



Toshiba e-STUDIO163 Service Handbook

Multifunctional digital systems

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Troubleshooting

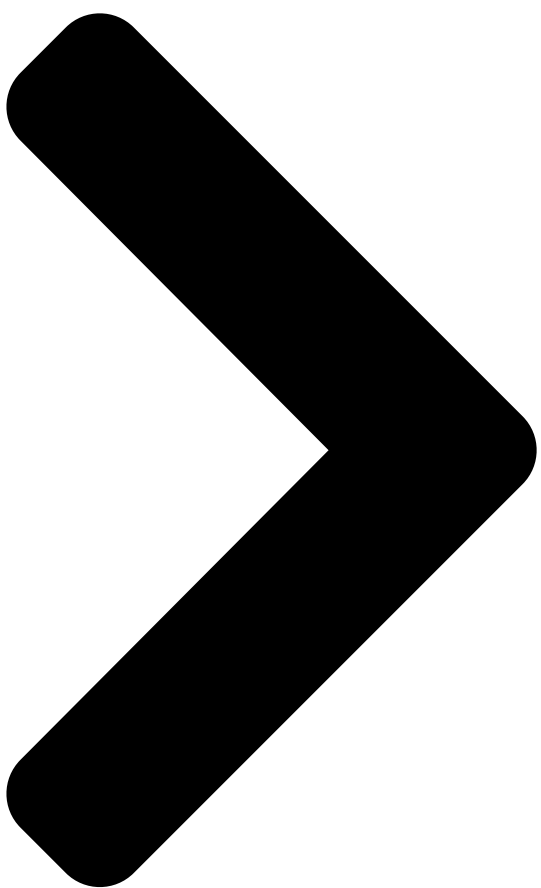
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SERVICE

HANDBOOK

MULTIFUNCTIONAL DIGITAL SYSTEMS

TO

e-

TC

STUDIO163/203

File No. SHE05000500
R05092196300-TTEC
VerB_2005-11

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Multifunctional digital systems (237 pages)

[Mfp Toshiba e-STUDIO163 Service Manual](#)

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Multifunctional digital systems copying functions (226 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. SHE05000500 R05092196300-TTEC VerB_2005-11...

[Page 2](#) © 2005 TOSHIBA TEC CORPORATION All rights reserved...

[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, employ two persons and be sure to hold the positions as shown in the figure.

[Page 4](#) 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."

[Page 5](#) 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 11: 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 3-dimensional object.

[Page 12](#) - [-] B4, LG, FOLIO, COMPUTER - [-] 12 [12] 10.5 [10.5] - [-] A3, LD - [-] 10.5 [10.5] 10.5 [10.5] - [-] e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES December 2005 © TOSHIBA TEC 1 - 2...

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(17 to 22 lb. Bond)) Bypass feeding: Stack height TBD mm: equivalent to 100 sheets; 64 to 80 g/m (17 to 22 lb. Bond) December 2005 © TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 3...

[Page 14: Options](#)

* The electric power is supplied to the ADF through the equipment. Total counter.....Electronical counter Dimensions of the equipmentSee the figure below (TBD) T.B.D Fig. 1-1 e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES December 2005 © TOSHIBA TEC 1 - 4...

[Page 15: Supplies](#)

Central and South America / Hong Kong AUD: Australia MJD: Europe ASU: Asia SAD: Saudi Arabia IRD: Iran CND: China TWD: Taiwan JPD: Japan December 2005 © TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 5...

[Page 16](#) Options Platen Cover KA-1640 PC Automatic Document Feeder (ADF) MR-2017 Paper Feed Unit (PFU) MY-1027 Expansion Memory GC-1240 e-STUDIO163/203 SPECIFICATIONS /

[Page 17](#) Supplies Drum Toner cartridge Developer December 2005 © TOSHIBA TEC e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES 1 - 7...

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System List T.B.D Fig. 1-2 e-STUDIO163/203 SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES December 2005 © TOSHIBA TEC 1 - 8...

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ADF jam access cover open: The ADF jam access cover has opened during ADF operation. ADF open jam: ADF has opened during ADF operation. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 1...

[Page 20: Service Call](#)

H-Sync detection error: H-Sync detection PC board cannot detect laser beams. Other service call Toner for recycle transport area lock e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 2...

[Page 21: Self-Diagnosis Modes](#)

To use 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 22](#) P. 2-27 "2.2.5 Setting mode (08)". • List print mode (9S): [9][START] List code Print out [POWER] [POWER] [Digital keys] OFF/ON [START] 101:FUNC (FUNC,05/08) Data list 102:FUNCTION list e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 4...

[Page 23: Input Check \(Test Mode 03\)](#)

Bypass feed paper width sensor-2 Refer to table 1 Bypass feed paper width sensor-1 Refer to table 1 Bypass feed paper width sensor-0 Refer to table 1 December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 5...

[Page 24](#) Paper present Registration sensor No paper Paper present 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...

[Page 25](#) ADF opened ADF closed ADF cover opening/closing sensor Cover opened Cover closed ADF empty sensor Original No original present ADF tray sensor Original No original present December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 7...

[Page 26](#) 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 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 8...

[Page 27: Output Check \(Test Mode 04\)](#)

OFF/ON CLEAR] Procedure 3 [0][4] Code Operation [START] [START] [POWER] [Digital keys] [POWER] Operation [CLEAR] OFF/ON Procedure 4 [0][4] Code [POWER] [START] [POWER] [Digital keys] OFF/ON December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 9...

[Page 28](#) ADF reverse motor ON/OFF (reverse rotation) ADF reverse/exit solenoid ON/OFF Power OFF mode ADF fan motor ON/OFF Switching regulator cooling fan ON/OFF (low speed) Switching regulator cooling fan ON/OFF (high speed) e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 10...

[Page 29: Test Print Mode \(Test Mode 07\)](#)

Remarks Primary scanning direction 33 gradation steps Error diffusion Secondary scanning direction 33 gradation steps Error diffusion Grid pattern Pattern width: 2 dots, Pitch: 10 mm
December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 11...

[Page 30: Adjustment Mode \(05\)](#)

Start Set manually [START] Stores value in RAM [INTERRUPT] [POWER] OFF/ON Does not store value in RAM [FUNCTION CLEAR] * Press [#] to enter minus (-). e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 12...

[Page 31](#) RAM [FUNCTION CLEAR] Start [START] Procedure 10 [0][5] Code Sub code [START] [START] [POWER] [Digital keys] [Digital keys] Value [FUNCTION [POWER] displayed CLEAR] OFF/ON December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 13...

[Page 32](#) Procedure [0][5] Code Test print [POWER] [POWER] [Digital keys] OFF/ON [INTERRUPT] Test code Types of test pattern Remarks Grid pattern Secondary scanning direction 33 gradation steps e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 14...

[Page 33](#) (The toner is forcibly removed from the cleaner.) Laser Laser power adjustment When the value <0-255> increases, the laser out- put increases corre- spondingly. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 15...

[Page 34](#) <0-255> increases by "1", the car- riage position when using the ADF shifts by approx. 0.1 mm toward the original feeding side. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 16...

[Page 35](#) 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%. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 17...

[Page 36](#) Short size (Drawer/Plain <Paper length> <0-63> paper) Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 18...

[Page 37](#) Paper Paper aligning Long size feeding amount <0-63> adjustment at 464-1 Middle the registra- size <0-63> tion section 464-2 Short size (Bypass feed- <0-63> ing /Envelope) December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 19...

[Page 38](#) When the value adjustment <0-255> increases, the image of Fine adjust- the "light" steps becomes Photo ment of "man- lighter. <0-255> ual density"/ Text Light step <0-255> value e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 20...

[Page 39](#) <11-14, background density and 21-24, text density respectively. 31-34, 1: fixed/fixed 41-44> 2: varied/fixed 3: fixed/varied 4: varied/varied Background peak/ Text peak December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 21...

[Page 40](#) Photo When the value <1-9> increases, the back- Text ground becomes lighter. <1-9> Image Switching of the scanner Gamma correction table <0-4> when paper e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 22...

[Page 41](#) Adjusts the density level ied image <0-63> of copied image. When the value 667-1 decreases, the text <0-63> becomes lighter. 667-2 <0-63> 667-3 <0-63> 667-4 <0-63> December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 23...

[Page 42](#) <11-14, tion of the background 21-24, density and text density 31-34, respectively.

41-44> 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied Background peak/ Text peak e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 24...

[Page 43](#) Mode 1 <0-4> smudged/faint text. text With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is sup- pressed. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 25...

[Page 44](#) Mode 1 <1-9> Gamma curve (The ment larger the value is, the larger the slope Image Gamma data Custom becomes.) slope adjust- Mode 1 <1-9> ment e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 26...

[Page 45: Setting Mode \(08\)](#)

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 - 27...

[Page 46](#) * Press [#] to enter minus (-). Procedure 14 [0][8] Code Sub code [START] [START] [POWER] [Digital keys] [Digital keys] Value [FUNCTION [POWER] displayed CLEAR] OFF/ON e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 28...

[Page 47](#) 0: Language 1 interface power-ON UC: 0 1: Language 2 JPN: 5 2: Language 3 <0-6> 3: Language 4 4: Language 5 5: Language 6 6: Language 7 December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 29...

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[Page 49](#) (COM- direction <140- PUTER) 432> 238-1 widthwise direction <140- 432> 239-0 Paper Paper size feeding feeding (FOLIO) direction <140- 432> 239-1 widthwise direction <140- 432> December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 31...

[Page 50](#) Current value of PM Counts up when the nance counter Display/0 clearing <8 digits> registration sensor is Mainte- Error history display Displaying of the latest nance 8 errors data e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 32...

[Page 51](#) <0,2> 0: Not displayed 2: Displayed User Switching "APS"/"ADF- UC: 1 0: "APS" display interface APS" display Other: 0 1: "ADF-APS" display <0,2> December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 33...

[Page 52](#) (08-352) and the definition setting of 306-6 FOLIO large-sized paper (08- 306-7 353). 306-8 306-9 306-10 306-11 COMP 306-12 13"LG 306-13 8.5" x 8.5" 306-14 306-15 306-16 Others e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 34...

[Page 53](#) Small: Number of output pages other than 320-2 Counter Total set as large-sized <8 digits> paper Total: Total number out- put pages of all paper sizes. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 35...

[Page 54](#) Small: Number of output pages other than 327-2 Counter Total set as large-sized <8 digits> paper Total: Total number out- put pages of all paper sizes. e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 36...

[Page 55](#) 0: A3/LD sized paper <0-1> 1: A3/LD/B4/LG/ (Fee charging system FOLIO/COMP/8K counter) Counter Counter for Drawer feeding Counts the number of <8 digits> sheets fed from Drawer December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 37...

[Page 56](#) 7: C44 8: C45 9: C44 10: C47 11: C47 12: C48 13: C49 14: C47 15: C48 16: C49 17: C47 18: C48 19: C49 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 38...

[Page 57](#) <0-12> 2: 150°C 3: 155°C (Center thermistor) 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 39...

[Page 58](#) 4: 150°C 5: 155°C 433-1 Side ther- (Plain paper/ 6: 160°C 7: 165°C mistor <0-12> at ordinary 8: 170°C 9: 175°C temperature) 10: 180°C 11: 185°C 12: 120°C e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 40...

[Page 59](#) 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 41...

[Page 60](#) (driving period of the toner motor) into the developer unit. 0: x1.0 1: x0.75 2: x0.5 3: x0.3 4: x2.0 5: x1.5 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 42...

[Page 61](#) Displays the error nal motor rotation error <0-1> [CA10] when the set (Normal rotation) number of rotation error has been detected. 0: 2 times 1: 12 times December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 43...

[Page 62](#) ADF or the platen cover is opened. 0: Valid (when using ADF and the origi- nal is set manually) 1: Invalid 2: Valid (when using ADF only) e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 44...

[Page 63](#) 3: Custom Mode 3 when Photo is set as a base (Error diffusion) 4: Custom Mode 4 when Photo is set as a base (Dither) December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 45...

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[Page 65](#) 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 47...

[Page 66](#) Setting for the Energy Sav- Refer to 0: Auto Shut Off Mode interface ing Mode content 1: Sleep Mode <0-1> <Default value> EUR, UC, SAD: 1 JPN, Others: 0 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 48...

[Page 67](#) User Default setting when mixed 0: Scanned as all in interface size originals are set on <0-1> same size 1: Scanned as each original size December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 49...

[Page 68](#) Non-sort Mode <0-1> 1: Inner receiving tray User Width setting for image 0: ON interface shift copying (linkage of <0-1> 1: OFF front side and back side) e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 50...

[Page 69](#) "X in 1" to the upper left corner/ center. 0: Cornering 1: Centering User Rotation of paper direction 0: Rotation OFF interface for BOX printing <0-1> 1: Rotation ON December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 51...

[Page 70](#) 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding) User Size indicator 0: Invalid interface <0-1> 1: Valid e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 52...

[Page 71](#) Paper Limit number setting for Sets the limit number of feeding paper exit <1-999> paper exit for 08-698 December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND

[Page 72](#) 3: 145°C limit 4: 150°C 5: 155°C (Envelope) 6: 160°C 7: 165°C 8: 170°C 9: 175°C 804-1 Side 10: 180°C thermistor <0-12> 11: 185°C 12: 120°C e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 54...

[Page 73](#) (Text/OHP film) Devel- Developer bias DC correc- operation <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 - 55...

[Page 74](#) 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 - 56...

[Page 75](#) 7: 165°C Low tempera- 8: 170°C 9: 175°C 896-1 Side ture) 10: 180°C thermistor <0-12> 11: 185°C 12: 120°C Version System firmware ROM ver- T280SY0W*** sion December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 57...

[Page 76](#) FSMS total counter Refers to values of total nance <8 digits> counter 1130 User Job Build Function Sets the Job Build interface <0-1> Function. 0: Invalid 1: Valid e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 58...

[Page 77](#) <8 digits> registration sensor is 1390 Paper Feeding retry counter Counts the number of feeding (Drawer) <8 digits> times of the feeding retry from the Drawer. December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 59...

[Page 78](#) 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 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 60...

[Page 79](#) 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". December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 61...

[Page 80](#) 1214-0 to 8 1215 <Default values of code 1214 (e-STUDIO 163/203)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0 Sub-code 1: 74,000/90,000 Sub-code 4: 167,000/167,000 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 62...

[Page 81](#) Sub-codes 0, 2, 8: 0/0 Sub-code 1: 80,000/80,000 Separation roller 1316-0,1,2,8 1317 <Default values of code 1316 (Bypass unit) (e-STUDIO 163/203)> Sub-codes 0, 2, 8: 0/0 Sub-code 1: 80,000/80,000 December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 63...

[Page 82](#) 1336-0 to 8 1337 <Default values of code 1336 (e-STUDIO 163/203)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0 Sub-code 1: 74,000/90,000 Sub-code 4: 120,000/120,000 e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 64...

[Page 83](#) <<Procedure to copy the total counter value (08-257)>> T.B.D Fig. 2-3 December 2005 © TOSHIBA TEC e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 65...

[Page 84: Classification List Of Adjustment Mode \(05\) / Setting Mode \(08\)](#)
2.2.6 Classification List of Adjustment Mode (05) / Setting Mode (08) <T.B.D> e-STUDIO163/203 ERROR CODE AND SELF-DIAGNOSTIC MODE December 2005 © TOSHIBA TEC 2 - 66...

[Page 85: Adjustment](#)

B indicates the output voltage of the auto-toner sensor (2.30 V in the above case). The drum, developer unit, etc. are in operation. • C indicates the latest adjustment value. December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 1...

[Page 86](#) Press the [ENTER] or [INTERRUPT] button. The drum, developer unit, etc. are stopped and the following is displayed. T.B.D Fig. 3-5 Turn the power OFF. (10) Install the toner cartridge. e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 2...

[Page 87: Image Dimensional Adjustment](#)

(b) Image location of primary scanning direction (c) Reproduction ratio of secondary scanning direction (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...

[Page 88](#) [Procedure to key in adjustment values] In accordance with the procedure described below, make adjustment of each adjustment item so that the measured values obtained from test copies satisfy the specification. T.B.D Fig. 3-6 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 4...

[Page 89: Paper Alignment At The Registration Roller](#)

Short size: 219 mm or shorter (8.6 inches or shorter) 2. The adjustment of "Post card" is for Japan only. <Procedure> Perform the test print according to the following procedure. T.B.D December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 5...

[Page 90](#) So, when adjusting the aligning amount, try to choose the appropriate amount while confirming the leading edge position is not shifted. * As a tentative countermeasure, the service life of the feed roller can be extended by increasing the aligning amount. e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 6...

[Page 91: Printer Related Adjustment](#)

"100% A" is displayed Press [1] [INTERRUPT] (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...

[Page 92](#) "100% A" is displayed Press [1] [INTERRUPT] (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...

[Page 93](#) [ENTER] or [INTERRUPT] (Stored in memory) "100% A" is displayed Press [1] [INTERRUPT] (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...

[Page 94](#) 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) 52±0.5 mm(0.4 mm/step) e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 10...

[Page 95: Scanner Related Adjustment](#)

* The larger the adjustment value is, the higher the reproduction ratio and the longer the distance A become (approx. 0.125 mm/step). Copied image of the ruler Feeding direction Fig. 3-9 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 11...

[Page 96](#) * The smaller the adjustment value is, the more the image is shifted to the left and the distance B becomes narrower (0.085 mm/step). Copied image of the ruler Feeding direction Fig. 3-10 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 12...

[Page 97](#) Press the [ENTER] or the [INTERRUPT] button (stored in memory). ("100% A" is displayed.) * The smaller the adjustment value is, the lower the reproduction ratio becomes (0.45 mm/ step). Copied image of the ruler Feeding direction Fig. 3-11 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 13...

[Page 98](#) ("100% A" is displayed.) * The larger the adjustment value is, the more the image is shifted to the trailing edge (0.14 mm/step). Copied image of the ruler Feeding direction Fig. 3-12 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 14...

[Page 99](#) Press the [ENTER] or the [INTERRUPT] button (stored in memory). ("100% A" is

displayed.) * The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/ step). Feeding direction Fig. 3-13 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 15...

[Page 100](#) Press the [ENTER] or the [INTERRUPT] button (stored in memory). ("100% A" 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. 3-14 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 16...

[Page 101](#) Press the [ENTER] or the [INTERRUPT] button (stored in memory). ("100% A" 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. 3-15 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 17...

[Page 102: Density Adjustment](#)

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). e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 18...

[Page 103: Gamma Slope Adjustment](#)

00: Use default value * The values in "()" are the adjustment codes of the Custom Mode.
<Procedure> Procedure is same as that of P. 3-18 "3.3.1 Density adjustment". December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 19...

[Page 104: Sharpness Adjustment](#)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure. <Procedure> Procedure is same as that of P. 3-18 "3.3.1 Density adjustment". e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 20...

[Page 105: Setting Range Correction](#)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure. <Procedure> Procedure is same as that of P. 3-18 "3.3.1 Density adjustment". December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 21...

[Page 106: Adjustment Of Smudged/Faint Text](#)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure. <Procedure> Procedure is same as that of P. 3-18 "3.3.1 Density adjustment". e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 22...

[Page 107: 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). December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 23...

[Page 108: Image Quality Adjustment \(Printing Function\)](#)

Press the [ENTER] or [INTERRUPT] button to store the value. 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). e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 24...

[Page 109: 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). December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 25...

[Page 110: Adjustment Of High-Voltage Transformer](#)

P. 3-29 "[B] Refer to P. 3-29 Refer to P. 3-30 "[D] Con- Connection for devel- "[C] Connection for nection for transfer/separation oper bias adjustment". main charger adjust- charger

adjustment". ment". e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 26...

[Page 111](#) High-voltage transformer jig Fig. 3-17 Fix the green cable of the high-voltage transformer jig to the frame of the equipment for grounding. Screw Green cable Fig. 3-18 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 27...

[Page 112](#) Install the door switch jig. Close the transfer cover. Front cover opening/closing switch Door switch jig Fig. 3-19 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 28...

[Page 113](#) (green cable) (+) terminal: (-) terminal: Connect with the Connect with the white cable red cable (thick line) Fig. 3-21 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 29...

[Page 114](#) (green cable) (+) terminal: (-) terminal: Connect with the red cable (thin line) Connect with the white cable Fig. 3-22 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 30...

[Page 115](#) -566±54mV -566±54mV -391±36mV [SET] : Adjusted value "YYY" is stored in memory. [INTERRUPT] 100% TEST MODE Return to 1 to enter the other adjustment code. [POWER] : OFF/ON Fig. 3-23 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 31...

[Page 116: Precautions](#)

Approx. 11mm Approx. 5mm Adjustment code "220" "221" "222" Leading edge Trailing edge area of paper area of paper Fig. 3-24 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 32...

[Page 117](#) Approx. 48mm Adjustment code "233" "235" "234" "235" Leading edge Trailing edge area of paper area of paper Fig. 3-25 * Adjustment code 235 performs the adjustment for 2 areas. December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 33...

[Page 118: Adjustment Of The Scanner Section](#)

Tighten the tension bracket fixing screw. Tension bracket Note: Note: Install the CIS unit drive belt-1 after the tension spring is removed and the tension bracket fixing screw are loosened. Fig. 3-27 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 34...

[Page 119: Scan Motor \(Cis Unit Drive Belt-2\)](#)

Hook the belt tension jig on the motor bracket and frame. Scan motor Belt tension jig Fig. 3-29 Tighten screws A and B where the scan motor pulled by the belt tension jig stops. December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 35...

[Page 120: Adjustment Of The Paper Feeding System](#)

Center [Front] [Front] Fig. 3-31 Fig. 3-30 Bypass feeding 1) Loosen the screen. 2) Move the entire guide to the front or rear side. 3) Tighten the screw. Fig. 3-32 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 36...

[Page 121](#) Drawer feeding Loosen 3 screws. Move the entire guide to the front or rear side. Tighten the 3 screws. (B) (A) Fig. 3-33 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 37...

[Page 122: Adjustment Of Developer Unit](#)

Fig. 3-34 Turn the adjustment screw to widen the gap Screw so that the jig can be inserted in it. (Turning the screw clockwise widens the gap) Fig. 3-35 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 38...

[Page 123](#) "0.50" cannot be inserted into the gap. Developer sleeve Fig. 3-37 Confirm that the side seals are attached on the toner scattering prevention sheet. Side seal Toner scattering prevention sheet Fig. 3-38 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 39...

[Page 124](#) Attach the developer material cover and Developer tighten 2 screws. material 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. 3-39 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 40...

[Page 125: Adjustment Of Adf Position](#)

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. 3-40 Remove the platen sheet. Fig. 3-41 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 41...

[Page 126](#) 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. 3-43 Loosen the left-hand hinge screw at the rear side. Fig. 3-44 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 42...

[Page 127](#) 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. 3-46 Tighten the left-hand hinge screw at the rear side. Fig. 3-47 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 43...

[Page 128](#) Loosen the hole position adjustment screws on the right hand side. Fig. 3-48 Match the screw hole positions. Fig. 3-49 Install the right-hand hinge screw at the rear side. Fig. 3-50 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 44...

[Page 129](#) (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. 3-52 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 45...

[Page 130: 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 - 0.5 mm Front side: 0 mm Fig. 3-53 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 46...

[Page 131](#) Adjust the gap on the rear side by means of the screw on the hinge on the feed side of the ADF. Turn it clockwisLowered Turn it counterclockwise ..Heightened Fig. 3-55 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 47...

[Page 132: 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. 3-57 e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 48...

[Page 133](#) "+", and if "D", shift it to "-". Fig. 3-58 Fig. 3-59 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 - 49...

[Page 134: 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 0.1 mm. Press the [ENTER] button. e-STUDIO163/203 ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 50...

[Page 135: 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 0.042 mm. Fig. 3-63 Press the [ENTER] button. December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 51...

[Page 136: 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. 3-64 Press the [ENTER] button. e-STUDIO163/203 ADJUSTMENT December

[Page 137: 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. 3-65 Fig. 3-66 December 2005 © TOSHIBA TEC e-STUDIO163/203 ADJUSTMENT 3 - 53...

[Page 138](#) ADJUSTMENT December 2005 © TOSHIBA TEC 3 - 54...

[Page 139: General Descriptions For Pm Procedure](#)

PREVENTIVE MAINTENANCE (PM) General Descriptions for PM Procedure Perform the preventive maintenance in the following timing. e-STUDIO163: every 72,000 sheets e-STUDIO203: every 90,000 sheets Preparation • Ask the user about the current conditions of the equipment and note them down.

[Page 140: Operational Items In Overhauling](#)

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

[Page 141: 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 for the charge, development and transfer in copying process is not indicated by the number of output pages (sheet), but the develop counts (development).

[Page 142](#) (x 1,000 sheets) check <P-I> Pickup roller T.B.D T.B.D Feed roller T.B.D T.B.D Separation pad T.B.D T.B.D Bypass tray Drive gear (tooth face and shaft) GCB bushing bearing e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) December 2005 © TOSHIBA TEC 4 - 4...

[Page 143](#) Photoconductive drum 72/90 Chap. 4.7.2 Discharge LED Whole cleaner unit Drum cleaning blade 72/90 T.B.D Separation finger for 72/90 drum Recovery blade 72/90 T.B.D Ozone filter 144/180 T.B.D December 2005 © TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 5...

[Page 144](#) K. PFU (MY-1027) Replacement Operation Parts list Items to check Cleaning Lubrication Remarks (x 1,000 sheets) check <P-I> Pickup roller T.B.D T.B.D (upper/lower) Feed roller T.B.D T.B.D (upper/lower) e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) December 2005 © TOSHIBA TEC 4 - 6...

[Page 145](#) Fig. 4-2 Front side December 2005 © TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 7...

[Page 146](#) Fig. 4-3 Automatic Document Feeder (ADF) Fig. 4-4 Paper Feed Unit (PFU) e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) December 2005 © TOSHIBA TEC 4 - 8...

[Page 147](#) 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...

[Page 148](#) Apply an even coat of grease to the inside of the oil seal. • Amount: About two small drops Grease Inside Wipe off any grease the exudes from the inside. Oil seal Fig. 4-5 e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) December 2005 © TOSHIBA TEC 4 - 10...

[Page 149](#) 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 150](#) 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 151: Jig List](#)

Download JIG-2 (6 Flash ROMs) T.B.D T.B.D Download JIG-1 (2 Flash ROMs) T.B.D T.B.D ROM
writer adapter (For T.B.D) T.B.D T.B.D ROM writer adapter (For T.B.D) T.B.D T.B.D December
2005 © TOSHIBA TEC e-STUDIO163/203 PREVENTIVE MAINTENANCE (PM) 4 - 13...

[Page 152: Grease List](#)

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

[Page 153: 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 154: 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 155: 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 156](#) PREVENTIVE MAINTENANCE (PM) December 2005 © TOSHIBA TEC 4 - 18...

[Page 157: Troubleshooting](#)

4) Check if the conductor pattern on the MAIN board is short circuited or open circuited. 5)
Replace the registration roller clutch. 6) Replace the MAIN board. Check the registration roller.
Replace it if it is worn out. December 2005 © TOSHIBA TEC e-STUDIO163/203
TROUBLESHOOTING 5 - 1...

[Page 158](#) 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 159](#) 1) Check the condition of the feed roller, separation roller and pickup roller of each
paper source, and replace them if they are worn out. 2) Check the transport roller. Replace it if
it is worn out. December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 3...

[Page 160: Paper Misfeeding](#)

5) Replace the bypass feed clutch and bypass paper sensor. 6) Replace the MAIN board. Check
the bypass transport, feed separation and pickup rollers. Replace them if they are worn out. e-
STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 4...

[Page 161](#) 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 feed
roller, separation roller and pickup roller. Replace them if they are worn out. December 2005 ©
TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 5...

[Page 162](#) 5) Replace the PFU pickup solenoid. 6) Replace the MAIN board. Check the PFU
drawer feed roller, separation roller and pickup roller. Replace them if they are worn out. e-

[Page 163: 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 164](#) 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 165](#) 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 166: 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 167](#) 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 168](#) 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-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 12...

[Page 169: 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 170: 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 171: 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...

[Page 172](#) 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 173: Adf Related Service Call](#)

Are the harness open circuited and the connectors disconnected or misconnected between the MAIN board (CN21, CN22) and laser optical unit? Replace the harness. Connect the disconnected connectors. 1) Replace the MAIN board. 2) Replace the laser optical unit. December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 17...

[Page 174: Service Call For Others](#)

Check if the connector (CN16) is disconnected or the connector pin is removed on the MAIN board. Check if the harness is short circuited or open circuited. Replace the auger lock switch. Replace the MAIN board. e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA

[Page 175: 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...

[Page 176](#) 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...

[Page 177](#) 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. December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 21...

[Page 178](#) 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), mirror and lens dirty? e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 22...

[Page 179](#) 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 180](#) Check the setting and correct it. roller in each paper type normal? 08-412, 413, 437, 438, 451, 452, 453, 518, 520, 521 Using the recommended paper? Use the recommended paper. e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 24...

[Page 181](#) 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 182](#) 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 183](#) Are the original glass (especially the Clean them. position of shading correction plate) mirror and lens 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 184](#) 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 185](#) Attach the spring correctly. Clean the tration roller? roller if it is dirty. Pre-registration guide Is the pre-registration guide properly Correct it. installed? Carriage-1 Is the carriage-1 slanted? Adjust the carriage-1. December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 29...

[Page 186](#) 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 the slit glass? stain. e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 30...

[Page 187](#) Check and adjust the contact condi- the drum surface? tion of the cleaning blade and recov- ery blade. Scanner Is there a foreign matter on the car- Remove the foreign matter. riage rail? December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 31...

[Page 188](#) / 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 189](#) Replace the clutch if it is defective. Adjust the rotation speed of the roller. High-voltage 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 190](#) 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), mirror and lens dirty? e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 34...

[Page 191](#) 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 192](#) Feed clutch Is the feed clutch working properly? Check the circuit or feed clutch, and replace them if necessary. Pre-registration guide Is the pre-registration guide installed Install the guide properly. properly? e-STUDIO163/203 TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 36...

[Page 193](#) Drum drive system Is there any problem with the drive Check the drive system of the drum. 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 194](#) 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 195](#) Exposure lamp Is the exposure lamp tilted? Adjust the position of the exposure lamp. Is the exposure lamp discolored or Replace the exposure lamp. degraded? December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 39...

[Page 196](#) 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 197: Replacement Of Pc Boards](#)

Update the version of system ROMs (System Firmware, OS data, UI data) (The ROMs had been used for the old MAIN board). * See P. 6-1 "6. FIRMWARE UPDATING" for the details of System ROM update. December 2005 © TOSHIBA TEC e-STUDIO163/203 TROUBLESHOOTING 5 - 41...

[Page 198](#) TROUBLESHOOTING December 2005 © TOSHIBA TEC 5 - 42...

[Page 199: Firmware Updating](#)

P. 6-1 "6.1 Firmware Updating with Download Jig" • Updating with PC connected P. 6-7 "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: Pwa-Dwnld-350-Jig](#)

Turn OFF the power of the equipment. Remove the rear cover. T.B.D Fig. 6-3 Connect the download jig with the connector (CN1) on the MAIN board. T.B.D Fig. 6-4 e-STUDIO163/203 FIRMWARE UPDATING December 2005 © TOSHIBA TEC 6 - 2...

[Page 201](#) Is the updating data written to the download jig properly? • Do the download jig and the equipment operate properly? : ON Fig. 6-7 Turn OFF the power, remove the download

jig and install the cover plate. December 2005 © TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 3...

[Page 202](#) 08-920: FROM basic section software version 08-921: FROM internal program version 08-922: UI data fixed section version 08-923: UI data common section version 08-930: Version of UI data in FROM displayed at power ON e-STUDIO163/203 FIRMWARE UPDATING December 2005 © TOSHIBA TEC 6 - 4...

[Page 203: 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. 6-9 PWA-DL-ADP-350-1881 Fig. 6-10 PWA-DL-ADP-350-1931 December 2005 © TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 5...

[Page 204](#) ROM. bin ROM1 ROM2 ROM3 ROM4 ROM5 ROM6 Note: Note: Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different. e-STUDIO163/203 FIRMWARE UPDATING December 2005 © TOSHIBA TEC 6 - 6...

[Page 205: 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 206](#) 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. e-STUDIO163/203 FIRMWARE UPDATING December 2005 © TOSHIBA TEC 6 - 8...

[Page 207](#) 5) Select the file for the download firmware. Click [Browse] to select the file to be downloaded. The selected files are displayed in File. December 2005 © TOSHIBA TEC e-STUDIO163/203 FIRMWARE UPDATING 6 - 9...

[Page 208](#) It takes approx. 20 <TBD> minutes to download the data (when three files are downloaded). • The copier is automatically reset while downloading. When the downloading is completed, the following dialog box is displayed. 7) Click [OK]. e-STUDIO163/203 FIRMWARE UPDATING December 2005 © TOSHIBA TEC 6 - 10...

[Page 209: Power Supply Unit](#)

The following is an output channel for the cover switch line. 1) +24V +24VD: 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...

[Page 210: Fuse](#)

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

[Page 211: Configuration Of Power Supply Unit](#)

Configuration of Power Supply Unit CN104 CN113 CN105 Regulator F102 CN101 CN106 Fig. 7-1 December 2005 © TOSHIBA TEC e-STUDIO163/203 POWER SUPPLY UNIT 7 - 3...

[Page 212](#) POWER SUPPLY UNIT December 2005 © TOSHIBA TEC 7 - 4...

[Page 213: Ac Wire Harness](#)

WIRE HARNESS CONNECTION AC Wire Harness Fig. 8-1 December 2005 © TOSHIBA TEC e-STUDIO163/203 WIRE HARNESS CONNECTION 8 - 1...

[Page 214](#) WIRE HARNESS CONNECTION December 2005 © TOSHIBA TEC 8 - 2...

[Page 215](#) 8.2 DC Wire Harness...

[Page 216: 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:

[E-studio203](#)