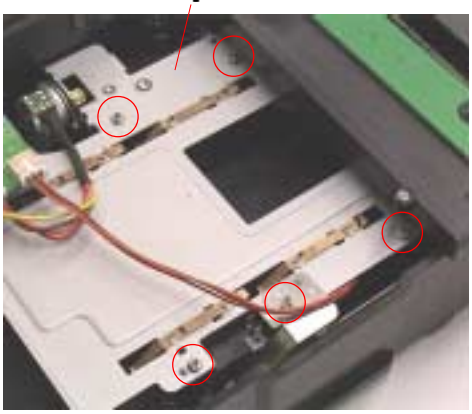
Replace the Holder Hold SP with a Holder Hold SP (2892-0230) of service parts.

The Holder Hold SP replacement procedure

1. Remove two screws as shown, and remove the holder.
2. Rotate the motor axis in the arrow direction as shown until it stops.



3. Remove five screws as shown, and remove the base plate.
4. Remove one screw as shown, and replace the spring with Holder Hold SP (2892-0230) of service parts.



Related information

:QS FA 2892-P002

This information should be filed in your service manual.

KONICA MINOLTA PHOTO IMAGING, INC.

CHECK LIST

1. This Check List describes the quality of operation warranted to general users.
   When users inquire about quality or request inspection, refer to this Check List.
   Use this list also when checking operation after repair.
2. When using this list at shipping or receiving inspection, judge the quality according to the purpose of the inspection, not by directly referring to this level.
3. For individual taste or special usage, some users may not be satisfied with this level of quality and will request a different one.
   In such cases, adjust the level as required by them as much as possible.

Contents

Check the scanner with the computer which meets the system requirements in the last page of this check list.
The driver software DiMAGE Scan Elite 5400 II supplied with the product is necessary for check. If this driver is not installed in the computer, please install it beforehand.

PERFORMANCE

Outline

Basically, 2892 performance will be checked accordingly as below.

Scan: Scan the chart and save the image with the driver software.
Measure: Take in the image and measure the data with the Adjustment program.
Check: Output the data in the excel sheet and check the performance.

Chart and check items:

Scanner gauge chart: magnification, skew, color registration, pitch accuracy, frequency characteristic

Color chart: output density, grayscales, color balance, color reproduction

The following procedure describes the method in detail.

Scanner Gauge Chart

Preparation

2892 Adjustment Program FD
2887 Adjustment Program CD
DiMAGE Scan Elite 5400 II (CD)
Scanner Gauge Chart (35mm)
Slide Mount Holder (SH-M20)
Microsoft Excel

Installation

1. Drag and copy “DiMAGEScan.ini” in the 2892 Adjustment Program FD to the folder where the DiMAGE Scan Elite 5400 II is installed. (C: Program Files \DS_Elite_2)

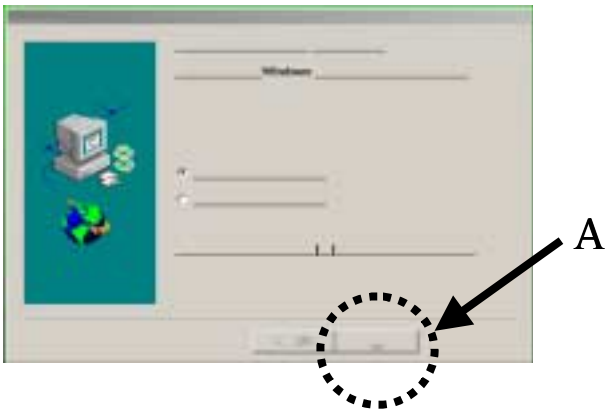
   If the driver software DiMAGE Scan Elite 5400 II is not installed yet, please install the driver software first.

   Be sure to remove the DiMAGEScan.ini from the folder after scanning the chart. Otherwise images will be underexposed or error message will appear when scanning images other than the scanner gauge chart.

2. Double click the Setup.exe at “CD:Scanner Gauge Chart Evaluate \DISK1 in the 2887 Adjustment Program CD. Installation will start automatically.

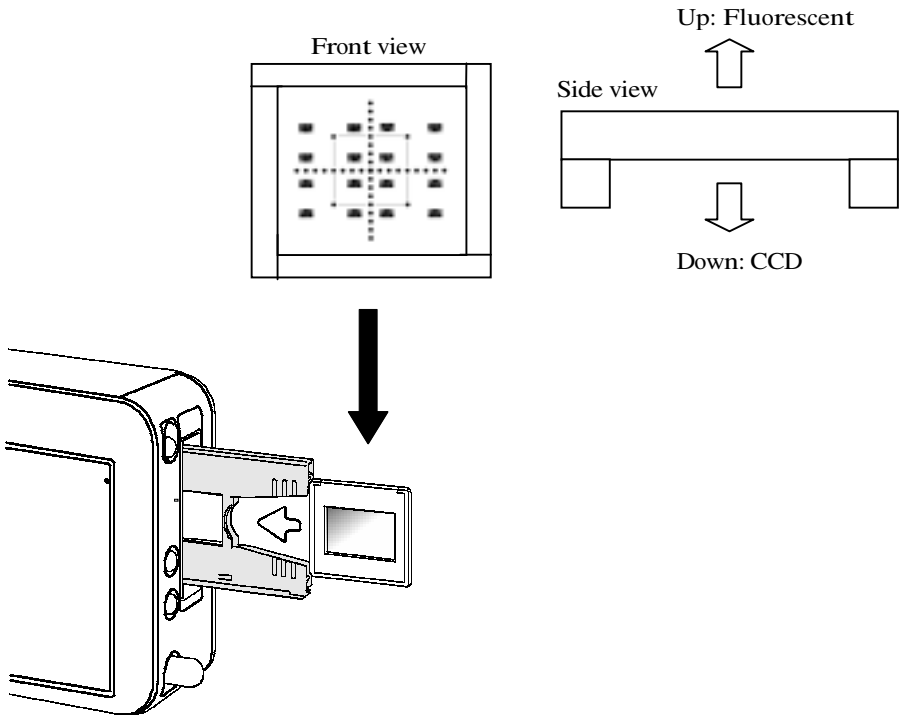
   If 2887 Adjustment Program is launched on your computer, the above procedure is not necessary.

CAUTION: The dialog box below may appear under the English environment OS, but the program completes the installation successfully and will restart the PC appropriately. Click the following point “A”.



Setting the chart

Make sure the chart faces the CCD side in the Slide Mount Holder (SH-M10) as illustrated.



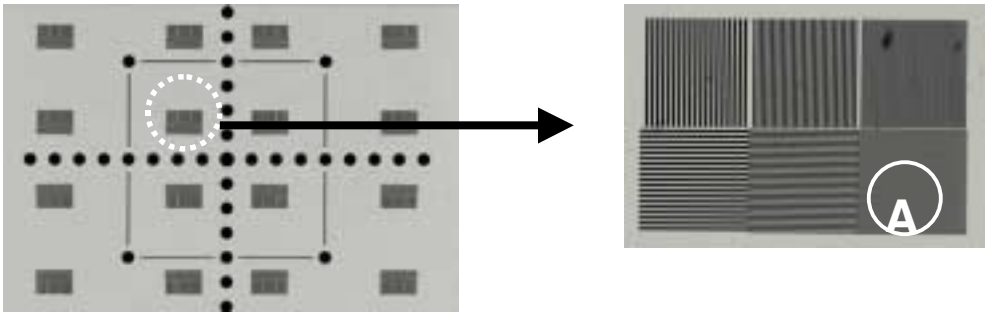
Scan

1) Change the setting of "Glass Chart" of "DiMAGEScan.ini" located in the followong folder to "1"and save it
(C:\Program Files\DS_Elite5400_2)
2) Click Start > Programs > DiMAGE Scan Elite5400 2 Ver. 1.1*> DiMAGE Scan Elite5400 2 Utility.
3) Set the preferences as below.

Scanning condition

Film type	Color Positive
Input resolution	5400 dpi

4) Click the Prescan button.
5) Click on the Manual focus button and move the mouse pointer to the manual focus point (A), then drag the focus meter slider until the black and white lines are at their longest.



CAUTION: Drag the slider from the left to the right.

6) Confirm that the image is selected entirely, and click the Scan button to start the final scan.
7) Save the image as .BMP file.

CAUTION: Chart scanning time is depending on the system configurations of the computer.

Measurement

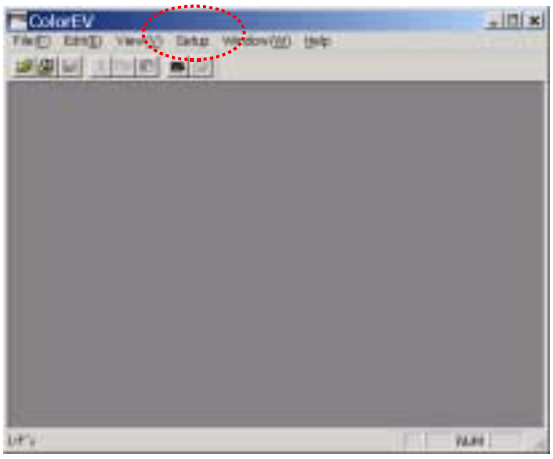
1) Select Start > Program > DPEV > GEOM.

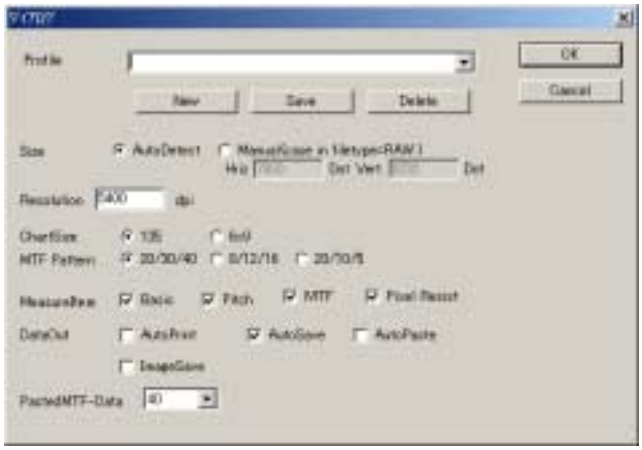
2) Click Setup > Measure and set the preference as below.

Measuring condition

Size	Auto Detect
Resolution	5400 dpi
Chart Size	135
MTF	20/30/40
Measure item	Check all
Data Out	Auto Save
Pasted MTF-Data	40

Click the Profile "New" and input a profile name, and then click the Save button. (The setting will be effective from the next measurement.)





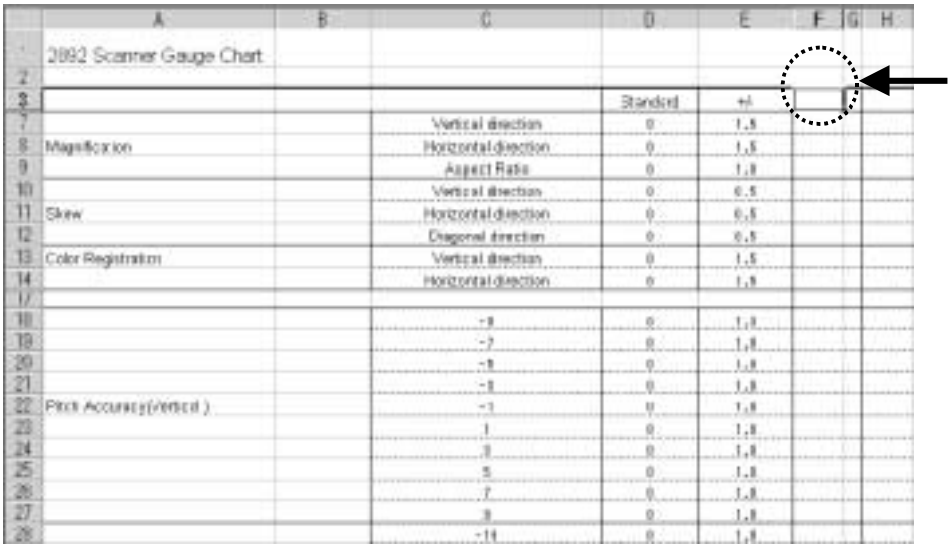
3) Click File > File Open and select the image file saved in 1.3.7). The result will be copied in a clipboard on PC.

CAUTION: Paste the result data on an excel sheet in the next step before using other applications. Otherwise the result will be lost.

Check

1) Open 2892 data sheet.xls in the FD and select the worksheet “Scanner Gauge”.
2) Move the mouse pointer to the cell F3, and click Edit > Paste.
   The file name is inputted in F3 and the performance data is inputted in the column F.
3) Confirm that the cell G3 is null. * mark in G3 indicates that some of the data was beyond the standard. Check the items marked * in the column G. (blank: within standard, *: out of standard)

Be sure to remove the DiMAGEScan.ini from the folder after scanning the chart.
Otherwise images will be underexposed or error message will appear when scanning images other than the scanner gauge chart.



	A	B	C	D	E	F	G	H
1	2892 Scanner Gauge Chart							
2								
3				Standard	+/-			
7			Vertical direction	0	1.5			
8	Magnification		Horizontal direction	0	1.5			
9			Aspect Ratio	0	1.0			
10			Vertical direction	0	0.5			
11	Skew		Horizontal direction	0	0.5			
12			Diagonal direction	0	0.5			
13	Color Registration		Vertical direction	0	1.5			
14			Horizontal direction	0	1.5			
17								
18			-9	0	1.5			
19			-7	0	1.5			
20			-5	0	1.5			
21			-3	0	1.5			
22	Pitch Accuracy(Vertical)		-1	0	1.5			
23			1	0	1.5			
24			3	0	1.5			
25			5	0	1.5			
26			7	0	1.5			
27			9	0	1.5			
28			11	0	1.5			

Color Chart

Preparation

2892 Adjustment Program FD
2887Adjustment Program CD
DiMAGE Scan Elite 5400 II CD
Color Chart Slide (35mm)
Slide Mount Holder (SH-M20)
Microsoft Excel

Setup

1. Confirm the driver software DiMAGE Scan Elite 5400 II is launched or not.
   If not installed yet, please install the driver software first.

Be sure to remove the DiMAGEScan.ini from the folder after scanning the chart. Otherwise images will be underexposed or error message will appear when scanning images other than the scanner gauge chart.

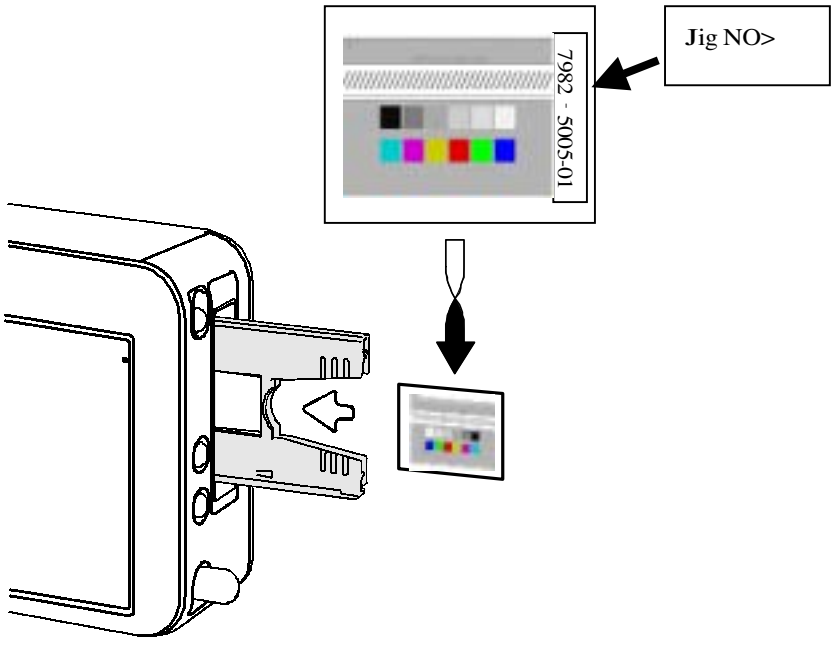
2. Install 2887 Adjustment Program.

   Double click the Setup.exe at "CD: Scanner Gauge Chart Evaluate \DISK1 in the 2887 Adjustment Program CD. Installation will start automatically.

   If 2887 Adjustment Program is launched on your computer, the above procedure is not necessary.

   Drag and copy the 90Color135.txt from the 2890 Adjustment Program FD to your computer.

3. Load the Color Chart Slide in the Slide Mount Holder (SH-M20) so that the jig No. is visible from the fluorescent lamp side.



CHECK LIST

Scan

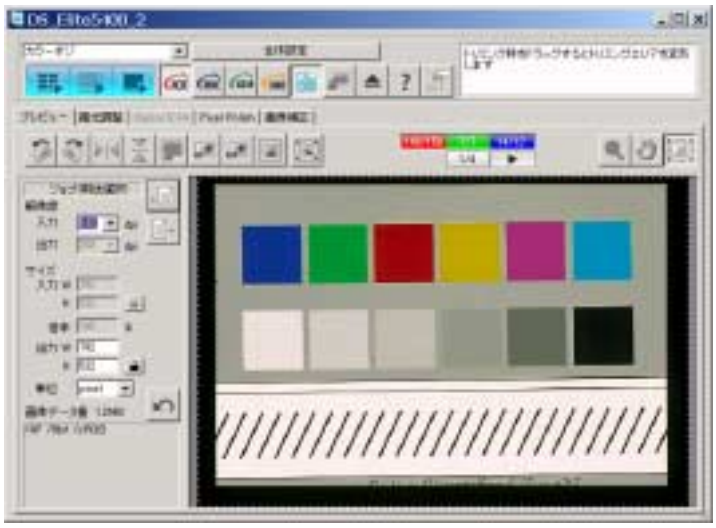
1) Click Start > Programs > DiMAGE Scan Elite5400 2 Ver. 1.* > DiMAGE Scan Elite5400 2 Utility.

2) Set the preferences as below.

Scanning condition

Film Type	Color Positive
Input resolution	540 dpi

3) Click on the Prescan button to prescan the chart.
Check that the chart is scanned as shown and that it is not underexposure.



4) Click on the Point AF button and move the mouse pointer to the center of the image and then start the Auto Focus.

5) Make sure that all the area of the image is selected and click on the Scan button.

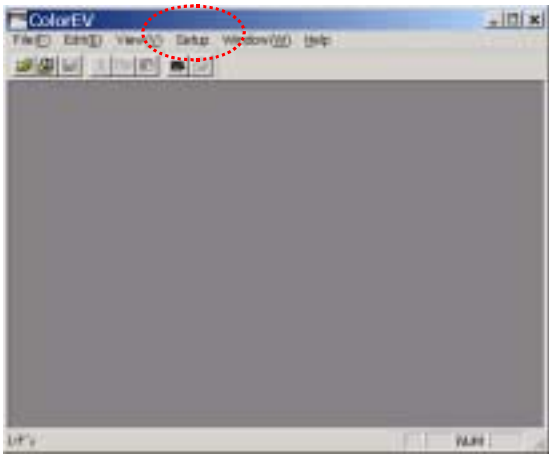
6) Save the image as .BMP file.

7) Add "_P0" after the file name as suffix (***(file name)_P0.BMP).

Measurement

1) Click Start > Program > DPEV > ColorEV.

2) Click Setup > Measure, and set the preference as below.



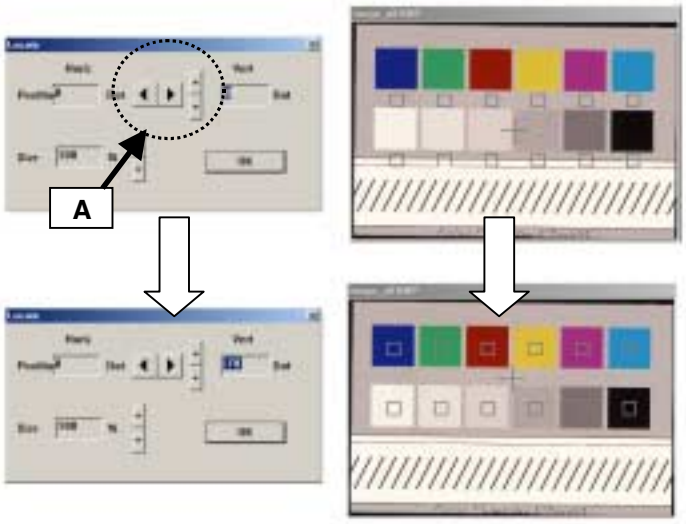
Measurement condition

Category	Scanner
Resolution	540 dpi
Chart	135
Ver	6
Standard	90Color135.txt
Data Out	Auto Save
Locate	File Group Vert:0 Hriz:0 Scale: 1
Sample Area	1.5
Gamma	1.4
Light Source	D65 (Std)

3) Click “New” of the Profile and input a profile name, and then click on the Save button. The setting will be effective from the next measurement.

4) Click File > File Open and select the image file saved in Scan step 6).

5) Click the direction buttons (A) until the measuring points are at the center of each color, and click OK button.

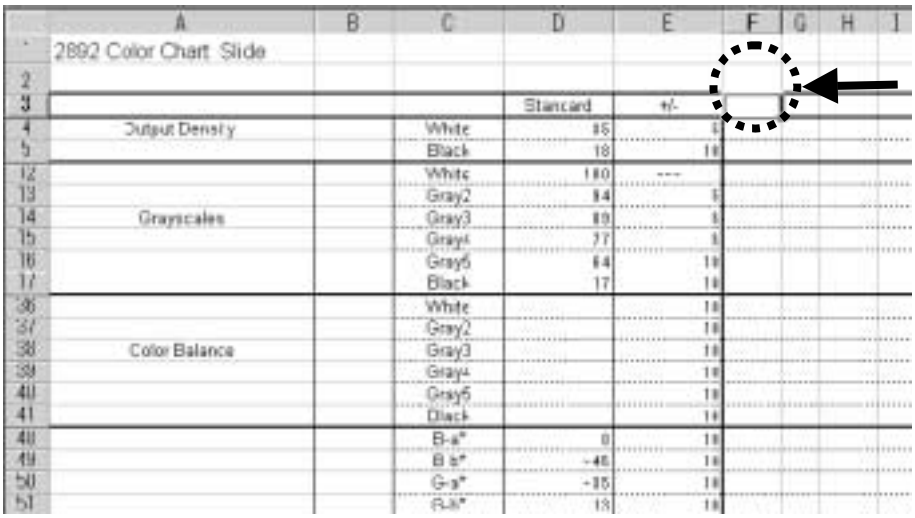


6) The result will be copied in a clipboard on PC.

CAUTION: Paste the result data on an excel sheet in the next step before using other applications. Otherwise the result will be lost.

Check

1) Open 2892data sheet.xls in the FD and select the worksheet “Color Chart”.
2) Move the mouse pointer to the cell F3, and click Edit > Paste.
   The file name is inputted in F3 and the performance data is inputted in the column F.
3) Confirm that the cell G3 is null. “xxx” mark in G3 indicates that some of the data was beyond the standard. Check the items in the column G (･･･: within standard, xxx: out of standard)



Standard

Scanner gauge chart

Magnification

	+/-
Vertical	± 1.5%
Horizontal	± 1.5%
Aspect ratio	± 1.0%

Skew

	+/-
Vertical	± 0.5%
Horizontal	± 0.5%
Aspect ratio	± 0.5%

Color Registration

	+/-
Vertical	± 1.5 pixel
Horizontal	± 1.5 pixel

Pitch Accuracy

	+/-
Vertical	± 1.0 %
Horizontal	± 1.0 %

Frequency Characteristic

		Range
Center	Vertical	50 % (40 lines/mm) or greater
	Horizontal	50 % (40 lines/mm) or greater
Around	Vertical	40 % (40 lines/mm) or greater
	Horizontal	40 % (40 lines/mm) or greater

Color chart

Output Density

Chart	Range
White	95 ± 5
Black	18 ± 10

Grayscales

Chart		Range
Step 1	White	100
Step 2	Gray2	94 ± 5
Step 3	Gray3	89 ± 5
Step 4	Gray4	77 ± 5
Step 5	Gray5	64 ± 10
Step 6	Black	17 ± 10

Confirm that L* value is less than 100, and all the values are in descending order toward Black as shown above.

CHECK LIST

Color Balance

Chart		+/-
Step 1	White	10 or less
Step 2	Gray2	10 or less
Step 3	Gray3	10 or less
Step 4	Gray4	10 or less
Step 5	Gray5	10 or less
Step 6	Black	16 or less

Color Reproduction

Chart	a*	b*
B	8±10	-45 ± 10
G	-35±10	13 ± 10
R	48±10	39 ± 10
Y	-5±10	44 ± 10
M	41±10	-17 ± 10
C	-20±10	-28 ± 10

Equipment Required

PC/AT compatibles

CPU	Pentium III or later
RAM	500MB or more
HDD	Approx. 2GB or more of available hard-disk space
OS	Windows 98, 98SE, Me, 2000 Professional, XP Professional/Home
Monitor	1024 x 768 (pixels) is recommended. High Color (16-bit)

2892Adjustment Program CD Version 1.0 <2892-0001-75>

CD
- DiMAGEScan.ini
- 90Color135.dll
- 2892_data sheet.xls

2887Adjustment Program CD Version 2.0 <2887-0001-76>

Scanner Gauge Chart (35mm) <7982-5002-01>

Color Chart Slide (35mm) <7982-5005-01>

Slide Mount Holder (SH-M20)

Microsoft Excel

DiMAGE Scan Elite 5400 II (CD-ROM)

AC Adapter