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OKIOFFICE 44 Service Manual

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Section 1: General Information

1.1 General Performance

- (1) Type of appearance
 - Desktop type
- (2) Applicable lines
 - Public switched telephone network (PSTN)
 - Private branch exchange (PBX)
- (3) Compatibility• ITU-T Group 3 facsimile transceiver
- (4) Document width
 Max. 216 mm (8.5 inches [North American Letter])
 Min. 148 mm (5.83 inches [ISO A5 size])
- (5) Effective reading widthMax. 215 mm (8.46 inches)
- (6) Scanning length
 - 128 mm to 356 mm (5.06 inches to 14 inches) (Length setting: Infinite is also available.)

(7) Automatic document feeder (ADF)

- 20 sheets for OKIOFFICE44 North American Letter/A4-size: 20-1b bond
- 15 sheets (North American Letter/A4-size: 13 to 28-1b bond)

(8) Recording paper or sheet

• First tray:	North American Letter/Legal/A4-size plain paper cut
OKIOFFICE 44	100 sheets capacity (20-1b bond*)
 Manual loading feeder: 	Transparency for overhead projector, applicable.
OKIOFFICE 44	Sheet size: Letter/Legal/A4-size
	C C

* Recommended paper

(9) Printable width

For OKIOFFICE44				
• North American:	203.2 mm	(8 inches)	/	203.2 mm (8 inches) for assured quality
• North American Legal:	203.2 mm	(8 inches)	/	203.2 mm (8 inches) for assured quality

```
• North American Legal:203.2 mm (8 inches)/ 203.2 mm (8 inches) for assured quality• ISO A4:203.2 mm (8 inches)/ 197.3 mm (7.77 inches) for assured quality
```

(10) Printable length

• NA Letter:	273.4 mm (10.76 inches)	/	266.7 mm (10.49 inches)	for assured quality
• NA Legal:	349.6 mm (13.76 inches)	/	342.9 mm (13.49 inches)	for assured quality
• ISO A4:	291 mm (11.46 inches)	/	284.3 mm (11.19 inches)	for assured quality

(11) Copy stacker

• Maximum 30 sheets (20 lb. bond *)

*: Recommended paper

(12) Scanning resolution

- a) Horizontal
- 8 pels/mm

b) Vertical

Transmission mode:	STD	3.85	line/mm
	FINE	7.7	line/mm
	EX. FINE	15.4	line/mm
COPY mode:	FINE	7.7	line/mm
	EX. FINE)	15.4	line/mm

- (13) Scanning method
 - 1728 bits contact image sensor

(14) Recording resolution

- a) Horizontal:
 - 300 dots/inch

b) Vertical: Variable:

Automatically adjusted to the paper length. STD mode (3.85 to 5.06 line/mm) FINE mode (7.7 to 10.13 line/mm)

STD mode: 3.85 line/mm FINE mode: 7.7 line/mm EX-FINE mode : 15.4 line/mm : 300 dot/inch

(15) Recording method • 211.3 mm (2496 bit) or 216.7 mm (2560 bit)

(16) Minimum scan line time for reception

• When receiving from OKIFAX or ECM:	0 ms
• When receiving from non- OKIFAX and non ECM:	10 ms at 3.85 line/mm
	5 ms at 7.7 line/mm

- (17) Print speed
 - Max. 4 sheets per minute

(18) Pre-heating timeApprox. 30 sec. (Standby to print)

- (19) Coding scheme
 - Modified Huffman (MH)
 - Modified READ (MR)
 - Modified Modified READ (MMR)
- (20) Modem (*Rev. 2*)

• ITU-T Rec. V.29:	9600/7200 bps
• ITU-T Rec. V.27 ter:	4800/2400 bps
• ITU-T Rec. V.21 channel 2:	300 bps
• ITU-T Rec. V.17:	14400/12000 bps
• ITU-T Rec. V.33:	14400/12000 bps

- (21) Transmission speed6 sec. per sheet of ITU-T No. 1 sample document
 - *Note:* This is Phase C time at 3.85 line/mm and 28800 bps for 3 sec. and 14400 bps for 6 sec. in MMR code transmission.
- (22) Protocol
 ITU-T Rec. T.30
 OKI special protocols: High-speed protocol
- (23) Error correction mode (ECM)
- (24) Communication mode• Half duplex
- (25) Memory capacity
 Basic model: 256k byte
 Optional memory: 1M byte memory board can be added.
- (26) Liquid crystal display (LCD)• Two rows of 20 characters for operation guidance, check and various kinds of information
- (27) Power sourceNominal input voltage 120 VAC
- (28) MFP (Multi- Function Peripheral) function

 The optional board (CTR board) provides the MFP functions PC Printer Function PC Scanner Function PC FaxModem Function Location Programing Function

1.2 General User's Function

- (1) Transmit mode
 - Automatic transmit mode
 - Manual transmit mode
- (2) Receive mode
 - Automatic receive mode
 - Manual receive mode
 - TEL/FAX automatic switchover mode
 - TAD mode
 - PC Mode
- (3) Dual Access Not available for the OKIOFFICE 44
- (4) Voice request
- (5) Automatic redial
- (6) Last number redial (Manual redial)
- (7) Local copy including multiple copiesMaximum 50 copies of document
- (8) Sender identification (Sender ID)
- (9) Personal identification (Personal ID)
- (10) Polling transmission
- (11) Polling reception
- (12) Acoustic line monitor
- (13) Telephone handset (option)
- (14) Automatic alternate selecting call (FAX No. + FAX No. can be registered in one-touch keys).
- (15) Delayed transmission (Maximum length of delay 3 days)
 - · Delayed broadcast
 - Delayed transmission 1 specified time
- (16) Relay broadcast initiate
- (17) Confidential message transmission (Hopper 1 station)
- (18) Confidential message reception Not Available for the OKIOFFICE 44
- (19) PHOTO mode• 16 scale gradations (Dither Method)

- (20) G3 sequential broadcast (Memory)
 - Broadcast mode
 56 stations at maximum
 Delayed broadcast mode
- (21) No paper/no toner reception
- (22) Memory-only reception Not available for the OKIOFFICE 44
- (23) Distinguishing Text from picture
- (24) Page re-transmission (Only in case of memory TX mode) Retransmits in page units
- (25) Reduction printing (Reduction rate is from 100% to 75%.) (Legal to Letter)
- (26) Smoothing printing (In case of 3.85 ℓ /mm \rightarrow 7.7 ℓ /mm)
- (27) Programmed key operation ("F" key + "OT" key)
- (28) Auto dialing
 - One-touch dialing 10 locations, maximum of 32 digits each location
 - Two-digit automatic dialing 45 locations, maximum of 32 digits each location
 - Keypad dialing
 - Chain dialing
 - Mixed dialing
 - Group dialing 5 dialing groups, maximum of 55 locations each group
- (29) Realtime dialing(In case of optional handset is installed or Hook key)
- (30) Automatic pause signal insertion
- (31) Manual feeder local copy
- (32) Telephone directory (Alpha search) dialing
- (33) TEL/FAX automatic switching
- (34) Time and date printing
- (35) Closed users group (Direct mail rejection)
- (36) Transmission contrast and resolution control
- (37) Key touch tone
- (38) Printer counter display (For drum, toner, total print)
- (39) Total page counter (Scan)
- (40) Quick scanning Not available for the OKIOFFICE 44

- (41) Date and clock adjustment
- (42) PC interface • Standard
- (43) Language selection
 2 languages (LCD and Reports) English / Spanish English / French
- (42) Fax forwarding Not available for the OKIOFFICE 44

(44) Reports

- Activity report
- Protocol report (Service man setting)
- Message confirmation report (Single address or multiple addresses)
- Broad cast entry report (Broadcast)
- Transmission error report
- Confidential reception report
- Configuration report
- Telephone directory
- Power outage report

1.3 General Maintenance Functions

- (1) Self-diagnosis
 - CPU ROM/RAM check
 - FLASH (/MASK) memory check (Program, Language, Default)
 - RAM check
 - RAM check (MEMORY board: option)
 - PC-IF board (parallel) check
 - Print test
- (2) Sensor calibration (Adjustment of scanning level)
- (3) LED test
- (4) Tone send test
- (5) Multi-frequency (MF) send test
- (6) High-speed modem send test
- (7) High-speed modem receive test
- (8) Tone (TEL/FAX) test
- (9) Remote diagnosis
- (10) System reset
- (11) Service default report (Machine setting for service engineer)

1.4 General Appearance

Figure 1.4.1 shows the general appearance of the OKIOFFICE 44



Figure 1.4.1 General Appearance of OKIOFFICE44

1.5 Basic Performance Specifications

Table 1.5.1 shows basic performance specifications.

- Note: TF: Technical function setting
 - FP: Function program setting
 - OT: One-touch key pressed
 - F: SELECT FUNCTION key pressed

Table 1.5.1 (1/11) Basic Performance Specifications

No	. Item	Specifications
1	Applicable line	 Public switched telephone network (PSTN) Private branch exchange (PBX) (OT9+2)
2	Line interface 1) Impedance	600 ohms balanced
	2) Sending power level	0 dBm to -15 dBm range (Adjustable in 1 dB steps. TF + 22)
	3) Receiving power level	0 dBm to -40 dBm range
3	Type of document to be transmitted 1) Width	Max. 216 mm [8.5 inches] (Letter) Min. 148 mm [5.83 inches] (ISO A5 size)
	2) Length	<i>Note:</i> Effective reading width is Letter (215 mm/8.46 inches). Min. 128 mm (5.04 inches) Max. 356 mm (14 inches)
		Long document detection: 356 mm (14 inches) or 60 minutes * TF + 11 (To enable or disable the long document scanning)
		An operator can turn the long document scanning feature on or off for each call in the operating sequence.
	3) Thickness	 Based on common bond paper, a) Multiple Page Feeding 0.08 to 0.13 mm (0.003 to 0.005 inches) b) Single Page Feeding 0.06 to 0.15 mm (.002 to .006 inches)
	4) Shape	Rectangular
	5) Opacity	Documents allowing less than 40% of the scanner source light to pass through them.

No.	Item			Specifications	
4	Effective reading width	h			
	Document Width	Communica Mode/Paper	ation width	Effective reading width	Copy size
	ISO A4 210 mm 8.27 inches	G3/A4		TX: 208 mm 8.19 inches Local Copy: 200 mm 7.87 inches	A4
	Letter 216 mm 8.5 inches	G3/A4		TX: 215 mm 8.46 inches Local Copy: 200 mm 7.87 inches	Letter
	Legal 216 mm 8.5 inches	G3/A4		TX: 215 mm 8.46 inches Local Copy: 200 mm 7.87 inches	Legal
5	Note Local copy: Printable readin Automatic document feeder (ADF)		ng width i Up to Maxin Maxin Docun The f facedo	in local copy mode 297 mm (11.69 inches) in length. num of. 20 documents, Letter or A num of 15 documents: Letter or A ments shall be placed facedown or irst sheet will be fed first in the own in the document stacker.	A4 (20-1b) 4 (13-28lb bond paper) a ADF stacker. e feeder and will exit
6	Document skew		Max. 2.6 mm (.102 inches) skew over a document of A4 length. For a document longer than A4 length, occurrence of skew exceeding 2.6 mm over any A4 length is 0.5% or less.		
7	Document jam detection		1) Tr wi (1 m	ransmission will stop and line dis hen the end of a document is not do 4 inches) after scanning begins (ex ent scanning. Technical Function	aconnection will occur etected within 356 mm acept for the long docu- 11)
			2) A th do	jam will also be declared if the do e scanning position within 10 seco ocument feed.	cument does not reach onds after the start of a
			Note:	When a jam is detected during from the feeder, the machine w disconnect the line, but its rec remain valid.	message transmission vill stop scanning and eeiving capability will
8	Document jam remova	1	Manu	al release	

Table 1.5.1 (2/11) Basic Performance Specifications

Table 1.5.1 (3/11)	Basic Performance	Specifications
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No.	Item	Specifications	
9	Recording paper or sheet	NOTE: For best results, use Okidata recommended papers Xerox 4200 (20 lb/base weight paper) Paper approved for xerographic (copier/laser) printing process	
		Automatic Feed1) Type:Plain paper cut (Bond paper)2) Size:A4: 210×297 millimeters 8.27×11.69 inchesLetter: 215.9×279.4 millimeters 8.5×11 inchesLegal: 215.9×355.6 millimeters	
		 3) Weight: 16 lbs to 24 lbs/base weight Base weight is defined as the weight of 500 sheets of 431.8 mm (17 inch) by 558.8 mm (22 inch). 4) Thickness: 0.08 mm to 0.12 mm .0031 inches to .0047 inches 5) Condition: New paper 	
		Manual Feed	
		<i>Note:</i> One single sheet only should be loaded on the manual loading feeder for any one occasion.	
		1) Type: Plain paper, transparency for overhead projector, colored paper, printed paper Must meet specifications for xerographic printing process	
		2) Size: A4: 210×297 millimeters 8.27 x 11.69 inches Letter: 215.9×279.4 millimeters 8.5 x 11 inches Legal: 215.9×355.6 millimeters	
		 8.5 x 14 inches 3) Weight: 16 lbs to 24 lbs/base weight Base weight is defined as the weight of 500 sheets of 431.8 mm (17 inch) by 558.8 mm (22 inch) 	
		 4) Thickness: 0.08 mm to 0.12 mm .0031 inches to .0047 inches 	
10	Recording paper cassette	100 sheets/tray (20 lb.)	

 Table 1.5.1 (4/11)
 Basic Performance Specifications



No.	Item	Specifications	
12	Copy stacking	The fax can discharge printed copies and stack them faceup. Maximum sheets on the copy stacker: 30*	
		<i>Note*:</i> Oki Data recommended paper	
13	Scanning resolution	Horizontal: • 8 pel/mm	
		Vertical: Transmission mode: • STD 3.85 line/mm FINE 7.7 line/mm EX.FINE 15.4 line/mm	
		COPY mode: FINE: 7.7 line/mm EXFINE 15.4 line/mm	
14	Image scanning method	Letter size (1728-bit) contact image sensor	
15	Contrast control	 Automatic background sensing A continuous document background of 0.3 OD (optical density) or less will be transmitted as white. 	
		 The LIGHT and DARK contrasts will automatically be ad justed to improve image quality. 	
16	Recording resolution	Horizontal: • 300 dot/inch	
		Vertical: • STD: 3.85 line/mm FINE: 7.7 line/mm	
17	Recording system	Electro-photographic printing 1) 211.3mm (2496 bit) or 216.7mm (2560 bit) LED print head	
18	Skew of recording paper	Maximum allowable skew is + or - 1 mm over an advance of 100 mm. (.03937 inches over 3.937 inches)	
19	Copy darkness	 Black image: Greater than 1.0 OD (Optical density) White background: Not greater than 0.2 OD (Optical density) 	
20	Copy uniformity	Printed copies will exhibit a uniform density of the printed and background area:	
		 From edge to edge: 25% unit From copy to the next copy: 30% unit 	

No.	Item	Specifications
21	Recording paper running out	Detected during print operation only. Error Message: PAPER OUT / JAM CONFIRM AND"STOP"
22	Minimum scan line time for receiving	0 ms, when receiving from an Oki Data facsimile. 5 ms at 7.7 line/mm and 10 ms at 3.85 line/mm when receiving from a non-Oki Data facsimile.
23	Coding scheme	 One-dimensional coding scheme: Modified Huffman (MH) Two-dimensional coding scheme: Modified READ (MR) Modified modified READ (MMR)
24	MODEM 1) High-speed MODEM	 a) ITU-T Rec. V.29 (9600/7200 bps) b) ITU-T Rec. V.27 ter (4800/2400 bps) c) ITU-T Rec. V.17 (14400/12000/9600/7200 bps) d) ITU-T Rec. V.33 (14400/12000 bps)
	2) Low-speed MODEM	ITU-T Rec. V.21 channel 2 (300 bps)

 Table 1.5.1 (6/11)
 Basic Performance Specifications

No.		Item			Specifications			
25	Fallback			Automatic f by FTT, RT	Automatic fallback will occur according to the following sequence by FTT, RTN or PPR.			
	FallbackTransmissionrankspeed		Activated by FTT (Times)	Activated by RTN (Times)	Activated by PPR (Times)	Protocol		
		1st	14400 bps	1	1	4 (Note 1)	ITU-T V.17 (V.33)	
		2nd	12000 bps	1	1	4 (Note 1)	ITU-T V.17 (V.33)	
		3rd	9600 bps	1	1	4 (Note 1)	ITU-T V.17 (V.29)	
		4th	7200 bps	1	1	4 (Note 1)	ITU-T V.17 (V.29)	
		5th	4800 bps	2	1	4 (Note 1)	ITU-T V.27 ter.	
		6th	2400 bps	2	1	4 (Note 1)	ITU-T V.27 ter.	
				When the la signal to the <i>Note:</i> Co fall	est trial fails, the remote station f ntinuous PPRs fo lback rank.	transmitting sta or disconnectio or the same pa	ntion sends out a DCN n. rtial page within each	
26	Protocol		 ITU-T Rec. T.30 Oki Data special protocol High-speed protocol The T.30 protocol signal from the transmitting station is sent at message transmission speed instead of 300 bps. <i>Note:</i> In high-speed protocol, 28.8 K-bps are not supported. 					
27	Transmission time			 6 sec. /ITU-T No. 1 sample document <i>Note:</i> This is Phase C time at 3.85 line/mm and 14400 bps for sec. in MMR code transmission. 			m and 14400 bps for 6	
28	Error correction			ITU-T Error Oki Data IT	correction mode	e (ECM)		
29	Comr	nunication mod	le	Half-duplex				
30	Ringi	ng signal detect	tion sensitivity					
	1) Voltage range		25 to 150 V r.m.s. Inoperative below 10 V					
	2) Frequency range			20 to 68 Hz				
	3) Ring response time		One-ringing (Selectable	signal or 5 to 30 in 5 sec. steps. F	e seconds. + OT9 + \leftarrow + 2	11)		

No.	Item					Specif	ications		
31	Image memory								
					Basic m		Optional memory		
		OKIOI	FFICE44		256K-t	oyte	1M-byte		-
									-
		Mercond		Memory condition					
		With (without option		ndard ut option)	20				
		board	1M	-byte	100				-
			2M	-byte	N/A				
					<i>Note:</i> ITU-T No.1 sample document is used to count the number of sheets.				
				Back-up time	on electri	cal inte	rruption:		
				Note: OKI men	OFFICE4 ory for th	4 does n e power	ot back u r failure.	p the message re	eceived in
32	Telephone handset (option)			General telephone function is available while the power is on.					
				<i>Note:</i> In the fax special versions, general telephone is available even when the power is off.					available
34	Overheat protection			The heater of the fuser unit is controlled within the predetermined temperature range by the thermistor. If the temperature of the heater exceeds the range, the LCD displays "PRINTER ALARM 4".					
				Furthermore, the built-in thermostat in the fuser unit prevents the heater from being overheated even in the event of the failures in the above temperature control circuit.					
35	PC interface application Note: This function for OKIOFF	tions (Option) on is standard FICE44.		 The following four modes are supported: 1) PC local printer function 2) PC scanner function 3) PC FaxModem function 4) Location Programing function 					

No.	Item		Specifications
36	 Power supply unit and power consumption of the machine Power consumption of the mac (Typical power) 		chine
		OKIO	FFICE44
	Transmit	1	9W
	Receive	11:	5W
	Local copy	15	0W
	Standby	1	0W
	** Power save mod It cannot b		e is automatic for the OKIOFFICE 44. e enabled or disabled by the user.

Table 1.5.1 (9/11) Basic Performance Specifications



 Table 1.5.1 (10/11)
 Basic Performance Specifications

No.	Item	Specifications
38	Dimension (Main body)	 Width: Approx. 312 mm (12.28 inches) Depth: Approx. 383 mm (15.08 inches) Height: Approx. 190 mm (7.48 inches)
39	Weight (Main body)	Approx. 8 kg (17.6 lbs) Excluding optional units, recording paper and packing materials.
40	Attachments (to the main body)	 AC power cord x 1 I/D unit x 1 (Already installed) Toner cartridge x 1 Telephone handset x 1 (option) Curled cord and Telephone cord for (4) x 1 (option) Document stacker x 1 Line cord x 1 One touch sheet x 1 (Already installed) User's guide x 1 JetSuite Software User Guide x 1 Quick Start Guide x 1 WordScan OCR Manual x 1

Table 1.5.1 (11/11) Basic Performance Specifications

1.6 Reports and Lists

Table 1.6.1 shows Reports and Lists Specifications.

Note: F +OT: Press FUNCTION and One-touch key

- FP: Function program setting
- TF: Technical function setting

Table 1.6.1 (1/2) Reports and Lists Specifications

No.	Item	Specifications
1	Call-back message	The transmitter sends a call-back message to the receiver only when the receiver does not respond to voice request of the transmit- ter.
2	Sender ID	The fax can transmit a programmed alphanumeric message, such as company's name, consisting of up to 32 characters. This is an FCC Requirement in the United States * (Outside only)
3	Transmitting subscriber identifica- tion (TSI) printing	Received TSI can be printed at the top of the received page. * TF + 05 (To enable or disable this function)
4	Cancel report (Power outage report)	The fax can automatically print out a power-outage report when the power off condition occurs.
5	Activity report	The fax can print out an activity report manually, or automatically, when 30 communications are recorded. * REPORT PRINTOUT+1 (Manual printout)
6	Message confirmation report	 The fax can print out a message confirmation report manually or automatically in the following cases. (1) When COPY key is pressed after a single location call, this report can be printed. (Manual printout) * FP + 01 (To enable or disable automatic printing)
7	Broadcast entry report	The fax can print out a broadcast entry report if specified during operating sequence of a broadcast.
8	Broadcast confirmation report	The fax can print out a broadcast confirmation report manually or automatically. * COPY key (Manual printout): Pressed after a broadcast. * REPORT PRINTOUT + 2 (Manual printout) * FP +02 (To enable or disable automatic printing)

No.	Item	Specifications
9	Confidential reception report	The fax can print out this report automatically on completion of a confidential reception.
10	Telephone directory	This directory is printed manually. (REPORT PRINTING +3)
11	Configuration report	This report is printed manually. (REPORT PRINTING +4)

 Table 1.6.1 (2/2)
 Reports and Lists Specifications

Call-back Message Format: (Example)

(1))	(2)	(3)	
07/01/96	09:24	OKI SHIBAUR	A \rightarrow OKI HONJO	NO.002
(4)	PLEASE	CALL	BACK	
(5)	OKI SHIBAURA			
(6)	=103 5476 1234			

(F050-C1-002)

- (1) Date and time
- (2) Sender ID
- (3) CSI/Personal ID
- (4) Letters "PLEASE CALL BACK"
- (5) Sender ID
- (6) Sender's call back telephone number

Sender ID Format: (Example)

	(1)		(2) (3)	(4)	(5)		
	07/01/96	15:0	6 OKI ABC 1234 → 3454 2000	NO.021	01		
		(1) Date and Time					
~		(2)	Sender ID		~		
		(3)	Receiver's CSI/Personal ID				
		(4)	Session number				
		(5)	Page number				

(F050-C1-003)

TSI Printing and Local Date and Time Printing Format: (Example)



Note: TSI printing (TF+05) Local date and time printing (TF+04)
This page was intentionally left blank.

POWER OUTAGE REPORT

05/19/96 17:05 ID=OKI

DATE	TIME	S,R-TIME	DISTANT STATION ID	MODE	PAGES	RESULT	
05/17	10:10		0485-88-3385				9080
05/17	10:30		ODS TAKASAKI		03		0000
05/17	12:05	01'20"	OKI FAX	BOX=01	03	OK	0000
05/17	13:00	00'20"	03-5476-4300	CALLED	01	OK	0000
05/17	15:40		034567092222	FWD-T	05		
05/18	10:50	01'20"	0495-22-5400	CALLED	03	OK	0000
05/18	15:00			B.C.	01		

Note: Memory reception only is printed on the mode in the report as called.

(1) Message Confirmation Report Format: (Example)

ACTIVITY REPORT

(2) 05/19/96 17:05

(3) ID=OKI

(4) TOTAL	TIME	CALLING=08:22'	CALLED=17:30'				
DATE (5)	TIME (6)	S,R-TIME (7)	DISTANT STATION ID (8)	MODE (9)	PAGES (10)	RESULT (11)	(12)
05/17	10:00	01'20"	OKI FAX	CALLING	02	OK.	0000
05/17	10:10	01'00"	0485 88 3385	CALLING	00	STOP	9080
05/17	10:30	00'20"	ODS TAKASAKI	CALLING	00	NO	90C1
05/17	12:05	01'20"	OKI FAX	CALLING	03	OK.	0000
05/17	13:00	00'20"	03 5476 4300	CALLING	01	OK	0000
05/17	15:40	03'25"	ODS TAKASAKI	BOX=01	03	OK	0000 *1
05/17	19:00	00'00"	OKI FAX		01	OK	0000 *2
05/18	10:10	02'00"	OKI SHIBAURA	CALLED	05	NO	908E
05/18	10:22	00'12"	0495 22 5400	CALLING	00	STOP	9080
05/18	10:50	01'20"	0495 22 5400	CALLED	03	NO	9090
05/18	12:05	00'20"	OKI FAX	CALLING	01	STOP	9080
05/18	15:00	01'30"		CALLED	03	OK.	0000 *3
05/18	15:30	00'20"		CALLING	01	OK.	0000
05/18	17:05	05'20"		B.C.		COMP.	60A0 *4
05/18	19:04	00'20"	03 5476 4300	CALLING	00	STOP	9080
05/19	09:00	01'11"		CALLING	02	OK.	0000
05/19	10:20	00'20"	03 5476 4300	CALLING	02	STOP	9080
05/19	10:35	02'23"		BOX=01	02	OK.	0000 *1
05/19	10:50	00'20"	ODS TAKASAKI	CALLED	01	OK.	0000
05/19	11:03	00'00"	OKI FAX	CALLING	00	STOP	9080
05/19	13:00	00'24"	03 5476 4300		01	NO	0000 *5
05/19	16:00	03'25"	ODS TAKASAKI	FWD-R	03	OK.	0000 *6
05/19	16:04	03'30"	OKIFAX	FWD-T	03	OK	0000 *7

*1: Confidential reception

*2: Manual TX

*3: Memory reception

*4: Broadcast TX

*5: Manual reception
*6: Reception for forwarding

*7: Forwarding

- (1) Title of the report
- (2) Date and time when the report was printed
- (3) Sender ID
- (4) Total CALLING and CALLED time
- (5) Date of transmission or reception
- (6) Time when the communication started
- (7) Time span of the fax communication.
- (8) Identification of the remote station Personal ID/Location ID/TSI/CSI/Dial number or space
- (9) Communication mode: (Rev.2)
 CALLING (Transmission)
 CALLED (Reception NG or MEMORY RX)
 B. C. (Broadcast)
 BOX=XX (Confidential reception)
 FWD-R (Fax Forwarding RX)
 FWD-T (Fax Forwarding TX)
- (10) Number of transmitted pages or received pages
- (11) Result code

OK (Note1)/NO/STOP (Note 2)/BUSY/PAPER (Out of recording paper)/S_JAM (Document jam)/R_JAM (Recording paper jam)/COVER/COMP (Completion of a broadcast)/PUNIT (Printer Alarm)/CANCL (Confidential reception T.O.)

- *Note 1:* The following cases are included:
 - Unmatched handshaking to the received NSF.
 - Unmatched password to the received NSC in the polling transmission mode.
- *Note 2:* The following cases are included:
 - The STOP key is pressed.
 - The memory cancellation operation removes the message from the active memory files.
- (12) Service code

(2) 07/01/96 08:05 (3) ID=OKI (4) (5) (6) (7) (8) (9) (10) DATE S.R-TIME DISTANT STATION ID MODE PAGES RESULT 07/01 00'20" OKI FAX CALLING 02 OK 0000		(1)	MESSAGE CONF	'IRMAT	ION		
(4) (5) (6) (7) (8) (9) (10) DATE S.R-TIME DISTANT STATION ID MODE PAGES RESULT 07/01 00'20" OKI FAX CALLING 02 OK 0000				(2) (3)	07/01/ ID=OKJ	/96 08:0 I	5
07/01 00'20" OKI FAX CALLING 02 OK 0000	(4) DATE	(5) S.R-TIME	(6) DISTANT STATION ID	(7) MODE	(8) PAGES	(9) result	(10)
	07/01	00'20"	OKI FAX	CALLING	02	OK	0000

(F050-C1-008 1/2)



(F050-C1-008 2/2)

- (1) Title of the report
- (2) Date and time when the report was printed
- (3) Sender ID
- (4) Date of transmission or reception
- (5) Length of time for which the fax was connected to the line
- (6) Identification of the remote station Personal ID/Location ID/TSI/CSI/Dial number
 (7) Control of the remote station
- (7) Communication mode Reference to ACTIVITY REPORT
- (8) Number of transmitted pages or received pages
- (9) Result of the communication
 - Reference to ACTIVITY REPORT
- (10) Service code
- (11) Message

BROADCAST ENTRY REPORT

07/01/96 17:05 ID=OKI

LOCATION ID	LOCATION ID	LOCATION ID
ONE TOUCH 1 = OT1 4 = OT4 7 = OT7 10 = OT10 *1 13 = OT13 16 = OT16 19 = OT19 22 = OT22 25 = OT22 28 = OT28	2 = OT2 5 = OT5 8 = OT8 11 = OT11 14 = OT14 17 = OT17 20 = OT20 23 = OT23 26 = OT26 29 = OT29 20 = OT29 21 = OT29	3 = OT3 6 = OT6 9 = OT9 12 = OT12 15 = OT15 *2 18 = OT18 21 = OT21 24 = OT24 27 = OT27 30 = OT30 *3
AUTO DIAL 01 = AD1 04 = AD4 07 = AD7 10 = AD10 13 = AD13 16 = AD16 19 = AD19 22 = AD22 25 = AD25 28 = AD28 31 = 31 34 = 34 37 = 37 40 = 40 43 = 43 46 = 46 49 = 49 52 = 52 55 = 55 58 = 58 61 = 61 64 = 64 *2 67 = 67 70 = 70 73 = 73 76 = 76 79 = 79 82 = 82 85 = 85 88 = 88 91 = 91 94 = 94 97 = 97	$\begin{array}{rcrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	30 = 0130 *3 $03 = AD3$ $06 = AD6$ $09 = AD9$ $12 = AD12$ $15 = AD15$ $18 = AD18$ $21 = AD21$ $24 = AD24$ $27 = AD27$ $30 = AD30$ $33 = 33$ $36 = 36$ $39 = 39$ $42 = 42$ $45 = 45 *1$ $48 = 48$ $51 = 51$ $54 = 54$ $57 = 57$ $60 = 60$ $63 = 63$ $66 = 66$ $69 = 69$ $72 = 72$ $75 = 75$ $78 = 78$ $81 = 81$ $84 = 84$ $87 = 87$ $90 = 90$ $93 = 93$ $96 = 96$
KEYPAD 1234 2345 3456 4567		MAX. OT AD KEYPAD *1 FX-480 :10 45 1 *2 FX-050VP:15 64 5 *3 FX-175VP:30 99 5

	BROADCA	AST CO	ONFIRMA	ATION REPORT		
PAGES	= 01			07/01/96 ID=OKI	17:05	
TOTAL TIME	E = 00:02'30"					
L	OCATION ID	PAGES	RESULT	LOCATION ID	PAGES	RESULT
ONE TOUCH 1 = 3 = 5 =	0T1 0T3 0T5	01 01 01	OK OK OK	2 = OT2 4 = OT4	01 01	OK OK
AUTO DIL 01 = 03 = 05 =	AD1 AD3 AD5	01 01 01	OK OK OK	02 = AD2 04 = GERMAN	01 01	OK OK
KEYPAD	1234 3456 5678	01 01 01	OK OK OK			

(F030-C1-010)

Confidential Reception Report Format: (Example)

CONFIDENTIAL RX REPORT

07/01/96 17:05 ID=OKI

DATE	TIME	S,R-TIME	DISTAN	T STATION ID	MODE	PAGES	RESULT	
07/01	00:20	00'00"	OKI F.	AX	BOX=01	02	OK	0000

TELEPHONE DIRECTORY P1

07/01/96 19:19 ID=OKI DATA CORP.

	LOCATION ID	TEL NO.	PRM. ECHO
ONE TOUCH 1	OKI SERVICE	123 123 123	(OFF)
2	OKI OFFICE	OR J 111 222 333	(OFF)
3	OKI LABORATORY	OR J 444 555 666	(OFF)
4	ODC TAKASAKI		(OFF)
5	ODC QA/QC LAB.	OR J 444 555 666	(OFF)
6		$\begin{array}{c} \text{OR} \ \mathbf{p} \ 123 \ 123 \ 123 \end{array}$	(OFF)
7			(OFF)
8			(OFF)
9			(OFF)
10			(OFF)
AUTO DIAL			
02			
04			
06 07	ODC TAKASAKT		
08	ODC IIIIIIDIIII		
10 11			
12			
14 15			
16 17			
18 19			
20 21			
22			
24 25			
26 27			
28 29			
30 31			
32			
34 35			
36 37			
38		Ď	
40 41			
42			
44 45			

TELEPHONE DIRECTORY P2

07/01/96 19:20 ID=OKI DATA CORP.

GROUP NUMBER = #1 #2 #3 #4 #5 #1 ONE TOUCH 1 2 3 4 5 6 7 8 9 10 AUTO DIAL 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 #2 ONE TOUCH AUTO DIAL #3 ONE TOUCH AUTO DIAL #4 ONE TOUCH AUTO DIAL #5 ONE TOUCH 5 AUTO DIAL 07

Configuration Report (User)

NOTE:

CONFIGURATION

The function settings shown ARE NOT the factory defaults. Refer to Section 2 for the technical function setting defaults.

07/01/96 17:05 ID=OKI

FUNCTION LIST

01:MCF (SINGLE-LOC.)	02:MCF (MULTI-LOO	2.) 03:E	ERR.REPORT (MCF)
ON	ON		ON
04:MESSAGE IN MCF	05:SENDER ID.	06:N	IONITOR VOLUME
ON	ON	I	LOW
07:BUZZER VOLUME	08:CLOSED NETWORN	د 09: ت	TX MODE DEFAULT
MIDDLE	OFF	E	FINE/NORMAL
10:T/F TIMER PRG.	11:RING RESPONSE	12:I	DISTINCTIVE RING
35SEC	1RING	C	DFF
13:1'ST PAPER SIZE	14:2'ND PAPER SI	ZE *1 15:τ	JSER LANGUAGE
A4	A4	Β	ENGLISH
16:INCOMING RING	17:REMOTE RECEIVI	5 18:N	MEM./FEEDER SWITCH
ON	OFF	N	MEMORY
19:POWER SAVE MODE	20:ECM FUNCTION	21:F	REMOTE DIAGNOSIS
ON	ON		DFF
22:PC/FAX SWITCH *2 ON			
TEL NO. = 12345678 CALL BACK NO. = 12345678 FORWARD TEL NO. = 12345678	901234567890 901234567890 901234567890		
REDIAL TRIES 3TRY	RED.	IAL INTERVAL	3MIN
DIAL TONE DETECT OFF	BUST	Y TONE DETECT	ON
MF(TONE)/DP(PILLSE) MF	PUL	SE DIAL RATE	10PPS

DINE TONE DETECT	011	DODI IONE DEILEI	010
MF(TONE)/DP(PULSE)	MF	PULSE DIAL RATE	10PPS
PULSE MAKE RATIO	39%	PULSE DIAL TYPE	NORMAL
MF (TONE) DURATION	100MSEC	PBX LINE	OFF
PBX TYPE	NORMAL	AUTO START	ON
DIAL PREFIX	OFF	IT2 DETECT	ON *3

*1 Function 14 is printed when 2'nd Tray is installed.

*2 Function No.22 is printed when CTR board is installed.

*3 In case of country code=FRE

CONFIGURATION

07/01/96 17:05 ID=OKI

FUNCTION LIST

01:SERVICE BIT ON

04:TIME/DATE PRINT OFF

07:TAD MODE TYPE2 10:MDY/DMY.

MDY

13:MH ONLY OFF

16:T1 (RX) TIMER VALUE 17:T2 TIMER VALUE 18: DIS BIT32 35 SEC

19:ERR. CRITERION VALUE 20:OFF HOOK BYPASS 21: NL EQUALIZER 10

22:ATTENUATOR 10DB

12

28:LED HEAD WIDTH 29:MEDIA TYPE TYPE1

31:SYMBOL RATE 3200

Note: No. 30 is only for FX-048. No. 31 is only for FX-175VP.

02:MONITOR CONT. OFF

OFF

TYPE2

11:LONG DOC. SCAN OFF

14.4K

10 SEC

OFF

23:T/F TONE ATT. 10DB

25:RING DURA. * 10MS 26:CML TIMING * 100MS 27: LED HEAD STROBE 3

MEDIUM

03: COUNTRY CODE USA

05:TSI PRINT 06:NO TONER MEM. RX ON

08:REAL TIME DIAL 09: TEL/FAX SWITCH ON

> 12: TONE FOR ECHO OFF

14:H/MODEM RATE 15:T1 (TX) TIMER VALUE 59SEC

ON

0DB

24: MF ATT. 6DB

10100

30: TR LATCH CURRENT +1

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Section 2: Installation

2.1 General Setup Information

The following flowchart outlines the installation procedure.





*: See user's guide

2.2 Site Selection

INSTALLATION

Precautions for Installation

- (1) Fluctuation in line voltage
 120V AC (102V to 127V)
 230V AC (198V to 264V)
- (2) Room temperature50 to 90 degrees Fahrenheit (10 to 32 degrees Celsius)
- (3) Humidity 20 to 80% RH
- (4) Operating environment Pressure: Equivalent to altitude of 2500 m and below.
- (5) Exposure Within five minutes at luminous intensity 2,000 lux (with the stacker cover opened).
- (6) Required space for installation The facsimile requires adequate space for safety and good operability.
- (7) Levelness of installation surface 1 degree maximum.
- (8) Other requirements
 - Avoid installing in any of the following places:
 - A place exposed to direct sunlight
 - A place near a heat source or exposed to vibration
 - A dusty place
 - A place in the atmosphere of acid gas, or steam etc.,
 - A place exposed to quick temperature changes

2.3 Unpacking

2.3.1 Unpacking for OKIOFFICE 44

Procedure

(1) Remove tape on the top of the carton box and open its cover.



FX048-C2-003

Figure 2.3.1.1 Unpacking Procedure (1)

- (2) Take out the accessory box from the carton box. (See Figure 2.3.1.1)
- (3) Take out the machine with plastic wrapper from the box.



Figure 2.3.1.1 Unpacking Procedure (2)

2.4 Check of Contents

After having taken out the machine and accompanied accessories from the carton box, check the contents according to the following list:

Item No.	Name	Q'ty	Remarks
1	OKIOFFICE 44	1	
2	AC power cord	1	
3	I/D unit	1	Already installed.
4	Toner cartridge	1	
5	Line cord	1	
6	One touch sheet	1	Already installed.
7	User's guide	1	
8	Tray paper	1	
9	Tray document	1	
10	JetSuite Software User's Guide	1	
11	Quick Start Guide	1	
12	WordScan OCR Manual	1	

 Table 2.4.1
 Contents List for OKIOFFICE 44

2.5 Installation of Attachments

- (1) Items
 - Image Drum (ID) Unit (already installed)
 - Toner cartridge
 - Recording paper
 - Tray-paper, Tray-document and Document-stacker
- (2) Procedure
 - 1) Toner cartridge
 - Peel off the fixed tape attached to the cover-top.
 - Open the cover-top.
 - Take the plastic cover out of the ID unit.



FX048-C2-006 Figure 2.5.1.1 Toner Cartridge Installation (1)

• Take out the toner cartridge from the damp proof bag, shake it five or six times as shown in the illustration to eliminate the toner deflection, and peel off the seal gently.



OKIOFFICE 44 Service Manual, P/N 59276801 • Ensure that the plastic tab on the right-hand side of the toner cartridge recess lines up with the groove on the toner cartridge.



Figure 2.5.1.3 Toner Cartridge Installation (3)

- Press down on both ends to make sure the cartridge is fully seated.
- Push the gray tab forward until it stops.



Figure 2.5.1.4 Toner Cartridge Installation (4)



Figure 2.5.1.5 Toner Cartridge Installation (5)

- Clean the toner scattered in the vicinity of the toner cartridge using a cloth moistened with cold water. Do not use hot water. Heat makes the toner adhere to surfaces and will make the toner more difficult to remove.
- Close the cover assembly-top until the buttons have been locked completely.

(3) Recording paper

Note: About 100 sheets of the new paper can be set on the tray-paper.

Loading the new paper.

Sheets must not exceed 100 sheets of the new paper on the tray-paper. If excessive sheets are set, it will cause paper jams.



Figure 2.5.7 Recording Paper Cassette Installation (2)

- (4) Tray-paper, Tray-document and Document-stacker (option)
 - Hang the tray-paper, the tray-document and the stacker-document (option) onto hanging position.



Figure 2.5.1.7 Document Stacker Installation

2.6 AC Cord Connection

The power supply is provided as follows.

Nominal input voltage 120V AC (Voltage range 102 to 127V AC) Nominal input voltage 230V AC (Voltage range 198 to 250 V AC)

Check whether the AC voltage of your input is within the above-mentioned voltage range Connect the female plug of the AC cord to the machine. Insert the male plug of the AC cord to the inlet receptacle. Check that the display shows "(Time)" message indicating the standby mode.

1) For OKIOFFICE 44



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Note: The OKIOFFICE 44 is NOT equipped with a AC power switch.

2.7 Telephone and Line Connections

- (1) Procedure
 - Connect the lines.
 - 1) For OKIOFFICE 44



FX048-C2-015

2.8 Packing for Shipment

CAUTION: When packing the OKIOFFICE 44 for shipment, REMOVE THE IMAGE DRUM AND TONER FROM THE UNIT AND SHIP SEPARATELY! Failure to do this will result in damage to the machine.

2.9 Initial Settings

2.9.1 General Procedure of Key Operation

Figure 2.9.1 shows the general procedure of key operation.

Key Operation Flowchart





Service Manual, P/N 59276801



* Should be set to "1" for proper operation

2.9.2 Technical Functions

This section explains setting items generally conducted by service personnel, not by users.

Table 2.9.1 shows the initial setting items and their purposes. (The default setting is different by the individual countries.)

Each item can be accessed by entering the corresponding service number on Technical Function.

The detailed procedures of the initial setting items will be explained on the following pages.

Note 1: S-ON:	Effective if the service bit has been set to ON.
FP:	Function program setting
TF:	Technical function setting

Note 2: The fonts displayed on the LCD operation panel may differ from fonts written this manual.

Service Personnel Initial Set	tings Table 2.9.1 (1/7)
-------------------------------	-------------------------

T.F. No.	Item	Specifications	Default
01	Service bit	Switching serviceman/user operation.	OFF
		 ON : Service personnel's features are available. OFF : Service personnel's features are not available. To enable or disable the following functions: Drum (Total) and toner counter clear Protocol dump 	
		Dial parametersetc.	
02	Line monitor control	To enable continuous monitoring of phone line for technical troubleshooting. FP +06 (To select the loudness of monitoring)	OFF
		ON : Enable OFF : Disable	
		<i>Example:</i> In case of transmission mode, the monitor will be available during dialling, but the monitor will be switched off automatically after the elapse of specified time (about 5 sec.). However, when TF02 is set to ON, the monitor is available during communication also.	
03	Country code	Selecting the following country code: USA, INT'L, GBR, IRL, NOR, SWE, FIN, DEN, GER, HUN, TCH, POL, SUI, AUT, BEL, HOL, FRE, ESP, ITA, GRE, AUS, NZL, SIN, HNG	USA
04	Time and date print	Enables or disables the function of printing local date and time at the top of the received page.	OFF
		OFF/ ONCE/ALL selectable.	
		<i>Note:</i> • Set at receiver.	
05	TSI print	Switches the function of printing TSI data from re- mote fax onto the received pages. TSI is printed at the leading edge of first reproduced copy. (Set at re- ceiver.) When TF04 is set to "ALL", TSI is printed for the all received pages.	ON
		ON : Enable OFF : Disable	
		(Reference) TSI; Transmitting Subscriber Identification	

Service Personnel Initial Settings Table 2.9.1 (2/7)

T.F. No.	Item	Specifications	Default
06	No-toner memory reception	Enables or disables the memory reception when the fax is in no toner condition.	OFF
		ON : The messages are printed when toner has been newly supplied or an operator per- forms the memory operation (OT10).	
		OFF : The messages are printed in the print mode. But print quality is not guaranteed.	
07	TAD mode (For external telephone answering de- vice.)	Allows the OKIOFFICE to share a telephone line with an answering device. TAD mode is of two types (TYPE1/TYPE2).	TYPE 2
	NOTE:	OFF/TYPE1/TYPE2 selectable.	
	If the REMOTE RX Function is set to a value other than OFF, that code can be used to force FAX RX during TAD Mode.	 TYPE1 means: RING comes. The TAD answers, returns the recorded voice message in TAD to calling party. The FAX machine will continue to detect CNG signal while TAD works. If the FAX machine detects CNG signal, the fax will go into normal receiving mode. Even though the fax does not detect CNG signal, the fax will go to receiving mode in hook-on condition. 	
		TYPE2 means: The function from No. 1 to No. 4 of upper TYPE2 are the same as TYPE1.	
		5. If the fax does not detect CNG signal during working of TAD, the machine will go to standby mode.	
08	Real time dialing	Enables or disables the real time dialling. 3 types selectable. (OFF/TYPE1/TYPE2)	TYPE 2
		TYPE1: Real-time dialling is available when the optional telephone handset is OFF-HOOK.TYPE2: Real-time dialling is available when the optional telephone handset is OFF-HOOK or HOOK key is pressed.	
09	TEL/FAX switching	Enables or disables the TEl/FAX automatic switch- ing.	ON
		ON : Enable OFF : Disable	
		(Related item: FP10, TF23)	

Service Personnel Initial Settings Table 2.9.1 (3/7)

T.F. No.	Item	Specifications	Default
10	MDY/DMY	Switches LCD display and report print from month/ day/year to day/month/year or vice versa. MDY/DMY selectable.	MDY
11	Long document SCAN	Switches the function of transmitting long-size document (more than 380 mm).	OFF
		ON : Unlimited (1 hour) OFF : 380 mm. (14.96 inches)	
12	Echo Protection	Enables echo suppression for poor lines with echo, usually during overseas transmissions. This bit set- ting controls the following features.	OFF
		ON: Enables	
		Echo Protection OFF ON	
		Ignore 1st DIS OFF ON	
		CED-DIS timer 75 ms 1.5 sec	
		Ione for echo OFF ON	
		(TF-12 table) OFF: Disables	
13	MH only	Switches the function of limiting image compression only to the MH codes.	OFF
		ON: Coding scheme is MH only. When the receiving image data is affected by noise on the telephone line. This affects all communications and should only be used as a last resort.	
		OFF : Any of MH, MR and MMR.	
14	High-speed modem rate	Specifies the modem's starting speed, 14.4k, 9.6k, or 4.8kbps.	14.4 k
15	T1 (TX), timeout value	 Registers the time duration (in seconds) for which the fax waits for the remote station's answer. This timer starts when the last dialled digit has been sent in the automatic transmission mode. * Selects the 3 digit timer 010 to 255 sec selectable (in one second steps). 	059 sec

Service Personnel Initial Settings Table 2.9.1 (4/7) T.F. Item Specification

1.г. No	Item	Specifications	Default
16	T1 (RX), timeout value	 T1 (RX), timeout value (later) Registers the time duration (in seconds) for which the fax waits for the remote station's answer. This timer starts after the DIS is transmitted, and checked this timer by the transmission timing signal. If T1 times out, the fax disconnects the line. * Selects the 3 digit timer 010 to 255 sec selectable. (in one second steps) 	035 sec.
17	T2, timeout value	 T2, timeout value (layer) Registers the time duration (in seconds) for which the fax detects the EOL interval during reception of phase C. The fax disconnects the line when EOL can not detect within T2 timer. * Selects the 3 digit timer 	130 sec.
		001 to 255 selectable. (in 100 ms steps) For example: 060 x 100 ms =6 s	
18	DIS bit 32	Specifies whether to transmit a bit 32 in DIS. ON : Transmits a bit 32 OFF: Disable	ON
19	Error criterion	Registers the threshold value whether to transmit RTN or MCF signal when the error occurs in received	10%
		data. 00% to 99% selectable. (in one percent steps)	
20	Off-hook bypass	Allows two OKIFAX machines to be connected back-to-back for testing purposes.	OFF
		ON : Enable OFF: Disable	
21	NL equalizer	Selects equalization for the following cable lengths: 0 km/1.8 km/3.6 km/ 7.2 km selectable.	0 Km
		<i>Note:</i> Relative to 1700 Hz for length of 0.4 mm diameter cable.	

Service Personnel Initial Settings Table 2.9.1 (5/7)

T.F. No.	Item	Specifications	Default
22	Modem attenuator	Adjusts the attenuation (dB) for the transmit signal power level. Adjusting value is 0 to 15 dB in one dB steps. Since the maximum send signal power level (dB) of the fax is at 0 dB, you can select 0 dB to -15 dB in one dB steps for the send signal power level.	10 dB
		0 to 15 dB. selectable <i>Note:</i> The send signal power level should meet your country's regulation. Some countries	
		may specify the power level at a telephone exchange. In that case, you should subtract the speci- fied level from the line cable attenuation to determine the send level of your fax.	
23	T/F tone attenuator (for TEL/FAX SW)	Adjusts the attenuation (dB) for the quasi-ring back tone send signal of TEL/FAX switching. Adjusting value is 0 to 15 dB in one dB steps.	10 dB
24	MF attenuator	Adjusts the attenuation (dB) for the send MF tone power level. Adjusting value is 0 to 15 dB in one dB steps.	
25	Ring duration detection time	Selects the minimum ring detection time Adjusting time is 100 MS to 990 MS in 10 MS steps.	12
		For example: (120 ms) $12 \times 10 \text{ ms} = 120 \text{ ms}$	
26	CML timing	Selects the time from end of ring to CML-ON. Adjusting time is 100 MS to 1900 MS in 100 MS steps. 0 to 19 selectable.	03
		For example: (300 ms) $03 \times 100 \text{ ms} = 300 \text{ ms}$	
Service Personnel Initial	Settings	Table 2.9.1	(6/7)
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T.F. No.	Item					Specifications								Γ	Def	aul	t																	
27	Strobe for LEI	Strobe for LED head							S 1 S "	ett 11 ele	ing 11) ecti	g o). ion)" i	of I of is c	LE sti lar	D rov kes	pri ve v st a	nt vic	he lth "1	ad in 11	str LE 11'	cot D ' is	he he	sig ad. ght	na	ls t.	(00	000)0-			10	010	0	
										N	lot	e 1	:	W Ll th do he	The ED e o o n ead	n tl pr ld ot stı	he i int use alv	ran he ed I vay	k n ad LE ys	nar (ne D p hav	kin w j orir /e	ng o pai nt h to	oft rt)i nea set	he ss d(tł	ne am olc ne	w 1 le a l pa LE	rep is tl art) ED	lac hat), y pr	ed of ou					
										N	lot	e 2	:	In se Ll (i.	ter co ED e. i	nd nd pr n.	y r and int <u>2</u>	anl d th : he 212	kin hirc 2, 2	g is l di se 12	s de gita rial is t	ete s fi l n he	rm ron um int	ine h th be	ed b ne r r. sit	oy rigi y ra	the ht c ank	fir on t	st, he g.)					
										A T n H	Also This nac Iea	o: s se chiu .d.	etti ne,	ng or	sh rep	oul olac	ld l cen	be nei	vei nt o	rifi of n	ed nain	up n c	on ont	in ro	itia l P(ıl i CB	nst or	all LF	of ED					
							S	etti	ing	of	Те	ch	nic	al	Fui	ncti	ion	N	o. 2	27										ļ				
		MSB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Setting	MSD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1
			0	0	0	0	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
	Rank		0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
	Marking	LSB	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
	291-31	3										*																						
	269–29	0											*																					
	248–26	8												*																				
	229–24	7													*															L	L			
	212-22	8														*														╞	╞			
	196–21	1															*													╞	╞			
	181–19	5																*												_	╞	\vdash		_
	168–18	0			-		_			-									*											-	╞	\vdash		_
	155-16	7	┢		-		-		-	-		-		-		-		-		*							-		-	┝	┝	\vdash		_
	143-15	4 2	┢	\vdash	-		-	-	-	-		-	-	-	\vdash			_			*	*					-			-	⊢	\vdash		-
	132-14	ے 1	┢	\vdash	-		\vdash	-		\vdash	\vdash		-					-				*	*				-		-	\vdash	\vdash	\vdash		
	113_12	1	╞	\vdash			\vdash	\vdash		\vdash	\vdash			-	-			-						*					-	\vdash	\vdash	\vdash		
	105-11	2																							*					\vdash	+	\vdash		
	100-10	4	\vdash	\vdash			\vdash	\vdash		\vdash		\vdash		\vdash	\vdash										-	*			-	\vdash	\vdash	+		
		•	1	<u> </u>		I	1	L	1	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	I	<u> </u>	<u> </u>	L							<u> </u>	I	L	<u> </u>	<u> </u>	<u> </u>			

Service Personnel Initial Settings Table 2.9.1 (7/7)

T.F. No.	Item	Specifications	Default
28	Head width	Head width (later) You should confirm the head width by the followi table, and then select it by this setting. (Refer to 4.2.1) Head width is two types (TYPE1/TYPE2).	ng TYPE 2
		Setting Head width Head label	
		TYPE 1 208 mm 1115G2	
		TYPE 2 216 mm A4 200	
29	Media type This setting can cause minor changes in the transfer roller current to com- pensate for different paper weights.	Selects the recording paper according to its qualit Medium, Medium-heavy and Heavy selectable.	y. Medium
30	Transfer Roller Latch Current This setting can cause minor changes in the transfer roller current to com- pensate for different paper weights.	Selects the latch current for the transfer roller $(-1, 0, +1, +2)$	+ 1
31	Not Used		

TEL/FAX Automatic Switching

NOTE:

This function assumes that an optional handset is connected to the machine.

This function is used for the purpose of TEL/FAX automatic switching as follows.

- (1) If the machine detects a call with a CNG signal indicating an auto send facsimile call, it starts an automatic document receiving operation.
- (2) If machine detects a call without a CNG signal, machine generates the buzzer sounds as a telephone call. The calling person can hear a "ring back" tone for up to 35 seconds (by default).

If the operator at the called side does not lift the handset within 35 seconds (by default), the machine automatically starts a document receiving operation.

Voice conversation will automatically be available through the internal handset by lifting up the handset while the call buzzer is sounding.

Note: In this mode, following four settings are required.

- 1: The predetermined time is selectable between 20 or 35 sec. (Function program No. 10)
- 2: No ringing signal is sent to the external telephone handset.
- 2) TAD mode

TAD: Telephone Answering Device

TAD can be connected to external telephone terminal to record your messages.

TAD records your speech and switches an automatic voice message response to the calling station.

- Note 1: A choice of TAD mode is available by Technical Function No. 12.
- Note 2: The predetermined time is selectable between 20 or 35 sec.
- *Note 3*: Choice of message sending level. The level is selectable from 0 to 15 dB in one dB step. (Technical function No. 23)

TEL/FAX Mode Flow Chart



FX050VP-C2-018

[Notes]

- *1: Ring Back Tone 1 sec. ON, 3.2 sec. OFF
- *2: When you want to talk by phone, pick up handset.
- *3: The called party can send CED to the calling party immediately to start FAX communication if the CNG is detected during the period.
- *4: If the fax does not detect CNG signal during working of TEL/FAX mode, LCD display indicates "LIFT HANDSET".

TAD Mode Flow Chart (Type 1)

Even though the fax does not detect CNG signal, the fax will go to receiving mode.

*1 To enable the manual TX mode. Load document \rightarrow Press START button \rightarrow Manual transmission

NOTE:

If the Remote RX function is set to a value other than OFF, that code can be used to force FAX RX during TAD Mode Operation.



TAD Mode Flow Chart (Type 2)

If the fax does not detect CNG signal during working of TAD, the machine will go to standby mode.

NOTE:

If the Remote RX function is set to a value other than OFF, that code can be used to force FAX RX during TAD Mode Operation.



2.9.3 **Technical Functions Example**

- (1) Service Bit Setting
 - 1) Purpose

To enable or disable the following functions:

- Drum and toner counter display (clear) ٠
- Service default report printing
- Protocol dump report printing •
- Ring response time setting
- Dial parameters setting
- Printer counters clearing ٠
- 2) Procedure

Operations:

The display shows:

NO(\rightarrow /1-4)

2:TECHNICAL FUNCTION

 $YES(\leftarrow)$

- To bring the LCD up to the desired message press SELECT FUNCTION key once, COPY key twice and "2"key. (In case of no message in memory)
- Press \leftarrow key.
- Service bit setting is T.F. No. 01. • Enter "01"





To 02: MONITOR CONT.

*1: 01-30 for OKIOFFICE44

Reference: See Figure 2.9.1 on the next page for the general operation flow.

Operations:

The display shows:

14:14 [FAX] FUNCTION (Standby) • Press SELECT FUNCTION key. SELECT FUCTION (OT) MEMORY AVAIL.=100% COPY • Press COPY key twice. COPY TECH. PROGRAMMING $YES(\leftarrow /1-4)$ $NO(\rightarrow)$ • Press \leftarrow key. 1:LOCAL TEST $YES(\leftarrow)$ NO(\rightarrow /1-4) • Press $|\rightarrow|$ key. 2:TECHNICAL FUCTION $YES(\leftarrow)$ NO(\rightarrow /1-4) • Press \leftarrow key. FUNCTION NO. [] *1 ENTER 01-30 • Enter two-digit function number, then the display will show the set item corresponding to the number entered. If you want to set up all or several items See Table 2.9.2 starting with 01, then enter 01.

T.F. No.	Name of Function	The Display Shows
01	Service bit	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
02	Line monitor control	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
03	Country code	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
04	Time and date print	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
05	TSI print	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
06	No toner memory reception	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
07	TAD mode (For external telephone answering device.)	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
08	Real-time dialling	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
09	TEL/FAX switching	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
10	MDY/DMY format	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
11	Long document transmission	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$



T.F. No.	Name of Function	The Display Shows
17	T2, timeout value	$\begin{array}{c c} 17:T2 T.O. VALUE & \leftarrow \\ [X] YES(\leftarrow) NO(\rightarrow) & To 18: DIS BIT32 \\ \hline \\ T2 T.O. VALUE \\ [000] ENTER 000-255 \\ \hline \\ 3-digit timer entered. \\ \hline \\ 17:T2 T.O. VALUE \\ [059] YES(\leftarrow) NO(\rightarrow) \\ \hline \\ (Example) \end{array}$
18	DIS bit 32	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
19	Error criterion	$ \begin{array}{c} 19: \text{ERROR CRITERION} \\ [X] YES(\leftarrow) NO(\rightarrow) \\ \hline To 20: OFF HOOK \\ BYPASS \\ X: 00 - 99\% \\ \hline \\ ERROR CRITERION \\ [00] ENTER 00 - 99 \\ \hline \\ 2-digit timer entered. \\ \hline \\ 19: ERROR CRITERION \\ [10] YES(\leftarrow) NO(\rightarrow) \\ \hline \\ (Example) \end{array} $
20	Off-hook bypass	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
21	NL equalizer	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
22	Modem attenuator	$ \begin{array}{c c} \hline & & \hline \\ 22: \text{ATTENUATOR} \\ \hline & X \end{bmatrix} & \text{YES}(\leftarrow) & \text{NO}(\rightarrow) \end{array} \begin{array}{c} \hline \\ & \text{Setting} \\ X:0 \text{DB} \rightarrow 1 \text{DB} \rightarrow \\ 2 \text{DB} \rightarrow \cdots \rightarrow 15 \text{DB} \rightarrow 0 \text{DB} \rightarrow \bullet \cdots \bullet \end{array} $
23	T/F tone attenuator (for TEL/FAX switch)	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$

T.F. No.	Name of Function	The Display Shows
24	MF attenuator	$ \begin{array}{c c} 24: \text{MF ATT} & \\ [X] & \text{YES}(\leftarrow) & \text{NO}(\rightarrow) \end{array} \end{array} \begin{array}{c} \\ \text{Setting} \\ X:0 \text{ DB} \rightarrow 1 \text{ DB} \rightarrow \\ 2 \text{ DB} \rightarrow \cdots \rightarrow 15 \text{ DB} \rightarrow 0 \text{ DB} \rightarrow \cdots \end{array} $
25	Ring duration detection time	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
26	CML timing	$\begin{array}{c c} 26:CML TIMING *100MS \\ [X] YES(\leftarrow) NO(\rightarrow) \\ \hline To 27: HEAD \\ STROBE \\ \hline \rightarrow \\ X: 01 - 19 \\ \hline \\ CML TIMING *100MS \\ [01] ENTER 2DIGITS \\ \hline \\ 2-digit timer entered. \\ \hline \\ 26:CML TIMING *100MS \\ \hline \\ [03] YES(\leftarrow) NO(\rightarrow) \\ \hline \\ (Example) \end{array}$
27	Head strobe	$\begin{array}{c} 27: \text{HEAD STROBE} \\ [X] YES(\leftarrow) \text{ NO}(\rightarrow) \\ \hline \text{To 28: HEAD} \\ WIDTH \\ X:5 \text{digits (0/1)} \\ \hline \end{array}$ $\begin{array}{c} 27: \text{ HEAD STROBE} \\ [01100] \text{ ENTER } 0/1 \\ \hline \end{array}$ $\begin{array}{c} 0/1 \text{ entered.} \\ \hline \end{array}$ $\begin{array}{c} 26: \text{CML TIMING *100MS} \\ [01101] \text{YES}(\leftarrow) \text{ NO}(\rightarrow) \\ \hline \end{array}$ $(\text{Example}) \end{array}$

T.F. No.	Name of Function	The Display Shows
28	Head Width	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
29	Media type	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
30	Transfer roller latch current	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
31	Not used	

2.9.4 User's Functions

This section explains the items usually set up by general users.

Table 2.9.3 shows the initial setting items and their purposes.

Each F.P. can be accessed by entering the corresponding function number on Function Programming.

The detailed procedure of the initial setting items will be explained on the following pages.

Note: S-ON: Effective if the service bit has been set on.

- FP: Function program setting
- TF: Technical function setting

User's Functions Feature Specifications Table 2.9.3 (1/3)

No.	Item	Specifications
1	Auto dial 1) One-touch dial	10 one-touch keys are provided. Maximum. 32 digits for each location number.
		In addition to an ordinary location number, another alternate location number can be registered in to each one-touch key.
		 Purposes of this alternate location number: 1) Fax dial A fax number is registered as an alternate location number. When a call to the first location number is not answered, the alternate location number will be automatically dialled.
	2) Two-digit dial	45 different codes are provided.
		Two- digit location code: 01 to 45 Maximum. 32 digits for each location number.
	3) Keypad dial	With ten-key pad. Maximum. 40 digits for one operation
	4) Chain dial	The number of dialling digits can be expanded by chaining any number of the types listed above (Auto Dial Items 1, 2 and 3).
	5) Mixed dial	Type of dialling can be changed from pulse dial to tone dial halfway in dialling process. The changing point is specified by using the * key.
2	Manual dial	With the (optional) telephone handset.
3	Receive mode 1) Auto receive mode	Selectable by key operation.
	2) Manual receive mode	Selectable by key operation.
	3) Telephone/fax automatic switchover	Selectable by key operation. The fax recognizes a fax call from a verbal call as follows:
		If the fax detects a call with a CNG signal, it starts an automatic document receive operation.
		If it detects a call without a CNG signal, it sounds the buzzer to indicate a voice call. Operator can answer the call by lifting the telephone handset.
		If he or she does not lift the handset within predetermined time (20 sec. or 35 sec.), the fax automatically starts a document receive operation.
		* FP + 10 (To determine the timer.)
		<i>Note:</i> Refer to TEL/FAX Mode Flow Chart

this feature, and speci-
on depending on PTT
nit on number of repeat
wo-digit auto dial codes signed. tion simple.
numeric name can be p-digit dial codes, 01 to
layed on LCD. n be performed.
ecified. 1 location IDs al order.
available only upon
able at the end of each
variable
e first recording paper
overhead projector

No.	Item	Specifications
12	Broadcast (Memory transmission)	 A maximum of 56 remote locations can be specified by the following means: One-touch keys (with of without a group list). Two-digit auto dial codes. 1 keypad dial number
		One delayed time of calling for this feature can be specified unless any other delayed calling feature has been specified.
		One delayed broadcast and one immediate calling of broadcast is possible with the OKIOFFICE 44.
		When multiple locations are specified for one broadcast
		(1) The OKIOFFICE 44 prints a broadcast entry report, if speci- fied in operating sequence.
		 (2) The OKIOFFICE 44 can print a broadcast confirmation report. (FP + 02 To enable or disable this printout)
13	Delayed transmission from the memory	The fax can automatically transmit documents at one specified time for OKIOFFICE 44
14	Polling transmission (To be polled)	Document(s) placed on the feeder can be collected by a remote station.
15	Polling reception	The fax can collect documents from one remote station.
16	Transmission preparation (Hopper)	An operator can prepare documents for transmission even while the fax is engaged in message reception. They will be automatically transmitted upon completion of the reception.
		An operator can also prepare documents for transmission during transmission from memory.
17	No toner reception	The fax can temporarily store received messages in memory when toner has run out. The messages are printed when toner has been newly supplied or an operator presses the SELECT FUNCTION key followed by the one-touch key No. 10 under the LCD message "MSG. IN MEMORY/REPLACE TONER CART." in the standby mode.
		* TF + 06 (To enable or disable this function)
18	Smooth printing	The documents received in the STD mode can be printed at the FINE resolution by means of generating one line based on the two consecutive original lines and printing it between them.
19	Not Used	

One-Touch Key Program Settings (Flowchart)

Note: The fonts displayed on the LCD operation panel may differ from fonts written this manual.

POWER ON



One-Touch Key Program Settings [Table 2.9.4] (1/4)

F+OT No.	Item	Specifications
1	Delayed transmission (TX)	This function enters a message transmission time(s) and location(s) for execution at a specified time.
2	Broadcast/memory transmission	To make a one-time selection of the memory transmission mode.
		 Max. 56 remote locations can be specified by the following means: One-touch key (with of without a group list) Two-digit auto dial code Keypad dial number
		When multiple locations are specified for one broadcast,1) The fax can print a broadcast confirmation report, if specified in operating sequence.
3	Confidential transmission	To program the mail box number 01 to 64. Available remote station's mail box numbers: OKIFAX 2400/2600: 01 to 40 OKIFAX 1000: 01 to 16 OKIFAX 1050: 01 to 08 OKIFAX 2300: 01 to 16 OKIFAX 2350: 01 to 08 OKIFAX 2450: 01 to 16 OKIFAX 5300: 01 to 16 OKIFAX 5600: 01 to 16
4	Relay broadcast initiate transmission	This function automatically originates a message call via relay key station (which must be equipped with OKIFAX 2600) Up to 99 locations. To program relay password. To enable or disable the relay report.
5	Polling transmission/reception	Polling TX: The documents placed on the feeder can be collected by a remote station.
6	Report printing	 Polling RX: The fax can collect documents from one remote station. 1. Activity report 2. Broadcast message confirmation report (Multi location)
		 Phone directory report Configuration report (Serviceman report if service bit sets to ON.) Protocol dump report TF + 01 (Sets to on Service bit) Log. report

F+OT No.	Item	Specifications
7	Counter display (clear)	 The operation for displaying and clearing the print counters in five ways are as follows: 1. Drum counter User can clear, but cannot read counter number 2. Toner counter TF + 01 (Sets to on Service bit) 3. Drum (total) continue TF + 01 (Sets to on Service bit) 4. Print counter User can read no. of counter in LCD but can not clear. 5. Scan counter User can read no. of counter in LCD but can not clear.
8	Location program 1. One-touch key	 One-touch keys allow registering: (1) Telephone number (numeral, -, P and space) in 32 digits. (2) Alternate fax telephone number in 32 digits. (additional registration) (3) ID for the telephone directory function in 15 characters (alphabetic, numeric and symbolic). (One ID can be registered for one key). (4) 10 one-touch keys are provided
	2. Two-digit auto dial program	Auto-dial No. 01 to 45 allows registering telephone number in 32 digits (numeral, -, P and space) and ID for the telephone directory function 15 characters (alphabetic, numeric and symbolic).
	3. Group setting	Grouping some one-touch keys and some two-digit auto dial codes to which telephone numbers have been assigned. This group setting makes broadcast operation simple. Five dialling groups are available for the OKIOFFICE 44

One-Touch Key Program Settings Table [2.9.4] (2/4)

F+OT No.	Item	Specifications
9	User's programs 1. Function program	Function program 01: MCF (SINGLE-LOC.) 02: MCF (MULTI-LOC.) 03: ERR. REPORT (MCF.) 04: IMAGE IN MCF. 05: SENDER ID 06: MONITOR VOLUME 07: BUZZER VOLUME 08: CLOSED NETWORK 09: TX MODE DEFAULT 10: T/F TIMER PRG. 11: RING RESPONSE 12: DISTINCTIVE RING 13: 1'ST PAPER SIZE 14: 2'ND PAPER SIZE 15: USER LANGUAGE 16: INCOMING RING 17: REMOTE RECEIVE 18: MEM./FEEDER SW 19: Not Used 20: ECM FUNCTION 21: REMOTE DIAGNOSIS 22: PC/FAX SWITCH 23: ONE TOUCH PARAM. For Function Programs 01 through 23, refer to Table 2.9.4.
	2. Dial parameters	Dial parameters 1. REDIAL TRIES 2. REDIAL INTERVAL 3. DIAL TONE DETECT 4. BUSY TONE DETECT 5. MF (TONE)/DP (PULSE) 6. PULSE DIAL RATE 7. PULSE MAKE RATIO 8. PULSE DIAL TYPE 9. MF(TONE) DURATION 10. PBX LINE 11. FLASH/EARTH/NORMAL 12. AUTO START 13. DIAL PREFIX 14. Not Used Refer to Table 2.9.6 for specification of dial parameter settings.
	3. Clock adjustment	Date and time adjustment.
	(continued on next page)	

One-Touch Key Program Settings [Table 2.9.4] (3/4)

One-Touch Key Program Settings [Table 2.9.4] (4/4)

F+OT No.	Item	Specifications
9	(continued from previous page)	
	4. System data program	 TSI/CSI Registration of TSI/CSI/CIG (numbers, + and space) in 20 digits. TSI:Transmitting Subscriber Identification CSI: Called Subscriber Identification CIG: Calling Subscriber Identification SENDER ID Registration of sender ID (alphabetic, numeric and symbolic) in 32 digits. CALL BACK NO
		Registration of telephone number for cover letter (alphabetic, numeric and symbolic) in 20 digits.
	5. Not Used	
	6. Not Used	
10	Print operation	
	1. Substitutive message print	Used to print messages stored in memory during toner low condi- tion
		Also used to print messages received in memory when RX Mode is set to MEM RX.
		The messages are printed when toner has been newly supplied or an operator performs the substitutive operation.
		When memory reception data exists in the memory and the MEMORY RX MODE is indicated by AUTO REC key operation for OKIOFFICE 44 machine will print out the memory reception data.
	2 Not Used	
	2. Printer cleaning	When wint quality becomes questionable, this down cleaning
	3. Printer cleaning	function removes the residual toner on the image drum. The residual toner is removed by printing.
		This operation should be performed before any hardware replace- ments are considered.

Function Program

User Function Program Settings Table 2.9.4 (1/4)

P.F. No.	Item	Specifications	Default
01	Message confirmation report (Single location)	Enables or disables the automatic message confirma- tion report printing after a single location call.	OFF
		ON:Printing the MCF report.OFF:Disables this function.	
02	Message confirmation report (Multiple locations)	Enables or disables the automatic message confirma- tion report printing after a multiple polling or broad- cast.	ON
		ON:Prints the MCF report.OFF:Disables this function.	
03	Error report (MCF)	Enables or disables the automatic error report print- ing when transmission error occurs. (Excepts for service bit "0".)	ON
		ON:Printing the error report.OFF:Disables this function.	
04	Image in MCF	Enables or disables the automatic printing of the image on the first sheet below the message confirma- tion report.	ON
		ON:Printing the image in MCF report. (Memory transmission only)OFF:Disables this function.	
05	Sender ID	The fax can transmit programmed alphanumeric message, such as company's name consisting of up to 32 characters. Enables or disables the sender ID function. * (Outside only)	ON
		ON: Enables OFF: Disables	
06	Line monitor volume	Controls the volume.	LOW
		Settings: OFF Low High	
07	Buzzer volume	Selects the sound volume of each buzzer (end of communication buzzer, voice request buzzer and off-hook alarm) and software ringer from high, low and middle levels.	MID
		Settings: Low Mid High.	
		<i>Note:</i> Fixed a low level for key touch tone.	

P.F. No.	Item	Specifications	Default
08	Closed network	The fax compares lower four digits of TSI/CSI re- ceived from remote station with fax numbers regis- tered locally for one-touch dial and two-digits autodial. If unmatched, the communication will be automati- cally disconnected.	OFF
		OFF/RX only/TX and RX selectable.	
		* Prevention of direct mail or wrong number calls.	
		(Reference)TSI: Transmitting subscriber identificationCSI: Called subscriber identification	
09	TX mode default	Selects automatically the mode set up when a document is loaded on the feeder.	STD/ Normal
		The following combinations are selectable.	
		$\begin{array}{l} \text{STD/NORMAL} \rightarrow \text{STD/DARK} \rightarrow \text{STD/LIGHT} \rightarrow \\ \text{FINE/NORMAL} \rightarrow \text{FINE/DARK} \rightarrow \text{FINE/LIGHT} \rightarrow \\ \text{EX.FINE/NORMAL} \rightarrow \text{EX.FINE/DARK} \rightarrow \\ \text{EX.FINE/LIGHT} \rightarrow \text{PHOTO/NORMAL} \rightarrow \\ \text{PHOTO/DARK} \rightarrow \text{PHOTO/LIGHT} \rightarrow \\ \text{STD/NORMAL} \rightarrow \bullet \bullet \bullet \end{array}$	
10	Telephone/fax automatic switchover time	Specifies the time for which the fax alerts an operator on reception of a call in the telephone/fax automatic swichover mode.	35 sec.
		20 sec./35 sec. selectable	
		Refer to page 2-36	
11	Ring response time	User can register ring response time if National code is: INT'L, GBR, NOR, SWE, USA, HOL, ESP. ITA, GRE or GER	1 ring
		Selects the ring response time.	
		1 ring/5/10/15/20 sec. selectable.	
12	Distinct ring	Specifies the detected distinct ring.	OFF
		OFF/ON/SET selectable.	
13	1'st cassette paper size	Selects A4, LETTER or LEGAL 13 [~] , LEGAL 14 [~] / OTHER (when installing Bi-Centro board) by this function. The operator must select the preferable paper size as the machine cannot detect the paper size automati- cally.	LETTER
		0.47	

P.F. No.	Item	Specifications	Default
14	Not Used		
15	User language	A choice of 2 languages for LCD and print message are available.	ENG
		ENG (English) and Spanish/French/Portuguese	
16	Incoming ring	Instead of ringer circuit, software can control built-in speaker to ring sound.	ON
		To enable (ON) or disable (OFF) or distinctive ring (DRC) a software generated ring sound to indicate arrival of an incoming bell.	
17	Remote receive This function also used for TAD Mode	This function is used to transfer the call received by external telephone (connected to fax) by entering preset two-digits.	OFF
	TAD Wode.	The following combinations are selectable.	
		00/11/22/33/44/55/66/77/88/99/**/##/OFF selectable.	
		Switches the transmission mode between the memory and feeder.	
18	Memory and feeder switch	MEM. TX/FEEDER TX selectable.	FEEDER
		<i>Note:</i> Memory or feeder setting can register as the default by operating the "F + OT 2".	17
19	Not Used		
20	ECM function	Enables or disables ECM (error correction mode) com- munication.	ON
		ON: Enables OFF: Disables	
21	Remote diagnosis	Enables or disables the remote diagnosis function when the machine can allow remote diagnosis from remote center.	
		ON: Enables OFF: Disables	
	(Development	0.40	

P.F. No.	Item	Specifications	Default
22	PC/FAX switch	When the host side does not respond at the time of incoming call to PC, specifies whether to starts forcibly as fax reception or not.ON: EnablesOFF: Disables<i>Note:</i> When the Bi-Centro board is installed on the	ON
		fax, PC/FAX switching mode appears in the LCD display.	
23	One-touch key parameters	 Echo protection (ON/OFF) 	011

Function Program

Operations:

The display shows:

- To begin, press SELECT FUNCTION key once and one-touch key No. 9 in the standby mode. (when no message is in memory)
- Press \leftarrow key.
- Enter two-digit function number, then the display will show the set item corresponding to the number entered. If you want to set up all or several items starting with 01, then enter 01.



To an individual setting item. (See Table 2.9.5)

User's Functions Table 2.9.5 (1/2)

Tap No.	Name of Function	The Display Shows
0 1	Message confirmation report (Single location)	$ \begin{array}{c c} & & & & & \\ \hline 01:MCF(SINGLE-LOC.) & & Setting(Toggle) \\ & & & \\ \hline X & & & \\ \end{bmatrix} \begin{array}{c} YES(\leftarrow) & NO(\rightarrow) \end{array} \end{array} X: OFF \leftrightarrows ON $
02	Message confirmation report (Multiple locations)	$ \begin{array}{c c} & & & & & \\ \hline 02:MCF & (MULTI-LOC.) & & Setting (Toggle) \\ & & & \\ \hline X & & & \\ \end{array} \\ \begin{array}{c} X & & \\ \end{array} & YES(\leftarrow) & NO(\rightarrow) \end{array} \\ \begin{array}{c} & X:OFF \\ & & \\ \end{array} \\ \begin{array}{c} & \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} $ \\ \begin{array}{c} \\ \end{array} \\
03	Error report	$ \begin{array}{c c} & & & & & \\ \hline 03:ERR. \ REPORT(MCF.) \\ [X] \ YES(\leftarrow) \ NO(\rightarrow) \end{array} \end{array} \begin{array}{c} & & & \\ \hline Setting(Toggle) \\ X: \ OFF \ \leftrightarrows \ ON \end{array} $
0 4	Image in MCF.	$ \begin{array}{c c} & & & & & \\ \hline 04:IMAGE IN MCF. & & \\ [X] YES(\leftarrow) NO(\rightarrow) & & \\ X: OFF \leftrightarrows ON \end{array} $
0 5	Sender ID	$ \begin{bmatrix} 05:SENDER \ ID \\ [X] \ YES(\leftarrow) \ NO(\rightarrow) \end{bmatrix} \xrightarrow{[]{}} Setting (Toggle) \\ X: OFF \leftrightarrows ON $
06	Line monitor volume	$ \begin{bmatrix} 0 & 6 & \text{MONITOR VOLUME} \\ [X] & \text{YES}(\leftarrow) & \text{NO}(\rightarrow) \end{bmatrix} \xrightarrow{\text{Setting}} X: \text{OFF} \rightarrow LOW \rightarrow HIGH $
0 7	Buzzer volume	$ \begin{bmatrix} 07: BUZZER \ VOLUME \\ [X] \ YES(\leftarrow) \ NO(\rightarrow) \end{bmatrix} \xrightarrow{[]{}} Setting (Toggle) \\ X: MID \rightarrow HIGH \rightarrow LOW $
0 8	Closed network	$ \begin{bmatrix} 08: CLOSED NETWORK \\ [X] YES(\leftarrow) NO(\rightarrow) \end{bmatrix} \xrightarrow{[]{}} Setting \\ X: T/R \rightarrow RX \rightarrow OFF $
09	TX mode default	$ \begin{array}{c c} & & & & & \\ \hline 09:TX \text{ MODE DEFAULT} \\ \text{YES}(\leftarrow) & \text{NO}(\rightarrow) \end{array} \end{array} \begin{array}{c} & & & & \\ \hline \rightarrow & & \text{NOTE 1:} \\ \text{Setting} \\ \text{RESOLUTION \&} \\ \text{ORIGINAL} \end{array} $
10	Telephone/fax automatic switchover timer	$ \begin{array}{c c} & & & & & \\ \hline 10:T/F \text{ TIMER PRG.} & & & & \\ \hline & & & \\ I & X & I & YES(\leftarrow) & NO(\rightarrow) \end{array} \end{array} \begin{array}{c} & & \\ & & Setting (Toggle) \\ & & X: 20SEC & \leftrightarrows 35SEC \end{array} $
1 1	Ring response time	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
		X: 1RING \rightarrow 05SEC \rightarrow 10SEC \rightarrow 15SEC 20SEC \leftarrow
1 2	Distinct ring	$ \begin{array}{c c} & & & \\ \hline 12:DISTINCTIVE RING \\ [X] YES(\leftarrow) NO(\rightarrow) \end{array} \end{array} \begin{array}{c} & \rightarrow & \text{NOTE 2:} \\ \text{Setting (Toggle)} \\ \text{X:OFF} \rightarrow \text{ON} \rightarrow \text{SET} \\ \hline \end{array} $

Tap No. Name of Function The Display Shows \rightarrow 1st cassette paper 1 3 13:1'ST PAPER SIZE Setting size $[X] YES(\leftarrow) NO(\rightarrow)$ X: A4 \rightarrow LET \rightarrow LGL 13 \rightarrow LGL 14 _____ OTHER t Not used 4 1 \rightarrow User language 1 5 15:USER LANGUAGE Setting X: \widetilde{ENG} . \leftrightarrows (Other) [X] YES(\leftarrow) NO(\rightarrow) \rightarrow Incoming ring 1 6 16:INCOMING RING Setting (Toggle) X: OFF \rightarrow ON \rightarrow DRC X] YES(\leftarrow) NO(\rightarrow) [↑_____ Remote receive 7 1 17:REMOTE RECEIVE X] YES(\leftarrow) NO(\rightarrow) Γ OFF \rightarrow 11 \rightarrow 22 \rightarrow 33 \rightarrow 44 55 \rightarrow 77 \rightarrow 88 \rightarrow 99 -____ ## ← ** ← $|\rightarrow|$ Memory and feeder 8 1 18:MEM/FEEDER SW. Setting selection X] YES(\leftarrow) NO(\rightarrow) [X: MEM. \leftrightarrows FEED. Not used 9 1 \rightarrow ECM function 2 0 20:ECM FUNCTION Setting (Toggle) [X] YES(\leftarrow) NO(\rightarrow) $X{:}\,OFF\ \leftrightarrows\ ON$ $|\rightarrow|$ Remote diagnosis 2 1 21:REMOTE DIAGNOSIS Setting (Toggle) X] YES(\leftarrow) NO(\rightarrow) [$X: OFF \leftrightarrows ON$ NOTE 4: \rightarrow PC/FAX switch 2 2 22:PC/FAX SWITCH Setting (Toggle) $[X] YES(\leftarrow) NO(\rightarrow)$ $X: OFF \leftrightarrows ON$ \rightarrow One-touch key 2 3 23:ONE TOUCH PARAM. To: FUNCTION NO. parameters YES(OT) NO (\rightarrow) One-touch key pressed. Y $|\rightarrow|$ ECHO PROTECTION Setting (Toggle) $X: OFF \leftrightarrows ON$ X] YES(\leftarrow) NO(\rightarrow) [\leftarrow

User's Functions Table 2.9.5 (2/2)

Note 1: RESOLUTION & ORIGINAL of TX mode default setting can be selected by using \rightarrow key (while documents are loaded in the ADF).



Note 4: When the CTR board is not mounted, the PC/FAX switch is bypassed as follows:



Ring Response Time

Before specifying the ring response time, set the service bit on following the operations shown in 2.9.3 (1). (Service Bit Setting).



• Enter 11 using the ten-key pad.

• Press \rightarrow key until the setting you want is displayed, then press ← key.

Installation Procedure

To get the "DIAL PARAMETER" message on the display, perform the operation in Table 2.9.6., Dial parameters settings.



Operations:

- To bring the LCD up to the desired message, press SELECT FUNCTION key once and one-touch key No. 9 in the standby mode. (In case of no message in memory)
- Enter 3 using the ten-key pad.



The display shows:

- Press \leftarrow key.
- Enter date and time by using the ten-key pad (0 to 9 keys).

2.9.7 Dual Access Operation

This feature is not available with the OKIOFFICE 44.

2.9.8 System Data Programming

- TSI/CSI (Default: Blank)
- Registration of sender ID (Default: Blank)
- Registration of telephone number for the call-back message (Default: Blank)

Operations:

The display shows:

- To begin, press SELECT FUNCTION key once and one-touch key No. 9 in the standby mode. (with no message in memory)
- Enter 4 using the ten-key pad.
- Press \leftarrow key.



Note: Use the UNIQUE key to input special symbols.

Operations:

The display shows:


2.9.9 Dial Parameters Settings

Procedure

The following shows the case in which the service bit is on.

• To begin, press SELECT FUNCTION key once and

one-touch key No. 9 in the standby mode.

(with no message in memory)

• Enter 2 using the ten-key pad.

Operations:

The display shows:

SELECT FUNCTION (OT) MEMORY AVAIL.=100% Press OT9 1:FUNC. PROGRAMMING YES(\leftarrow) NO(\rightarrow /1-4) 2 2:DIAL PARAMETER YES(\leftarrow) NO(\rightarrow /1-4) \leftarrow

• Press \leftarrow key.

To DIAL PARAMETERS

The display shows:



Dial Parameters Settings (Table 2.9.6)

No.	Item	Specifications	Default
01	Redial tries	Switches on the redial times to meet the regulations of the installed country. 0 to 10 tries (in one-try steps) 1 to 5 tries for FRE.	3
02	Redial interval	Switches on the radial intervals to meet the regulations of installed country. 1 to 6 minutes (in one-minute steps) 1 to 12 minutes for FRE.	3
03	Dial tone detect	Selects the dial tone detection. ON/OFF selectable. ON: Enable OFF: Disable	OFF
04	Busy tone detect	Selects the busy tone detection. ON/OFF selectable. ON: Enable OFF: Disable	ON
05	MF (TONE) or DP (Pulse)	Selects dialling by multifrequency or dial pulse.	MF (Tone)
06	Pulse dial rate	Selects the dialling pulse rates for the line. 10 pps/16 pps/20 pps selectable.	10 pps
07	Pulse make ratio	Selects pulse dial rate. 33%/39%	39%
08	Pulse dial type	Selects pulse dial type. Normal(N)/10-N/N+1	Normal (N)
09	MF (Tone) duration	Selects MF (Tone) duration. 75/85/100 ms selectable.	100 ms
10	PBX line	Selects PBX line. ON/OFF selectable. ON:PBX line OFF: PSTN	OFF
11	Flash/Earth/Normal	Selects the PBX type to meet the exchange requirements. NORMAL/EARTH/FLASH selectable. (PBX line origination types)	NORMAL
12	Auto start	Enables or disables the function of dialing without pressing the START key in one-touch dial and 2-digit auto dial modes. ON: Enable OFF: Disable	ON
13	Access digit	Prefix dialing digits with which PBX connects the fax to the public line. OFF/max. 4 digit(s) selectable. Digit: Enable OFF: Disable	OFF
14	Not Used		

2.9.10 Off-line Tests

Purpose

Activate self-diagnosis which includes:

- Print test
- CPU-ROM version printing
- CPU-RAM check
- PROG version printing
- LANGUAGE version printing
- DEFAULT version printing
- RAM check
- RAM check (memory board: optional)
- PC-I/F version printing (optional)

Procedure

Operations:

- To bring the LCD up to the desired message, press SELECT FUNCTION key once and COPY key twice in the standby mode. (In case of no message in memory)
- Press \leftarrow key.
- Press \leftarrow key.
- Press ← key for cheking and test printing. (An example of printed data is shown in Figure 2.9.4)

The display shows:





	CPU-ROM	VERSION	AA00		
		HASH	OK	DACD	
	CPU-RAM		OK		
	PROG1	VERSION	AA00		
		HASH	OK	3142	
	PROG2	VERSION	AA00		
		HASH	OK	1234	
	LANGUAGE	VERSION	LL10		
		HASH	OK	3F06	
	DEFAULT	VERSION	DD10		
		HASH	OK	A683	
*1	RAM1		1M	OK	
*2	OPT-RAM1		1M	OK	
*2	OPT-I/F		PARALLEL		
	DEFAULT T	YPE	01	07/01/96	

*1 marked item is shown for condition of all RAM except EXCEED RAM. *2 marked items are options.

2.9.11 On-line Tests

Transmission

- (1) Load documents
- (2) Make sure that
 - The loaded documents are fed in automatically.
 - The STD and NORMAL lamps light.
 - The display shows SELECT LOCATION.
- (3) Dial the telephone number of the remote machine by the ten-key pad.
- (4) Make sure that the telephone number of the remote machine is shown on the display.
- (5) Press the START button.
- (6) Typical message transmission flow is described in Figure 2.9.5.

Reception

- (1) Use another machine for dialling.
- (2) Make sure that
 - The display shows AUTO REC. START.
 - The message is automatically received.
- (3) Typical message reception flow is described in Figure 2.9.6.



FX050-C2-021



FX050VP-C2-022

2.9.12 Installation of Optional Units

Items

- Memory board
- PC interface board
- Telephone handset

Procedure

Note: Unplug the AC power cord from the wall outlet first and then from the facsimile.

- Detach the AC power cord to power OFF the unit.
- Do not remove unnecessary parts.
- Since screws and small parts are likely to be lost, they should temporarily be attached to their original positions.

Memory Board Installation

Installation

• In the OKIOFFICE 44, the MEM memory board is mounted on to the connector CN13 of R44 board.



Remove PC Interface (CTR PCB), if installed.

Install Memory Board: First, install the memory board on to the connector CN13 of R44 board, and then tighten the two screws to the separation plate.

Then, re-install the CTR PCB (if used).



Optional Telephone Set Installation

(1) After having taken out the telephone set, telephone handset and curled cord from the carton box, connect them(Fig. C.3.2).



Fig. C.3.2

(2) After installing the connection cable to the telephone set, extend the connection cable (Fig. C.3.3).



Fig. C.3.3

(3) Connect the terminal on the other side of the connection cable to the back of the unit, to the telephone set.

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Section 3: Brief Technical Description

Electrophotographic Process Flow



3.1 Fundamentals of the Electro-Photographic Process

The electro-photographic process involves six sub-processes: (1) Charging (2) Exposure (3) Development (4) Transfer (5) Fusing (6) Cleaning

Each process is briefly explained below.



Process	Illustration	Description
Transfer +	EP drum	The recording paper is placed over the Image drum surface and a positive charge, opposite in polarity to the toner, is applied to the reverse side of the paper from the transfer roller. The toner is attracted by the positive charge and is transferred to the paper. The toner charged negative that is attracted to the Image drum surface is transferred to the upper side of the record- ing paper by the positive charge on the lower side of the paper.
Fusing	Heater Heater roller Paper Back-up roller	The unfused toner image is fused on the paper under heat and pressure as it passes between the heater roller and the back-up roller.
Cleaning 9	Cleaning roller	Residual toner on the Image drum is attracted to the cleaning roller temporarily by static electricity on the Image drum surface.

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3.2 Actual Electrophotographic Process

The electrophotographic process of the unit consists of six essential processes.

The following Figure 3.2.1 provides a general description.



* Process:

- 1 : Charging
- 2 : Exposure
- 3 : Developing
- 4 : Transfer
- 5 : Fusing
- 6 : Cleaning

Figure 3.2.1 Actual EP Process

3.3 Boards and Units

The following five boards, Main control board, Memory board (option), Telephone interface board (option), PC interface board (option) and three units constitute the OKIOFFICE44 facsimile transceiver machine.

•	Main control board	MCNT:	(R44)
•	Network control unit board	NCU:	(UNC)
•	Memory board (option)	MEM:	(MEM; 1MB)
•	Telephone interface board (option)	TEL:	(TEL-U, HOOK)
•	PC interface board (option)	Bi-Centro I/F:	(CTR)
•	Operation panel assembly unit	OPE:	(O4W)
•	Power supply unit	POW UNIT:	(TLHV or OLHV, 048 POW;120V/230V)
•	Printer unit		

Figure 3.3.1 shows the related drawing of OKIOFFICE44 facsimile transceiver.



3.4 Overall Dimension and Mechanical Structure



Figure 3.4.1 Overall Dimension and Mechanical Structure

Section 4: Disassembly

This chapter explains the procedures for replacement of assemblies and units in the field.

4.1 General

4.1.1 Precautions for Parts Replacement

(1) Before starting disassembly and reassembly, always pull out the AC plug.

Note: Unplug the AC power cord from the wall outlet first and then from the facsimile.

- (2) Do not try to disassemble as long as the facsimile is operating normally.
- (3) Do not remove unnecessary parts: Try to keep disassembly to a minimum.
- (4) When disassembling, follow the prescribed sequence. Otherwise, parts may be damaged.
- (5) Since screws and small parts are likely to be lost, they should temporarily be attached to their original positions.
- (6) When handling items such as printed circuit boards, do not wear gloves that are likely to generate static electricity.
- (7) Using a wrist band connected to the ground will protect semiconductors on printed circuit boards from damage by the static electricity.
- (8) Do not place printed circuit boards directly on the equipment or on the floor.

	Board or Part	Adjustment
(a)	NCU board	DIP switches to be placed in the same position as on the removed board. Refer to Chapter 8.
(b)	LED print head	When the rank marking of the replaced LED print head (new part) is the same as that of the used LED print head (old part), you do not always have to set the LED print head strobe time by the technical function No. 27. (Refer to chapter 5)

Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

4.1.2 Tools

No.	Service tools		Q'ty	Remarks
1		Philips screw driver (L)	1	
2		Philips screw driver (M)	1	
3		Flat screw drivers (S)	1	
4		Philips screw driver (S)	1	
5		Radio pliers	1	
6		Nippers	1	
7		Multimeter	1	Short-ciucuit test

 Table 4.1.1 shows the tools required for the replacement of parts such as circuit boards and mechanical units.

 Table 4.1.1
 Tools

4.1.3 How to Disassemble and Reassemble

This section explains how to disassemble and reassemble the fax.

- Figure 4.2 shows the disassembly procedure flow as generalization.
- The detailed disassembly procedure is explained from sub-section 4.1.3.1 to 4.1.3.18.



Printer Unit (4.1.3.19) Start (4.1.3.9)Open the Cover ID Unit Assembly-Top (4.1.3.9) Transfer roller (4.1.3.2)(4.1.3.2)(4.1.3.2)Cover Rear Cover NCU Cover Main (4.1.3.10)(4.1.3.15)High-voltage Heat Power Supply (TLHV/OLHV) Assembly (4.1.3.10)Holder Assembly (4.1.3.18) (4.1.3.14)Paper Sensor E Drive shaft E Paper Sensor Exit Toner Sensor Assy. and Eject Roller (4.1.3.16) Plessure Roller B (Backup Roller) (4.1.3.3) (4.1.3.3) Open the OPE Panel Assembly Separation Printer Unit (+) Plate Assembly (4.1.3.12) (4.1.3.17) Hopping Shaft Assy. Plate-Side M Gear-Idle (4.1.3.13) Registration Roller

Whole Unit Picture



(FX048 CP4.1 Fig.01)

4.1.3.1 LED Print Head

Two LED print heads are available.. (208 mm (8.18 inch) width or 216 mm (8.5 inch) width)

(1) Disassembly procedure

- a) Open the cover assembly-top by raising the cover in the direction of the arrow.
- b) Disconnect the PC connector from the LED print head.
- c) Remove the LED head while spreading the left clamp on the cover assembly-top.

Note:

Be sure not to touch directly or push the SLA part of the print head.

(2) Reassembly procedure

Reverse the disassembly procedures.

Note:

After replacing the LED print head, set drive time of the LED print head following the marking. (Refer to section 5.1). When you replace the LED print head, if the width of the LED head to be used is changed from current version, you should select the head width by the service personnel initial setting. (Refer to table 3.9.1 TF No. 27 and 28)



(CP4.1 Fig. 04)

4.1.3.2 Image Drum and Covers (Rear, NCU, Main) and NCU Board

Service Caution:

The High Voltage Power Supply PCB in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

- (1) Disassembly procedure
 - a) Open the cover assembly-top by raising.
 - b) Remove the image drum unit.
 - c) Cover-Rear:

Remove the Cover-Rear by removing the screw 1 and the detach the fixing hooks (2).

d) Cover-NCU:

Remove the Cover-NCU by removing the screw 2 and detaching the fixing hooks (4).





4.1.3.3 Unit-048 OPE-Panel

(1) Disassembly procedure

- a) First, carry out the disassembly procedure up to the point of the 4.1.3.2 (Item (e). Cover-main).
- b) Dismount the Printer-Unit. (See Section 4.1.3.19)
- c) Open the OPE-panel assembly.

d) OPE panel assembly:

Remove the OPE panel assembly by detaching the cable (1), removing the two screws (3), removing the eight screws (4), and detaching the fixing hooks.

- e) Remove the two screws and remove the LCD.
- 2) Reassembly procedure

Reverse the disassembly procedures.



4.1.3.4 Separation Rubber, Sensor Frame Roller Assembly (U)

(1) Disassembly procedure

- Separation rubber: a)
- The separation rubber can be removed from the Frame Assembly-Scanner (U) Frame Assembly-Scanner (U).
- b) Roller Assembly Sensor: Remove the Plate-Support by removing the two screws 1.

Note: Just fitting to two bosses.

- Remove the two springs (L) and (R). c)
- d) Remove the Roller Assembly-Sensor by removing the Gear (Z31). Spring (L)
- Remove cable from CN4 on the R-44 PCB. e)
- f.) Tilt the Frame Assembly (U) forward, while turning and lifting upward to clear the slot on the right side of the roller assembly.
- g) Remove the frame assembly.

(2) Reassembly procedure

Reverse the disassembly procedure.



(CP4.1 Fig. 15)

Gear (Z31)

4.1.3.5 Roller Assembly-ADF, CIS, Lever-PC1 and PC2

CIS = Contact Image Sensor

(1) Disassembly procedure

- a) First, carry out the disassembly procedures up to the point of the 4.1.3.2 and 4.1.3.3.
- b) Dismount the Printer-Unit. (See Section 4.1.3.19)
- c) Remove the Frame assembly-Scanner (L) by removing the four screws 1 and the four connectors.





i) Remove the CIS (contact image sensor).

j) Motor-S:

k) Photo-Sensor (PC1, PC2):

After disconnecting the two connectors, remove

flat screwdriver or like.

the photo-coupler sensors PC1 and PC2 on the Plate Scanner B by pressing the latch using the

(CP4.1 Fig. 19)



(CP4.1 Fig. 20)

Unit

(1) Disassembly procedure

- a) First, carry out the disassembly procedure up to the point of the 4.1.3.2 (Cover-Rear, Cover-Main etc.).
- b) Board-R44: Disconnect all connectors.
- c) Remove the five screws and remove the Board R44.



- d) OKIOFFICE 44 Power Supply Unit: Disconnect all connectors.
- e) Remove the screws and remove the OKIOFFICE 44 Power Supply Unit.



(2) Reassembly procedure

Reverse the disassembly procedures.

Disassembly

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Rev. 2
4.1.3.7 Option (Board-Memory: MEM, Board-CTR; PC Interface)

(1) Disassembly procedure

- a) Remove the Cover-Rear by removing the screw 1 and the part of the fixing hooks.
- b) Remove the Plate-Earth (PC I/F)
- Board-Memory (MEM): Remove Board-Memory on the connector CN13 of the Board-R44, and removing the screw to the separation plate.
- d) Board-PC Interface (CTR): Remove the Board-Memory on the connector CN11 and CN12 of the Board-R44, and removing the two screws to the pc-earth plate.
 - *Note:* Install on the inner side connector for the Board-Memory (MEM) and outside connector for the Board-PC interface (CTR).



4.1.3.8 Printer Unit Section

[Base Frame Unit]



(CP4.1 Fig. 23)

4.1.3.9 Transfer Roller

(1) Disassembly procedure

a) Open the cover assembly.

Remove the ID unit.

b) Remove the right claw.

Then, dismount transfer roller, two registration bearing, and gear T.



(2) Reassembly procedure

Reverse the disassembly procedures.

4.1.3.10 High-Voltage Power Supply Unit (TLHV/OLHV)

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Remove the three screws 1 and draw out high-voltage power supply board (TLHV/OLHV).
- c) Disconnect all the cables 3 and 4 from high-voltage power supply board (TLHV/OLHV) and dismount high-voltage power supply board.



Service Caution:

The High Voltage Power Supply PCB in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed. with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

Caution:

Note the following when assembling the high-voltage power supply board:

- Mount the high-voltage power supply board with Cover-top assembly removed or open.
- Take care that cable 3 will not interfere with the paper sensor exit when it is connected.

(2) Reassembly procedure

Reverse the disassembly procedures.

Disassembly

4.1.3.11 Holder Assembly

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Dismount the Bracket-Package.
- c) Dismount the Holder-Paper.
- d) Unlock and dismount the Guide-Paper (L) and Guide Paper (R).
- e) Remove the claw and dismount Spring-Holder.
- f) Remove the claw and dismount Spring-Stopper.



Reverse the disassembly procedures.

4.1.3.12 Plate-Side M and Gear-Idle

(1) Disassembly procedure

Perform parts replacement while making the base frame assembly stand so that Plate-Side M will face upward.

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Remove two screws 1 and two claws, then dismount Plate-Side M.
- c) Dismount Plate-Earth, two idle gears P, idle gear M, idle gear 3R, idle gear 2R, idle gear heat idle gear R, and gear R.

(2) Reassembly procedure

Reverse the disassembly procedure.



(CP4.1 Fig. 27)

4.1.3.13 Registration Roller

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Move registration roller to the right and dismount it by lifting. (Two registration bearings also come off at the same time. Take care not to lose them.)



(2) Reassembly procedure

Reverse the disassembly procedures.

4.1.3.14 Drive Shaft E (Eject) and Eject Roller

(1) Disassembly procedure

c)

d)

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Remove two screws 1 from Cover Heat Assembly (section 4.3.7), lift the heat assay, and dismount idle gear E (A) and idle gear E (B).
 - Unlock and dismount drive shaft E (Eject). Dismount two eject rollers. Eject roller Screw 1 Screw 1 (CP4.1 Fig. 29)

(2) Reassembly procedure

Reverse the disassembly procedures.

4.1.3.15 Heat Assembly

This section explains how to dismount the heat assembly and parts in the assembly.

(1) Disassembly procedure

Dismounting the heat assembly

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Dismount the high-voltage power supply board. (See Section 4.1.3.10)
- c) Remove NCU-Board with two screws.
- Remove Bracket-Package with three screws, then disconnect Cable-Flat from connector on R44-Board (M-CNT). (See Section 4.1.3.19)
- e) Pull out the Holder-Assy. (See Section 4.1.3.11)
- f) Disconnect connector 2, remove two screws 1, and dismount the heat assembly.



(2) Reassembly procedure

Reverse the disassembly procedures

(CP4.1 Fig. 31)

4.1.3.16 Pressure Roller B (Back Up Roller)

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Dismount the high-voltage power supply board. (See Section 4.1.3.10)
- c) Dismount heat assembly. (See section 4.1.3.15)
- d) Dismount the engagement with the left ground, then pressure roller B. (Two bearing BUs and two bias springs also come off at the same time.)



(2) Reassembly procedure

Reverse the disassembly procedures

4.1.3.17 Hopping Shaft Assembly

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Dismount the high-voltage power supply board. (See Section 4.1.3.10)
- c) Dismount the paper holder assembly. (See Section 4.1.3.11)
- d) Dismount the sheet guide. (See Section 4.1.3.12)
- e) Dismount the side plate M. (See Section 4.1.3.12)
- Raise up roller holder, slide hopping shaft assembly, and dismount roller holder and hopping roller. (Knock pin also comes off at the same time. Take care not to lose it.)
- g) Draw out hopping shaft assembly to the right and dismount magnet H.

(2) Reassembly procedure

Reverse the disassembly procedures



4.1.3.18 Paper Sensor E, Paper Sensor Exit and Toner Sensor Assembly

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-MAIN).
- b) Dismount the high-voltage power supply board. (See Section 4.1.3.10)
- c) Dismount the paper holder assembly. (See Section 4.1.3.11)
- d) Dismount the heat assembly. (See Section 4.1.3.15)
- e) Dismount the drive shaft E. (See Section 4.1.3.14)
- f) Dismount the paper sensor E.
- g) Dismount the paper sensor exit.
- h) Dismount the toner sensor assembly.

(2) Reassembly procedure

Reverse the disassembly procedures



4.1.3.19 Printer Unit

(1) Disassembly procedure

- a) First, carry out procedure up to the point of the 4.1.3.2 (ID Unit, Cover-Rear, Cover-NCU and Cover-Main).
- b) Remove Bracket-Package with three screws, then disconnect Cable-Flat from connector on R44-Board (M-CNT).
- c) Dismount the high-voltage power supply board.(See Section 4.1.3.10)
- d) Disconnect cable 1 and 2 from connector on Board-R44 (M-CNT), and disconnect cable 3 from Connect on Power Supply Unit.
- e) Remove the Printer Unit by removing three screws.
- f) Detach the four clamps from underneath, push inward on the top two tabs while lifting up to remove the Holder-Assy.



Section 5: Adjustments

5.1 Setting of LED Print Head Drive Time

- Adjustment point: Technical Function No. 27.
- * To bring the LCD up to Technical Function, press SELECT FUNCTION key once, COPY key twice and "2" key (In case of no message in memory).
- *Note:* When the rank marking of the replaced LED print head (new part) is the same as that of the used LED print head (old part), you do not always have to set the LED print head drive time.

Adjustment:

- 1) Turn AC power ON.
- 2) Setting of LED print head should be according to the Table 5.1.1 below:

Settings of Technical Function No. 27 (Table 5.1.1)

Satting	MSB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Setting		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
		0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
Rank	•	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
Marking	LSB	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
291 - 31	3										*																						
269 - 29	0											*																					
248 - 26	8												*																				
229 - 24	7													*																			
212 - 22	8														*																		
196 – 21	1															*																	
181 – 19	5																*																
168 – 18	0																	*															
155 – 16	7																		*														
143 - 15	4																			*													
132 - 14	2																				*												
122 – 13	1																					*											
113 – 12	1																						*										
105 - 11	2																							*									
100 - 10	4																								*								

Notes:

The luminous intensity ranking is determined by the first, second and third digits from the right in the LED print head (i.e. in ---XX<u>122</u>, 122 is the luminous intensity ranking.)

This adjustment should be made whenever the main control board (R44 PCB) or the LED Head are replaced.

In addition, this setting should be verified on initial unit install, or whenever firmware is updated.

5.2 Confirmation Items

The clock frequency and power voltage of the machine are not possible to adjust in the field. However, their measurement procedures are described here for confirmation of clock frequency and each voltage.

1) Clock Frequency

•	Measurement point:	R44 board; LC2-3 pin and ground terminal
•	Specification:	$20.000 \text{ MHz} \pm 50 \text{ PPM}$

Note: If the counter does not read with 20.000 MHz, replace with a new crystal oscillator (X1).

2) +5V DC Voltage (SUB)

•	Measurement point:	R44 board; CN7-12 pin and ground terminal
•	Specification:	$+5V \pm 4\%$ (+4.5V to 5.2V)

3) +5V DC Voltage

•	Measurement point:	R44 board; CN7-1, 2 & 3 pin and ground terminal
•	Specification:	$+5V \pm 4\%$ (+4.5V to 5.2V)

4) –8V DC Voltage

•	Measurement point:	R44 board; CN7-9 pin and ground terminal
•	Specification:	-15V to -6.5V

5) +30V DC Voltage

•	Measurement point:	R44 board; CN7-8 pin and ground terminal
•	Specification:	+24V to +45V

6) Contact Image Sensor Output (SIG signal)

• Measurement point:

Specification:

Test chart:

•

•

R44 board; CN5-1 pin and ground terminal A waveform sample is shown below. White sheet (A4 size)



Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

5.3 Measurement

- 1) Remove the AC power cord.
- 2) Carry out the disassembly procedure up to Cover assembly-top, Frame assembly-scanner, and Unitprinter.

(Refer to the Mechanical Disassembly and Reassembly in Chapter 4-1.)

- 3) Connect extension cables to the R44 board.
- 4) Connect the frequency counter (for clock frequency), digital voltmeter (for power voltage) and Oscilloscope (for SIG signal). See figure 5.2.1.
- 5) Reconnect the AC power code.
 Main power supply is set to "ON" (PC1 ON) by loading the document on the cover-top. (except +5V SUB)
- 6) Measurement
- 7) Remove the AC power code.
- 8) Reverse the disassembly procedures.



Figure 5.2.1 Measurement Points on R44 Board

Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

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Section 6: Cleaning and Maintenance

6.1 Consumables Replacement

The user (or service personnel) is required to replace the following items as consumable parts.

User Replaceable Items Life

No.	Part name	Expected Use Before Replacement	Reference Item No. in Fig.6.1.1
1	Toner Cartridge	 1250 sheets/cartridge for OKIOFFICE 44 (ITU-T document sample No.1) (For the second or later cartridge to a new I/D Unit) * The first toner cartridge installed in a new I/D unit will have a decreased yield. 	(1)
2	I/D Unit (Image drum unit)	4,500 sheets: 1 page/job, 8,000 sheets: 3 page/job for OKIOFFICE 44	(2)

Service Parts Life

No.	Part name	Expected Use Before Replacement	Reference Item No. in Fig.6.2.1
1	Fuser Unit	30,000 sheets for OKIOFFICE 44.	(3)
2	Separation Rubber	The Separation Rubber will not require replace- ment for at least 30,000 documents fed.	(4)

Consumables Diagram (Figure 6.1.1)



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Others

Reliability Table (6.1.1.)

No.	Item	Specifications
1	Document feeder	Jam occurrence and misfeeds in the automatic document feeder will be less than one in 500 operations for all specified documents.
2	Recording paper feeder	Jam occurrence in the automatic paper feeder will be less than one in 1,500 operations and misfeeds will be less than one in 500 operations for all specified recording paper.
3	Battery	The OKIOFFICE 44 does not have a battery.
4	MTBF	The MTBF for the overall machine will exceed 3,000 hours of actual operation.
·		The MTBF will be measured at a confidence level of 95% under controlled laboratory conditions.
		The MTBF will be based on 50% transmit and 50% receive activities.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the battery manufacturer. Dispose of used batteries according to the battery manufacturer's instructions.

Do not open the battery, dispose of in fire, or short circuit. The battery may explode, leak, or get hot. This may cause personal injury.

6.2 Preventative Maintenance

The recommended preventative maintenance of the following items should be performed twice a year (once a year is the absolute minimum) after the machine is installed. Table 6.2.1 describes the preventative maintenance procedures.

Roller-scan		
	Clean with water.	(1)
Roller-ADF	Clean with water. If the surface of this roller becomes dirty and the dirt causes misfeeding of documents, perform this cleaning.	(2)
Contact Image Sensor	Check for accumulation of paper dust, etc. Clean with ethyl alcohol if necessary.	(3)
Separation Rubber	Clean with water. If this rubber is worn out, replace it. (once a year)	(4)
LED print head	Clean the surface of the head by moving the tissue paper back and forth several times.	(5)
Printer unit	Clean the inside of the printer unit by using a cloth moisturized with cold water.	
Lubrication	Apply silicone oil to the following parts: a. Gears (once a year)	
Cleaning	Remove materials that have fallen from outside, if any.	
	Roller-ADF Contact Image Sensor Separation Rubber LED print head Printer unit Lubrication Cleaning	Roller-ADFClean with water. If the surface of this roller becomes dirty and the dirt causes misfeeding of documents, perform this cleaning.Contact Image SensorCheck for accumulation of paper dust, etc. Clean with ethyl alcohol if necessary.Separation RubberClean with water. If this rubber is worn out, replace it. (once a year)LED print headClean the surface of the head by moving the tissue paper back and forth several times.Printer unitClean the inside of the printer unit by using a cloth moisturized with cold water.LubricationApply silicone oil to the following parts: a. Gears (once a year)CleaningRemove materials that have fallen from outside, if any.

Preventative Maintenance (Table 6.2.1)

Preventative Maintenance Diagram (Figure 6.2.1)



6.3 Printer Counter Display/Clear (User)

1. Purpose

A user can clear the image drum counter (only when "Change Drum Soon" message is displayed) and also check some of the other counters (such as the print counter, scan counter) by using the \leftarrow key or \rightarrow key.

2. Procedure

The following example shows the menu flow when the service bit has been set OFF.

Operations:

The display shows:



Note: Clear Operation

After the drum counter is cleared, the warning message will disappear.

For further information regarding the "CHANGE DRUM SOON" message, refer to the Hardware Handbook (user's documentation).

6.4 Printer Counter Display/Clear (Service)

1. **Purpose**

The service personnel can clear and check the following counters.

- Image Drum •
- Toner •
- Image Drum (Total)
- Print
- Scan

Note:

DRUM (T) count is used to display the total in-use life of the machine. This counter cannot be cleared.

2. Procedure

The following example shows the menu flow when the service bit has been set ON.

Operations:

The display shows:



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6.5 Self-Diagnosis Test

- **1. Purpose** To check ROMs, RAMs and printing function.
- 2. Procedure

Operations:

- To begin, press SELECT FUNCTION key once and COPY key twice in the standby mode. (With no message in the memory)
- Press ← key.
- Press ← key.
- Press ← key to activate self-diagnosis.

(Figure 6.5.1 shows the printed data.)

The display shows:





	CPU-ROM	VERSION	AA00	
		HASH	OK	DACD
	CPU-RAM		OK	
	PROG1	VERSION	AA00	
	PROG1	HASH	OK	3142
	PROG2	VERSION	AA00	
	PROG2	HASH	OK	1234
	LANGUAGE	VERSION	LL10	
		HASH	OK	3F06
	DEFAULT	VERSION	DD10	
		HASH	OK	A683
1	RAM1		1M	OK
2	OPT-RAM1		1M	OK
2	OPT-I/F		PARA	LLEL
	DEFAULT 1	TYPE	01	07/01/96

*1 marked item is shown for condition of all RAM except EXCEED RAM.

*2 marked items are options.

Explanation of Self-Diagnosis Test Items

a)	Pattern 1	All white (32 lines)	
b)	Pattern 2	Stair pattern (32 lines in each step)	
c)	Pattern 3	All black (32 lines)	
d)	Pattern 4	Alternate printing of black dots and	d white dots (32 lines x 2)
e)	Pattern 5	All white (32 lines)	
f)	CPU-ROM VERSIO CPU-ROM	DN In case CPU-ROM is good. In case CPU-ROM is not good.	HASH OK HASH NG
	CPU-RAM	In case CPU-RAM is good. In case CPU-RAM is not good.	OK NG
g)	PROG1 VERSION PROG1	In case PROG1 is good. In case PROG1 is not good.	HASH OK HASH NG
h)	PROG2 VERSION PROG2	In case PROG2 is good.	HASH OK
i)	LANGUAGE VERS LANGUAGE	SION In case LANGUAGE is good. In case LANGUAGE is not good.	HASH OK HASH NG
j)	DEFAULT VERSIO DEFAULT	DN In case DEFAULT is good. In case DEFAULT is not good.	HASH OK HASH NG
k)	RAM1	In case RAMi is good. In case RAMi is not good. ("1" is RAM's number)	OK NG
1)	OPT-RAM1	In case OPT-RAM1 is good. In case OPT-RAM1 is not good.	OK NG
m)	OPT-I/F	In case OPT-I/F is good. In case OPT-I/F is not good.	PARALLEL (ALL BLANK)

• Figure 6.5.1 shows a printed sample.

NG = No Good

6.6 Sensor Calibration Test

1. Purpose

To adjust the linearity of the contact image sensor output levels.

NOTE:

After adjusting the levels, check the copy quality of the unit. Using the unit, make copies of test charts or known good documents.

Operations:

The display shows:

- To begin, press SELECT FUNCTION key once and COPY key twice in the standby mode. (with no message in the memory)
- Press ← key.
- Press \leftarrow key.



To SENSOR CALIBRATION

continued on the next page

Operations:

The display shows:



NOTE:

After performing the adjustment, make copies of test charts or known good documents. Compare the copies to the originals to evaluate the copy print quality.

6.7 LED Test

1. Purpose

To check the operation of the LEDs on the operator panel.

2. Procedure

Operations:

The display shows:

 $NO(\rightarrow)$

TECH. PROGRAMMING ?

 $YES(\leftarrow /1-4)$

 \leftarrow

- To begin, press SELECT FUNCTION once and COPY key twice in the standby mode. (with no message in memory)
- 1:LOCAL TEST • Press \leftarrow key. $YES(\leftarrow)$ NO (\rightarrow / 1 – 4) \leftarrow • Press ← key. 1:SELF DIAGNOSIS $YES(\leftarrow)$ NO(\rightarrow /1-8) 3 • Enter "3". 3:LED TEST $\texttt{YES}(\leftarrow)$ NO(\rightarrow /1-8) • Press \leftarrow key. 3:LED TEST TESTING Observe and check that LEDs are blinking. • - All LEDs will be sequentially turned on for one second in the following order.

(Start)

\longrightarrow ALARM \rightarrow DARK \rightarrow NORMAL \rightarrow LIGHT \rightarrow STD \rightarrow FINE -	1 second
all LED off \leftarrow all LED on \leftarrow PHOTO \leftarrow EX.FINE \leftarrow	interval.

• To end the test, press STOP key.

6.8 Tone Send Test

1. Purpose

To send the G3 tonal frequencies to the line.

2. Procedure

Operations:

 To begin, press SELECT FUNCTION key once, COPY key twice and ← key twice. (with no message in memory)

• Enter "4".

- Press ← key.
- After the checking, press STOP key or end of the transmission.

The display shows:

1:SELF DIAGNOSIS



*1: When the display indicates "2100Hz or 1100Hz SENDING", you may extend the tone send test for 30 more seconds by pressing the START key.

6.9 High-speed Modem Send Test

NOTE:

This procedure requires coordination with technical staff at the remote location.

In addition, both locations must have a telephone handset connected to each machine.

1. Purpose

To check the telephone line quality in combination with a remote station programmed to the highspeed modem receive test mode.

2. Procedure

Operations:

The display shows:

1:SELF DIAGNOSIS

- To begin, press SELECT FUNCTION key once, COPY key twice and ← key twice. (with no message in memory)
- Enter "5".
- Press ← key.
- Set MODEM rate by \rightarrow key.
- Press ← key. All zero data will be continuously sent.
- After the test, press STOP key.





*1: \rightarrow 33.6K (OKIFAX 5500/5600) \rightarrow 28.8K (OKIFAX 5500/5600) \rightarrow 14.4K \rightarrow 12.0K \rightarrow 9.6KT (V.17) \rightarrow

 $\leftarrow 0.3\mathrm{K} \leftarrow 2.4\mathrm{K} \leftarrow 4.8\mathrm{K} \leftarrow 7.2\mathrm{K} (\mathrm{V}.29) \leftarrow 9.6\mathrm{K} (\mathrm{V}.29) \leftarrow 7.2\mathrm{KT} (\mathrm{V}.17) - 10.4\mathrm{K} + 10.$

33.6K and 28.8K are skipped for the MODEM without 33.6/28.8K bps function.

High-speed Modem Send and Receive Test Diagram (Figure 6.9.1)



Cleaning and Maintenance
6.10 High-speed Modem Receive Test

NOTE:

This procedure requires coordination with technical staff at the remote location.

In addition, both locations must have a telephone handset connected to each machine.

1. Purpose

To check the telephone line quality in combination with a remote station programmed to the high-speed modem send test mode.

2. Procedure

Operations:

The display shows:

- To begin, press SELECT FUNCTION key once, COPY key twice and ← key twice. (with no message in memory)
- Enter 6.
- Press ← key.
- Set MODEM rate by \rightarrow key.
- Press ← key.
- After the test, press STOP key.



*1: \rightarrow 14.4K \rightarrow 12.0K \rightarrow 9.6KT (V.17) \rightarrow 7.2KT (V.17) \rightarrow 9.6K (V.29) \rightarrow 7.2K (V.29) \rightarrow 4.8K \rightarrow 2.4K \rightarrow

6.11 MF Send Test

1. Purpose

To send the multi-frequencies of tone dialling to the line.

2. Procedure

Operations:

 To begin, press SELECT FUNCTION key once, COPY key twice and ← key twice. (with no message in memory)

The display shows:



- Enter 7.
- Press ← key.
- Press 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, * or # key. MF tone corresponding to the key pressed will be sent until the next key is pressed.

• After the test, press STOP key. Frequencies of MF tones are as follows:

1	697 Hz/1209 Hz
2	697 Hz/1366 Hz
3	697 Hz/1477 Hz
4	770 Hz/1209 Hz
5	770 Hz/1366 Hz
6	770 Hz/1477 Hz
7	852 Hz/1209 Hz
8	852 Hz/1366 Hz
9	852 Hz/1477 Hz
0	941 Hz/1366 Hz
*	941 Hz/1209 Hz
#	941 Hz/1477 Hz

6.12 Tone (TEL/FAX)

1. Purpose

To check the pseudo-ring back tone of TEL/FAX automatic switching.

2. Procedure

Operations:

The display shows:

- To begin, press SELECT FUNCTION key once, COPY key twice and ← key twice. (with no message in memory)
- Enter 8.
- Press \leftarrow key.
- After the test, press STOP key.



6.13 Protocol Data Dump Printing

NOTE:

Technical Function 1 (Service Bit) must be set to ON to print the Protocol Data Dump.

- 1. **Purpose** To analyze the transmitted/received G3 protocol signals.
- 2. Procedure
 - Manual printout of the last communication.

(a) Manual printout

Operations:

The display shows:

- Verify that Technical Function 1 (Service Bit) is set to ON. Then, press SELECT FUNCTION key.
- Press one-touch key No.6
- Enter 5.
- Press ← key.



Sample Protocol Data Dump (Figure 6.13.1)

Sample is from the transmitter side.

PROTOCOL DUMP

07/01/96 09:21 ID=OKI SHIBAURA DATE TIME S.R-TIME DISTANT STATION ID MODE PAGES RESULT 07/0109:16 00'46" OKI HONJO CALLING 01 OK 0000 FCE ТΧ C2 C4 FD F4 DF 04 02 01 31 RX 21 ТX RX TΧ DTS DTC 00 00 00 00 00 00 00 00 00 00 00 00 00 00 DCS 00 00 00 00 00 00 00 00 00 NSF NSS FF C8 C4 00 00 84 80 30 40 E4 10 40 B8 39 20 0C 0C 0C 0C 30 82 4A AA 82 42 92 12 CA 04 92 D2 F2 00 00 00 00 NSC 00 00 00 00 00 00 00 00 00 00 00 JM CM 00 00 00 00 00 00 00 00 RX DIS DTC DCS NSF FF C0 04 00 00 84 80 08 40 F4 10 40 F9 7D 20 0C 0C 0C 0C 0C 90 F2 52 72 F2 12 04 92 D2 F2 80 F0 80 00 00 00 00 00 00 NSS 00 00 00 00 NSC 00 00 00 00 00 00 CM лти 00 00 00 00 00 00 00 00 00 00 00 00 V 34 SYMBOL RATE(SPS) = 3429 DATA SIGNALLING RATE(BPS) = 228 RSEULT 00 TΧ PX RECEIVED CSI/CIG/TSI FF C0 02 0C 0C 2C AC 04 4C 4C 04 AC 9C 2C 0C 04 04 04 04 04 04 04 04 04 TRANSMITTED CSI/CIG/TSI FF C0 C2 2C CC 4C 8C 04 6C EC 2C AC 04 CC 0C 04 04 04 04 04 04 04 04 04

Data Analysis (Figure 6.13.2)

The printed out data permits to analyze G3 facsimile communication protocol signals between two facsimile machines. Figure 6.13.2 shows the result of an analysis on the printed data referring to Figure 6.13.1 (Protocol Data Dump).



Facsimile Control Field Conversion Table

Table 6.14.1 shows all Facsimile Control Field (FCF) signals which are needed to analyze the printed out protocol dump data.

Some signals have two different hexadecimal codes in accordance with the calling party or called party.

Abbreviation	Hex.	Codes	Description of function		
NSF	04		Non-Standard Facilities		
CSI	02		Called Subscriber Identification		
DIS	01		Digital Identification Signal		
NSC	84		Non-Standard Facilities Command		
CIG	82		Calling Subscriber Identification		
DTC	81		Digital Transmit Command		
NSS	44	C4	Non-Standard Set-Up		
TSI	42	C2	Transmitting Subscriber Identification		
DCS	41	C1	Digital Command Signal		
CFR	21	A1	Confirmation to Receive		
MCF	31	B1	Message Confirmation		
FTT	22	A2	Failure to Train		
MPS	72	F2	Multi-Page Signal		
EOM	71	F1	End of Message		
EOP	74	F4	End of Procedure		
RTP	33	B3	Retrain Positive		
RTN	32	B2	Retrain Negative		
PIP	35	B5	Procedure Interrupt Positive		
PIN	34	B4	Procedure Interrupt Negative		
PRI-MPS	7A	FA	Procedure Interrupt-MPS		
PRI-EOM	79	F9	Procedure Interrupt-EOM		
PRI-EOP	7C	FC	Procedure Interrupt-EOP		
DCN	5F	DF	Disconnect		
ECM			Error Correction Mode		
CRP	58	D8	Command Repeat		
CTC	48	C8	Continue to Correct		
CTR	23	A3	Response to Continue to Correct		
EOR	73	F3	End of Retransmission		
ERR	38	B8	Response to End of Retransmission		
FCD	60		Facsimile Coded Data		
PPS	7D	FD	Partial Page Signal		
PPR	3D	BD	Partial Page Request		
RCP	61		Return to Control for Partial Page		
RNR	37	B7	Receiver not Ready		
KR	76	F6	Receiver Ready		

Table 6.14.1FCF Signals Conversion Table

6.14 System Reset

1. Purpose

To clear or initialize the following data to factory default settings.

- (a) Location data
 - One Touch Locations Auto Dial Locations Group Dial Programming
- (b) Configuration data (default) **User Functions Technical Functions**
- Procedure 2.

Enter 3.

•

Operations:

The display shows:

• To begin, press SELECT FUNCTION key, TECH. PROGRAMMING COPY key twice, \leftarrow key and \rightarrow key. $\texttt{YES}(\leftarrow/1-4)$ $NO(\rightarrow)$ (With no message in the memory) 3 3:SYSTEM RESET $YES(\leftarrow)$ NO(\rightarrow /1-4) \leftarrow 1:ALL DATA CLR $YES(\leftarrow)$ NO(\rightarrow /1-3) \leftarrow \rightarrow Note: ALL DATA CLEAR is to clear or initialize (a) to (b). 2:LOCATION DATA CLR $YES(\leftarrow)$ NO (\rightarrow /1-3) 3 \leftarrow \rightarrow 3:CONFIG. DATA CLR $YES(\leftarrow)$ NO(\rightarrow /1-3) \leftarrow \rightarrow 4 ARE YOU SURE ? $\texttt{YES}(\leftarrow)$ NO (\rightarrow) \rightarrow \leftarrow Data CLR CLEAR End of data clear

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6.15 Service Code

- 1) The service code can be printed on Activity Report to recognize the result of each communication.
- 2) The activity report indicates the code "0000", should a communication terminates on normal status as a service code.
- 3) The activity report indicates one of the codes of "90XX", should a communication terminates on abnormal status, as an error code.
- 4) Besides the above codes of "90XX", the following codes are prepared for identifying an abnormal status in details.
- -21XX: For error codes in Group 3 transmission phase B
- -29XX: For error codes in Group 3 reception phase B
- -39XX: For error codes in Group 3 reception phase C
- -41XX: For error codes in Group 3 transmission phase D
- -49XX: For error codes in Group 3 reception phase D

Service Code List [Table 6.15.1] (1/2)

Code	Description
0000	Successful end of communication
1080	STOP key has been pressed while calling a remote fax
1042	Busy tone detected
14C0	Dial tone not detected
14C1	Line current not detected
14C2	Calling-and-waiting for line connection time out
14C3	Dialling limit time out
2140	Becaived signal other than DIS/DTC
21A0	Contents of received DIS/DTC are faulty
21/1	Each time there is no response from the receiver for sending TCE three times
21A3	TCE fall back is not possible
21A4	Pagained signal other than the desired signal in response to conding TCE
21AJ	Transmitter tried to transmit by confidential transmission function but the remote fay has not the
2100	capability of confidential reception.
21B1	Transmitter tried to transmit by Broadcast Initiate function but the remote fax has not the broadcast capability.
21C0	In Closed Network setting, TSI/CIG/CSI is either not received or, if received, it is not authorized one.
21E0	Contents of CM/JM are faulty at transmission side.
21E1	Phase 2 time out at transmission side.
21E2	Phase 3 time out at transmission side.
21E3	Training time out of phase B control channel at transmission side.
29B6	In Confidential Reception, the mail box specified by transmitter is not set up and open.
29C1	In closed Network setting, TSI/CSI is either not received or, if received, it is not authorized one.
29E0	Contents of CM/JM are faulty at receive side.
29E1	Phase 2 time out at receive side.
29E2	Phase 3 time out at receive side.
29E3	Training time out of phase B control channel at receive side.
39A0	The number of continuous-error lines have exceeded the specified limit.
39A1	The number of random-error lines have exceeded the specified limit.
39B0	Memory Overflow has occurred while receiving in memory.
39B1	Memory Overflow occurred during Confidential Reception.
39C0	DECODER hardware error. (cannot reproduce picture)

Service Code List [Table 6.15.1] (2/2)

Code	Description
39C1	DECODER hardware error. (cannot detect end of picture)
41A0	There was no response each time in response to the three post commands.
41A6	Received signal other than the desired signal in responce to the post command.
41A9	Fall back in Phase C is not possible.
41C8	T5 time out.
41CE	Received negative signal in response to the post command.
41E0	Control chanel data. Time out in Phase D.
49CC	Received signal other than the desired signal in response to RNR.
49CD	Command not received in response to RNR.
49E0	Data time out of
49E1	Fall back in Phase C is not possible.
60A0	Broadcast completed.
6803	DCN received in response to NSF/DIS without sending a single picture.
9080	Pressed STOP key.
9081	T1 time out.
9082	T2 time out.
9083	T3 time out.
9084	No recording paper.
9087	Document jam.
9088	60-minute or 70-minute time out.
9089	Document length has exceeded its maximum limit.
908E	Recording paper jam.
9090	Received DCN.
90B1	Picture memory hash error.
90C1	Document removed prior to transmission.
90C6	Normal or error-free lines not received for 13 seconds.
90C7	Error frame protocol received.
90D4	Hardware error in transmission system. (response of modem not detected)
90D5	ENCODER error. (Picture storage fault)
90F0	Option (2'nd tray) error.
90F1	Fan motor error.
90F2	Fuser error.
90F3	Recording paper size error.
90F4	Cover open.

Cleaning and Maintenance

OKIOFFICE 44 Serv Man, P/N 59276801 Rev. 2 This page was intentionally left blank.

Section 7: Troubleshooting

7.1 Overview

This chapter contains:

- (a) Troubleshooting flow charts related to general operations
- (b) Troubleshooting flow charts by test operations
- (c) Troubleshooting flow charts placing an emphasis on mechanical portions

Section

No.	Name of Flow Chart	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
7.1.1	Overall troubleshooting flow chart	Х	Х	
7.1.2	No LCD operation	Х		
7.1.3	ALARM LED on	Х		
7.1.4	Printing test failure	Х	Х	
7.1.5	No local copy	Х	Х	
7.1.6	Auto dial failure	Х		
7.1.7	Transmission problem	Х		
7.1.8	Auto reception failure	Х		
7.1.9	Reception problem	Х		
7.1.10	Sensor calibration test		Х	
7.1.11	LED test		Х	
7.1.12	Tone send test		Х	
7.1.13	High-speed modem test		Х	
7.1.14	MF (Tone) send test		Х	
7.1.15	Tone (TEL/FAX) send test		Х	
7.1.16	No acoustic line monitor	Х		
7.1.17	Power supply unit	Х		
7.1.18	No document feeding			Х
7.1.19	Multiple document feeding			Х
7.1.20	Document skew			Х
7.1.21	Document jam			Х
7.1.22	Printer unit			

Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

7.1.1 Overall Troubleshooting Flow Chart

NOTE: R44 Board for OKIOFFICE 44 is designated as the MCNT Board in this flowchart.



7.1.2 No LCD Operation



7.1.3 ALARM LED On





"PRINTER ALARM i" will be shown as follows: PRINTER ALARM 1 to PRINTER ALARM 4.

7.1.4 Printing Test Failure





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7.1.6 Auto Dial Failure



7.1.7 Transmission Problem

This section explains how to localize the cause of problems occurred after completion of connection with a remote station.







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7.1.9 Reception Problem

This section explains how to localize the cause of problems occurred after completion of connection with a remote station.





Even if the high-speed modem test results in success, 300 bps signal route remains unchecked. In that case, the most suspected unit is R44 board.

OKIOFFICE 44

7.1.10 Sensor Calibration Test





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7.1.13 High-speed Modem Test





7.1.14 MF Send Test



7.1.15 Tone (TEL/FAX) Send Test


7.1.16 No Acoustic Line Monitor

There are two source routes of acoustic line monitor:

- (a) General communication signal
- (b) DP pulse signal



Note: This section places an emphasis on troubleshooting of mechanical portions. Therefore, it is recommended to replace the R44 Board first and then , if not solved, follow this flow chart.



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7.1.19 Multiple Document Feeding

Definition:



Multiple document feeding. Multiple documents are not separated and they are fed at the same time during one feeding operation.

7.1.20 Document Skew







7.1.22 Printer Unit

7.1.22.1 Precautions

- 1. Points to check before correcting image troubles
 - (1) Is the printer being run in proper ambient conditions?
 - (2) Have the supplies (toner) and the routine replacement part (EP unit) been replaced properly?
 - (3) Is the recording paper normal?
 - (4) Has the EP unit been loaded properly?
- 2. Tips for correcting image troubles
 - (1) Do not touch, or bring foreign matter into contact with the surface of the drum.
 - (2) Do not expose the drum to direct sunlight.
 - (3) Keep hands off the fuser unit as it is heated during operation.
 - (4) Do not expose the drum to light for longer than 5 minutes at room temperature.





Category	LCD message display	Trouble	Troubleshooting flow chart number
Cover open	14:14 [FAX] COVER OPEN	The cover (cover-top) is open.	1
Image drum alarm	14:14 [FAX] CHANGE DRUM	Warning message to replace EP unit because of its life.	2
	PRINTER ALARM 2[TEL] PLEASE CONFIRM	Engine controller error	3
Engine errors			
	PRINTER ALARM 4[TEL] PLEASE CONFIRM	Fuser unit thermal error	4
Recording paper/ jam error	PAPER OUT/JAM [FAX] REPLACE PAPER	Recording paper feed jam, transport jam, ejection jam, recording size error	5
Paper cassette request	PAPER OUT/JAM [FAX] REPLACE PAPER	No recording paper tray or no recording paper	6
Daily status	TONER LOW [FAX] REPLACE TONER CART.	Toner is running short. Note: No toner memory RX is ON.	
	14:14 [FAX] REPLACE TONER CART.	Toner is running short. Note: No toner memory RX is OFF.	

1: Top Cover is Open



2: Replace Image Drum Message



3: Engine Controller Error



4: Fuser Unit Thermal Error



5: Paper Jams



6: No Paper Tray or No Paper



Action Items (Printer Unit-LCD Message) Table 7.1.22.2

No.	ACTION		ACTION	
1	Check R44 Board.		Check connection between the PWU and the fuser assembly,	
2	Check PWU-HV Board		heater, thermostat.	
	cover open switch, cover open switch connection.	9	Check PWU.	
	Check R44 Board.	10	Check Sensor-E, magnet-H,	
3	Return to Section 7.1.		hopping roller, pulse motor, R44 Board, Action of Idle gear-P.	
4	Replace the Image Drum (EP) Unit.		Check Gear-T,	
5	Check installation of R44 board,		K44 Board, PWU-HV Board.	
	rower suppry onit board.	12	Check exit sensor lever,	
6	Check R44 Board.		PWU	
7	7 Check thermister (resistance of about 200 kilo ohms at room temperature and about 140 kilo ohms at high temperature), POWER SUPPLY UNIT.		Check R44 Board.	
			Check PWU, R44 board.	

7.1.22.3 Image Problems Table

Abnormal Symptom	Reference Figure	Troubleshooting Flow Chart No.
Images are light or blurred as a whole.	Fig. A	7
The blank background is smeared.	Fig. (B)	8
Blank paper is output.	Fig. ©	9
Black belts or black stripes in vertical direction.	Fig. D	10
Periodic abnormal printing.	Fig. (È)	11
Some parts not printed.		12
White belts or some white stripes in vertical direction	Fig. (F)	13
Poor fusing (Images are blurred or peeled off when touched by hands)		14

Sample Image Problems (Figure 7.1.22.1)



7: Light or Blurred Output



8: Smeared Background on Output



9: Blank Output



10: Vertical Black Stripes on Output



11: Evenly Spaced Marks on Output



12: Missing Print on Output



13: Vertical White Stripes on Output



14: Poor Fusing



Section 8: Dipswitch Settings

8.1 General Information

The OKIOFFICE 44 does not have any dipswitches.

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Appendix A: Board Descriptions

PREFACE

This appendix provides basic information concerning the electric section for the component-level maintenance of the OKIOFFICE 44. It includes such information which will help maintenance personnel to understand the circuit operations.

This appendix will also provide the reader information concerning the functions of units and the relationships among the units which will assist you in conducting unit-level maintenance.

Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

	DANGER
Do Not Touch !	You may be subjected to high-voltage electric shock by touching the following parts without an insulating material:
HIGH VOLTAGE	a. High-voltage unit
	b. Contact ass'y

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A1.1 Unit Configuration and Block Diagram

1. The unit configuration of the OKIOFFICE 44 is as follows:



OKIOFFICE 44/OKIFAX 4100 ASSEMBLY

Figure A.1.1.1 Unit Configuration of OKIOFFICE 44

- (1) Main control board (R44)
- (2) Network control unit (NCU)
- (3) PC interface board (CTR): option
- (4) Memory board (MEMO): option
- (5) Power supply unit (048 POW, OLHV/TLHV)
- (6) Operation panel board (04W)
- (7) Optional board
 - Telephone interface board (TEL)
 - Hook board (HOOK)

Board-CTR (PC Interface) (3)



OKI OFFICE44 Block Diagram Figure (A1.2.1)

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Block Diagram Abbreviations

A/D	:	Analog-to-digital converter
AMP	:	Amplifier
BATT	:	Battery
CNi	:	Connector number i
CPU	:	Central processing unit
D-MOTOR	:	Drum motor
DRV	:	Motor drive
DRAM	:	Dynamic random-access memory
EXSEED	:	Image proccessing gate array
FAN	:	Fan motor
FLASH	:	Flash memory
IOGA 3	:	Input output gate array
PCi	:	Photocoupler number i
POW.UNIT	:	Power supply unit
PSRAM	:	Pseudo-SRAM
R-MOTOR	:	Resist motor
RTC	:	Real time clock
S-MOTOR	:	Send motor
SRAM	:	Static random-access memory
X'tal	:	Crystal oscillator

A1.2 Function of Each Unit

The section describes the principal functions of the individual units of the OKIOFFICE44 electrical sections.

Figure A1.2.1 shows the pertinent block diagram.

Main Control (R44) Board

- CPU
 - Basic processor Scanning control Picture processing control Printing control SIO (Serial input/output) control
- IOGA (Input/output gate array) Scanning control Printing control Peripheral input/output control
- Flash memory (Instead of EP-ROM and SRAM)
- Memory storage for work area.
- DRAM
 - Memory storage for ECM operations, memory broadcast, delayed broadcast, etc.
- Back-up battery circuit
- Real-time clock IC
- Audio monitor circuit
- Contact image sensor control
- I EXSEED (For OKIFAX 5000 series) Image data processing
- SRAM (For OKIFAX 5000 series)
 - Memory storage for image picture data
- Supervision of the following external statuses: Presence of document on hopper
 - Presence of document at scanning position
- Send motor control
- Fan motor control
- Drum motor control
- Resist motor control
- Modem chip/Modem board (For OKIFAX 5500/5600)
- Modulation and demodulation for V.34 (for OKIFAX 5500/5600)
 Modulation and demodulation for V.33 and V.17
 Modulation and demodulation for V.29 and V.27 ter
 Modulation and demodulation for V.21
 Generation of single-frequency signals for tonal signals
 Detection of single-frequency tonal signals
 Generation of dual time multiple-frequency signals for tone dialing

Operation Panel Unit: O4W Board

- Supervision of switches on operation panel
- Control of LEDs on operation panel
- Control of LCD on operation panel
 - LED : Light-emitting diode
 - LCD: Liquid crystal display

NCU Board (UNC5)

- Conversion of receive data and receive signals to internal signal level
- Conversion of send data and send signals to external signal level
- Generation of dial pulses to telephone line
- Detection of ringing signal
- Detection of busy tone (conjunction with Modem unit)
- Detection of hook up signal
- Interface with telephone handset (option)
- Output of send data and send signals to telephone line
- Input of receive data and receive signals from telephone line

Power Supply Unit

048-POW (120V/230V), TLHV/OLHV Board for OKIOFFICE44

- Conversion of main alternating current to the following direct currents: +5V DC power supply
 +8V DC/-8V DC power supply
 +30V DC power supply
- Supplying of main alternating current to fuser unit
- Generation of medium voltages +300V, -300V, +400V, -450V and 0V
- Generation of high voltages -1.35 kV, -0.75 kV and +3.5 kV

Memory Board (Option)

• Memory storage for ECM operations, memory broadcast, delayed broadcast, etc.

CTR Board (PC Interface)

• Driver circuits

HOOK Board (Option)

• Hook switch circuit

TELU Board (Option)

This is contained within the optional handset.

• Speech network circuit Basic speech functions included.

A2.1 Signal Flow Explanation

Note: The OKIOFFICE 44 and OKIFAX 5000 series machines have very similar signal flows.

The differences are:

The one-line scanning processing speed of OKIFAX 5000 series is faster. The EXSEED (image processing LSI) and SRAM (dark/light level correction data) have been added to the OKIFAX 5000 circuits.

Copy Mode

Figure A2.1.1 shows the picture signal route in local copy mode.

One-line picture data is transferred to A/D converter (analog/digital converter) from the scanning unit (CIS: contact image sensor) as an analog data. After conversion from analog data to 6-bit digital data by A/D converter, the picture data is sent to DRAM (line memory) via IOGA by DMA (Direct Memory Access). Then the picture data is sent to IOGA again. Here, the picture data undergoes various kinds of picture processings (IOGA and CPU), and is converted to two-level binary data (black and white). The one-line binary data from IOGA is stored into DRAMs (page memory). When the data for one page has been stored in the DRAMs, the data is read out from the DRAMs and sent to IOGA. The data is converted into a serial data by the picture control of IOGA and transferred to the LED print head for printing as HDATA 0/1. Writing of data into the page memory is also possible during the printing operation.



Copy Picture Signal (Figure A2.1.1)
G3 Send Mode

Figure A2.1.2 shows the G3 send picture signal route

In the G3 mode, the data transfer route from the scan unit up to the DRAM is the same as in the copy mode described in (1).

The picture data for one-line is transferred from DRAM to CPU. The CPU performs the picture data processing (encode) for this picture data (FILLER, fill bits are inserted etc.) and again stores into the DRAM. The stored encoded data is output from DRAM to the MODEM under the control of CPU. After modulation, the picture signal "S" is sent to the NCU board as the transmission data. The transmission data "S" goes through the amplifier and is sent to the telephone line L1 and L2 via the transformer T1 as high speed signal.



G3 Send Picture Signal (Figure A2.1.2)

G3 Receive Mode

Figure A2.1.3 shows the G3 receive picture signal route

In the G3 mode, the high-speed picture signal arriving from the telephone line at L1 and L2 of NCU passes through the transformer T1 and the amplifier and is input to the MODEM as "R" signal. After demodulation by modem, the picture data is sent to CPU. The CPU performs the picture data processing (decode) for this picture data and stores into the DRAM. Then, the stored picture data is again written into DRAM (as a page memory) by the picture processing control of CPU. When the data for one page has been stored in the DRAM/P-SRAM, the data is read out from the DRAM and sent to IOGA. The picture data is converted into a signal data by the printer control of IOGA and transferred to the LED print head for printing as HDATA 0/1.



G3 Receive Picture Signal (Figure A2.1.3)

Board Descriptions

300 bps Send Mode

Figure A2.1.4 shows the 300bps send protocol signal route

In G3 communication, this is the route of the procedural control signals (pre-message, post-message phases etc.) at 300bps.

The protocol send data is read into DRAM in the sequence the contents of various data stored in the FLASH memory area in advance under the control of CPU. The contents of the frame has been edited on the DRAM by CPU and sent to MODEM via CPU. HDLC (high level data link control) frame of the data is structured by the modem and converted to serial data in synchrony with the modem's DCLK (data clock). After modulation, the protocol signal is output from "S" of the modem and sent to the telephone line L1 and L2 via the transformer T1 of NCU.



300 bps Send Signal (Figure A2.1.4)

300 bps Receive Mode

Figure A2.1.5 shows 300bps receive protocol signal route.

In G3 communication, this is the route of the procedural control signals (pre-message, post-message phases etc.) at 300bps.

The 300bps modulated signals received via the telephone line L1 and L2 of the NCU are sent from pin R to Pin RXA1 of the modem. After demodulation by the modem, the demodulated digital signals are sent to the CPU via the data bus from the modem. The data is read and decoded by the CPU and written into the DRAM. The written data is interpreted according to bit assignment of the binary procedural signals in the ITU recommendations. The successive modes of communication (for example, line density, encoding scheme, etc.) are determined.



300 bps Receive Signal (Figure A2.1.5)

Report Printing

This signal route describes the printing route of character data used to print Activity Report, Message Confirmation Report, etc.

The report data is read into DRAM in the sequence the contents of data stored in the FLASH memory in advance under the control of CPU. The contents of data is edited on the DRAM. The data is read out from the DRAM and sent to IOGA. The data is converted into a serial data by the picture control of IOGA and transferred to the LED print head for printing as HDATA 0/1.



Report Print Signal (Figure A2.1.6)

Memory Transmission

This signal route describes the memory transmission used in broadcast mode, delayed broadcast mode, etc.

The stored encoded data undergoes buffering, passes through CPU, MODEM and NCU and then sent out to the telephone line.

Memory Reception

This signal route describes the memory reception used in no-paper mode, no-toner reception, confidential mode, etc.

The encoded data received by the same route of (3) G3 receive mode undergoes the picture data processing and stored into memory (DRAM) as such. In case of printing, When the data for one page has been stored in the memory (DRAM), the data is read out from the memory and sent to IOGA. The printed data is converted into a serial data by the printer control of IOGA and transferred to the LED print head for printing as HDATA 0/1.

A3.1 R44 Circuit Diagram

A3.1.1 R44 Circuit Diagram)

1. Block diagram

The circuit diagram consists of the CPU, crystal oscillator circuit and reset signal generator.

Figure A3.1.1 shows the block diagram of CPU and the peripheral circuits.

- 2. Function
 - 1) Crystal oscillator circuit

X1 is a 20 MHz crystal oscillator. The output wave is fed to the CPU through pin 73 and 74.

CLK (20 MHz) signal output from pin 71 is used as the system clock and output to IC2. (IOGA3: input/output gate array).

2) CPU

CPU controls the following functions in addition to the basic processor.

- DMA (Direct Memory Access) control
- Interrupt procedure control
- A/D converter
- Bus state control
- Programmable pattern control
- 16 bit integrated timer pulse unit (ITU)
- Timing pattern control (TPC)
- Serial communication interface (SCI)



Related Signals of CPU (Figure A3.1.1)

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A3.1.2 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of an input/output gate array IC2 (IOGA3).

Figure A3.1.2 shows the related signals of IOGA3.

2. Functions

IOGA3 is a newly developed LSI for scanning and printing control of the OKIOFFICE 44.

IOGA3 contains the following functions:

- Scanning sensor control
 - Send motor control
- Various image data processing control for scanning data
- Strobe signals control for LED head
- Smoothing control for printing data
- Interface of the peripheral LSI, optional memory and CPU



Related Signals of IOGA (Figure A3.1.2)

A3.1.3 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of Flash memory, Mask ROM, DRAM, Real time clock IC and Back up battery circuit.

Figure A3.1.3 shows the block diagram of Flash memory, Mask ROM, DRAM and Real time clock.

- 2. Function
 - 1) Flash memory (FLS1)

Flash memory (electrically erasable and programmable device) is used for the main software program, which is stored in EP-ROM of the current OKIFAX. Other than the function of EP-ROM, Flash memory is also used for the user data area instead of SRAM chips.

- 512 KByte Flash memory x 1 (FLS) Used for work area, report recording etc.
- 2) Mask ROM
- 3) DRAM

512 KByte DRAM x 2 (RAM1 and RAM2)

- Used as follows: Picture memory for the ECM send/receive mode. Picture memory for the memory transmission mode. Picture memory for the retransmission mode. Picture memory for the reception in memory. Editing for report printing.
- 4) Back-up battery circuit

The non-rechargeable lithium battery supplies voltage to a real-time clock IC at AC main interruption.

5) Real-time clock IC (IC3)

IC3 is a real-time clock IC used as a timepiece to display the data and time in year, month, day, hour, minute, and second units. Its input/output signals are the 4-bit data bus (AD00 - AD03), 4-bit address bus (A01 - A04) and the control signals, RTCCS, MDMRD-N and MDWR-N which perform a CPU-controlled read operation (M/D/Y H:M, Data read) and write operation (M/D/Y H:M, Data setting).



Figure A3.1.3 Block Diagram of DRAM/Flash Memory/Mask ROM and Real-time Clock IC

A3.1.4 R44 Circuit Diagram

1. Block diagram

The audio monitor circuit consists of IC11 (analog switch IC) and IC5 (amplifier) generates the following audio monitor.

- Line monitoring
- Buzzer signals

Figure A3.1.4 shows the block diagram of audio monitor circuit.

- 2. Function
 - 1) Line monitoring

Send and receive signals are input from the transformer on the NCU board to this circuit as a R signal and the signal power is input to the IC11. The IC11 adjusts the monitor volume by MONC0, MONC1 and MONC2 signal under the control of IOGA3. Output (high and low) from IC11 passes through the amplifier and is fed to the speaker as a SP signal.

- * MONC0/MONC1/MONC2 signal: Volume control signal.
- Note: In case of transmission mode, the monitor will be available during dialing, but the monitor will be switched off automatically after the elapse of specified time (about 5 sec).
- 2) Buzzer control

Alarm and other signals are input from CPU to this circuit as BZ signals. The various buzzer signals are sounded under the control of CPU.



Figure A3.1.4 Block Diagram of Audio Monitor Circuit

A3.1.5 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following functions:

- IC6 (A/D converter)
- 30 V/24 V conversion circuit
- Connector CN5 that provides an interface between R44 board and CIS (contact image sensor).

Figure A3.1.5 shows the related signals and block diagram of CIS.

2. Function

One-line picture data is read in the sequence from the scanning unit (CIS) as SIG signal (analog data) to A/D converter (analog/digital converter) of IC6. After conversion from analog data to 6-bit digital signal (SDATA0 - SDATA5) under the control of IC6, this picture data is sent to IOGA3 (input/output gate array). Here, the picture data undergoes various kinds of picture processings.

Sensor interface signal output from IOGA3

- LEDON : LED on/off control signal
- SNSCLK : Scanning sensor drive clock (714.286 kHz)
 - MISP : Scanning synchronous signal (5 msec)
- ADCLK : Sampling clock for A/D converter (714.286 kHz)





A3.1.6 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of Modem (14.4 kbps).

Modem consists the following functions:

- Modulation/demodulation
 - Modulation type:
 - 1) ITU-T Rec. V17 (14400/12000/9600/7200 bps) for G3 picture data.
 - 2) ITU-T Rec. V29 (9600/7200 bps) for G3 picture data.
 - 3) ITU-T Rec. V27 ter (4800/2400 bps) for G3 picture data.
 - 4) ITU-T Rec. V21 channel 2 (300 bps) for binary signals defined in ITU-T Rec. T.30.
- Automatic adaptive equalizer for G3 receive data with 300 bps data excluded.
- Generation of signal tones
- PB tone (multi-frequency tone) generation
- Detection of single tones
- D/A converter for send data (TX)
- A/D converter for receive data (RX)
- Amplitude equalizer for RX
- Selectable attenuation for TX
- Automatic gain control

Figure A3.1.6 shows the related signals of Modem.



Figure A3.1.6 Related Signals of Modem

A3.1.7 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of connector CN14 that provides an interface between R44 board and LED print head.

Figure A3.1.7 shows the related signals and block diagram of LED print head.

2. Function

•

Data of 1664 LEDs on the LED print head is loaded into the shift registers by the HCLCK (1.0 MHz) signal. After the 1664 bit (208 mm) data is loaded in the shift registers, it is then loaded in the latch circuit by the HLATCH signal. The turning -on and off of the LEDs are controlled by STRB1-N to STRB4-N signals.

LED head interface signals output from IOGA1

- HDATA 0 : Print data i.e., data to be printed
 - HCLCK : Transfer clock for print data (4.0 MHz)
- HLATCH
- : Latch signal for print data
- STRB1-N to STRB4-N : LED head strobe signals



Figure A3.1.7 Related Signals and Block Diagram of LED Head

A3.1.8 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following connectors:

- Connector CN10 that provides an interface between R44 board and NCU board.
- Connector CN3 that provides an interface between R44 board and external electro-mechanical components (PC1 and PC2).
- Connector CN4 that provides an interface between R44 board and OPE (O4W) unit.

Figure A3.1.8 shows an interface between R44 board and NCU board. Figure A3.1.9 shows an interface between R44 board and OPE unit. Figure A3.1.10 shows the related signals of PC1 and PC2.

- 2. Function
 - 1) External status supervising interface (PC1/PC2)

External status is detected by the photocouplers (PC1/PC2) in the mechanism and the signal is output to the input port of CPU via this interface circuit.

- PC1: Presence of document on hopper.
 - When sub-power supply is applied to the fax machine, this signal is output to OPE unit which will control the main-power supply.
- PC2: Presence of document at scanning position.
- 3. Others

NCU interface signal

	0		
•	CML	:	Line seizure control signal
•	DP	:	Dial pulse control signal
•	SR	:	Control signal for connection between LINE and TEL terminals
•	MUTE	:	Control signal for pulse dial improvement and bell shunt relay
•	PP	:	Relay control signal for special service code detection at parallel pickup or remote reception
•	PBXE	:	Control signal for connecting one of LINE terminal to the PBXE terminal
•	OH2-N	:	Detection of off-hook of terminal connected to TEL-1 or TEL-2
•	OH1-N	:	Output upon circuit current detection after fax line seizure
•	RP	:	Receiving sensitivity determination terminal
•	RI	:	Ringing detection signal
•	S	:	Send signal (picture data/protocol/tonal signals/PB tone etc.)
•	R	:	Received signal (picture data/protocol/tonal signals etc.)
OI	PE interface signa	als	
•	TXDOPE	:	This signal transmits sequentially the contents of each data of TXD (LED on/off information, etc.) to OPE in serial data from CPU.
•	RXDOPE	:	This signal transmits sequentially the contents of each data of RXD (key code information, etc.) to CPU in serial data from OPE.
•	OPECHK	:	Use to monitor the operation of the OPE unit.

- OPERST : Reset signal for OPE unit
- WAKEUP-N : Wakeup signal



Figure A3.1.8 Interface between R44 Board and NCU Board



Figure A3.1.9 Interface between R44 Board and OPE (operation unit)

Board Descriptions

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Figure A3.1.10 Related Signals of PC1/PC2

A3.1.9 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following functions and connectors:

- IC9 (Drum motor driver)
- TR4/TR2 (Clutch driver)
- Connector CN15 that provides an interface between R44 board and the resist motor.
- Connector CN2 that provides an interface between R44 board and the clutch.

Figure A3.1.11 shows the related signals of the drum motor and clutch.

- 2. Function
 - 1) Drum motor control

This drum motor is driven by the motor driver IC9. It is two-phase excited and bipolardriven according to the DMPH1, DMPH2 and DMON1-N signals that are generated from the CPU. This drum motor rotates the image drum.

2) Clutch

When starting to print, performs the paper supply of recording paper by using this clutch. Clutch is driven by CLUTCH signal generated from CPU.





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A3.1.10 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following function and connectors:

- TA1 (Send motor driver)
- Connector CN1 that provides an interface between R44 board and the send motor.

Figure A3.1.12 shows the related signals of the send motor and fan motor.

- 2. Function
 - Send motor rotation and chopper control Send motor drive signals are generated by the IOGA3 and output to send motor via TA1 (motor drive IC) of this circuit.

Note: The built-in motor control circuit of IOGA3 consists of the following blocks:

- Setting of the excitation operation
- Setting of the chopping operation
- Setting of the motor exciting method (1-2/2-1 phase excitation)
- a) Send motor rotation control

There are several cases of the rotation operation: Forward rotation for feeding documents.

- Case 1: Feeding document from hopper to the position where one line data is read.
- Case 2: Feeding document while reading.
- Case 3: Feeding document after a page has been read.
- b) Send motor chopper control

The purpose of chopper control is to reduce the current to the motor by setting the phase signal on and off intermittently when a time lapse exceeding a specific time occurs without a phase update.



A3.1.11 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following connectors:

- Connector CN13 that provides an interface between R44 board and optional memory board.
- Connector CN11 and CN12 that provides an interface between R44 board and optional CTR board.

Figure A3.1.13 shows the interface between R44 and memory board. Figure A3.1.14 shows the interface between R44 and CTR (PC interface unit) board.

Note 1: A 1 Mbyte (MEM-2) memory board can be added to the memory capacity for OKIOFFICE 44.



Figure A3.1.13 Interface between R44 Board and Memory Board (option)



Figure A3.1.14 Interface between R44 Board and CTR Board (PC interface unit)

A3.1.12 R44 Circuit Diagram

1. Block diagram

The circuit diagram consists of the following connector:

- Connector CN6 that provides an interface between R44 board and power supply unit.
- 2. Function
 - 1) Sensor and switch control

Five types of sensors are used in the printer as listed below. All of their output enter IOGA ports for referring to and processing by the CPU. Figure A3.1.15 shows sensors and switch control.

- Inlet sensor 1
- Write sensor (To detect the paper top position for printing)
- Outlet sensor
- Toner end sensor
- Cover status switch

The functions of various sensors are described in the following table.

Sensor Type	Sensor Name	Function		
PSIN1-N	Inlet sensor 1	This photosensor is positioned before the resist roller to detect whether the paper has entered into the printer section.		
WRSNS-N	Write sensor	Detects the arrival of paper at designated position on the paper transport route inside the printer in order to turn on the light of the LED head. 0: Paper exists, 1: Paper does not exist		
PSOUT-N	Outlet sensor	Located at the exit of the printer to supervise the paper exit operation. 0: Paper exists, 1: Paper does not exist		
TNRSNS-N	Toner sensor	Detects the remaining toner in the toner cartrige. "The length of time of low-toner state within fixed time interval" detects a low-toner state.		
CVOPN-N	Cover open sensor	Detects whether the cover of the printer section is open or not. 0: Cover is open, 1: Cover is close		



Figure A3.1.15 Sensor and Switch Control

2) Fuser unit temperature control

The heater in the fuser unit is controlled by the thermistor, IOGA and CPU to keep the heater roller surface within a prescribed temperature range. The CPU supervises the status of PC0 (A/D converter input section) periodically, turning HEATON- N signal on and off according to CPU of PC0 status to exercise temperature control.

At power on time, the CPU switches the output signal THON from pin 65 (between high and low states) to check for a blown or shorted thermistor according to the status of the THCHK signal.

A built-in thermostat in the fuser unit prevents the heater from being overheated in event of failures in the thermistor, or temperature control circuit, etc.

Figure A3.1.16 shows the fuser unit temperature control.

Note: Heater control

Temperature of the heater at the time of printing is 150 °C to 180 °C. This temperature is maintained by controlling the on and off operation of heater according to the input of the thermistor converted into analogue-digital (A/D) values by the CPU.

2)-1 Heater control

The ACON control signal on the secondary side is transmitted to the primary side via PC3 to turn TRC1ON for AC voltage supply to the heater.



Figure A3.1.16 Fuser Unit Temperature Control

3) High-voltage and medium-voltage control

High voltages are activated by IOGA and generated by the high-voltage circuit inside the power supply unit. The CH (charge) voltage of about -1.35kV is used for the charge roller. The TR1/TR2 (transfer) voltage of about +3.5kV/-0.75kV is used for the transfer roller.

Medium voltages are activated by IOGA and generated by the medium-voltage circuit inside the power supply unit. The SB1/SB2 (toner supply) voltage of about +0V/-450V is used for the toner supply roller. The DB1/DB2 (developing) voltage of about +300V/-300V is used for the developing roller. The CB (cleaning) voltage of about +400V is used for the cleaning roller.

Figure A3.1.17 shows high/medium voltages control.

* Signals used to control the high/medium-voltages are listed below.

Signal Name	Description		
CHON	"1": CH is output.		
DBON1	"1": + ive polarity voltage of DB/SB is output.		
DBON2	"1": - ive polarity voltage of DB/SB is output.		
TRON1	"1": + ive polarity voltage of TR is output.		
TRON2	"1": - ive polarity voltage of TR is output.		



Figure A3.2.17 High/Medium Voltages Control

A3.3 OPE (04W) Circuit Diagram

1. Block diagram

Figure A3.3.1 shows a block diagram of OPE (04W).

The 04W (operation unit) circuit consists of the following blocks:

- 1) IC1 (one chip MOS-CPU)
 - Output ports Setting LEDs on and off: 8 ports Specifies the row during key switch matrix scanning: 8 ports
 - Input ports Detect the column whose key is pressed: 8 ports
- 2) Key switch matrix (8 rows x 8 columns)
- 3) LEDs (8 LEDs)
- 4) LCD unit
- 2. Key switch scanning

Output ports (KSCAN0 to KSCAN7 signal) corresponding to 8 rows of key matrix are scanned sequentially by the software. In the case 1 is any of output from KSCAN0 to KSCAN7 signal which corresponds to the row 8 in the block diagram, the software reads input port, KSENS0 to KSENS7, and determines which in the row 8 is pressed.

3. LED drives and LEDs

Eight LEDs (ALARM, PHOTO, LIGHT, etc.) on the control panel are driven by output of IC1 via resistors R1, R4-9 and R11 respectively. An LED lights on when a port output is 1.



Figure A3.3.1 Block Diagram of OPE (operation unit)

A3.5 Power Supply Unit for OKIOFFICE 44

A3.5.1 048 POW (120V/230V) Circuit Diagram

IMPORTANT:

Oki Data Corporation recommends that maintenance of the Power supply unit (048 POW board) be performed by replacing the entire power supply unit, not by replacement of components.

Therefore,

- 1) circuit descriptions in this section are for reference.
- 2) orders for components of the power supply unit cannot always be accepted.

Functions of unit:

048 POW circuit generates the following direct currents (DC) based on the alternating current, AC 120 V +6%, -15% AC 230 V +15%, -14%

1. Low-voltage power supply circuit

This circuit generates the following voltages.

Output Voltage	Output Voltage		
+5 V Logic circuit supply voltage (IC, LSI), and high-voltage source voltage			
-8 V	CIS (contact image sensor)		
+24 V	Send motor, drum motor, fan drive, flash memory, CIS, and clutch		

2. Input ratings

- Voltage : AC 120 V+6%, -15% (AC 102 V to 127 V) AC 230 V+15%, -14% (AC 198 V to 264 V)
- Frequency : 50 Hz/60 Hz +/-2%

3. Output ratings

Pin No.	Rated Voltage	Rated Current	Current Range	Voltage Range	Output Ripple	Output Noise
CN3-1 to 3	+5V	1.2A	0.2 to 3.9A	5V ± 4%	100 mVP-P	250 mVP-P
CN3-8	+24V	1.0A	0 to 1.0A	24 to 38V	500 mVP-P	_
CN3-9	-8V	0.1A	0 to 0.1A	-6.5 to -12V	100 mVP-P	250 mVP-P
CN3-12	+5VS	20mA	15 to 50mA	$-5 \pm 4\%$	100 mVP-P	250 mVP-P

4. Block diagram

Figure A3.5.1 shows a block diagram of 048 POW.

* The information contained herein can change without notice owing to product and/or technical improvements.


A3.5.2 OLHV/TLHV Circuit Diagram (2/2)

This circuit consists of photo-sensors and high voltage generation unit.

Note: If the high-voltage unit inside the OLHV/TLHV circuit board is replaced, the output voltage and current output from the terminals must be checked and adjusted. This section does not describe the checking and adjustment methods, however.

DANGER:



Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

5-6 High-voltage section

5-6-1 Functional overview

The high-voltage outputs consist of TR1 (3.5 kV), TR2 (-0.75 kV), DB1 (+300 V), DB2 (-300 V), SB2 (-450V), CB (+400 V) and CH (-1.35 kV) and are obtained as follows. The control signal obtained from IOGA of R44 board is applied to High-voltage power supply circuit. As result, the driver current is applied to the drive circuit, which will provide the high-voltage outputs.

Note:

Signal Name	Output Voltage	Application	
SB1/SB2	0±5 V/-450 V	Voltage applied to toner supply roller.	
DB1/DB2	+300 V/-300 V	Voltage applied to developing roller.	
TR1/TR2	+3.5 kV/-0.75 kV	Voltage applied to transfer roller.	
СН	-1.35 kV	Voltage applied to charging roller.	
СВ	+400 V	Voltage applied to cleaning roller.	

5-6-2 SB2, DB1, DB2 and CB

- 1) These four high-voltage outputs are obtained from the flyback voltage of Q10.
- 2) The positive and negative voltages of DB1 and DB2 are obtained by switching the charging direction under the triac and thyristor.
- 3) Feedback is not applied to these outputs. However, SB2 is limited by D85 and DB2 is limited by D84 so as not to provide an output exceeding a preset voltage.
- 5-6-3 TR1 and TR2
 - 1) The TR1 high-voltage is obtained by rectifying the secondary output of Q17 switching circuit by a voltage-doubler rectifier.
 - 2) TR1 output circuit has both constant current (hereinafter called CC) and constant voltage (hereinafter called CV) modes.
 - At first, TR1 output circuit operates in the CC mode. Once the voltage determined by parameters such as roller and medium is obtained, this circuit changes to operate in the CV mode by the control signal.
 - 4) The TR2 output voltage is regulated by keeping the voltage obtained by switching operation of Q15 at a constant voltage by D66 and D65.

5-6-4 CH

1) The CH output voltage is stabilized by keeping the primary flyback voltage obtained by switching operation of Q16 at a constant voltage by D76 and D82.

5-7 Photosensors

The photosensors mounted on this circuit board/sensor board supervise the paper running state during printing. These four photosensors are used in this printer as listed below. All of their outputs enter IOGA for referring to and processing by the CPU.

1) PS1 (photosensor 1): TNRSNS

Detects the lack of the toner.

2) PS2 (photosensor 2): PSIN

Detects the leading part of the paper and gives the supervision timing for switching from hopping operation to feeding operation. Supervises the paper running state and the paper size according to the paper arrival time and running time.

3) PS3 (photosensor 3): PSOUT

Supervises the paper feed according to the time of arrival at the sensor and the time of passage of paper.

4) PS4 (photosensor 4): WRSNS

Detects the leading part of sensor. Supervises the paper running state.

5-8 Cover open circuit

The cover open circuit consists of CVSW. When the Cover-Main is opened, the cover open microswitch (CVSW) on the OLHV/TLHV board is turned off to cut the supply of H5V to the high-voltage power supply circuit. As a result all high-voltage outputs are interrupted. At the same time, the CVOPN-N signal is sent to the control board to notify it the off state of the microswitch, and the control board performs the cover open processing.

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A3.7 UNC5 (NCU) Circuit Diagram

- Note: The relationship between NCU and optional boards (NTIF, TEL, HOOK, etc.) are shown in A3.11.
- 1. Block diagram
 - Figure A3.7.1 shows a block diagram of UNC5 circuit.
- 2. General functions of this circuit are as follows:
 - 1) Generates and detects signals to be exchanged with a telephone exchange or network in Phases A and E defined by ITU T.30.
 - Loop formation for call origination
 - Line current detection (see note 1) before call origination
 - Dial tone detection (see note 1)
 - Generation of dial pulses (see note 2)
 - Busy tone detection (see note 1)
 - Ringing signal detection
 - 2) Sends various data and signals from the R44/M17 board to the telephone line after amplification.
 - Picture data/Protocol/Tonal signals/PB tone, etc.
 - 3) Sends the following signals received from the line to the R44/M17 board as data after amplification.
 - Picture data/Protocol/Tonal signals, etc.

Note 1: This procedure may be omitted depending on the dial parameters.

Note 2: MF (Multi-frequency) tone is generated by the modem and transferred to the telephone line via the NCU board.

4. Description of the NCU Block Diagram

4.1 UNC circuit diagram

- Lightning arresters (AR1, 2) The nominal operating voltage is 350 V.
 When connecting the ground of the arrestor to the chassis, tighten ARG on the PCB with a screw. At this time, the PCB is grounded through the power cable. The TB1 arrestor ground terminal can also be used to connect to the earth directly.
- 4 DC circuits (R10, R11, C4) These circuits provide DC characteristics according to the line requirements using the primary DC resistor in the line transformer T1 and the R10 and R11 resistors. The capacitor C4 bypasses AC signals.
- 5 Impedance matching network (R523, R536, C503) This circuit matches the impedance between the line and equipment to reduce reflection of transmitted signals.
- 6 Receiving sensitivity (R574, R504) The receiving sensitivity at line seizuring is determined by R574 and the MF tone receiving sensitivity at parallel pickup is determined by R504.
- 7 CML (RL1) This circuit selectively switches the line between the telephone or facsimile.
- 8 SR (RL2) This circuit connects the line with the telephone. During facsimile transmission, it disconnects the telephone.
- 11 PP (RL6) If this circuits detects MF or CNG tones without seizuring a line, it sets a proper receiving sensitivity.
- 12 DP (RL3)

This circuit generates pulse dials. If the circuit detects MF or CNG tones without seizuring a line, it opens to increase the impedance.

- 13 Pickup RC (R5, C31) These circuits insert a high-impedance resistor and capacitor serially to prevent the line impedance from dropping by the line transformer T1.
- 14 Ring detectors (IC1)

These circuits detect a ring signal arriving to the line. If the input ring signal exceeds a specific voltage, the circuits output a signal having of RI the same frequency as incoming RI.

15 Line transformer (T1)

This circuit processes send/receive signals required for facsimile transmission, dial tone receive signals required for automatic dialing, and MF tone send and remote receive signals. It separates between the line and equipment in terms of DC and also keeps a balance between the line and the ground. The transformer on the UNC board for OKIFAX 5600 is covered with the shield case for the low-level receiving countermeasure.

16 Off-hook detector (IC2) This circuit detects the off-hook state of the telephone connected to the TEL1, TEL2 through LINE terminals.





A3.8 TELU Circuit Diagram (Option)

The TEL U Board is used for control of the telephone set when the optional telephone assembly is installed on the facsimile transceiver,

- 1. Block diagram
 - Figure A3.8.1 shows a block diagram of TELU circuit.
- 2. General functions of this circuit are as follows:
 - Speech IC
 - Sending Level Adjustment
 - Receiving Level Adjustment
 - Sending Frequency Response Adjustment
 - Side Tone Adjustment
 - DC V-1 Characteristics Adjustment
 - Return Loss Adjustment
 - AGC (automatic gain control)
 - Manual Pad
 - Sending Frequency Response Adjustment
 - Receiving Frequency Response Adjustment
 - Handset Interface
- 3. Explanation of TEL circuit diagram

This section describes functional blocks of individual TEL circuit diagram.

3-1 TELU circuit diagram

TELU circuit diagram is formed by Speech IC and interface of UNC, HOOK SW and HANDSET.

1) Speech IC

The hybrid circuit is formed by Speech IC.

- 2) Handset Interface
 - Transmitter signal route Signal from the microphone of the handset is input to pin 15 and 16 of Speech IC. This signal is determined by the amplification factor and output to the telephone line via UNC, Hook switch and DB2 (rectifier).
 - Receive signal route Receive signal from the telephone line enters Speech IC via UNC, Hook switch and DB2 and is output to pin 2 & 3 of the speaker of the handset.



Block Diagram of TEL-U (Option) Fig. A3.8.1

A3.10 MEMO (Memory) Circuit Diagram (Option)

By mounting this optional memory board (MEM/MEM-2), it can be used for the expansion memory.

1. Block diagram

Figure A3.10.1 shows a related signal of memory board.

MEMO/MEMO-2 circuit consists of the following block.

- 1) 512 kbyte pseudo static RAM x 4 (RAM1 to RAM4). Used as follows:
 - Picture memory for the ECM send/receive modes.
 - Picture memory for the memory transmission mode.
 - Picture memory for the retransmission data.
 - Picture memory for the reception in memory
- 2) Memory capacity
 - 1 Mbyte (MEMO-2) memory board can be added for OKIOFFICE 44.

The relationship between memory capacity and mounted boards are shown in the following table

Equipment	Memory Capacity	RAM1	RAM2	RAM3	RAM4	Mounted Board Name
OKIOFFICE 44						
	1 Mbyte	Mounted	Mounted	Not mounted	Not mounted	MEMO-2

Note: The OKIOFFICE 44 does not back-up the message received in memory during a power failure.

3) Image memory capacity

	Memory Condition	OKIOFFICE 44 (pages)
W/d	Standard (without option)	17
With Option Board		
	1.0 Mbyte	100

Note: No. of sheets are counted provided that ITU-T No.1 sample document is used. No. of sheets are typical value.

Related Signals of Memory Board (Option) (Figure A3.10.1)



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A3.12 CTR (PC Interface Unit) Circuit Diagram

CTR board is used as an interface board of PC and FAX when PC is connected to facsimile machine.

1. Block diagram

CTR board circuit is formed by Receiver, Driver, and 1284-I/F.

Figure A3.12.1 shows related signals of CTR board.



Figure A3.12.1 Related Signals of P050 (PC interface unit)

- 2. Function
- 2.1 Summary

By installing the optional board (Bi-Centro), the following MFP (Multi-Function Peripheral) function can be realized.

Ex	xample:	OKIOFFICE 44	
•	PC printer function (300/Q600 dpi)	4 PPM	8PPM (Target)
•	PC Scanner function	8 dot/mm	8 dot/mm (INT'L),
			300 dpi (ODA)

- PC Fax Modem function (TIA/EIA Class 1)
- PC Memory function
- PC Multiplex function Disable Enable

Interface between Fax machine and Host PC consists of three layer structure as detailed below, each sub-system can be operated at the same time by adopting a Oki-MFPI protocol in both Fax machine and Host PC.





- a) Application layer: Performs a function control of each sub-system at the Host PC and Fax machine.
- b) Data-Link layer: Performs a protocol control at the Host PC and Oki-MFPI (TIA IS650 Level 1 requirement). (Packetize/Unpacketize, flow control, Transfers command/data between each sub-system)
- c) Physical layer: Has a bi-directional interface control circuit which conforms to IEEE1284. Standard mode: Compatible, Nibble Oki special mode: MCE (Mode Change Express)

Following devices are as sub-system:

- Printer (HIPER-W: <u>Host based Image PrintER</u> for Windows) Encodes a rater image data in Host PC and transfers a data with HIPER-W emulation.
- Scanner (Oki-SCL 1: <u>Oki-S</u>canner <u>C</u>ontrol <u>L</u>anguage 1) Transfers and image data of document scanned in Fax machine to the Host PC with Oki-SCL 1 command.
- FaxModem (TIA/EIA Class 1) Send/receive a Class 1 command between Host PC and Fax machine.
- Memory (MFPL: <u>Multi-Function Peripheral Language</u>) By using MFPL command, it is possible to display on screen of Host PC for condition of Fax machine and performs the initial registration of the telephone number used in Fax machine.

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Appendix B: Print Operation Description

B1.1 Electrophotographic Processor

The electrophotographic processor prints out the image data to be sent from the main control board on sheets of paper. Figure B1-1 shows the layout drawing of the electrophotographic processor.

(1) Image drum unit

The image drum unit makes a toner adhere to the formed electrostatic latent image with static electricity. This electrostatic latent image is formed by the lights irradiated from LED heads.

(2) Electromagnetic clutch

The electromagnetic clutch controls the rotation of the hopping roller according to signals from the control block.

Layout Drawing of Electrophotographic Processor (Figure B1.1)



(3) Pulse motor (Main)

This pulse motor of 48 steps/rotation is two-phase excited by the signal from the main control board; it performs feeding control by switching normal rotation to reverse rotation or vice versa and turning on/off the electromagnetic clutch. The relationship between the main motor, electromagnetic clutch, registration gear, drum gear, hopping roller is shown in the table below and on the subsequent pages.

Main Motor	Electromagnetic Clutch	Hopping Roller	Regist Gear	Drum Gear	Operation
Normal rotation	OFF	Non-rotation	Non-rotation	Rotation	Warm-up
Doverse retation	ON	Rotation	Rotation	Rotation	Hopping
Reverse rotation	OFF	Non-rotation	Rotation	Rotation	Prinitng

(4) LED head

The shift and latch registers receive image data from the main control board for each dot line. 2,560 or 2,496 LEDs are driven to radiate the image drum.

(5) Heat Assembly

The heat assembly consists of a heater, a heat roller, a thermistor, and a thermostat.

The power supply unit supplies AC voltage to the heater according to the HEATON signal from the main control board to heat the heat roller. The main control board monitors the heat roller temperature via the thermistor and keeps the temperature constant by turning on/off the heater AC voltage supply.

If the heat roller temperature rises abnormally, the thermostat of the heater voltage supply circuit functions to forcibly suspend the AC voltage supply.



B1.2 Electrophotographic Process

(1) Electrophotographic process

The electrophotographic process is outlined below.

1 Charging

The surface of the image drum is charged negatively and uniformly by applying the DC voltage to the charge roller.

2 Exposure

Light emitted from the LED head irradiates the negatively charged surface of the image drum. The surface potential of the irradiated surface attenuates to form the electrostatic latent image corresponding to the image signal.

3 Development and residual toner recovery

The negatively charged toner is brought into contact with the Image drum, adhering to the electrostatic latent image on the image drum by static electricity. This adhesion causes the electrostatic latent image to change to a visible image.

At the same time, the residual toner on the image drum is attracted to the developing roller by static electricity.

4 Transfer

When paper is placed over the image drum surface, the positive charge which is opposite in polarity to that of the toner, is applied to the reverse side by the transfer roller. The toner is attracted by the positive charge and is transferred onto the paper. This results in the transfer of the toner image formed on the image drum onto the paper.

5 Cleaning

The cleaning roller temporarily attracts the residual toner on the transferred image drum with static electricity, then returns the toner to the image drum.

6 Fusing

The transferred unfused toner image is fused to a sheet of paper by applying heat and pressure to the image.

Figure B1.3 is a flow for the electrophotographic process.

Print Operation Description



B1.2.1 Operations Process Explanations

Hopping

As shown in the figure below, the clutch for hopping is turned on/off according to current ON/OFF to a coil.



When the clutch is OFF When the clutch is ON



When the clutch is on, the hopping gear engages with the clutch plate to rotate the hopping roller.

When the clutch is off, the hopping gear is separated from the clutch plate by the spring for resetting, disabling the rotation of the hopping roller.



Rotate the pulse motor (main) in the a direction. The planetary gear rotates in the a' direction, dislocating its position in the a' direction. This causes the planetary gear to be separated from gear A. The hopping gear will not rotate. The triple gear and transfer gear rotate via the idle gear to drive the image drum unit.



The paper is further advanced in synchronization to the print data.

Charging

Charging is performed by applying DC voltage to the charge roller that is in contact with the surface of the image drum.



Exposure

Light emitted from the LED head irradiates the negatively charged surface of the image drum. The surface potential of the irradiated surface attenuates to form the electrostatic latent image corresponding to the image signal.



Development

The electrostatic latent image on the surface of the image drum is changed to a visible toner image by applying a toner to it. Development is performed in the contact part between the image drum and developing roller.



- 1 The sponge roller negatively charges a toner and applies it to the developing roller.
- 2 The toner applied to the developing roller is thin-coated by the developing blade.
- 3 A toner adheres to the exposure part of the image drum in the contact part between the image drum and developing roller. This causes the electrostatic latent image to be changed to a visible image.

Transfer

The transfer roller is composed of conductive sponge material. This roller is set so that the surface of the image drum and sheets of paper will adhere closely.

A sheet of paper is placed on the surface of the image drum and the positive charge opposite to the negative charge of a toner is applied from the reverse side by the transfer roller.

When a high negative voltage is applied from the power supply to the transfer roller, the positive charge induced on the surface of the transfer roller moves to the paper side at the contact part between the transfer roller and the sheet of paper. The positive charge on the lower side of the sheet of paper then causes the negatively charged toner adhering to the surface of the image drum to move to the upper side of the sheet. This enables transfer to the sheet of paper.



Fusing

The transferred unfused toner image is fused to a sheet of paper because heat and pressure are applied when it passes between the heat roller and backup roller.

The Teflon-coated heat roller contains a 400 W heater (Halogen lamp) that heats the heat roller. The thermistor on the surface of the heat roller keeps the temperature of the heat roller constant. A thermostat is also installed for safety. If temperature rises abnormally, this thermostat opens to suspend voltage supply to the heater.

The backup roller is pressurized to the heat roller by the pressure spring on each side.



Cleaning

After transfer has terminated, the cleaning roller temporarily draws in the untransferred residual toner adhering to the image drum with static electricity and then returns it to the image drum.



B1.3 Paper Jam Detection

The unit monitors the paper status when the power supply is on and during printing. In the following cases, the unit interrupts the printing process as a paper jam. Printing can be recovered by opening the cover, removing the jammed paper, and closing the cover.

Error	Cause of Error
Paper inlet jam	Only the manual feed sensor detects "Paper exists" when the power supply is on.
	 The leading part of the paper does not reach the paper sensor although hopping operation was performed three time.
Paper feed jam	• The leading part of the paper does not reach the outlet sensor within a fixed time after it has passed the paper sensor.
Paper outlet jam	• The trailing part of the paper does not pass the outlet sensor within L mm after the leading part of the paper has passed the outlet sensor.
	2.52" (64 mm) ≦ L ≦ 15.77" (400.6 mm)
Paper size error	• The trailing part of the paper does not pass the paper sensor within L mm after the leading part of the paper has passed the paper sensor.
	2.52" (64 mm) ≦ L ≦ 15.77" (400.6 mm)

Paper Feed Check List

Tune of Funer	Currentia en Concer	Deference Velue	Error	
Type of Error	Supervisory Sensor	Reference value	Plus	Minus
Paper feed error	Electromagnetic clutch ON/ Paper sensor ON	itch ON/ 69.8		—
Paper feed jam1	Paper sensor ON/ Outlet sensor ON	122.9	20.0	_
Paper size error	Paper sensor ON/ Paper sensor OFF	2.52" (64 mm) ≦ L≦ 15.77" (400.56 mm)	_	_
Paper outlet jam	Outlet sensor ON/ Outlet sensor OFF	2.52" (64 mm) ≦ L ≦ 15.77" (400.56 mm)	45.0	45.0
Paper feed jam 2	Paper end sensor OFF/ Outlet sensor OFF	121.9	20.0	20.0

Unit: mm

Timing Chart for Paper Feed (Tray Feed)



B1.4 Toner Low Detection

• Hardware configuration of toner sensor

The figure below shows the hardware configuration of the toner sensor.



Hardware Configuration of Toner Sensor

- Toner detection method
 - (1) Toner sensor monitoring conditions are shown in the figure below.



Caution: The toner sensor is not monitored when the drum is inactive.

- (a) When the toner-low state continues twice, Toner Low occurs. (This state is monitored at a cycle of 40 milliseconds.)
- (b) When the toner-full state continues twice, Toner Low is released. (This state is monitored at a cycle of 40 milliseconds.)
- (c) When the toner sensor does not change over two cycles (T x 2), the toner sensor alarm state occurs.
- (d) After the image drum unit has been replaced (after the drum counter has been reset), Toner Low is not detected when the drum counter indicates 1 to 100 counts.

(2) The basic rotation cycle of the toner sensor is as follows:

	T time
Basic rotation cycle of toner sensor	4.9 sec.
Toner low time	t1 > 1.2 sec.
Toner full time	1.2 sec. > t1 >

B1.5 Cover Open

Opening the stacker cover turns off the microswitch on the high-voltage power supply board to suspend +5 V supply to the high voltage power supply. This results in the stop of all high-voltage outputs. At the same time, the CVOPN signal is issued to notify the main control board of the switch status and cover open processing is executed.

Appendix C: Circuit Diagrams

C.1 General Information

The OKIOFFICE 44 Circuit Diagrams contain component level repair information and are OKIDATA proprietary.

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APPENDIX D: ILLUSTRATED PARTS LIST






Service Manual, P/N 59276801

Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1		Unit-Printer (100V)		Refer to Section 11
	2		HOLDER-ASSY		Refer to Section 11
	3	4YA4116-1228G001	LED HEAD	1	56112101 RSPL
	4	4YX4083-1134G001	CABLE FLAT ASSY.	1	56633401 RSPL
	6		Image Drum Unit	1	56116101 Consumable
	8a	4YB4049-1874P001	PWR Unit-ACDC Switch (120V)	1	
	8b	4YB4049-1875P001	PWR Unit-ACDC Switch (230V)	1	
	9	40092201	Board-R44	1	40092201 RSPL
	10a	40044501	Board-UNC	1	40044501 RSPL US
	10b	40044307	Board-WN5	1	44044307 RSPL
					OKI-INT
	13	40023701	Plate AssyBase	1	40023701 RSPL
	14	40023901	Bracket-Package	1	40023901 RSPL
	15	40236401	Plate Assy Shield (HV)	1	
	17	40019201	Frame AssyScanner L	1	40019201 RSPL
	18	40021001	Frame AssyScanner (U)	1	40021001 RSPL
	19	40022701	OPE Panel Assembly	1	40022701 RSPL
					US
	21	40025401	Cover-Main	1	40025401 RSPL
	22	40025301	Cover-Front	1	40025301 RSPL
		40005504			
	23	40025501	Cover-Rear		40025501 RSPL
	24	40025601	Cover-NCI	1	40025601 BSPI
				· ·	
	25	40022101	Cover AssyTop	1	40022101 RSPL
1				· · ·	
	26	40026101	Spring-TC	1	40026101 RSPL
	26	40026101	Spring-TC	1	40026101 RSPL

Section 1 Table: Cabinet Assembly 1/2





Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	27	40024001	Guide-Paper (U)	1	40024001 RSPL
	28	4PP4083-6168P001	Spring: Head	2	50928701 RSPL
	29	40024101	Guide-Paper (L)	1	40024101 RSPL
	30	4PB4120-1136P001	Screw: Knob	1	50317601 RSPL
	31		B Tapping Screw		N/A
	32		B Tapping Screw FA		N/A
	33		B Screw B		N/A
	34		Screw		N/A
	35		Screw	1	N/A
	39	40140801	Bracket-Damper	1	40140801 RSPL
	40	40148201	Gear-Damper	1	40148201 RSPL
	41	40025701	Tray-Document	1	40025701 RSPL
	42	40025801	Tray-Paper	1	40025801 RSPL
	43	40375801	Stacker AssyDocument	1	40375801 RSPL
	44		Screw-Tapping (S-M2)		N/A
	51	223A7010P0003	TM-6-DC1 Connector-Plug	1	N/A
	52	40123402	Dust Cover Plate AssyPC I/F	1	N/A
	53	4PP4120-1187P001	Plate-Earth (PCFX)	1	
	54	40332701	Label-Manual Slot		N/A

Section 1 Table: Cabinet Assembly 2/2

Section 2: Printer Unit



Section 2 Table: Printer Unit

Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	N/A	Printer Unit Assembly		See Section 11
	5	4YA4130-1004G1	PCB: High VOIt P/S	1	55080401 RSPL
	7		Screw F		N/A

Section 3: Operator Panel



Section 3 Table: Operator Panel

Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	40022701	OP Panel Assy.	1	40022701 RSPL
	0	40000.440			40000440 DODI
	2	40023410	Sneet-F-048		40023410 RSPL
	3	40023501	Sheet-0-048	1	40023501 BSPI
		40020301	31661-0-040		40020301 HOLE
	4	40023601	Sheet: Cover	1	40023601

Section 4: Operator Panel Assembly



Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	N/A	Case-OPE(T)		N/A
	2	40086701	Board-04W	1	40086701 RSPL
	3	N/A	Holder-LCD		N/A
	4	N/A	Button-Function		N/A
	5	N/A	Ten Key (Round)		N/A
	6	40023201	Button-Start	1	40023201 RSPL
	7	40023301	Button-Stop	1	40023301 RSPL
	9	4YB4134-1009P001	LCD	1	N/A
	10	N/A	B SCREW A		N/A
	11	4PB4120-1113P001	Rubber Connector	2	N/A

Section 4 Table: Operator Panel Assembly





Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	40019301	Frame-Scanner (L)		N/A
	2	40019401	Lever-PC1	1	40019401 RSPL
	3	40019501	Lever-PC2	1	40019501 RSPL
	4	40019601	Roller AssyADF	1	40019601 RSPL
	5	40020201	Plate-Earth ADF	1	40020201 RSPL
	6	40020601	Piece-Exit	2	40020601 RSPL
	7	40020701	Spring-Exit	2	40020701 RSPL
	8	40127501	Connection: Cord-Speaker	1	40127501 RSPL
	9	4YB4120-1121P001	Sensor: Contact Image	1	50410101 RSPL
	12	N/A	Plate-Scanner (L)		N/A
	13	N/A	Plate AssyScanner (R)		N/A
	14	40020301	Gear-Z95/14	1	40020301 RSPL
	15	40020501	Spring-Latch	2	40020501 RSPL
	16	N/A	Plate AssyScanner (B)		N/A
	17	N/A	B Screw FA		N/A
	18	40153801	Spring-Reinforcement	2	40153801 RSPL
	19	40025201	Gear-Z38	1	40025202 RSPL
	20	40024501	Spring-CIS	1	40024501 RSPL
	21	40019201	Frame Assemby (Scanner)	1	40019201 RSPL

Section 5 Table: Frame Assembly Scanner (L)

Section 6: Plate Assembly-Scanner (B)



Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	N/A	Plate-Scanner (B)	1	N/A
	3	4YB4120-1137P001	Sensor: Photo	2	50410001 RSPL

Section 6 Table: Plate Assembly-Scanner (B)

Section 7: Plate Assembly-Scanner (R)



Rev.	No.	Oki parts Number	Description	Q'ty	OKDIATA P/N
	1	N/A	Plate-Scanner (R)		N/A
	2	40084301	Motor-S (FX-048)	1	40084301 RSPL
	3	N/A	B SCREW FA		N/A

Section 7 Table: Plate Assembly-Scanner (R)





No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
1	N/A	Frame-Scanner (U)		N/A
2	4PP3527-5153P001	BACK-UP PLATE ADF	1	53339801 RSPL
3	40267001	SEPARATION RUBBER ASSEMBLY	1	53344901 RSPL
4	40021301	Plate: Support	1	N/A
5	40021401	Spring-Pinch (L)	1	40021401 RSPL
6	40021501	Spring-Pinch (R)	1	40021501 RSPL
8	40021701	Guide-Sensor (B)	2	40021701 RSPL
9	40021801	ADF SPRING	1	40021801 RSPL
11	N/A	B SCREW FA	1	N/A
12	40021201	Roller AssySensor	1	40021201 RSPL
13	40022001	Bearing-S	1	40022001 RSPL
14	40020801	Gear-Z31	1	40020801 RSPL
15	40026301	Bar-Discharge	1	40026301 RSPL
16	N/A	Cord: Earth	1	N/A
	40021001	Frame Assy - Scanner U	1	40021001
	No. 1 2 3 4 5 6 8 9 11 12 13 14 15 16	No. Oki parts Number 1 N/A 2 4PP3527-5153P001 3 40267001 4 40021301 5 40021401 6 40021501 8 40021701 9 40021201 11 N/A 12 40021201 13 40022001 14 40020801 15 40026301 16 N/A 17 N/A 18 40021001 19 40021001 10 N/A 11 N/A 12 40026301 16 N/A 17 40021001 18 40021001 19 40021001 10 10 10 10 11 10 12 10 13 10 14 10 15 10 16	No. Oki parts Number Description 1 N/A Frame-Scanner (U) 2 4PP3527-5153P001 BACK-UP PLATE ADF 3 40267001 SEPARATION RUBBER ASSEMBLY 4 40021301 Plate: Support 5 40021401 Spring-Pinch (L) 6 40021501 Spring-Pinch (R) 6 40021801 ADF SPRING 7 40021801 ADF SPRING 8 40021201 Roller AssySensor (B) 9 40021201 Barng-S 11 N/A B SCREW FA 12 40021201 Bearing-S 14 40020801 Gear-Z31 15 40026301 Bar-Discharge 16 N/A Cord: Earth 17 40021001 Frame Assy - Scanner U 18 40021001 Frame Assy - Scanner U 19 40021001 Image: Assy - Scanner U 10 Image: Assy - Scanner U Image: Assy - Scanner U 19 Image: Assy - Scanner U	No. Oki parts Number Description Q'ty 1 N/A Frame-Scanner (U) 1 2 4PP3527-5153P001 BACK-UP PLATE ADF 1 3 40267001 SEPARATION RUBBER ASSEMBLY 1 4 40021301 Plate: Support 1 5 40021401 Spring-Pinch (L) 1 6 40021501 Spring-Pinch (R) 1 8 40021701 Guide-Sensor (B) 2 9 40021801 ADF SPRING 1 11 N/A B SCREW FA 1 12 40021201 Roller AssySensor 1 13 40022001 Bearing-S 1 14 40020801 Gear-Z31 1 16 N/A Cord: Earth 1 16 N/A Cord: Earth 1 17 International Assy - Scanner U 1 1 17 International Assy - Scanner U 1 1 17 International Assy -

Section 8 Table: Frame Assembly-Scanner (U)

Section 9: Cover Assembly-Top



40022101 Cover Assy: Top 1 40022101 Includes all	itama ahawn
40022101 Cover Assy: Top 1 40022101 Includes all	itama abawa
Includes all	itame chown
1 N/A Cover-Top N/A	
2 40022301 Holder-LED 1 40022301	RSPL
3 N/A Guide-Document (L) N/A	
4 N/A Guide-Document (R) N/A	
6 4PP4128-1268P001 PLATE EXIT 2 N/A	
7 4PP4083-2024P001 EJECT ROLLER A 2 N/A	
8 4PP4083-2328P003 PINION GEAR B 1 N/A	
10 N/A B SCREW FA N/A	
11 40093201 Spring-Support 2 40093201	RSPL
12 40175801 Film-Exit (A) 2 N/A	

Section 9 Table: Cover Assembly-Top





Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
		40023701	Plate Assy: Base		40023701 RSPL
	1	N/A	Plate-Base		N/A
	2	N/A	RUBBER A		N/A
	3	40026001	Sheet-Insulation	1	40026001 RSPL
	4	40128001	Cord: Flat	1	40128001 RSPL
	5	N/A	Sheet-FG		N/A





Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	2PA4083-1132G1	Frame: Base Assy.	1	50221701 RSPL
	3	3PP4083-1191P1	Sensor: Paper E	2	50410601 RSPL
	4	4PB4083-1245P1	Pad: Friction	1	51711701 RSPL
	5	3PP4083-1244P1	Guide: Separator	1	51021701 RSPL
	6	4PP4083-1246P1	Spring: Compression S	1	50931001 RSPL
	7	3PA4083-1193G1	Sensor: Toner Assy.	1	50410801 RSPL
	8	4PB4083-1172P1	Motor: Pulse (Main)	1	56513501 RSPL
	9	4YA4083-1600G2	Drum: Image	1	56116101 Consumable
	10	40035001	Cartridge: Toner	1	52106201 Consumable
	11	4PB4083-1129P1	Roller: Hopping	1	53348201 RSPL
	12	3PP4083-1128P1	Holder: Roller (Hopping Roller)	1	50708801 RSPL
	13	3PB4083-1127P1	Magnet H (Hopping Shaft)	1	50809001 RSPL
	14	3PA4083-1133G1	Shaft: Hopping Assy.	1	51113901 RSPL
	15	NK2-10-SUS	Pin: Knock	1	50607901 RSPL
	16	4PP4083-1143P1	Gear: Idle R	1	51237501 RSPL
	17	3PP4083-1184P1	Gear: Idle 2R	1	51238001 RSPL
	18	3PP4083-1142P1	Gear: R	1	51237401 RSPL
	19	2PP4083-1181P1	Gear: Idle M	1	51237701 RSPL
	20	3PP4083-1189P1	Plate: Earth A	1	51021501 RSPL
	21	3PP4083-1188P1	Plate: Slide M	1	51021401 RSPL
	22	3PP4083-1182P1	Gear: Idle P	2	51237801 RSPL
	23	3PP4083-1183P1	Gear: Idle 3R	1	51237901 RSPL
	24	4PP4083-1165P1	Plate: Tension	1	51022601 RSPL
	25	3PP4083-1185P1	Gear: Idle Heat	1	51238101 RSPL
	26	4PP4083-1186P1	Gear: Idle E (A)	1	51238201 RSPL
	27	3PP4083-1187P1	Gear: Idle E (B)	1	51238301 RSPL
	28	3PP4083-1170P1	Shaft: Drive E (Eject)	1	51113801 RSPL
	29	4PB4083-1171P1	Roller: Eject	2	53348601 RSPL
	30	3PP4083-1141P1	Bearing: Resistration	4	51609101 RSPL

Section 11 Table: Printer Base Frame Unit (1 of 2)





Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	31	3PB4083-1140P1	Roller: Registration	1	53348301 RSPL
	33	3PP4083-1151P1	Gear: T	1	51237601 RSPL
	34	3YB4083-1150P2	Roller: Transfer	1	53348401 RSPL
	35	4PP4083-1136P1	Spring: Bias (L) (Back UP Roller)	1	50931701 RSPL
	36	3PP4083-1161P1	Bearing: BU (Back Up Roller)	2	51609201 RSPL
	37	3PB4083-1160P2	Roller: Pressure B (Back Up Roller)	1	53348502 RSPL
	38	3PP4083-1233P1	Guide: Paper (R)	1	51021901 RSPL
	39	3PP4083-1232P1	Guide: Paper (L)	1	51021801 RSPL
	40	1PP4083-1231P1	Holder: Paper	1	50708901 RSPL
	41	3PP4083-1192P1	Sensor: Paper Exit	1	50410701 RSPL
	42	4PP4083-1247P1	Spring: Hopping	1	50931101 RSPL
	47	4PP4083-1137P1	Spring: Bias (R) (Back Up Roller)	1	50930901 RSPL
	49	1PP4083-1241P1	Guide: Sheet	1	51021601 RSPL
	51a	1YX4083-1200G1	Fuser Assy. (120 V)	1	56802601 RSPL
	51b	1YX4083-1200G2	Fuser Assy. (230 V)	1	56802602 RSPL
	52	40034001	Stopper Spring	1	
	53	4PB4091-6047P1	Caution Label (TR)	1	230V

Section 11 Table: Printer Base Frame Unit (2 of 2)

Section 12: Cables



Section 12 Table: Cables

Rev.	No.	Oki parts Number	Description	Q'ty	OKIDATA P/N
	1	40048101	Connection Cord-Wire (AC)	1	40048101 RSPL
	2	40040001	Connection Cord-Wire (OPE)	1	40040001 RSPL
	3	40040201	Connection Cord-Wire (CIS)	1	40040201 RSPL
	4	40040301	Connection Cord-Wire (PC1/2)	1	40040301 RSPL
	5	105A1070C0003	TFC-20-10-10 Core	1	
	6	105A1070C0004	TFC-23-11-14 Core	1	
	7	105A1073C4002	SSC-40-12-M Core	1	
	8	1051070C0001	TFC-16813 Core	1	
	9	105A1067C1001	FPC-25-12 Core	1	
	10	236A3161P0002	TEL/LINE Cable	1	56621001
	11	4YS3512-1485P001	AC CORD	1	56631801
	12	4YS4111-5581P001	CORD (TEL1-TEL 2)	1	N/A
	13	105A1062C0002	0443-167251 Core	1	N/A
	14	105A1068C1004	SFC-8 Core	1	For TEL/LINE Cord use

Section 13: Miscellaneous Items

Whole Unit

OKIOFFICE 44	120 V (English)	P/N 62209101
OKIOFFICE 44	120 V (English / Spanish)	P/N 62209103
OKIOFFICE 44	120 V (English / Portuguese)	P/N 62209106
OKIOFFICE 44	120 V (English / French)	P/N 62209104
OKIOFFICE 44	220 V (English / Spanish)	P/N 62209102
OKIOFFICE 44	220 V (Enlgish / Portuguese)	P/N 62209105

Consumables

Drum: Image	P/N 56116101
Cartridge: Toner	P/N 52106201

Options

Handset: Option (OKIOFFICE 44)	P/N 70031801
1 MB Fax Memory Upgrade Option (OO44)	P/N 7032201

Packaging

Box:	Spares Kraft (OKIOFFICE 44)	P/N 53552209
Cap:	End - Left (OKIOFFICE 44)	P/N 53591101
Cap:	End - Right (OKIOFFICE 44)	P/N 53591102

User's Manuals

Quick Start Guide (English Only)	P/N 59275501
Handbook: Hardware	P/N 59275301
Guide: Software	P/N 59275401
Manual: OCR	P/N 59278201

Service (Technical) Manuals

Kit: OKIOFFICE 44 Service Training	P/N 58220401
Includes the items listed below:	
Sheet: ID	P/N 58323201
Sheet: Read Me First	P/N 58323301
Manual: Certification	P/N 59276701
Manual: Service	P/N 59276801
Quick Start Guide (English Only)	P/N 59275501
Handbook: Hardware	P/N 59275301
Guide: Software	P/N 59275401
Manual: OCR	P/N 59278201

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Appendix E: Board Layout

E.1 TLHV PCB

Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.



TLHV.eps

E.2 MEM PCB



MEM.eps



TEL-U.eps

E.4 Hook PCB



Hook.eps

Appendix F: Second Paper Feeder

F.1 General Information

The OKIOFFICE 44 does not have a second paper feeder.
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Appendix G: RMCS System

Introduction

RMCS stands for the Remote Management Center System. RMCS refers to setting registration data and conducting the following types of maintenance operations from a remote location. (Refer to Figure 1)

The purpose of this system is to speed up customer service and reduce maintenance costs.

RMCS model for FX050 series is only Model 20.



Figure 1 Remote Manegement Center System (RMCS)

1. Notes to Users

1.1 Identifying the Packaged Contents

Before using this system, the packaged contents with the package list. Contact your dealer if any component from the package.

1.2 Required Devices

The following devices and software are required to operate this system.

Personal computer	IBM PC/AT or compatible model
Internal memory	300KB or more
Extended memory	1MB or more
Fixed disk drive	20MB or more
Display	CGA/EGA/VGA type
FX-050 series	
facsimile	
PC-I/F card	P050 (Ver.PA2 or later)
RS-232C cable	25-pin female connector
Telephone line	Public telephone line or two-way local channel
Operating system	PC-DOS Ver.3.1 or later

This system requires ANSI.SYS for screen control. Confirm the following line in the CONIG.SYS file, if not found please add to write the command.

DEVICE=C:¥DOS¥ANSI.SYS

This system uses EMS memory. In case of memory manager consisted of those EMM386.EXE or similar types is used by configuration without EMS function, you should remark it does not work.

EXP.: DEVICE=C:¥DOS¥EMM386.EXE NOEMS

Cannot use in settings of the COM port which connect to PC-I/F excluding default.

COMx	SERIAL PORT	SERIAL PORT	IDO
	START ADDRESS	END ADDRESS	IKQ
COM1	3F8	3FF	IRQ4
COM2	2F8	2FF	IRQ3
COM3	3E8	3EF	IRQ4
COM4	2E8	2EF	IRQ3

1.3 Connectable Peripheral Equipment

Printer	
Mouse	Microsoft mouse or equivalent
Telephone	

To use a mouse, a mouse driver program is required. This program is automatically incorporated by the installation program.

2. Setup

2.1 Mounting

This system (RMCS Model 20) is used FX050 series Facsimile with PC-I/F.

Conceptual connection diagram of RMCS Model 20 with other devices

Conceptual connection diagram of RMCS with other devices



No problem is caused for the basic operation of this system even if no telephone set connected.

2.1.1 Mounting Procedures

- 1) Before operation, disconnect the power plug of the IBM PC/AT from the system plug socket.
- 2) Disconnect the power plug of FX050 series Facsimile, too and set PC-I/F board to the Facsimile.
- 3) Connect RS232C cable between COM. Port of the IBM PC/AT and PC-I/F board of the Facsimile.
- 4) Connect the power plug of the IBM PC/AT and the Facsimile and turn their power switch on.

2.2 Installation

When the PC/AT is activated by using the hard disk, insert an RMCS system disk into drive A. When $C>_{-}$ is displayed, enter commands as shown below to activate the installation program.

C>A:[Enter] A>INST[Enter]

Remote Management Center System

<< INSTALL MENU >>
1: RMCS SETTING 2: FAX SETTING 2: FAX DELETE
4: PASSWORD UPDATE 5: DIP SW UPDATE (For Model 10)
6: RMCS DELETE 7: END

Please select the desired item.

Select processing with the numeric keypad.

- [1] Register the RMCS basic system.
- [2] Register the facsimile model number.
- [3] Delete the facsimile model number.
- [4] Update the password.
- [5] Update the dip switches.
- [6] Delete the RMCS basic system.
- [7] End of the Menu.

Each processing from [1] to [6] is described later.

2.2.1 Registering the RMCS Basic System

The flow of new registration is different from that of updating. First, the flow of new registration is described below.

```
<< RMCS SETTING >>
HARD DISK DRIVE = [C]
```

Press the Esc key to cancel.

1) Enter the drive No. used to register the system.

Remote Management Center System		
<< RMCS SE HARD DISK DRIVE	ETTING >> = [C]	
DIRECTORY	$= [C: \RMCS_$]

Remote Management Center System

Press the Esc key to cancel.

2) Enter the directory name with up to eight alphanumeric characters.

<< RMCS SETTING >>			
HARD DISK DRIVE	= [C]		
DIRECTORY	= [C:\RMCS]	
PASSWORD	= [_]

Remote Management Center System

Press the Esc key to cancel.

3) Register a password of up to 15 alphanumeric characters excluding [\],["]. If the system operator is not defined, password registration not required.

I.	<< RMCS SE	TTING >>			
DI	RECTORY	= [C:\RMCS]		
PA	ASSWORD	= []	
DI (PSW (ON:0 OFF:1) For RMCS Model 10	= [<u>1</u> 1000000] only)			
	ARD DISK DRIVE RECTORY ASSWORD PSW (ON:0 OFF:1) For RMCS Model 10	= [C] = [C:\RMCS = [= [11000000] only)]]	

Remote Management Center System

Press the Esc key to cancel.

4) When you use RMCS Model 10, set the dip switches on the RMCS card. Normally, you need only press [Enter]. When an other extension slot and conflicting address space are being used, change the address space with the dip switches, then set the contents by using 1 and 0. When you use RMCS Model 20, you need only press [Enter].

OFF corresponds to 1 and ON to 0. Therefore set the dip switches to 11000000 in the following case.

Remote Management Center System

<< RMCS SE	TTING >>		
HARD DISK DRIVE	= [C]		
DIRECTORY	= [C:\RMCS_]	
PASSWORD	= []
DIPSW (ON:0 OFF:1)	= [11000000]		
Are you sure (Y or N)?	Y		

Press the Esc key to cancel.

5) When the setting is correct, enter [Y]. The system is now registered. If not correct, enter [N]. Then repeat from step 1) again.

When registering the system, also register ANSI.SYS required for screen control and MOUSE.SYS for using the mouse.

If RMCS is already set in the IBM PC/AT, RMCS SETTING MENU is displayed as below.



Remote Management Center System

Press the Esc key to cancel.

6) When updating, enter [Y]. Then updating status. When not updating, enter [N].

2.2.2 Registering the Facsimile Model No.

1) Search the directory in which the system is registered. When the system is found, register the model number.

<< FAX SETTING >>
FAX Disk set
Push any key





2) Insert a disk corresponding to the model into drive A, then press any key. The model number is displayed and the confirmation screen is displayed.

<< FAX SETTING >>
FAX Disk set
Push any key
000000000
Are you sure (Y or N)? \underline{Y}

Remote Management Center System

Press the Esc key to cancel.

3) When the model number to be registered is correct, enter [Y]. The program corresponding to the model number is now registered. If not correct, enter [N]. Then repeat from step 1) again.

2.2.3 Deleting the Facsimile Model No.

1) Search the directory in which the system is registered. When the system is found, a list of registered models is displayed.

Remote Management Center System	
<< FAX DELETE >>	1/1
[0]: OOOOOOOOOO [1]: [2]: [3]:	
[4]: [Page Up]: Previous page	
[Page Down]: Next page	

Remote Management Center System



2) Select the model number to be deleted. This number is then displayed in inverse video. The confirmation screen is also displayed.

<< FAX DELETE >>	1/1			
[0]: 0000000000				
[1]:				
[2]:				
[3]:				
[4]:				
[Page Up]: Previous page				
[Page Down]: Next page				

Remote Management Center System

Are you sure (Y or N)? \underline{Y}

Press the Esc key to cancel.

3) When the model number deleted is correct, enter [Y]. The program corresponding to the model number is now deleted. If not correct, enter [N]. Then repeat from step 1) again.

2.2.4 Updating the Password

1) Search the directory in which the system is registered. When the system is found, the old password is displayed on the screen requesting entry of a new password is displayed.

	8		
<< PASSWORD UPDATE >>			
OLD PASSWORD	= [1234567890]	
NEW PASSWORD	= []	

Remote Management Center System

Press the Esc key to cancel.

2) Register a new password of up to 15 alphanumeric characters excluding [\], ["]. Press [Enter] to display the confirmation screen.

Remote Management Center System			
<< PASSWORD UPDATE >>			
OLD PASSWORD = [1234567890]		
NEW PASSWORD = [ABCDEFGH]		
Are you sure (Y or N)? \underline{Y}			

Ν.

Press the Esc key to cancel.

3) When the setting is correct, enter [Y]. The password is now updated. If not correct, enter [N]. Then repeat from step 1) again. If the system operator does not define the PASSWORD, PASSWORD is not checked when RMCS starting.

2.2.5 Updating the Dip Switches

This setting is available for only RMCS Model 10.

1) Search the directory in which the system is registered. When the system is found, the dip switch setting is displayed.

<< DIP SW UPDATE >>
DIP SW (ON:0 OFF:1) = $[\underline{1}1010000]$ (For RMCS Model 10 only.)

Remote Management Center System

Press the Esc key to cancel.

For the detail of setting, refer to 2.2.1.

After setting is completed, press [Enter]. Then the screen for verification is displayed.

Remote Management Center System

<< DIP SW UPDATE >>
DIP SW (ON:0 OFF:1) = [11010000]
Are you sure (Y or N)? \underline{Y}

Press the Esc key to cancel.

3) When the setting is corrected, enter [Y]. The dip switches are now updated. If not correct, enter [N]. Then repeat from step 1) again.

2.2.6 Deleting the RMCS Basic System

1) When to delete, enter [Y], then whole RMCS system is deleted. When not to delete, enter [N]. Then the installation menu appears.

Remote Management Center System

<< RMCS DELETE >>	
DIRECTORY : [C:\RMCS] Are you sure (Y or N)? <u>N</u>	

Press the Esc key to cancel.

3. RMCS Basic Operation

3.1 Activating and Terminating the system

Before Activating the system

If the facsimile terminal is equipped with a selector function to "enable" or "unable" remote maintenance, set to "enable" in advance.

3.1.1 To Activate

Enter the following command in the PC-DOS command input state. **C>RMCS**



After completing the necessary preparations, the ID and password entry screen is displayed.

3.1.2 Entering the ID and Password

	ID [Password :]
12/10	/1996 18:08 Operator ID [] scrn xxxx

The ID is recorded in the operation report as part of the system operator history. Enter up to 50 alphanumeric characters except ["], [\] for the ID.

Enter the password registered at installation. When the correct password is entered. TEL Directory menu screen is displayed.

If you enter wrong password three times, ID and password entry screen is closed and return to the PC-DOS command input state.

3.2 TEL Directory

You can select such services (items) registration and deletion of information related to users. We describe the detail of each service later.

There are two ways to specify an item: select by using the $[\uparrow]$ and $[\downarrow]$ keys, then press [Enter] or enter the number before the item.

<< TEL DIRECTORY MEMU >>	
1 : Select user	
2 : Register user	
3 : Delete user	
4 : Data copy to another disk	
5 : Terminate	
12/10/1996 18:11 Operator ID [] scrn xxxx	

3.2.1 To Terminate

To terminate this system select "Terminate" on TEL directory menu screen or the main menu screen to return to PC-DOS.

Caution: After terminating remote management, restore the original facsimile terminal setting. (See to "Unable" remote diagnosis.)

3.2.2 Selecting Destination Drive

F1 : Terr	ninate	
	<< Data copy to anot	her disk >>
	<destination drive=""></destination>	A(FD)
		F10 : Execute
12/10/1	1996 18:53 Operator ID [] scrn xxxx

Now, select the destination drive. Press [Space] to change the drive name. Select "Terminate" to stop processing and return to the TEL directory menu screen. Select "Execute" to copy user information between the drives and return to the TEL directory menu screen.

3.3 Main Menu

The main menu screen varies according to FAX models. For further operation, refer to each FAX model manual.



There are two ways to specify an item: select by using the $[\uparrow]$ and $[\downarrow]$ keys, then press [Enter] or enter the number before each item.

Detail on "Environment Setting" is described later.

Submenus can also be specified by using the function keys.

Press [F1] to return to TEL directory menu screen.

Press [F2] to display the TEL number setting screen when you want to change the number registered into the user information file temporarily.

3.4 Environment Setting



Selecting "ENVIRONMENT SETTING" on the main menu to display this screen.

Communication port setting:

Select communication port to connect the IBM PC/AT and PC-I/F.

Frame size setting:

Select a frame size for each frame to transfer TEL number data and program/language/default data during execution of File [LOAD] (Center to FAX) and [EDIT] (ON LINE).

Operation report:

The operation report displays the transmission status.

Press [F1] to return to the main menu screen.

4. Message Modifying Tool

4.1 Activating the Program

After activating the PC/AT with a hard disk, insert the RMCS system disk into drive A. When C>_ is displayed, enter the following commands to activate the program. C>A:[Enter] A> SCRNED [Enter] Then the screen for menu selection is displayed.



- Press [0] [2] to display a screen for FAX model selection of each service.
- Press [Q] to terminate the program and return to PC-DOS.

4.2 Modifying Message

File selection:

Select "MESSAGE" MODIFY" on the menu screen, then the following screen is displayed.

<remote center="" management="" system=""> << MESSAGE MODIFYING TOOL>></remote>
<< MESSAGE MODIFY>> 1/1 [S] : RMCS SYSTEM [0] : FAX MODEL0 [1] : FAX MODEL1 [2] : FAX MODEL2 [3] : FAX MODEL3 [4] : FAX MODEL4 [5] : FAX MODEL5 [6] : FAX MODEL5 [6] : FAX MODEL6 [7] : FAX MODEL7 [8] : FAX MODEL8 [9] : FAX MODEL9
[PAGE UP] : PREVIOUS PAGE [PAGE DOWN] : NEXT PAGE PLEASE SELECT THE FAX MODEL (PRESS THE ESC KEY TO CANCEL)

Enter the key No. indicated on the left of the model to modify. Then the screen for file selection is displayed.

- Press [Page Up] or [Page Down] to scroll the screen back to the previous page or up to the next page.
- Press [Esc] to terminate the FAX model selection and return to the menu screen.

4.2.1 File Selection

< REMO <<	TE MANAC MESSAGE	GEMENT CI E MODIFYII	ENTER SYS NG TOOL>>	STEM >
	< <mes< th=""><th>SAGE MODI</th><th>FY>></th><th>x/x</th></mes<>	SAGE MODI	FY>>	x/x
SCRN1000.TX SCRN1020.TX SCRN1030.TX SCRN1030.TX SCRN1040.TX SCRN1060.TX SCRN1060.TX SCRN1080.TX SCRN1090.TX	SCRN2000.TX SCRN2010.TX SCRN2020.TX SCRN2030.TX SCRN2040.TX SCRN2050.TX SCRN2060.TX SCRN2070.TX SCRN2070.TX SCRN2090.TX	SCRN3000.TX SCRN3010.TX SCRN3020.TX SCRN3030.TX SCRN3040.TX SCRN3050.TX SCRN3050.TX SCRN3070.TX SCRN3080.TX SCRN3090.TX	SCRN4000.TX SCRN4010.TX SCRN4020.TX SCRN4030.TX SCRN4040.TX SCRN4050.TX SCRN4060.TX SCRN4070.TX SCRN4080.TX SCRN4090.TX	SCRN5000.TX SCRN5020.TX SCRN5020.TX SCRN5030.TX SCRN5040.TX SCRN5050.TX SCRN5060.TX SCRN5070.TX SCRN5070.TX SCRN5090.TX
	[PAGE UP] : PREVIOUS PAGE [PAGE DOWN] : NEXT PAGE			
PLEASE SELECT THE MESSAGE FILE (PRESS THE ESC KEY TO CANCEL)				

Select the message title to modify.

Select the position with $[\uparrow], [\downarrow], [\leftarrow]$ and $[\rightarrow]$ keys, and press the [Enter] key, then the position is selected.

- Press [Page Up] or [Page Down] to scroll the screen back to the previous page or up to the next page.
- Press [Esc] to terminate the title selection and return to the FAX model selection screen.

4.3 Saving Message

Model Selection:

Select "MESSAGE SAVE" on the menu screen. then the following screen is displayed.



Enter the key number indicated on the left side of the model with messages to store.

- Press [Page Up] or [Page Down] to scroll the screen back to the previous page or up to the next page.
- Press [Esc] to terminate the FAX model selection and return to the menu screen.

4.3.1 Confirmation

< R E	MOTE MANAGEMENT CENTER SYSTEM > << MESSAGE MODIFYING TOOL>>	
	<< MESSAGE SAVE >>>	
	SOURCE : RMCS SYSTEM	
	DESTINATION : A(FD)	
	PLEASE INSERT A FORMATED DISK, THEN PRESS THE ENTER KEY TO SAVE.	
	(PRESS THE ESC KEY TO CANCEL)	

Select a drive with the [Space] key.

Since it is assumed that data is stored on a floppy disk, you can select drive A or drive B. When setup is ready, insert a formatted floppy into the drive and press the [Enter] key, then saving is initiated.

• Press [Esc] to terminate saving message and return to the main menu screen.

4.4 Loading Message

Model Selection:

Select "MESSAGE LOAD" on the menu screen, the following screen is displayed.



Enter the key number indicated on the left side of the model with a message reset.

- Press [Page Up] or [Page Down] to scroll the screen back to the previous page or up to the next page.
- Press [Esc] to terminate the FAX model selection and return to the menu screen.

4.4.1 Confirmation

< REM	MOTE MANAGEMENT CENTER SYSTEM > << MESSAGE MODIFYING TOOL>>	
	<< MESSAGE LOAD >>	
	SOURCE : A(FD)	
	DESTINATION : RMCS SYSTEM	
PLEASE INSERT A SAVED DISK, THEN PRESS THE ENTER KEY TO LOAD.		
	(PRESS THE ESC KEY TO CANCEL)	

Select a drive with the [Space] key.

It is assumed that a message is loaded on the machine from the floppy disk, you can select drive A or drive B.

When setup is ready, insert a floppy disk which stores the message into the drive and press the [Enter] key.

• Press [Esc] to terminate loading message and return to the main menu screen.

4.5 Other Message File

In addition to the "scrn OOOO. lx" file, the following message files are available.

RMCS SYSTEM

err_mess. tx	Error message text
rms_env. tx	Operator ID text
sc OOOO p. tx	Printing screen text
u_print. tx	Printing text
rms_env2. tx	New user text
online tx. tx	"ON LINE" text
inst. tx	install text

FAX MODEL

sc OOOO p. tx	Printing screen text
online tx. tx	"ON LINE" text
scrnerr. tx	Error message text

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Appendix H: Product Service Bulletins

H.1 General Information

OKIDATA's Product Service Bulletins contain technical information obtained after product release.

Firmware updates, part number changes, and procedural changes are some of the subjects covered by these bulletins.

The Product Service Bulletins are distributed via OKIDATA's Web Site, Faxable Facts, and OKILINK II.

Use this section to store any hardcopy Product Service Bulletin information you may obtain from these sources.

OKIDATA's Web Site

OKIDATA's Web Site provides easy access to OKIDATA's product and service information. The Business Partner Exchange (BPX) provides Dealer-Only information to OKIDATA's sales and service providers. The information covers ALL OKIDATA products, and is constantly updated.

OKIDATA's Web Site address is: www.okidata.com

Faxable Facts

OKIDATA's Faxable Facts is an automated fax document retrieval system. It is maintained by OKIDATA's Customer Service and Support Group. A wide variety of information is available through Faxable Facts. It is frequently updated.

You must use a touch-tone telephone to contact Faxable Facts, and have your fax number ready when you call. An automated attendant will prompt you through the steps in using Faxable Facts.

The contact number for Faxable Facts is: 1-800-654-6651.

OKILINK II

OKILINK II is OKIDATA's Bulletin Board Service. This service is available to all OKIDATA Certified Service Technicians. OKILINK II provides additional troubleshooting and service information. Technicians can download files, ask questions of OKIDATA's technical support personnel, and participate in round table discussions about OKIDATA products and services. Product Service Bulletins, Recommended Spare Parts Lists, Printer Drivers, Product Specifications, and Service Training Information are also available.

System Requirements for OKILINK II are listed below. Asynchronous Communications Software set to: 8 Data Bits No Parity 1 Stop Bit Asynchronous Modem up to 9600 BPS w/error correction (MNP/V.42bis) IBM Graphics/ANSI Terminal Emulation

The dial in number for OKILINK II is 1-800-283-5474.

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Service Caution

The High Voltage Power Supply Unit in the OKIOFFICE 44 is mounted vertically on the left side of the unit, with the land side fully exposed. This board develops voltages of up to 1300 VDC as part of the normal printing process.

OKIDATA recommends that the unit be powered OFF (AC supply cord disconnected) before removing the Main Cover for service. In the event that it is necessary to troubleshoot the unit with the Main Cover removed, with AC power supplied, please take every caution to avoid touching the exposed circuitry of the High Voltage Power Supply Unit. To do so accidentally can result in a shock hazard.

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Appendix I: Recommended Spare Parts List (RSPL)

I.1 General Information

Recommended Spare Parts Lists (RSPLs) contain the current part numbers, descriptions, pricing, and stocking information for OKIDATA product spare parts.

The Recommended Spare Parts Lists are distributed via OKIDATA's Web site, Faxable Facts, and OKILINK II.

Use this section to store any hardcopy RSPL information you obtain from these sources.

OKIDATA's Web Site

OKIDATA's Web Site provides easy access to OKIDATA's product and service information. The Business Partner Exchange (BPX) provides Dealer-Only information to OKIDATA's sales and service providers. The information covers ALL OKIDATA products, and is constantly updated.

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