

Toshiba e-STUDIO163 Service Handbook

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## SERVICE HANDBOOK

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MULTIFUNCTIONAL DIGITAL SYSTEMS

# e-STUDI0163/203

File No. SHE050005E0 R05092196300-TTEC Ver05\_2006-11

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### Troubleshooting

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#### Related Manuals for Toshiba e-STUDIO163

All in One Printer Toshiba e-studio166 Service Handbook Multifunctional digital systems (237 pages) Mfp Toshiba e-STUDIO163 Service Manual Multifunctional digital systems (236 pages) All in One Printer Toshiba e-STUDIO163 Service Handbook (235 pages) All in One Printer Toshiba e-STUDIO163 Service Manual Multifunctional digital systems (222 pages) All in One Printer Toshiba e-STUDIO203 Service Handbook (222 pages) All in One Printer Toshiba e-STUDIO163 Service Handbook Multifunctional digital systems (218 pages) All in One Printer Toshiba e-STUDIO163 Operator's Manual Viewer (162 pages) All in One Printer Toshiba e-STUDIO163 Specifications Toshiba digital copier/printer/scanner owner's manual (2 pages) All in One Printer Toshiba e-STUDIO203 Operator's Manual Toshiba multifunctional digital system operator's manual (116 pages) All in One Printer Toshiba e-STUDIO206 Operator's Manual Toshiba multifunctional digital system operator's manual (116 pages) All in One Printer Toshiba e-STUDIO161 Operator's Manual Basic functions (76 pages) All in One Printer Toshiba E1-17063A Operator's Manual Digital plain paper copier (138 pages) All in One Printer Toshiba e-studio162 Operator's Manual Multifunctional digital systems (112 pages) All in One Printer Toshiba E-STUDIO165 Service Manual (19 pages) All in One Printer Toshiba e-STUDIO167 Service Manual Multifunctional digital systems (266 pages) All in One Printer Toshiba e-STUDIO160 Service Handbook Digital multi function (239 pages)

#### Summary of Contents for Toshiba e-STUDIO163

Page 1 SERVICE HANDBOOK MULTIFUNCTIONAL DIGITAL SYSTEMS e-STUDIO163/203 File No. SHE050005E0 R05092196300-TTEC Ver05\_2006-11...

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CORPORATION. No patent liability is assumed, however, with respect to the use of the information contained herein.

**Page 3** GENERAL PRECAUTIONS REGARDING THE SERVICE FOR e-STUDIO163/203 The installation and service should be done by a qualified service technician. 1) Transportation/Installation When transporting/installing the equipment, remove the drawer, employ two persons and be sure to hold the positions as shown in the figure.

<u>Page 4</u> Do not allow a short-circuit or do not use the parts not recommended by Toshiba TEC Corporation. 4) Cautionary Labels During servicing, be sure to check the rating plate and cautionary labels such as "Unplug the power cable during service", "CAUTION.

<u>Page 5</u> 5) Disposal of the Equipment, Supplies, Packing Materials, Used Batteries and IC-RAMs Regarding the recovery and disposal of the equipment, supplies, packing materials, used batteries and IC-RAMs including lithium batteries, follow the relevant local regulations or rules. Caution: Dispose of used batteries and IC-RAMs including lithium batteries according to this manual. Attention: Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.

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SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES ERROR CODE AND SELF-DIAGNOSTIC MODE ADJUSTMENT PREVENTIVE MAINTENANCE (PM) TROUBLESHOOTING FIRMWARE UPDATING POWER SUPPLY UNIT WIRE HARNESS CONNECTION...

#### Page 13: Specifications

SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES Specifications Values in [] are for e-STUDIO203 in case that the specification is different among e-STUDIO163 and e-STUDIO203. Copy process Indirect electrophotographic process (dry) Type Desktop type Original table Fixed type (the left rear corner used as guide to place originals) Accepted originals Sheet, book and 3dimensional object.

Page 14 (Stack height 16 mm or less) Toner supply .....Automatic toner density detection/supply Toner cartridge replacing method (There is a recovered toner supply mechanism.) e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES © December 2005 TOSHIBA TEC 1 - 2 06/04...

Page 15 Total counter ......Electronical counter Dimensions of the equipment .......W 600 x D 643 x H 462.5 (mm): See the figure below Fig. 1-1 © December 2005 TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 3 06/04...

#### Page 16: Accessories

AUD: Australia MJD: Europe ASU: Asia / Saudi Arabia SAD: Saudi Arabia ARD: Latin America CND: China TWD: Taiwan KRD: Korea JPD: Japan e-STUDI0163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES © December 2005 TOSHIBA TEC 1 - 4 06/04...

#### Page 17: Options

Options Platen Cover KA-1640 PC Automatic Document Feeder (ADF) MR-2017 Paper Feed Unit (PFU) MY-1027 / C Expansion Memory GC-1240 © December 2005 TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 5...

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System List Automatic Document Feeder Platen Cover ( ADF ) KA-1640PC MR-2017 Expansion Memory GC-1240 Paper Feed Unit ( PFU ) MY-1027 Fig. 1-2  $\odot$  December 2005 TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 7...

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#### Page 21: Error Code And Self-Diagnostic Mode

Front cover open jam: The front cover has opened P. 5-8 during printing. PFU cover open jam: The PFU cover has opened P. 5-9 during printing. © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 1 06/11...

#### Page 22: Service Call

Other service call Invalid backup counter: The value of the total counter is P. 5-18 inconsistent with that of the backup counter. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 2 06/04...

#### Page 23: Self-Diagnosis Modes

To user State transition diagram of self-diagnosis modes Fig. 2-1 \*1 Turn OFF the power after using the self-diagnosis modes, and leave the equipment to the user. © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 3...

Page 24 Press the reproduction ratio button ([200%] or [25%]) to shift the display to the 3 digits of the next lower/higher order. E.g.1) Displaying 1,000,000 Fig. 2-2 E.g. 2) Displaying 80,000 Fig. 2-3 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 4...

#### Page 25: Input Check (Test Mode 03)

Not connected Connected Paper empty sensor No paper Paper present Drawer detection switch Drawer not Drawer installed installed PFU paper empty sensor No paper Paper present  $\mbox{\sc December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 5...}$ 

<u>Page 26</u> No paper Registration sensor Paper present No paper Developer unit switch Not connected Connected Fuser unit switch Connected Not connected Externally counter connection Not connected Connected e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 6 06/11...

Page 27 No original present ADF original width sensor-1 Original No original present ADF original length sensor Original No original present ADF registration sensor Original No original present © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 7 06/11...

#### Page 28: Output Check (Test Mode 04)

OFF/ON Procedure 2 [0][4] [POWER] Code [START] [POWER] [Digital keys] OFF/ON Procedure 3 [0][4] Code Operation [START] [CLEAR] [POWER] [Digital keys] Operation [FUNCTION [POWER] CLEAR] OFF/ON e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 8... Page 29 ADF feed motor ON/OFF (reverse rotation) ADF read motor ON/OFF (normal rotation) Switching regulator cooling fun ON/OFF (low speed) Switching regulator cooling fun ON/OFF (high speed) © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 9 06/11...

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0000A0 [0] -> [0] -> [0] -> [0] -> [\*] -> [0] -> [0] Size specification (4digits) 0080 [0] -> [0] -> [8] -> [0] © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 11 06/04...

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Page 34 When an access code Cancel which has not been registered previously [CLEAR] is entered \*: Apply the same procedure when the equipment enters the interruption mode. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 14 06/04...

#### Page 35: Function Setting Mode (1\*)

Undefined Undefined Undefined Department Code 0: No This bit setting determines whether or not the setting 1: Yes department control function is available. Undefined Undefined © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 15...

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Page 37 Adjust a value value in RAM [Digital keys] \* [INTERRUPT] [POWER] OFF/ON Does not store value in RAM [FUNCTION CLEAR] \* Press [#] to enter minus (-). © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 17 06/04...

Page 38 In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC...

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Page 41 "1", the reproduction ratio of the secondary scanning direction when using the ADF increases by approx. 0.1%. During this adjustment, the density LED blinks. © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 21 06/04...

Page 42 Drive Fine adjust- PPC/ When the value ment of exit <0-255> increases by "1", the

motor speed rotation becomes faster by approx. 0.05%. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE  $\mbox{\sc December}$  2005 TOSHIBA TEC 2 - 22 06/04...

Page 43 220 mm to 329 mm adjustment at 451-1 Middle Short size: the registra- size <0-63> 219 mm or shorter tion 451-2 Short size section (PFU/ <0-63> Plain paper) © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 23 06/02...

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Page 49 When the value adjustment <0-255> increases, the image at Fine adjust- the center step becomes Text ment of "man- darker. <0-255> ual density"/ Photo Center value <0-255> © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 29...

Page 50 867-0 Image Sharpness Reproduc- adjustment tion ratio <0-99> (Photo) 40% or smaller 867-1 Reproduc- tion ratio <0-99> 41-80% 867-2 Reproduc- tion ratio <0-99> 81% or larger e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 30...

Page 51 Background Text/Photo When the value adjustment <1-9> decreases, the background becomes darker. Photo When the value <1-9> increases, the back- Text ground becomes lighter. <1-9> © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 31...

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539-0 to 3,540-0 to 3,541-0 to 3,800-0 to 1, 801-0 to 1,802-0 to 1,804-0 to 1,886,896-0 to 1 [Status counter] Transfer bias [Transfer bias] 830,868,869 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 32 06/11...

Page 53 [Copy volume] [Jobs clear] [Energy saving mode] [Sorting] [Timer] 204,205,206 [Book type] [External counter] [Default setting] 604,607,618,642 [Paper size] [Polygonal motor] 483,486 Laser [Power correction] 872,873,875,876,877,883 © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 33 06/11...

Page 54 [START] [START] [POWER] [Digital keys] [Digital keys] Value [FUNCTION [POWER] displayed CLEAR] OFF/ON Procedure 15 [0][8] Code Copying [POWER] [START] [POWER] [Digital keys] total counter OFF/ON e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 34...

Page 55 14: 80 min. 15:90 min. 16: 100 min.17:110 min. 18: 120 min. 19: 150 min. 20: 180 min. 21: 210 min. 22: 240 min. 23: Invalid © December 2005 TOSHIBA TEC e-STUDIO163/203

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Page 56 (A5-R) direction <140- 432> 231-1 widthwise direction <140- 432> 232-0 Paper Paper size feeding feeding (B4) direction <140- 432> 232-1 widthwise direction <140- 432> e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 36 06/05...

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<u>Page 59</u> ADF Counter Setting for counter installed Selects the job to count externally <0-1> up for the external counter. 0: Not selected 1: Copier © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 39...

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Page 63 (Side thermistor/Thick 4: 160°C 5: 165°C paper 1) 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 43...

<u>Page 64</u> The original is trans- ported in reverse with no scanning when detecting LT- LG sizepaper in LT, regardless of this setting. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 44 06/05...

Page 65 0: Valid (when using ADF and the origi- nal is set manually) 1: Invalid 2: Valid (when using ADF only) © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 45 06/11...

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Page 67 Setting value x 5 sec.: ond drop <0-200> (Side ther- from 0 to 1,000 sec. 527-2 The third mistor) later drop <0-200> 527-3 The fourth drop <0-200> © December 2005 TOSHIBA TEC e-STUDI0163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 47...

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Page 69 General Initialization of Access Initializing of the Access code code Key in the code and press the [START] button to perform the initialization. © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 49 06/05...

Page 70 4: 150°C 5: 155°C (Envelope) 6: 160°C 7: 165°C 8: 170°C 9: 175°C 804-1 Side ther-10: 180°C mistor <0-12> 11: 185°C 12: 120°C e-STUDIO163/203 ERROR CODE AND SELF- DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 50 06/11...

Page 71 (Text/OHP film) Devel- Developer bias DC correc- oper tion <0-255> (Photo/OHP film) Image Switching of recycled toner 0: Switched process- saving control <0-1> 1: Not switched © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 51...

<u>Page 72</u> DC output adjustment (05-220). Transfer Transfer transformer DC Corrects the value of correction (L) <0-255> the transfer trans- former DC output adjustment (05-222). e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 52...

Page 73 10: 180°C mistor <0-12> 11: 185°C 12: 120°C Version System firmware ROM ver-T280SY0Wxxx sion Displays only the "xxx" part of the above code. © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 53 06/04...

Page 74 Energy Saving Mode). 1385 Counter Number of output pages Counts up when the (Thick paper 1) <8 digits> registration sensor is e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 54 06/07...

Page 75 Blinks when the value is blinks <0-1> different from the present default value after copying (until auto clear or all clear.) 0: Invalid (Always off) 1: Valid © December 2005 TOSHIBA TEC e-STUDI0163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 55 06/05...

Page 76 When the value of sub-code 0 is changed, the value of sub-code 6 is also updated and vice versa. • When "0" is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to "0". e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 56 06/05...

Page 77 1246-0, 1, 3, 4, 6, 7 < Default values of code 1246 (e-STUDIO 163/203)> Sub-codes 0, 3, 6, 7: 0/0 Sub-code 1: 72,000/90,000 Sub-code 4: 180,000/180,000 © December 2005 TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 57 06/07...

Page 78 1336-0, 1, 3, 4, 6, 7 < Default values of code 1336 (e-STUDIO 163/203) > Sub-codes 0, 3, 6, 7: 0/0 Sub-code 1: 72,000/90,000 Sub-code 4: 180,000/180,000 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE © December 2005 TOSHIBA TEC 2 - 58 06/05...

#### Page 79: Adjustment

Key in code [200] and press the [START] button. The display on the 7-segment LED changes as follows and the "density LEDs" lights from the left in order. [2][0][0] [START] Fig. 3-2  $\[mbox{\sc op}$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 1...

Page 80 Press the [INTERRUPT] button. The drum, developer unit, etc. are stopped and the following is displayed on the 7-segment LED. [INTERRUPT] Fig. 3-4 Turn the power OFF. (10) Install the toner cartridge. e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 2...

#### Page 81: Image Dimensional Adjustment

(b) Image location of primary scanning direction (c) Reproduction ratio of secondary scanning direc- tion (d) Image location of secondary scanning direction (e) Top margin (f) Right margin (g) Bottom margin © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 3 06/04...

Page 82 :Move to the adjustment mode. If the test copy does not satisfy the specified values, return to step 1 and repeat the adjustment procedure. [Power] :Exit the Adjustment Mode. OFF/ON Fig. 3-5 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 4...

#### Page 83: Paper Alignment At The Registration Roller

1. Long size: 330 mm or longer (13.0 inches or longer) Middle size: 220-239 mm (8.7-12.9 inches) Short size: 219 mm or shorter (8.6 inches or shorter) 2. The adjustment of "Post card" is for Japan only. © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 5 06/04...

Page 84 \* As a tentative countermeasure, the service life of the feed roller can be extended by increas- ing the aligning amount. e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 6 06/04...

#### Page 85: Printer Related Adjustment

Press [1] [INTERRUPT] Press [Drawer number] [START] (A grid pattern is printed out.) \* The larger the adjustment value is, the longer the distance B becomes (approx. 0.05 mm/ step). © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 7 06/04...

Page 86 Press [1] [INTERRUPT] Press [Drawer number] [START] (A grid pattern is printed out.) \* The larger the adjustment value is, the longer the distance C becomes (approx. 0.125 mm/ step). e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 8 06/04...

Page 87 Press [1] [INTERRUPT] Press [Drawer number] [START] (A grid pattern is printed out.) \* The larger the adjustment value is, the longer the distance D becomes (approx. 0.4 mm/step). © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 9 06/04...

Page 88 52±0.5 mm (0.05 mm/step) Key in the same value for 05-410. 05-421 (Drawer, A3/LD) 200±0.5 mm (0.125 mm/step) 05-440 (Drawer, A3/LD), 441 (PFU, A4/LT), 442 (Bypass feed, A4/LT) 50±0.5 mm(0.4 mm/step) e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 10 06/04...

#### Page 89: Scanner Related Adjustment

Press [0] and [5] simultaneously to enter the adjustment mode. Measure the distance A from 10 mm to 270 mm of the copied image of the ruler. Check if the distance A is within the range of  $260\pm0.5$  mm. © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 11...

<u>Page 90</u> \* The larger the adjustment value is, the higher the reproduction ratio and the longer the dis- tance A become (approx. 0.125 mm/step). Copied image of the ruler Feeding direction Fig. 3-8 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 12...

<u>Page 91</u> \* The smaller the adjustment value is, the more the image is shifted to the left and the distance B become narrower (0.169 mm/step). Be sure not to perform any operations while the density LED is blinking. Copied image of the ruler Feeding direction Fig. 3-9  $\odot$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 13 06/04...

Page 92 \* The smaller the adjustment value is, the lower the reproduction ratio becomes (0.189 mm/ step). Be sure not to perform any operations while the density LED is blinking. Copied image of the ruler Feeding direction Fig. 3-10 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 14 06/04...

<u>Page 93</u> \* The larger the adjustment value is, the more the image is shifted to the trailing edge (0.064 mm/step). Be sure not to perform any operations while the density LED is blinking. Copied image of the ruler Feeding direction Fig. 3-11  $\odot$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 15 06/04...

Page 94 Press the [INTERRUPT] button (stored in memory). ("AJ" is displayed.) \* The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/ step). Feeding direction Fig. 3-12 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 16 06/04...

Page 95 Press the [INTERRUPT] button (stored in memory). ("AJ" is displayed.) \* The larger the adjustment value is, the wider the blank area at the right side becomes (approx. 0.04 mm/step). Feeding direction Fig. 3-13 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 17 06/04...

Page 96 Press the [INTERRUPT] button (stored in memory). ("AJ" is displayed.) \* The larger the adjustment value is, the wider the blank area at the trailing edge becomes (approx. 0.04 mm/step). Feeding direction Fig. 3-14 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 18 06/04...

#### Page 97: Image Quality Adjustment (Copying Function)

The equipment goes back to the ready state. Let the equipment restarted and perform copying job. If the desired image density has not been attained, repeat step (2) to (5).  $\bigcirc$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 19...

#### Page 98: Gamma Slope Adjustment

1 to 9: Select the gamma slope angle. (The larger the value is, the larger the angle becomes.) <Procedure> Procedure is same as that of P. 3-19 "3.3.1 Density adjustment". e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 20...

#### Page 99: Sharpness Adjustment

Make a test copy and compare the image obtained with the current settings; if necessary, make adjust- ment using the following procedure. <Procedure> Procedure is same as that of P. 3-19 "3.3.1 Density adjustment". © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 21...

#### Page 100: Setting Range Correction

Make a test copy and compare the image obtained with the current settings; if necessary, make adjust- ment using the following procedure. <Procedure> Procedure is same as that of P. 3-19 "3.3.1 Density adjustment". e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 22...

#### Page 101: Setting Range Correction (Adjustment Of Text Peak)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjust- ment using the following procedure. <Procedure> Procedure is same as that of P. 3-19 "3.3.1 Density adjustment". © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 23 06/04...

#### Page 102: Adjustment Of Image Density

For resetting the value, repeat step (2) to (5). Turn the power OFF and then back ON to perform printing job. If the desired image density has not been attained, repeat step (2) to (7). e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 24 06/11...

#### Page 103: Image Quality Adjustment (Printing Function)

Press the [INTERRUPT] button to store the value in memory. The equipment goes back to the ready state. Turn the power OFF and then back ON to perform printing job. If the desired text density has not been attained, repeat step (2) to (5). © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 25...

#### Page 104: Adjustment Of Image Density

For resetting the value, repeat step (2) to (5). Turn the power OFF and then back ON to perform printing job. If the desired image density has not been attained, repeat step (2) to (7). e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 26 06/11...

#### Page 105: Image Quality Adjustment (Scanning Function)

Press the [INTERRUPT] button to store the value. The equipment goes back to the ready state. Turn the power OFF and then back ON to perform scanning job. If the desired image density has not been attained, repeat step (2) to (5). © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 27...

#### Page 106: Sharpness Adjustment

For resetting the value, repeat step (2) to (5). Turn the power OFF and then back ON to perform scanning job. If the desired image density has not been attained, repeat step (2) to (7). e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 28 06/04...

#### Page 107: Setting Range Correction

(low density area) of the image is not output. Acceptable values: 0 to 255 (Default: text/photo: 32, photo: 16, text: 46) <Procedure> Procedure is same as that of P. 3-27 "3.5.1 Density adjustment". © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 29 06/04...

#### Page 108: Setting Range Correction (Adjustment Of Text Peak)

\* The image changes slightly in text mode because it is treated as a simple binary format image. <Procedure> Procedure is same as that of P. 3-27 "3.5.1 Density adjustment". e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 30 06/04...

#### Page 109: Adjustment Of High-Voltage Transformer

P. 3-34 "[B] Refer to P. 3-34 Refer to P. 3-35 "[D] Con- Connection for devel- "[C] Connection for nection for transfer/separation oper bias adjustment". main charger adjust- charger adjustment". ment". © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 31...

Page 110 Be careful not to let the connector and the harness be caught. High-voltage transformer jig Fig. 3-16 Fix the green cable of the high-voltage trans- former jig to the frame of the equipment. Screw Green cable Fig. 3-17 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 32...

<u>Page 111</u> Install the cover open switch release jig for Front cover opening/closing switch service. Close the transfer cover. Cover open switch release jig for service Fig. 3-18  $^{\odot}$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 33...

Page 112 (green cable) (+) terminal: (-) terminal: Connect with the red cable (thick line) Connect with the white cable Fig. 3-20 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 34...

<u>Page 113</u> (green cable ) ( + ) terminal: ( - ) terminal: Connect with the Connect with the white cable red cable ( thin line ) Fig. 3-21  $\Circ$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 35...

Page 114 Code -566±54mV -566±54mV -391±36mV Adjustment value [INTERRUPT] : Adjusted value is stored in memory. Return to 1 to enter the other adjustment code. [POWER] OFF/ON Fig. 3-22 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 36...

#### Page 115: Precautions

Approx. 11mm Approx. 5mm Adjustment code "220" "221" "222" Leading edge Trailing edge area of paper area of paper Fig. 3-23  $\mbox{\sc C}$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 37...

Page 116 Approx. 48mm Adjustment code "233" "235" "234" "235" Leading edge Trailing edge area of paper area of paper Fig. 3-24 \* Adjustment code 235 performs the adjustment for 2 areas. e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 38...

#### Page 117: Adjustment Of The Scanner Section

Adjust the tension of the CIS unit drive belt-1 when installing it. <Procedure> Install the CIS unit drive belt-1 after the ten- sion bracket fixing screw are loosened. Tighten the tension bracket fixing screw. Tension bracket Fig. 3-25 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 39 06/04...

#### Page 118: Scan Motor (Cis Unit Drive Belt-2)

Hook the belt tension jig on the motor bracket and frame. Scan motor Belt tension jig Fig. 3-27 Tighten screws A and B where the scan motor pulled by the belt tension jig stops. e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 40...

#### Page 119: Adjustment Of The Paper Feeding System

Feeding direction Center Center [Front] [Front] Fig. 3-29 Fig. 3-28 1) Loosen the screen. 2) Move the entire guide to the front or rear side. 3) Tighten the screw. Fig. 3-30 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 41...

#### Page 120: Adjustment Of Developer Unit

Fig. 3-31 Turn the adjustment screw to widen the gap so that the jig can be inserted in it. Screw (Turning the screw clockwise widens the gap) Fig. 3-32 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 42...

Page 121 "0.50" cannot be inserted into the gap. Developer sleeve Fig. 3-34 Confirm that the side seals are attached on the toner scattering prevention sheet. Side seal Toner scattering prevention sheet Fig. 3-35 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 43...

Page 122 Developer tighten 2 screws. unit upper cover Note: Note: After the developer material has been replaced, adjust the auto-toner sensor. (See P. 3-1 "3.1 Adjustment of Auto-Toner Sensor".) Fig. 3-36 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 44...

#### Page 123: Adjustment Of The Adf (Mr-2017)

Open the ADF and install 2 positioning pins (the positioning pins are installed to the back side of the hinge which is on the left side of the ADF). Fig. 3-37 Remove the platen sheet. Fig. 3-38  $^{\odot}$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 45...

<u>Page 124</u> If the pins cannot be fitted into the holes, perform the adjustment according to the following procedure. Remove the right-hand hinge screw at the rear side. Fig. 3-40 Loosen the left-hand hinge screw at the rear side. Fig. 3-41 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 46...

Page 125 Position the pins with the holes on the ADF by moving it so that the pins fit into the holes when the ADF is closed. Fig. 3-43 Tighten the left-hand hinge screw at the rear side. Fig. 3-44 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 47...

Page 126 Loosen the hole position adjustment screws on the right hand side. Fig. 3-45 Match the screw hole positions. Fig. 3-46 Install the right-hand hinge screw at the rear side. Fig. 3-47 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 48...

<u>Page 127</u> (10) Place the platen sheet on the original glass and align it to the top left corner. Close the ADF gently and open it to check if the platen sheet is attached properly. Fig. 3-49  $\odot$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 49...

#### Page 128: Adjustment Of Adf Height

"B" from the left hand side of the equipment. If the value is not within the tolerance, perform the adjustment according to the following procedure. [Tolerance of the gap] Rear side: 0 - 0.2 mm Front side: 0 mm Fig. 3-50 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 50...

Page 129 Adjust the gap on the rear side by means of the screw on the hinge on the feed side of the ADF. Turn it clockwis ....Lowered Turn it counterclockwise ...Heightened Fig. 3-52 © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 51...

#### Page 130: Adjustment Of Skew

Superimpose the chart on the copy and check the inclination of the copy image. [B] Adjustment Shift the aligning plate with the scale as the guide shown in the figure below to adjust the skew. Fig. 3-54 e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 52...

Page 131 "+", and if "D", shift it to "-". Fig. 3-55 Fig. 3-56 Shift the aligning plate in the direction of "+". Shift the aligning plate in the direction of "-". © December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 53...

#### Page 132: Adjustment Of The Leading Edge Position

If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one. Note: Note: Changing one value shifts the copy image by 0.2 mm. Press the [INTERRUPT] button. e-STUDIO163/203 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 54...

#### Page 133: Adjustment Of Horizontal Position

If the center line of the copy image is shifted to the rear side of the equipment, enter a value smaller than the current one. Note: Note: Changing one value shifts the copy image by 0.169 mm. Fig. 3-60 Press the [INTERRUPT] button. © December 2005 TOSHIBA TEC e-STUDIO163/203

ADJUSTMENT 3 - 55 06/02...

#### Page 134: Adjustment Of Copy Ratio

• If the copy image dimension "I" is smaller than the chart dimension, enter a value larger than the current one. Fig. 3-61 Press the [INTERRUPT] button. e-STUDIO163/203 ADJUSTMENT  $\mbox{\sc December 2005 TOSHIBA TEC 3 - 56...}$ 

#### Page 135: Adjustment Of Adf Opening/Closing Sensor

Adjust the bracket position so that the sensor is turned ON when the height "A" becomes 100 mm or less (within the empty weight falling limit). Fig. 3-62 Fig. 3-63  $\odot$  December 2005 TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 57...

Page 136 ADJUSTMENT © December 2005 TOSHIBA TEC 3 - 58...

#### Page 137: Preventive Maintenance (Pm)

PREVENTIVE MAINTENANCE (PM) General Descriptions for PM Procedure Perform the preventive maintenance in the following timing. e-STUDI0163: every 72,000 sheets e-STUDI0203: every 90,000 sheets Preparation • Ask the user about the current conditions of the equipment and note them down.

#### Page 138: Operational Items In Overhauling

Check the performance of all the switches and sensors. Replace them with new ones if necessary. Clean inside the equipment thoroughly. Check if the harnesses, thermistors, fuses, etc. are damaged. Replace them if necessary. e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 2...

#### Page 139: Preventive Maintenance Checklist

PM cycle of each unit. e-STUDIO163: every 72,000 sheets e-STUDIO203: every 90,000 sheets 2. Value under "Replacement" indicates the replacement cycle for e-STUDIO163/ e-STUDIO203. 3. The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.

Page 140 <P-I> Pickup roller P14-I22 Feed roller P14-I22 Separation pad P13-I22 Bypass tray Drive gear (tooth face and shaft) GCB bushing bearing One side of the plastic bushing e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 4...

Page 141 Photoconductive drum 72/90 Chap. 4.7.2 Discharge LED Whole cleaner unit Drum cleaning blade 72/90 P20-I5 Separation finger for 72/90 P20-I17 drum Recovery blade 72/90 P20-I6 Ozone filter 72/90 P11-I3 © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 5...

Page 142 P23-I30 Exit roller P23-I19 K. PFU (MY-1027) Replacement Operation Parts list Items to check Cleaning Lubrication Remarks (x 1,000 sheets) check <P-I> Pickup roller P3-I12 Feed roller P3-I16 e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 6...

Page 143 Fig. 4-1 Front side © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 7 06/04...

Page 144 Fig. 4-2 Automatic Document Feeder (ADF) Fig. 4-3 Paper Feed Unit (PFU) e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 8...

<u>Page 145</u> Be careful of the following when attaching a new wire (length: 353 mm) Insert the wire securely into the V-grooves of the front and rear sides. Do not twist the wire. Do not touch the wire with your bare hand. © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 9...

<u>Page 146</u> \* i2. Oil seal (Developer unit) Mixer unit (Shafts of mixers-1, -2 & -3) 6 pcs. Note: Note: Lubricate the oil seal only when the oil seal is replaced. e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 10...

Page 147 Clean the thermistor with alcohol if the toner or dirt is sticking to it when the fuser roller is replaced. Do not deform or damage the thermistor during the cleaning. Replace the thermistor with a new one if it is damaged or deformed regardless of degree. © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 11...

#### Page 148: Pm Kit

FILTER-OZON-TRU-371 Fuser roller HR-1640-U Pressure roller HR-1640-L Separation finger for fuser roller SCRAPER-280 Bush for fuser roller BUSH-HR/RLR DF-KIT-3018 Pickup roller ASYS-ROL-FEED Feed roller ASYS-ROL-FEED Separation roller ASYS-ROL-RET e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 12...

#### Page 149: Jig List

High-voltage transformer jig Downloading jig (DLM board) Download JIG-2 (6 Flash ROMs) Download JIG-1 (2 Flash ROMs) ROM writer adapter (For 1881) ROM writer adapter (For 1931) © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 13 06/04...

#### Page 150: Grease List

White grease (Molykote HP-300) ASM-PG-HP300-S 100g Bottle White grease (Molykote HP-300) GREASE-HP300-S Bottle Alvania No.2 ASM-PG-ALV2 100g Tube White grease (Molykote X5-6020) MOLYKOTE-100 100g Tube Floil (GE-334C) ASM-PG-GE334C-S Bottle e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 14...

#### Page 151: Precautions For Storing And Handling Supplies

Precautions for Storing and Handling Supplies 4.7.1 Precautions for storing TOSHIBA supplies 1) Toner/Developer Toner and developer should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation), and should also be protected against direct sunlight during transportation.

#### Page 152: Checking And Cleaning Of Photoconductive Drum

6) Collecting used photoconductive drums Regarding the recovery and disposal of used photoconductive drums, we recommend following the relevant local regulations or rules. e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 16...

#### Page 153: Checking And Cleaning Of Drum Cleaning Blade

Be careful not to rub the fuser roller and pressure roller surface with your nails or hard objects because it can be easily damaged. Do not use silicone oil on the fuser roller and pressure roller. © December 2005 TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM)

Page 154 PREVENTIVE MAINTENANCE (PM) © December 2005 TOSHIBA TEC 4 - 18...

#### Page 155: Troubleshooting

2) Check if the aligning amount is appropriate. (See P. 3-5 "3.2.2 Paper alignment at the registration roller") An [E01] error occurs both when the amount is too large and too small. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 1...

Page 156 Jamming area Cover Sensor Test mode / Input check Registration area Transfer cover Registration sensor 03-[INTERRUPT]OFF/[9]/[6] Exit area Transfer cover Exit sensor 03-[INTERRUPT]OFF/[9]/[5] PFU side cover PFU feed sensor 03-[INTERRUPT]OFF/[7]/[5] e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 2...

Page 157 1) Check the condition of the pickup roller of paper source, and replace it if it is worn out. 2) Check the transport roller. Replace it if it is worn out. © December 2005 TOSHIBA TEC e-STUDI0163/203 TROUBLESHOOTING 5 - 3...

#### Page 158: Paper Misfeeding

4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the bypass pickup solenoid and bypass paper sensor. 6) Replace the MAIN board. Check the bypass pickup roller. Replace it if it is worn out. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 4... Page 159 4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the pickup solenoid. 6) Replace the MAIN board. Check the drawer pickup roller. Replace it if it is worn out. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 5...

Page 160 4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the PFU pickup solenoid. 6) Replace the MAIN board. Check the PFU drawer pickup roller. Replace it if it is worn out. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 6...

#### Page 161: Cover Open Jam

3) Check if the connector pins are disconnected and the harnesses are open circuited. 4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the MAIN board. Replace the MAIN board. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 7...

Page 162 3) Check if the connector pins are disconnected and the harnesses are open circuited. 4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the MAIN board. Replace the MAIN board. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 8...

Page 163 4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5) Replace the PFU cover opening/closing switch. 6) Replace the MAIN board. Replace the MAIN board. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 9...

#### Page 164: Transport Jam (Adf)

4) Check if the conductor pattern on the ADF board is short circuited or open circuited. 5) Replace the read sensor. 6) Replace the ADF board. Replace the ADF board. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 10...

Page 165 4) Check if the conductor pattern on the ADF board is short circuited or open circuited. 5) Replace the ADF jam access cover switch. 6) Replace the ADF board. Replace the ADF board. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 11...

Page 166 4) Check if the conductor pattern on the ADF board is short circuited or open circuited. 5) Replace the ADF opening/closing sensor. 6) Replace the ADF board. Replace the ADF board. e-STUDI0163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 12...

#### Page 167: Drive System Related Service Call

1) Check if the PLL lock signal CN305-B8 output from the MAIN board is always level "L"? 2) Check if the voltage supplied to the CPU input terminal IC24-12 is always "L"? 3) Replace the MAIN board. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 13...

#### Page 168: Scanning System Related Service Call

3) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 4) Replace the MAIN board. 5) Replace the CIS unit. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 14...

#### Page 169: Fuser Unit Related Service Call

Change the current status counter value "1" or "2" to "0", then press [ENTER] or [INTERRUPT] (to cancel [C41]). Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 15...

<u>Page 170</u> Check if the conductor pattern on the board is short circuited or open circuited. Replace the MAIN board. 3. Clear the status counter Change the current status counter value (08-400) "6" to "0". e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 16...

#### Page 171: Adf Related Service Call

MAIN board (CN21, CN22) and laser optical unit? 1) Connect the disconnected connectors. 2)

Replace the laser optical unit if the harness is open circuited. 1) Replace the MAIN board. 2) Replace the laser optical unit. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 17 06/07...

#### Page 172: Service Call For Others

1) Check if the connector CN2 on the SRAM board and the connector CN2 on the MAIN board are securely connected. 2) Replace the SRAM board. 3) Replace the MAIN board. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 18 06/04...

#### Page 173: Troubleshooting For The Image

Is background fogging occurring? Perform troubleshooting for back- ground fogging. Is there a blotch on the image? Perform troubleshooting for blotched image. Is the image transferred normally? Perform troubleshooting for abnor- mal transfer. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 19...

<u>Page 174</u> Is the drum cleaned properly? Check the pressure of the drum cleaning blade. Toner dusting Is toner heaped on the seal of the Remove the toner and clean the developer unit? developer unit. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 20...

<u>Page 175</u> Check the image processing param- Check the encircled areas A and B in eters. the image, and change the sharp- ness intensity in the sharpness adjustment mode.  $\bigcirc$  December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 21...

<u>Page 176</u> Using the specified developer mate- Use the specified developer material rial? and toner. Scanner Are the original glass (especially the Clean them. position of shading correction plate) and CIS unit dirty? e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 22...

Page 177 Ozone exhaust Is the exhaust fan operating prop- Check the connection of connector. erly? Replace the ozone exhaust fan. Is the ozone filter stained or dam- Replace the ozone filter. aged? © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 23...

Page 178 Is the setting temperature of the fuser Check the setting and correct it. roller in each paper type normal? 08-413, 437, 438, 451, 452, 453, 520, 521 Using the recommended paper? Use the recommended paper. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 24...

Page 179 MAIN, LDR, SNS boards, Are the connectors securely con- Connect the connectors securely. CIS unit and harnesses nected? Replace the harness. Check if the harnesses connecting the boards are open circuited. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 25...

Page 180 MAIN, LDR, SNS boards, Are the connectors securely con- Connect the connectors securely. CIS unit and harnesses nected? Replace the harness. Check if the harnesses connecting the boards are open circuited. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 26...

Page 181 Are the original glass (especially the Clean them. position of shading correction plate) and CIS unit dirty? Cleaner Is there any foreign matter, which Remove the foreign matter. contacts the drum on the cleaner stay? © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 27...

Page 182 Is any foreign matter such as paper Remove the foreign matter from the shred sticking to the transfer charger wire. wire? Feed system Is the aligning amount proper? Adjust the aligning amount. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 28...

Page 183 Is the pre-registration guide properly Correct it. installed? CIS unit Is the CIS unit slanted? Replace the CIS case. Feed system Is the aligning amount proper? Adjust the aligning amount. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 29...

Page 184 Are there scratches on the drum sur- Replace the drum. face? Laser optical unit Is there a foreign matter or stain on Remove the foreign matter or the slit glass? stain. e-STUDI0163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 30...

Page 185 Scanner Are the original glass (especially the Clean them. position of shading correction plate) and CIS unit dirty? © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 31...

Page 186 / Transfer charger) Transfer/Separation Is there any foreign matter such as Clean the transfer/separation charger fiber in the paper transport area of charger. the transfer/separation charger? e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 32...

Page 187 Replace the clutch if it is defective. Adjust the rotation speed of the roller. Highvoltage transformer Is the high-voltage transformer out- Adjust the output, or replace the (Transfer charger) put defective? transformer. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 33...

Page 188 Is the platen cover or ADF opened? Close the platen cover or ADF. Are the original glass (especially the Clean them. position of shading correction plate) and CIS unit dirty? e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 34...

Page 189 Reconnect the harness securely. age harness securely connected? Is Replace the high-voltage harness. the harness open circuited? Discharge LED Are the connectors of discharge LED Reconnect the harness securely. harness securely connected? © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 35...

Page 190 Check the registration clutch, and properly? replace them if necessary. Preregistration guide Is the pre-registration guide installed Install the guide properly. properly? Feed system Is the aligning amount proper? Adjust the aligning amount. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 36...

Page 191 Drum drive system Is there any problem with the drive Check the drive system of the drum? Clean or replace the gears if they have stains or scratches. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 37...

Page 192 Is the pressure of the fuser roller nor- Check and adjust the mechanism. mal? Is the setting temperature of the fuser Check the setting and correct it. roller normal? 08-407, 410, 411, 450, 515, 516 e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 38...

Page 193 Replace the discharge LED. Scanner Are the original glass (especially the Clean them. position of shading correction plate) and CIS unit dirty? Exposure lamp Is the CIS unit degraded? Replace the CIS unit. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 39...

Page 194 Is the transfer charger wire dirty? Clean the transfer charger wire. High-voltage transformer Is the output from the high-voltage Adjust the output. Replace the trans- (Transfer charger) transformer normal? former if necessary. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 40...

#### Page 195: Replacement Of Pc Boards

Perform 08-388 (Copying total counter / MAIN board -> SRAM board) to recover the total counter. While pressing [1], [3] and [#] simultaneously, turn the power ON. (RAM clear) (10) Turn the power OFF. © December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 41 06/05...

Page 196 05-514 (Density adjustment Fine adjustment of "automatic density" (Text/Photo)) 05-515 (Density adjustment Fine adjustment of "automatic density" (Text)) Also, set the adjustment values which have been changed for servicing. e-STUDIO163/203 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 42 06/05...

Page 197 Also, set the setting values which have been changed for servicing. (17) Check that

the setting value for 08-203 (Line adjustment mode) is "0" (For factory shipment). If it is "1" (For line), change it to "0".  $\bigcirc$  December 2005 TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 43...

Page 198 TROUBLESHOOTING © December 2005 TOSHIBA TEC 5 - 44...

#### Page 199: Firmware Updating

P. 6-1 "6.1 Firmware Updating with Download Jig" • Updating with PC connected P. 6-8 "6.2 Firmware Updating with TOSHIBA Viewer" Firmware Updating with Download Jig In this equipment, it is feasible to update the firmware automatically by connecting the download jig using the dedicated connector and turning ON the equipment.

Page 200 K-PWA-DLM-320 Connector Mark for ROM installation direction Fig. 6-3 Jig board: K-PWA-DLM-320 Important: Pay attention to the direction of the ROM. e-STUDIO163/203 FIRMWARE UPDATING © December 2005 TOSHIBA TEC 6 - 2 06/04...

#### Page 201: Pwa-Dwnld-350-Jig

Turn OFF the power of the equipment. Remove the rear cover. Rear cover Fig. 6-4 Connect the download jig with the connector (CN1) on the MAIN board. Connector Fig. 6-5 © December 2005 TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 3...

<u>Page 202</u> Is the updating data written to the download jig properly? • Do the download jig and the equipment operate properly? : ON Fig. 6-8 Turn OFF the power, remove the download jig and install the rear cover. e-STUDIO163/203 FIRMWARE UPDATING © December 2005 TOSHIBA TEC 6 - 4 06/04...

Page 203 [B] Confirmation of the updated data After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly. 08-900: System ROM version © December 2005 TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 5 06/02...

#### Page 204: Writing The Data To The Download Jig (Pwa-Dwnld-350-Jig)

Minato Electronics MODEL 1881XP PWA-DL-ADP-350-1881 (or equivalent) (model 1881) Minato Electronics MODEL 1893/1895/1931/1940 PWA-DL-ADP-350-1931 (or equivalent) (model 1931) model 1881 model 1931 (LV650) Fig. 6-10 PWA-DL-ADP-350-1881 Fig. 6-11 PWA-DL-ADP-350-1931 e-STUDIO163/203 FIRMWARE UPDATING © December 2005 TOSHIBA TEC 6 - 6...

#### Page 205: K-Pwa-Dlm-320

\* If rewriting data is failed, turn OFF the power and repeat the procedure. Connector Fig. 6-12 Note: Note: Be sure to print out the list to confirm the firmware version for the ADF. P. 2-11 "2.2.4 List Print Mode (9S)" © December 2005 TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 7 06/04...

#### Page 206: Firmware Updating With Toshiba Viewer

Firmware Updating with TOSHIBA Viewer Using the TOSHIBA Viewer, you can download the firmware from the PC to this copier for updating. Important: • Data to be downloaded should be stored in the same drive as the TOSHIBA Viewer program.

Page 207 2) Double click [Download (main board)] in Data sources. The Service setting dialog box appears. 3) Enter the password "TSBSERVICE". 4) Click [OK]. The Download firmware update dialog box appears. © December 2005 TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 9...

Page 208 Bank 1: Program data Bank 2: Function data Bank 3: (Not used) • When an inappropriate file is selected for the bank, the following message is displayed. Select the appropriate file. e-STUDIO163/203 FIRMWARE UPDATING © December 2005 TOSHIBA TEC 6 - 10 06/11...

<u>Page 209</u> 7) Click [OK]. 8) To continue downloading the data file, check that the equipment reboots and goes into the ready status, and then repeat the procedure from step 1.  $\bigcirc$  December 2005 TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 11...

Page 210 FIRMWARE UPDATING © December 2005 TOSHIBA TEC 6 - 12...

#### Page 211: Power Supply Unit

The following is an output channel for the cover switch line. 1) +24V +24VCOV-OFF: CN104 Pins 21 and 22 Output to the MAIN board, PFU (via MAIN board) © December 2005 TOSHIBA TEC e-STUDIO163/203 POWER SUPPLY UNIT 7 - 1 06/04...

#### Page 212: Fuse

Bypass pickup solenoid SOL2 Contact image sensor unit +24VDF F202: 4A +24VCOV-OFF MAIN board Toner motor F201: 4A Main motor Exhaust fan Auto-toner sensor Discharge LED Coin controller e-STUDIO163/203 POWER SUPPLY UNIT © December 2005 TOSHIBA TEC 7 - 2...

#### Page 213: Configuration Of Power Supply Unit

Configuration of Power Supply Unit CN104 CN113 CN108 CN105 Regulator CN101 CN106 Fig. 7-1 © December 2005 TOSHIBA TEC e-STUDIO163/203 POWER SUPPLY UNIT 7 - 3 06/04...

Page 214 POWER SUPPLY UNIT © December 2005 TOSHIBA TEC 7 - 4...

#### Page 215: Wire Harness Connection

WIRE HARNESS CONNECTION AC Wire Harness Fig. 8-1  $\ensuremath{^\circ}$  December 2005 TOSHIBA TEC e-STUDIO163/203 WIRE HARNESS CONNECTION 8 - 1 06/04...

Page 216 WIRE HARNESS CONNECTION © December 2005 TOSHIBA TEC 8 - 2...

#### Page 217: 8.2 Dc Wire Harness

8.2 DC Wire Harness 06/05...

#### Page 218: 8.3 Electric Parts Layout

8.3 Electric Parts Layout [A] Scanner, control panel [B] Power supply section, switches [C] Laser unit, fuser unit, toner cartridge section [D] Developer unit section CTIF THMO2 CTRG LPNL LAMP1 LAMP2 THMS4 THMO1 THMS1 THMS2 THMO3 THMS3 [E] Driving section [F] Drawer section [G] Bypass unit CLT1...

#### This manual is also suitable for:

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