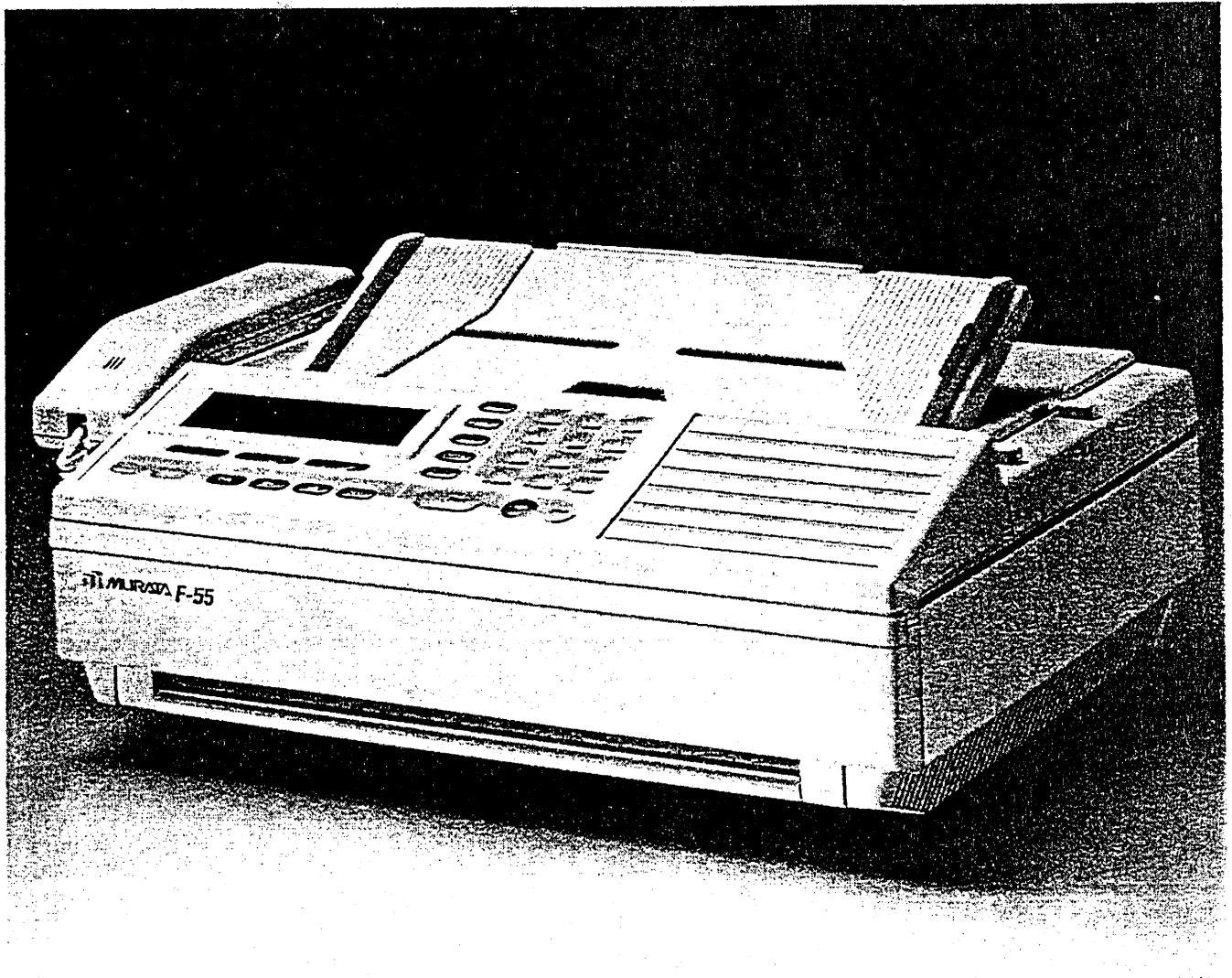


# F-55

## Operating Instructions



OFFICE SYSTEMS DIVISION

300) 292-2492 to order paper and other supplies

972) 364-3314 to order operating instructions

972) 364-1053 to order fax parts

972) 364-3350 to speak with customer support

# List of Commands

Keep this reference page close to your fax for a convenient list of your Murata unit's commands. For more information, see the page shown in your operating instructions.

<b>Command</b>	<b>Press</b>	<b>Page</b>
Polling . . . . .	PROGRAM, 1, 1, . . . . .	45
SecureMail . . . . .	PROGRAM, 1, 2, . . . . .	49
Cover Sheet . . . . .	PROGRAM, 1, 3, . . . . .	40
Speed-Dialer . . . . .	PROGRAM, 1, 4, . . . . .	26
One-Touch Keys . . . . .	PROGRAM, 1, 5, . . . . .	26
Special Programmable Keys . . . . .	PROGRAM, 1, 6, . . . . .	29
Print Group List . . . . .	PROGRAM, 2, 1, . . . . .	56
Print User Settings . . . . .	PROGRAM, 2, 2, . . . . .	54
Activity Journal . . . . .	PROGRAM, 2, 3, . . . . .	53
Set Clock . . . . .	PROGRAM, 2, 4, . . . . .	15
Transmit Terminal ID . . . . .	PROGRAM, 2, 5, . . . . .	15
Set Subscriber ID . . . . .	PROGRAM, 2, 6, . . . . .	17
Confirmation Reports . . . . .	PROGRAM, 3, 1, . . . . .	18
Commands in Memory . . . . .	PROGRAM, 3, 2, . . . . .	43
Display Storage in Use . . . . .	PROGRAM, 3, 3, . . . . .	23
Set Scanning Size . . . . .	PROGRAM, 3, 4, . . . . .	19
Set Closed Network . . . . .	PROGRAM, 3, 5, . . . . .	20
Set Passcode . . . . .	PROGRAM, 3, 6, . . . . .	20
Set Doc. Print Mode . . . . .	PROGRAM, 4, 1, . . . . .	21
Set Department Tracking . . . . .	PROGRAM, 4, 2, . . . . .	62
Set Ring Count . . . . .	PROGRAM, 4, 3, . . . . .	22
Monitor Speaker ON/OFF . . . . .	PROGRAM, 4, 4, . . . . .	23
Set Auto Answer Period . . . . .	PROGRAM, 4, 5, . . . . .	22
Transmission Stamp . . . . .	PROGRAM, 4, 6, . . . . .	21
User Fonts . . . . .	PROGRAM, 5, 1, . . . . .	63
Printing . . . . .	PROGRAM, 5, 2, . . . . .	61
Set the Second Telephone . . . . .	PROGRAM, 5, 3, . . . . .	23
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## Service Questions

If you have questions about your fax or its use, check the Common Questions and Maintenance sections of this manual. If you'd like additional help, call Murata's Customer Support Center:

**1-800-347-3294**

Trained Murata service technicians are available from 7:30 a.m. to 7:30 p.m. Monday through Friday Central time, excluding holidays, to resolve any questions not answered in this manual.

Have your fax's serial number ready for the service technician when you call. The serial number is printed on the back of your machine, under the bar code label.

## Do You Have a Comment?

Your comments on the content and quality of these operating instructions are welcome. Fax your comments and suggestions about this manual to Product Development, MBS, 1-214-403-3499. Please specify model number when corresponding.

## Specifications

**Type:** High-Speed facsimile transmitter/receiver for office and in-home use. **Compatibility:** CCITT Group 3 and Group 2, North American FM. **Transmission Speed\*:** 11 seconds per page average. **Telephone Line Required:** Public switched telephone network or the equivalent. Leased or dedicated telephone line not required. **Modem:** 9600 bps with automatic fallback to 7200, 4800 and 2400 bps per CCITT V.29 and V.27 ter. **Delayed Commands:** 10. **Doc. Memory\*\*:** 62 pages, optional upgrades to 248 pages. **Doc. Feeder:** 50 pages. **Resolution:** (H x V, LPI): Sfine 203 x 392; Fine 203 x 196; Norm 203 x 98; G2 203 x 98; FM 203 x 98. **Original Document Size (WxL)\*\*\*:** Minimum: 4.7" x 3.9" Maximum: 11.9" x 39.3. **Effective Scan Width:** 11.9" (303 mm). **Effective Printing Width:** 8.5" (216 mm) with standard A4 paper. Optional 10.1" (256 mm) B4 paper available. **Scanning Method:** Solid-state CCD. **Paper Size:** 8.5" x 328' (216 mm x 100 m), included standard, 10.1" x 328' (256 mm x 100 m), optional. **Grayscale:** 16-level. **Power Supply:** 115 VAC ± 10%, 50-60 Hz. **Approximate Power Consumption:** 15 W standby. **Dimensions (WxHxD):** 16.3" x 13.5" x 7.8" (416 x 342 x 198mm). **Weight:** 26.8 lbs. (12.2kg) with handset and trays.

\* Based on memory-to-memory transmission of CCITT Test Chart 1 to another Murata fax. Your transmission times will vary based on the size of your document, the complexity of images on the document, and the telephone lines used.

\*\* Based on CCITT Test Chart 1 stored at normal resolution. The number of pages stored in memory will vary based on the size of your documents and on the complexity of images on the pages scanned.

\*\*\* Optional unlimited length setting.

## FCC Regulations

**Warning:** This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception.

This facsimile machine has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that radio and television interference will not occur in a particular installation.

If this equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient the receiving antenna; Relocate the facsimile machine with respect to the receiver with which it interferes; Move the facsimile machine away from the receiver; Plug the facsimile machine into a different AC receptacle so that the facsimile machine and the receiver with which it interferes are on different branch electrical circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock Number 004-000-00345-4.

### Type of Service

Your Murata fax is designed for use on standard device telephone lines. The unit connects to the telephone line with a standard jack called the USOC RJ-11C. Connection to telephone company-provided coin service (central office implemented systems) is prohibited. Connection to party line service is subject to State tariffs.

### Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations, or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will provide this information upon request.

In certain circumstances, it may be necessary for the telephone company to request information from you about the equipment which you have connected to your telephone line. Upon request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN) of the equipment which is connected to your line. Both of these numbers are listed on the equipment label attached to your fax machine.

The sum of all RENs on your telephone line should be fewer than five (5) in order to assure proper service from the telephone company. Sometimes, a sum of five (5) may not be usable on a given telephone line.

### If Problems Arise

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily stop service. When practical, they will notify you before this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and will be informed of your right to file a complaint with the FCC.

In the event repairs are ever needed on your fax, they should be done by Murata Business Systems, Inc., or an authorized representative of Murata Business Systems, Inc.

## DOC Regulations

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

**NOTICE:** The Canadian Department of Communications label identifies certified equipment. This certification means the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. Sometimes, the company's inside wiring associated with a single line individual service may be extended with a certified connector assembly (telephone extension cord). The customer should be aware that compliance with these conditions may not prevent degradation of service in some situations.

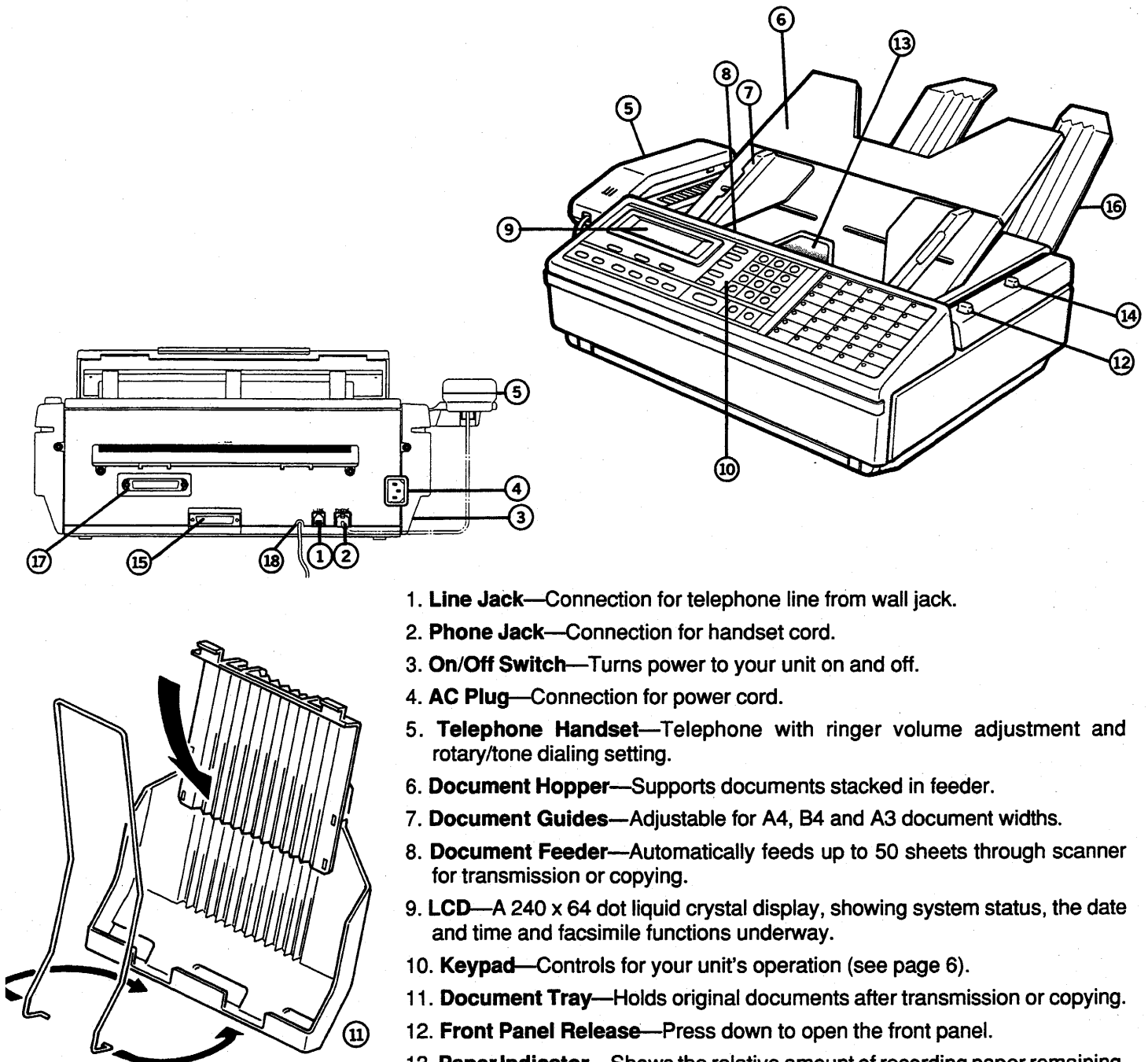
Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any equipment malfunctions or repairs or alterations made by the user to this equipment may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected. This precaution may be particularly important in rural areas.

**Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority or electrician.

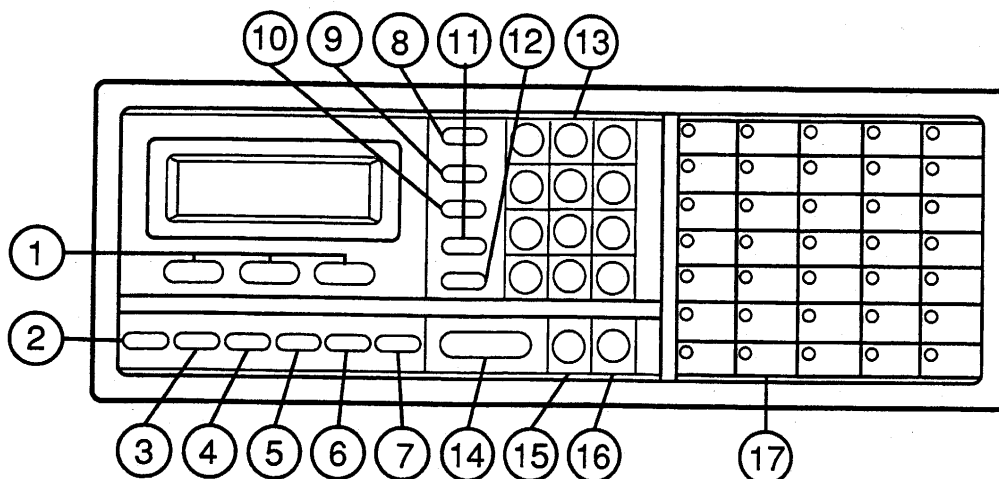
The Load Number assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the load numbers of all the devices does not exceed 100.

# Machine Layout



1. **Line Jack**—Connection for telephone line from wall jack.
2. **Phone Jack**—Connection for handset cord.
3. **On/Off Switch**—Turns power to your unit on and off.
4. **AC Plug**—Connection for power cord.
5. **Telephone Handset**—Telephone with ringer volume adjustment and rotary/tone dialing setting.
6. **Document Hopper**—Supports documents stacked in feeder.
7. **Document Guides**—Adjustable for A4, B4 and A3 document widths.
8. **Document Feeder**—Automatically feeds up to 50 sheets through scanner for transmission or copying.
9. **LCD**—A 240 x 64 dot liquid crystal display, showing system status, the date and time and facsimile functions underway.
10. **Keypad**—Controls for your unit's operation (see page 6).
11. **Document Tray**—Holds original documents after transmission or copying.
12. **Front Panel Release**—Press down to open the front panel.
13. **Paper Indicator**—Shows the relative amount of recording paper remaining.
14. **Cover Release**—Press down to open the cover to load recording paper.
15. **RS-232C Port**—25-pin RS-232C female connector.
16. **Copy Tray**—Holds copied or received documents.
17. **Printer Port**—Standard Centronics printer port to connect your fax machine with a Hewlett-Packard LaserJet Series II laser printer or compatible for plain paper output of your incoming fax messages.
18. **Second Telephone Jack**—Optional connector for a second phone (see page 13).

## Keyboard Layout



1. **Multifunction Keys**—Press to choose options that appear in the LCD.
2. **Call/Monitor**—Press for on-hook dialing for voice or fax calls. During fax communication, press to signal that you would like to speak with the remote fax operator, if one is present (see page 34).
3. **ECM**—Press to select CCITT-standard error correction mode for your transmissions and receptions. Use the ECM status message on the LCD to determine when ECM has been selected.
4. **Previous**—Press to return the LCD to the previous option.
5. **Right Arrow**—Press to move the LCD cursor backward.
6. **Left Arrow**—Press to move the LCD cursor forward.
7. **Next**—Press to change the LCD to the next series of options.
8. **Delayed Dial**—When programming your fax, press **Delayed Dial** to designate the start time of delayed operations, including delayed transmission, polling, relay broadcasting and other fax functions (see page 38).
9. **Broadcast**—When programming your fax, press **Broadcast** to designate a transmission to more than one location (see page 39).
10. **SecureMail**—When programming your fax, press **SecureMail** to indicate that the transmission should be made using Murata's exclusive SecureMail method of confidential document messaging (see page 49).
11. **Polling**—Press when programming your fax to enter a polling command.
12. **Speed Dialer**—Press before entering a three-digit speed-dial number for transmission, polling or other dialing.
13. **Numeric Keypad**—Use to enter data, dialing instructions and speed-dial numbers.
14. **Start**—Press to begin manual transmission or reception.
15. **Copy**—Press to copy documents inserted in the document feeder.
16. **Stop**—Press to stop the facsimile function underway and return your unit to standby mode.
17. **One-Touch Keys**—Press for one-touch dialing or for programmable one-touch functions. While programming user settings and other fax features, use the one-touch keys to enter letters, symbols and special programmable user fonts.



# Phone, Electrical, and Unpacking Information

## Telephone Requirements



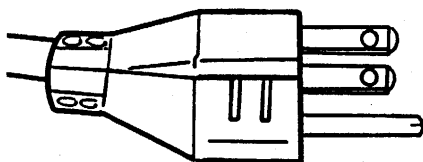
Your fax machine works on standard telephone lines and connects to the telephone system with a standard modular jack, called a USOC RJ-11C. If you do not have an RJ-11C jack where you want to install your fax, call your telephone company for information on installation.

Do not connect your fax to a private branch exchange (PBX) system without first checking with the system manufacturer or service representative. Some PBX systems are not compatible with facsimile operation.

## A Note About Call-Waiting Signals

Fax transmission and reception can be stopped by telephone call-waiting signals. If you have requested call-waiting service for the line to which you will connect your unit, you may experience interruptions of facsimile service.

## Electrical Requirements



Power your fax machine from a standard three-pronged 115-volt electrical outlet. Do not plug your fax into an outlet that is turned off at the end of the day: Although your telephone directory and most other user settings are protected against power failure for several days by a rechargeable internal battery, documents stored in memory will be lost if you turn off power to your fax.

Don't install your fax on the same electrical circuit as an air conditioner, copying machine, or other high-consumption electrical appliance. These appliances can cause electrical "draw-downs" when they operate—temporarily reducing the power available for other equipment on the circuit—and could damage your fax.

## Voltage Requirements

115 volts AC  $\pm$  10%, 50-60 Hz, single phase

## Power Consumption

Standby	15 W	Transmission	45 W
Copy	115 W	Reception	85 W

## Site Requirements

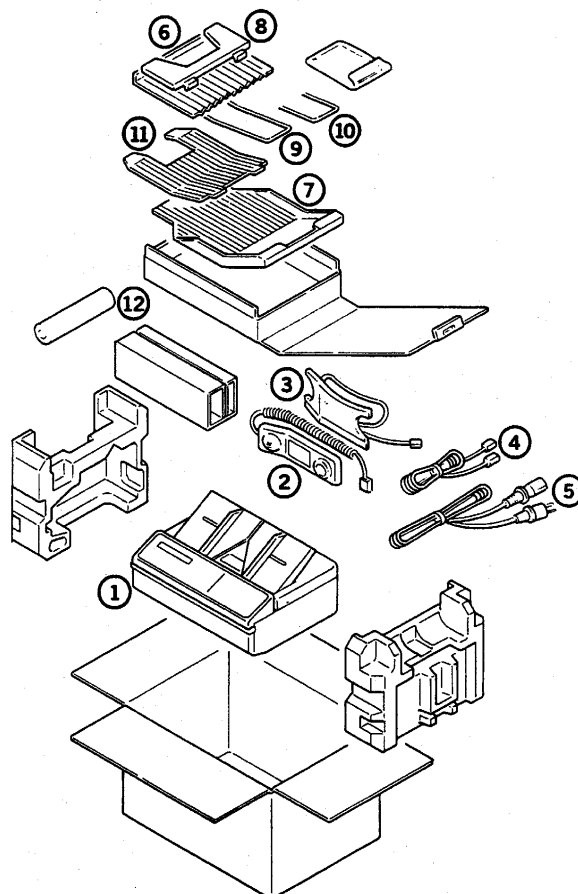
Choose a vibration-free spot for your fax machine that offers:

1. An RJ-11C telephone jack within 10 feet.
2. A standard 115 VAC, three-pronged electrical outlet within 5 feet.
3. An unrestricted airflow around your fax to prevent overheating. Allow at least 10 inches clearance from all sides and the top. Do not block the ventilation grills on your unit.
4. A cool, dark place nearby to store extra recording paper.

Do not install the unit:  
In direct sunlight  
In dusty areas  
In areas of excessive heat, humidity or moisture  
Near a radio or TV set

## Unpacking and Assembly

Be careful when unpacking and carrying your fax: Your unit weighs approximately 26 pounds.



Open the shipping carton and take out the accessory box, telephone handset, telephone cradle, telephone line, power cord, recording paper roll, and product documentation.

Carefully lift the fax machine and its protective foam braces out of the carton. Remove the foam braces and protective plastic bag.

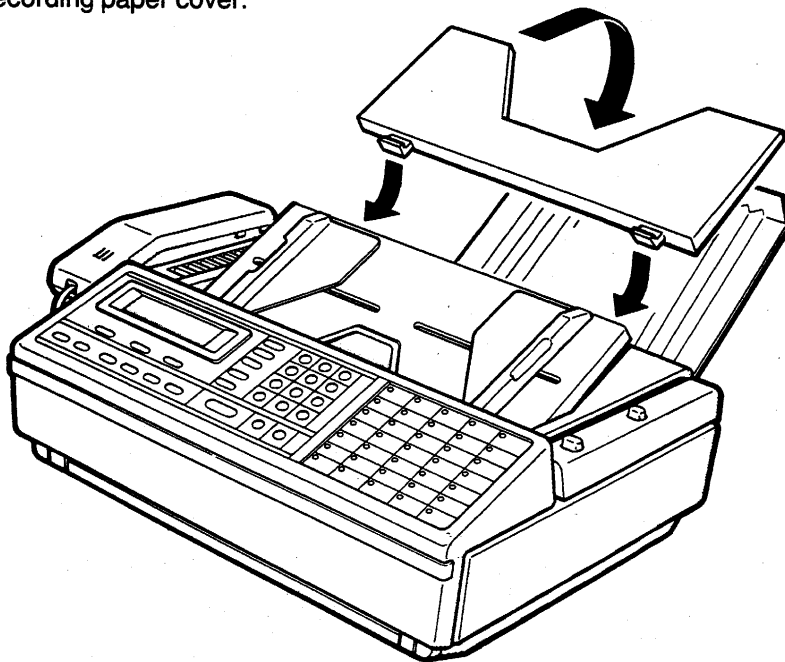
Keep the bag, braces, and carton for reshipment. Discard the silica desiccant shipped with your fax.

After unpacking, check for the following:

- |                             |                      |
|-----------------------------|----------------------|
| 1. Facsimile console        | 2. Telephone handset |
| 3. Telephone handset cradle | 4. Telephone line    |
| 5. Power cord               | 6. Document tray A   |
| 7. Document tray B          | 8. Document Hopper   |
| 9. Guide Wire A             | 10. Guide Wire B     |
| 11. Copy Tray               | 12. Paper roll       |

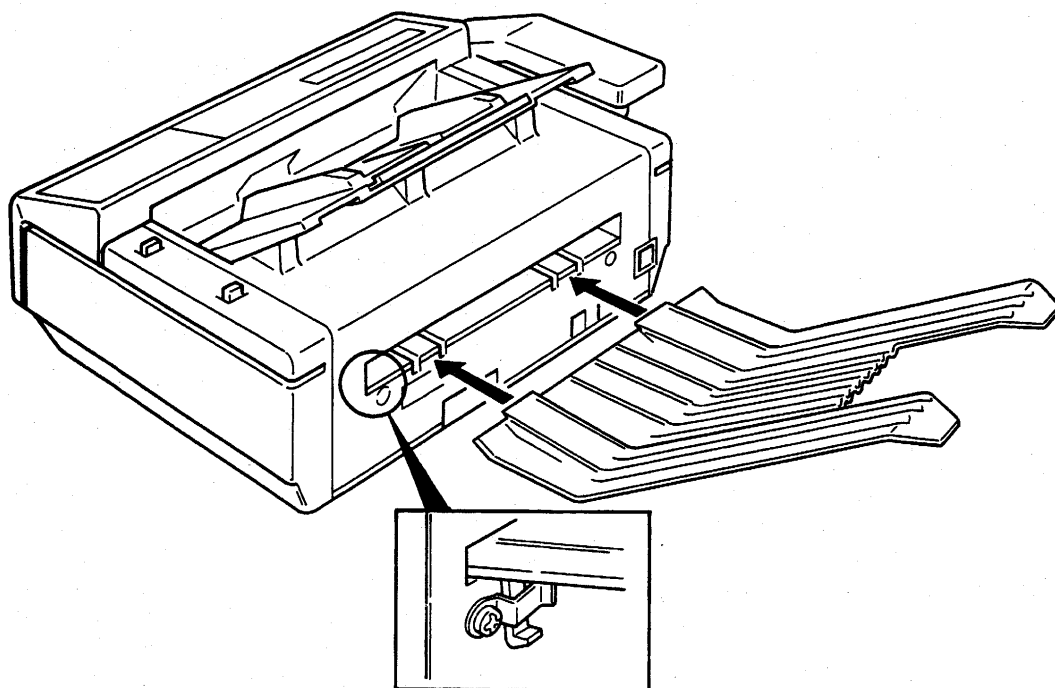
## 1. Document Hopper

Hook the brackets on the bottom of the document hopper into the underside of the recording paper cover. When installed, the tray will be aligned with the recording paper cover.

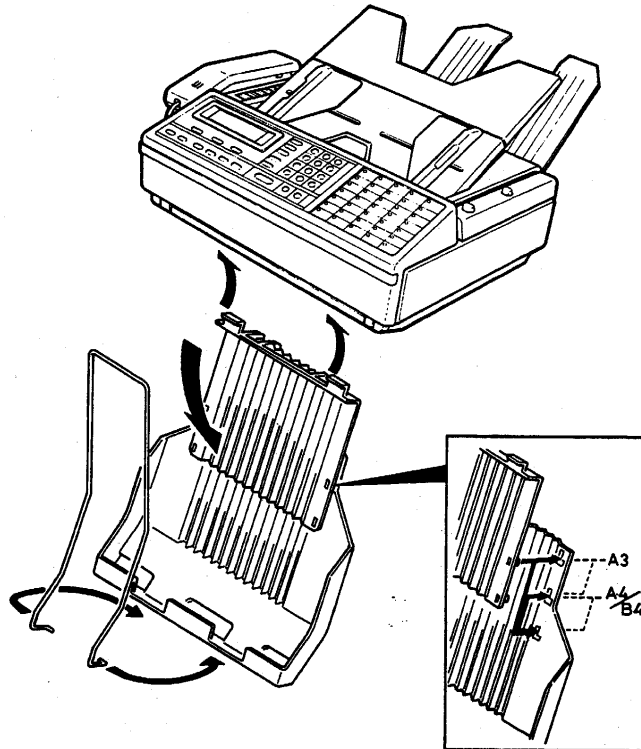


## 2. Copy Tray

Slide the copy tray into place at the back of your unit. Use a screw driver to loosen the tray retaining clips. Then position the clips to hold the receive tray in place as shown and tighten the screws.



### 3. Document Tray



The document trays for your unit allow you to install the fax at the edge of a desk, so original documents fall vertically into the tray, or away from the edge, so documents are stacked face-down in front of your unit. The document trays can be assembled in either of two lengths to best suit the documents your office transmits.

To install the document trays:

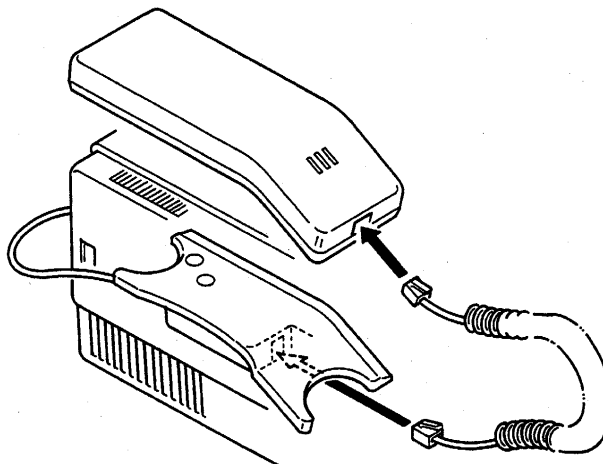
Fasten document trays A and B together to create a single tray. The trays can be joined at either of two points to create a tray 17 or 12 inches long.

Hook the brackets on the top of the document tray into the slots below the front document exit to allow the tray to hang from your unit.

### Connections

1. Make sure the on/off switch at the back of the unit is off.
2. Plug the telephone line into the connector marked Line at the rear of the fax console. Plug the other end into a telephone wall jack.
3. Use the handset cradle screws and a screwdriver to attach the cradle to the side of your fax.

4. Plug the handset cord into the connector marked Phone at the rear of the fax console. Hang the handset on its cradle.

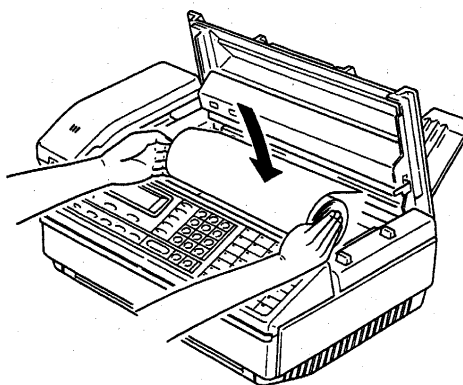


5. Attach the power cord to the connector at the rear of the fax console. Plug the other end into a three-pronged electrical outlet.
6. If you will be using your fax with a computer or other ASCII communication device, connect the device to your unit's RS-232C port with a standard null modem cable. If you will be using your fax with Murata's Facsimile Interface Processor, use the cable included with FIP.
7. Turn the on/off switch on.

## Installing Fax Recording Paper

To install fax recording paper in your Murata facsimile machine:

1. Press the top cover button and open the cover.



2. Place the paper roll into the paper cradle so it unrolls from the top and is fed out through the back of your fax.
3. Feed the leading edge of the fax paper beneath black bar at the rear of the paper cradle. A label inside your fax will help you position the paper correctly.
4. Close your fax, pressing firmly on the front of the cover. The fax will feed four inches of paper out the back of the unit and cut it automatically.

Your unit can use 8.5-inch or 10.1-inch-wide recording paper. A plastic retaining gate is used inside the paper cradle to keep the narrower A4-width paper rolls in place.

### Low-Paper Warning

A red warning line will appear on your Murata recording paper when fewer than 25 feet of paper remain. Replace the roll as soon as possible.

A black end-of-paper line appears just before the roll ends and prevents further printing, protecting your fax thermal printhead. When your fax reaches this end-of-paper line, the LCD will display "Confirm Paper Supply." Replace the roll immediately.

## Out-of-Paper Reception

If your fax runs out of paper at night or while you are out of the office, incoming messages will be stored in your fax's document memory. These messages will be printed automatically when you replace the recording paper roll.

The number of transmitted pages your fax can store in memory is determined by the page size of the documents received and the resolution at which they were transmitted. Documents transmitted in fine resolution take twice the memory of a normal-resolution document, and superfine pages require twice the memory of fine.

With error correction mode (see page 59) off, your fax can store 62 pages of CCITT Test Chart 1 at normal resolution. With ECM on, your fax can store about 58 pages. Documents stored in memory for delayed commands reduce the number of pages your fax can receive into memory when out of paper.

If your fax's memory becomes full when out of paper, it will ignore later fax calls and cannot receive again until you install a new recording paper roll.

## Murata Fax Paper

---

For the best results and longest system life, use only Murata thermal recording paper in your new facsimile machine.

Your Murata fax uses a special thermal printhead to provide sharp, clear documents. Murata's thermal fax paper meets the exacting standards of this sophisticated printhead. Other papers don't meet Murata's specifications and won't provide the document clarity of genuine Murata thermal facsimile recording paper.

### Call for Information

Specify Murata thermal fax paper when you order. Ask your Murata representative or your local facsimile dealer for several rolls, or call 1-800-543-4636 for the authorized source nearest you.

## B4 Printing Option

---

Your unit was shipped with an 8.5-inch-wide recording paper roll. This A4 paper width is the standard for correspondence stationery in North America.

Your unit can print up to 10.1 inches wide, however. This B4 paper width is common elsewhere in the world and may be useful when receiving oversized documents.

Order B4 recording paper rolls from your local Murata fax dealer and install the paper roll as shown on page 14. A retaining gate inside the paper cradle can be adjusted to accept A4 or B4 paper rolls.

Your unit detects the width of the paper roll in use and adjusts its printing width automatically.

## Using Your Fax As a Copier

---

Before continuing, try a test of your fax's copying feature. Place a document on the document hopper. Then press **COPY**. Your fax will produce a duplicate of your original document.

To make multiple copies, place a document on the document hopper. Use the numeric keypad to enter the number of copies you want the fax to make. Then press **COPY**.

# Telephone Features

Your fax includes a telephone handset for convenient telephone communication. You can use this handset to dial voice calls or to place fax calls. When calling a remote fax with the handset, wait until you hear reception fax tones from the remote unit, then press **START** to transmit the document in the feeder.

The telephone handset on your fax includes two controls:

The handset's ringer volume adjustment allows you to adjust the handset ringer volume to high, medium, or low to suit the needs of your office.

The pulse or tone switch controls the dialing signals produced by the handset keypad. The handset setting does not change the dialing signals produced by the fax's autodialer or numeric keypad, so numbers you dial using one-touch keys, speed-dial numbers and other autodialer entries won't be changed by any modification to the handset.

## Call/Monitor

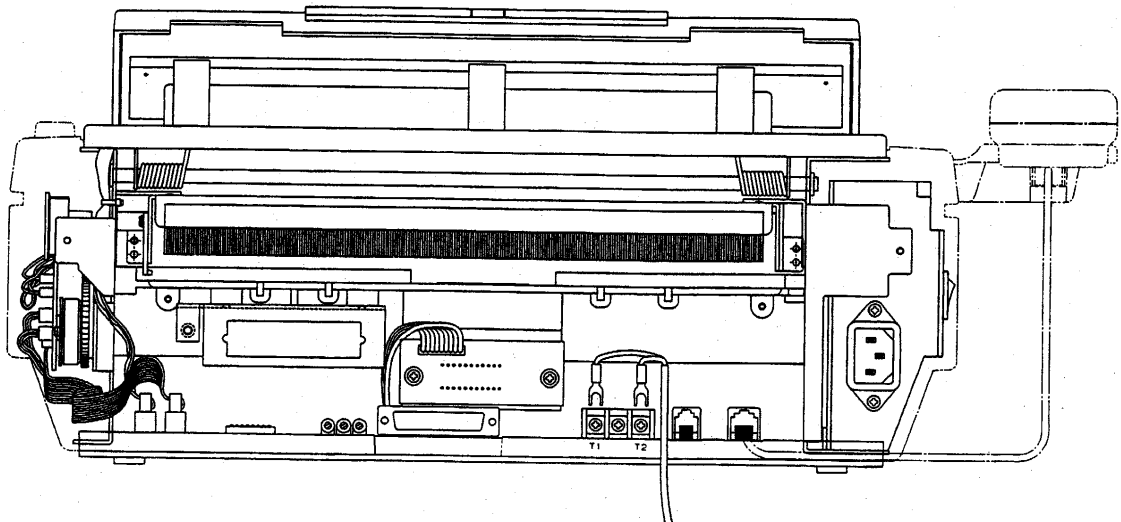
For hands-free voice or fax dialing, press **CALL/MONITOR** to get a dial tone while the unit's handset remains down. Then enter a telephone number using the fax's numeric keypad, a one-touch key or by pressing **SPEED DIALER** and a three-digit speed-dial number. For voice dialing, pick up the handset when the call is answered. For fax dialing, make sure there is a document in the unit's feeder and press **START** when the remote fax answers.

## Installing a Second Telephone

It is possible to connect a second telephone to your fax. To do so, you will need a small Phillips-type screwdriver, a small wire cutter and the telephone you wish to use.

To connect the second telephone:

1. Unplug your fax and make sure the on/off switch at the back of your unit is off.
2. Remove your fax machine's back cover. The cover is secured by two Phillips-type screws in the upper left and right corners of the back panel.



3. Strip the colored insulating coatings from the individual wires in the telephone line from the second telephone.
4. Attach the green and red lines from your telephone to the T1 and T2 terminals on the terminal block at the back of the fax. Either wire can be connected to either terminal. Black and yellow lines, if present in your telephone system, are not used by the fax.

Do not connect any of the second telephone's wires to the center terminal.

5. Remove the plastic cut-out from the bottom of the fax's back cover. The cut-out is a semi-circular notch beside the Phone and Line jacks at the back of your fax.
6. Position the telephone line from the second telephone to exit the fax console through the opening left by the plastic cut-out. Then re-attach the back cover to your fax. Plug in the power cord to your fax and turn the unit on.
7. See page 23 for information on the "Set Second Telephone" setting.

---

## Switch to Fax

If you answer an incoming fax call with your second telephone, you will hear distinctive fax transmission tones. To receive the call, press **START** and hang up. If the second telephone connected to your fax is in another room, press or dial "6" on the second telephone two or four times (see page 70) to instruct your unit to come on the line and print the fax message.



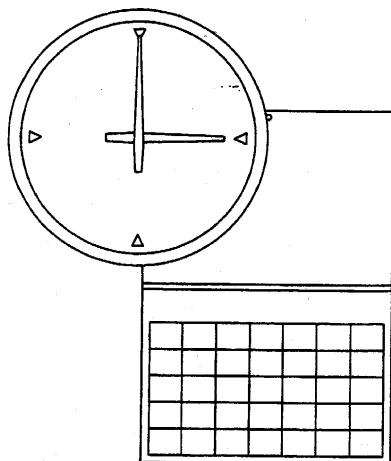
# User Settings

## Setting the Language of Operation

Your fax can display LCD screens, reports, lists and journals in English, Spanish or French.

Your unit is initially set for English-language operation. To select Spanish-language operation, press **PROGRAM**, #, **STOP**. To select French-language operation, press **PROGRAM**, #, #, **STOP**.

## Setting the Date and Time



The clock and most other user settings in your fax are protected from power failures for up to several days by a rechargeable internal battery. This battery is fully charged after two or three days of uninterrupted use. The LCD on your unit displays time in 24-hour format.

1. To set the clock, press **PROGRAM**, **2**, **4**.

```
ECM    OFF    CLOCK
CONT.  OFF    Input Time
STAMP  OFF    '90 02/26 10:45
                        ENTER
```

Your unit will display the time currently set.

2. Use the numeric keypad to enter the last two digits of the current year. Then enter the month, day and time. Press **ENTER**.

## Transmit Terminal Identifier

Your programmable Transmit Terminal Identifier is sent automatically at the top of each document you send.

The TTI can be your name, your business name or any other message up to 45 characters long.

You can include letters, special characters and your programmable fonts in your TTI. **Each programmable user font used takes up two of the 45 available spaces in your TTI.** All other characters take up one space. See the chart on the following page.

1. To enter your TTI, press **PROGRAM**, **2**, **5**.

```
ECM    OFF    TTI
CONF.  OFF    SET/TRANSIT/PRINT
STAMP  OFF
SET     TRANSMIT    PRINT_DOC
```

2. Press **SET**.

```
ECM    OFF    TTI    SET
CONF.  OFF    :      :Upper Case
STAMP  OFF
MODE           CANCEL    ENTER
```

3. Press **MODE** to scroll through the upper case, lower case, symbol character and user font options.

SF III SYMBOL CODE

CODE	SYMBOL	CODE	SYMBOL	CODE	SYMBOL	CODE	SYMBOL	CODE	SYMBOL
040	SPACE	100	@	140	~	200	Ç	340	á
041	!	101	A	141	a	201	ü	341	í
042	"	102	B	142	b	202	é	342	ó
043	#	103	C	143	c	203	à	343	ù
044	\$	104	D	144	d	204	ä	344	n
045	%	105	E	145	e	205	â	345	ñ
046	&	106	F	146	f	206	ã	346	ø
047	'	107	G	147	g	207	ç	347	ø
050	(	110	H	150	h	210	ê	350	¿
051	)	111	I	151	i	211	ë	351	ß
052	*	112	J	152	j	212	è	352	ì
053	+	113	K	153	k	213	ï	353	§
054	,	114	L	154	l	214	í	354	
055	-	115	M	155	m	215	ì	355	
056	.	116	N	156	n	216	Ä	356	
057	/	117	O	157	o	217	Å	357	
060	0	120	P	160	p	220	Ê	360	
061	1	121	Q	161	q	221	æ	361	
062	2	122	R	162	r	222	Æ	362	
063	3	123	S	163	s	223	Ö	363	
064	4	124	T	164	t	224	Ø	364	
065	5	125	U	165	u	225	Ö	365	
066	6	126	V	166	v	226	Ü	366	
067	7	127	W	167	w	227	ü	367	
070	8	130	X	170	x	230	ý	370	
071	9	131	Y	171	y	231	ó	371	
072	:	132	Z	172	z	232	Û	372	
073	:	133	[	173	{	233	€	373	
074	<	134	¥	174		234	£	374	
075	=	135	]	175	}	235	¥	375	
076	>	136	^	176	-	236	Pl	376	
077	?	137	_	177	-	237	f	377	

- Use one-touch keys A through Z in the upper and lower case modes to enter letters into your TTI. Use one-touch keys U1 through U9 in the upper and lower case mode to enter programmable user fonts 1 through 9.
- Use the symbol character mode and three-digit numbers entered through the numeric keypad to enter the special characters shown in the chart above. Enter "233", for example, to make a cent sign appear in your TTI, or enter "040" to add a blank space between words. (Some of the three-digit symbol codes in the chart above generate standard English-language characters—"115" for a capital M, for example. You'll probably find it easier to enter such letters using the one-touch key pad, however, and limiting use of the symbol mode for characters not shown on the one-touch keypad.)
- Use the user font mode and two-digit numbers entered through the numeric keypad to enter programmable user fonts 10 through 40 into your TTI.

4. When you've entered your TTI, press **ENTER**. You will now be prompted to enter a TTI ID. This 16-character identifier will appear on some reports from your unit and cannot include programmable user fonts.

ECM	OFF	TTI	ID
CONF.	OFF	:	:Upper Case
STAMP	OFF	Murata	
MODE		CANCEL	ENTER

5. When you have entered the TTI ID, press **ENTER**.

## Printing the TTI

1. Press **PROGRAM, 2, 5**.

ECM	OFF	TTI	
CONF	OFF	SET/TRANSMIT/PRINT	
STAMP	OFF		
SET		TRANSMIT	PRINT_DOC

2. Press **PRINT\_DOC** to print your TTI.

ECM	OFF	PRINTING	
CONF	OFF		
STAMP	OFF	Feb. 26	14:01
NORMAL		NORM_DOC	PROGRAM

## Cancelling the TTI

This setting instructs your unit to delete your Transmit Terminal Identifier from the documents you send.

1. To delete the TTI, press **PROGRAM, 2, 5, TRANSMIT**.

ECM	OFF	TTI	TRANSMIT
CONF	OFF	Select	ON/OFF
STAMP	OFF	ON	
ON		OFF	ENTER

2. Press **OFF**. Then press **ENTER**.

## Setting the Subscriber ID

The Subscriber ID is your unit's telephone number and appears in the Activity Journal and LCD of some remote unit's with which you communicate.

1. To set the Subscriber ID, press **PROGRAM, 2, 6**.

ECM	OFF	SUBSCR_ID	
CONF	OFF	Input Dial No.	
STAMP	OFF		
-		CANCEL	ENTER

2. Use the numeric keypad to enter your unit's telephone number. To insert a dash, "—", press the hyphen key. You can enter up to 20 digits, including hyphens.

ECM	OFF	SUB_ID
CONF	OFF	Input Dial No.
STAMP	OFF	1-214-403-3499
—		CANCEL ENTER

3. If you enter a number by mistake, press **CANCEL**.
4. When your Subscriber ID is set, press **ENTER** to return to standby.

## Selecting the Confirmation Report

Your fax offers two kinds of communication reports after a transmission. These reports verify that your document was sent, and are especially useful when you use delayed commands to send documents after hours.

A Transmit Confirmation Report is a signal from your fax that the document you set for transmission was sent to the location shown on the report. A TCR is available for any transmission.

A Receive Confirmation Report is available during transmission to other Murata-manufactured units. An RCR is a message transmitted back from the remote unit, signalling that the remote fax received and correctly printed the message you sent.

TCRs and RCRs list the transmitting and receiving unit, date, time, number of pages sent and result. The name or telephone number shown in the "Receiver" field of your report may not be the one you entered in your autodialer: The information that appears in this field comes from the remote unit during fax communication (see page 53).

If you request an RCR during a transmission with a non-Murata unit, a TCR will be printed automatically instead.

To receive an automatic confirmation report after every transmission:

1. Press **PROGRAM, 3, 1, ON/OFF**.

ECM	OFF	CONFIRM	ON/OFF
CONF.	OFF	Select	ON/OFF
STAMP	OFF	OFF	
	ON	OFF	ENTER

2. Now press **ON, ENTER**. The LCD will change to **CONF. ON**.

ECM	OFF	CONF	ON/OFF
CONF.	ON	Select	ON/OFF
STAMP	OFF	ON	
	ON	OFF	ENTER

Now choose whether your fax should request an RCR or TCR after each transmission. An RCR offers a higher degree of assurance after your transmissions when communicating with another Murata-manufactured fax machine, since it is a message transmitted back from the remote unit. A TCR requires slightly less transmission time than a Receive Confirmation Report, however, because it is generated by your own unit.

1. Press **PROGRAM, 3, 1, RCR/TCR.**

ECM	OFF	CONFIRM RCR/TCR
CONF.	ON	Select RCR/TCR
STAMP	OFF	TCR
	RCR	TCR ENTER

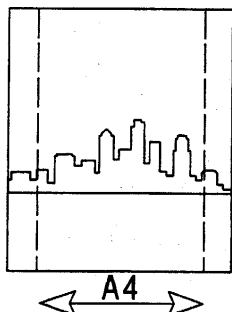
2. Now choose **RCR** or **TCR**. Then press **ENTER**.

ECM	OFF	CONFIRM RCR/TCR
CONF.	ON	Select RCR/TCR
STAMP	OFF	RCR
	RCR	TCR ENTER

You can also request a confirmation report for an individual transmission, even when the setting above is set OFF. To manually select confirmation report after you have inserted a document for transmission:

1. Press **NEXT**.2. Then press **CONFIRM**. The LCD will change to **CONF. ON**. After you have received your confirmation report, the LCD will go back to **CONF. OFF**.

## Setting the Scanning Width



When you transmit wide documents, your Murata fax machine will automatically reduce the size of the pages sent to accommodate the printing capability of the receiving fax.

If you want to transmit images from wide documents without automatic size reduction, adjust the scanning width of your fax. Your unit initially scans at the A3 (11.9-inch) document width. You can adjust this to the B4 (10.1-inch) or the A4 (8.5-inch) widths.

When you select a narrower scanning width, your fax will ignore any image outside the active scanning area. If you select the A4 scanning width and insert a 12-inch-wide document, for example, your fax will scan the center 8.5 inches and leave 1.75 inches unscanned on each side of the page.

1. To set the scanning width, press **PROGRAM, 3, 4.**

ECM	OFF	SCAN_SIZE
CONF.	OFF	Select A3/B4/A4
STAMP	OFF	A3
	A3	B4 ENTER

## 2. Two choices, A3 and B4, will appear on your LCD. If either of these widths is the one you need, press the corresponding key.

ECM	OFF	SCAN SIZE
CONF.	OFF	Select A3/B4/A4
STAMP	OFF	A3
	A3	B4 ENTER

3. If you want to set A4 as your scanning width, press **NEXT**. Then press A4.

ECM	OFF	SCAN SIZE
CONF.	OFF	Select A3/B4/A4
STAMP	OFF	A4
		A4

4. Now press **PREVIOUS** to go back to the previous screen. Press **ENTER** and your scanning width is set.

ECM	OFF	SCAN SIZE
CONF.	OFF	Select A3/B4/A4
STAMP	OFF	A4
A3		B4
		ENTER

## Setting a Closed Network

You can close your unit to transmissions from unauthorized facsimile machines and eliminate "junk fax" with the closed network feature.

When you turn on the closed network, only Murata facsimile machines presenting the proper pass code can access your unit for transmission or polling. All other facsimile machines will be disconnected.

To activate the closed network:

1. Press **PROGRAM, 3, 5, ON**.

ECM	OFF	CLSD. NET
CONF.	OFF	Select ON/OFF
STAMP	ONFF	ON
ON		OFF
		ENTER

2. Then press **ENTER** to turn on the closed network.

Repeat these steps, entering **OFF** in step 1 above, to turn the closed network off.

## Setting the Pass Code

The optional pass code in your unit allows you to protect a document set to be polled from unauthorized access, and to poll a document from another unit with a pass code in place.

When operating in a closed network, the pass code is also used as an authorization number, giving your unit access to the network.

The pass code is used only when communicating with other Murata-manufactured units and only when you want to deny access to all units not presenting the proper pass code.

To set the pass code:

1. Press **PROGRAM, 3, 6**.

ECM	OFF	PASSCODE
CONF.	OFF	Input Passcode
STAMP	OFF	0000
		ENTER

2. Enter the pass code using the numeric key pad. Then press **ENTER**.

ECM	OFF	PASSCODE
CONF.	OFF	Input Pass Code
STAMP	OFF	1234
		ENTER

**Note:** To cancel the pass code, enter code "0000". This setting allows any unit from any manufacturer to access your facsimile machine.

## Setting Primary Resolution

If most of your transmissions require the fine transmission mode, use the primary mode setting below to save a step in all future transmissions: When you select fine as the primary mode, your unit will send all documents at this resolution unless you manually change it before transmission.

1. To set the primary mode, press **PROGRAM, 4, 1**.

ECM	OFF	DOC_MODE
CONF.	OFF	Select FINE/NORMAL
STAMP	OFF	NORMAL
FINE		NORMAL ENTER

2. Press **FINE**. Then press **ENTER** to complete the change.

ECM	OFF	DOC MODE
CONF.	OFF	Select FINE/NORMAL
STAMP	OFF	FINE
FINE		NORMAL ENTER

## Selecting the Confirmation Stamp

Your fax includes a small stamping device that marks each page of your original document as it is transmitted. This stamp is extra assurance that each page of your document was transmitted and makes it easy to spot pages that double fed through your fax.

To use the stamp, simply turn the stamp feature on as described below, load your document into the feeder, and transmit. During transmission, the bottom of your page will be stamped with a small blue circle. The confirmation stamp feature works for any transmission from the document feeder: Documents scanned into memory for delayed transmission are not stamped.

1. To set the stamp, press **NEXT**.

ECM	OFF	TEL/FAX READY
CONF.	OFF	
STAMP	OFF	Feb 26, 90 14:55
ANSWER	CONFIRM	TX_STAMP

2. Now press **TX\_STAMP**. The LCD will indicate that the stamp has been turned on.

ECM	OFF	TEL/FAX READY
CONF.	OFF	
STAMP	ON	Feb 26, 90 14:55
ANSWER	CONFIRM	TX_STAMP

## Setting the Number of Rings

Use this setting to select the number of times your fax will ring before it responds to an incoming call. You can select two or six rings. Your unit is set initially to respond after two rings.

Selecting six rings and choosing automatic reception (see below) may be ideal if you have only one telephone line and share that line with your fax and a business telephone. Six rings gives the operator time to answer every call manually, but still provides automatic fax reception if the operator is busy or not available.

1. To set the number of rings, press **PROGRAM 4, 3**.

```
ECM   OFF   RING_CNT.
CONF. OFF   Select 2/6 RINGS
STAMP OFF   2 RINGS
6 RINGS  2 RINGS  ENTER
```

2. Select the desired number of rings by pressing 6 or 2. Then press **ENTER**.

```
ECM   OFF   RING_CNT.
CONF. OFF   Select 2/6 RINGS
STAMP OFF   2 RINGS
6 RINGS  2 RINGS  ENTER
```

## Setting Auto Receive Time

Use the Auto Receive setting below to select specific hours for your fax to switch to and from the automatic answer mode. This setting is particularly useful if you use your fax on the same line as a business telephone: Instruct your fax to switch to manual answer during the business day, so someone in the office can answer all incoming calls. Instruct the fax to switch to automatic answering after hours, so you never miss an important message.

1. To set your fax's auto receive time, press **PROGRAM, 4, 5**.

```
ECM   OFF   AUTO_ANSR
CONF  OFF   Input Time
STAMP OFF   00:00 - 00:00
                        ENTER
```

2. Using the keypad, enter the time you want automatic reception to begin. Then press **ENTER**. Remember, your fax tracks time in 24-hour format, where, for example, 11 a.m. is shown as 11:00 and 3 p.m. is shown as 15:00.

```
ECM   OFF   AUTO_ANSR
CONF  OFF   Input Time
STAMP OFF   18:00 - 00:00
                        ENTER
```

3. Enter the time you want automatic reception to end. Press **ENTER**.

```
ECM   OFF   AUTO_ANSR
CONF  OFF   Input Time
STAMP OFF   18:00-08:00
                        ENTER
```

If you enter the wrong time, move the cursor using the arrow keys and make your corrections before pressing **ENTER**.



## Setting the Second Telephone

A second telephone can be connected to your Murata fax for added convenience (see page 13). If you connect a second telephone to your fax, change the following setting as soon as the phone is installed.

1. Press **PROGRAM, 5, 3, ON.**

ECM	OFF	TELEPHONE
CONF.	OFF	Select ON/OFF
STAMP	OFF	ON
ON	OFF	ENTER

2. Then press **ENTER.**

## Checking Storage in Use

To see how much storage is presently being used, press **PROGRAM, 3, 3.** The number of pages stored and the percentage of available storage being used will be displayed in the LCD.

ECM	OFF	STORAGE
CONF.	OFF	
STAMP	OFF	0 Pages / 0%
POLLING	S_MAIL	MESSAGE



# Autodialer

Your fax includes a powerful autodialer to store up to 200 frequently called facsimile numbers: 35 as one-touch numbers and 165 as speed-dial numbers. An additional 135 voice numbers may be programmed into your fax. These include 35 one-touch voice numbers and 100 speed-dial voice numbers.

Handy printed directories available from your unit list each of your autodialer entries. Use Location IDs, optional 16-character identifiers, to identify the one-touch keys and speed-dial numbers by name.

You can enter up to 40 digits for each autodialer number, including a special set of characters to generate dialing pauses required for use with some long distance and PBX systems. See the chart below for details.

You can also enter a 40-digit alternate number for up to 10 autodialer locations. If your unit is unable to contact the facsimile machine at the primary number, it will automatically attempt to call the alternate.

## Dialing Symbols:

Function	Character	Description
Pause	-/	May be required when using long-distance services and on some telephone accessory systems, including PBX systems that require dialing a "9" to reach an outside line. Your unit initially pauses 5 seconds when it encounters the dialing pause. See below for instructions on changing the pause length.
Tone	-!	If your local telephone system or phone line requires rotary dialing signals but your long distance company requires tone access codes, your fax's <b>Tone</b> option lets you mix both types of signals in your one-touch or speed-dial numbers. Just enter the main number and press <b>Next</b> until the <b>Tone</b> symbol appears on the LCD. Then press <b>Tone</b> and enter the access code. Use of the <b>Tone</b> key is not necessary on touch-tone telephone systems.
Overseas	\$	This command instructs your fax to compensate for the poorer transmission characteristics of some overseas telephone lines. When storing an overseas number, this should be the first character in your dialing sequence.
Asterisk Pound	* #	Used in the private access codes required for some long-distance telephone services.
1 Tone	!	Pauses up to thirty seconds, waiting for three seconds of continuous dial tone from your telephone system. This symbol may be needed in some branch exchange systems.
2 Tone	/	This dialing pause is used in some foreign countries and is not necessary in the U.S.

## Dial Pause Length

To set the dialing pause length:

1. Press **PROGRAM**, \*, 2, 2.

```
ECM   OFF   Set Pause Timer
CONF. OFF   Select Number
STAMP OFF   5
                CANCEL      ENTER
```

Use the numeric keypad to enter the number of seconds the delay should last. You can set the delay from 5 to 99 seconds. Now press **ENTER**.

To enter a dialing pause:

1. While programming an autodialer number, press **NEXT** to scroll through the dialing pauses.

```
ECM   OFF   DIRECTORY
CONF. OFF 024: Input Dial No.
STAMP OFF   9
INSERT   1 TONE      2 TONE
```

2. Press the key that selects your desired pause. In the example below, a dialing pause has been entered.

```
ECM   OFF   DIRECTORY
CONF. OFF 024: Input Dial No.
STAMP OFF  9-/1-214-
INSERT   1 TONE      2 TONE
```

3. Continue entering the autodialer number as shown in the following sections.

## Entering Fax Speed-Dial or One-Touch Numbers

The 165 fax speed-dial numbers available in your unit are represented by the three-digit numbers 000 to 164. One-touch fax numbers are represented by the keys A through Z and U1 to U9 on the one-touch keypad.

1. To store a speed-dial fax number, press **PROGRAM**, 1, 4, **FAX**. To store a one-touch number, press **PROGRAM**, 1, 5, **FAX**.

```
ECM   OFF   DIRECTORY      FAX
CONF. OFF   SET/LIST
STAMP OFF
                SET          LIST
```

2. Press **SET**. If storing a speed-dial number, use the numeric keypad to enter the three digits of the speed-dial number needed. Remember to enter speed-dial numbers below 100 in three digit form: 001, 054, etc. If storing a one-touch number, press the one-touch key needed. In the example below, speed-dial number 024 has been selected.

```
ECM   OFF   DIRECTORY      FAX
CONF. OFF  024:      :Select No.
STAMP OFF
                CANCEL      ENTER
```

3. Press **ENTER**. Use the numeric keypad to begin entering the telephone number needed. The number can include up to 40 characters. To insert a dash in the telephone number, press the hyphen key. Remember to enter any pauses and special symbols needed.

```
ECM    OFF    DIRECTORY    FAX
CONF.  OFF    024:Input Dial No.
STAMP  OFF    9-/1-214-403-3499
-              CANCEL      ENTER
```

When you've entered the telephone number, press **ENTER**.

```
ECM    OFF    DIRECTORY    FAX
CONF.  OFF    024:ID/ALTER/GROUP
STAMP  OFF    9-/1-214-403-3499
LOCATE_ID    ALT._NO    GROUP_NO
```

4. Press **LOCATE\_ID** to store a 16-character name to identify the telephone number on printed directories. You can use upper-case, lower-case, symbol and programmable user fonts in the Location ID (see page 16). Remember that each programmable user font used takes up two of the 16 available spaces. All other characters take up one space each.

```
ECM    OFF    DIRECTORY    FAX
CONF.  OFF    024:    :Upper Case
STAMP  OFF           Murata
MODE              CANCEL      ENTER
```

5. Press **ENTER** when your Location ID is complete. To store another one-touch or speed-dial number, press **NEXT**, then press **END**. Or press **STOP** to return to standby.

```
ECM    OFF    DIRECTORY    FAX
CONF.  OFF    024:ID/ALTER/GROUP
STAMP  OFF
                                END
```

## Voice Speed-Dial and One-Touch Numbers

If you would like to store speed-dial or one-touch numbers for voice calling, press **TELEPHONE** instead of **FAX** in step 1 above. To dial the voice numbers, the handset must be off the cradle when you press the one-touch key or enter the speed-dial number. There are 100 speed-dial numbers (00 - 99) and 35 one-touch keys (A-Z, U1-U9) available for voice calls.

## Alternate Telephone Numbers

If you would like to enter an alternate telephone number, to be called if your programmed speed-dial or one-touch fax number is busy, press **ALTER NO.** in step 4 above. Then enter an alternate number of up to 40 digits and press **ENTER**.

```
ECM    OFF    DIRECTORY    FAX
CONF.  OFF    024: Input Alt. No.
STAMP  OFF
-              CANCEL      ENTER
```

Your unit can store up to 10 alternate numbers, divided any way you like among the available one-touch and speed-dial numbers. The alternate numbers will appear on the printed speed-dial and one-touch directories for your reference. After you enter the tenth alternate, your unit will no longer prompt you with the "Input Alt. No." screen.

If your fax encounters a busy signal when dialing a remote unit, it will try to call the alternate number. If the alternate number is busy, the primary number will be redialed.

## Entering Call Groups

Call groups are real time-savers for broadcasts and group polling (see pages 39 and 45): Just enter a group number to instruct your fax to call each remote location in the call group.

If you want your speed-dial or one-touch numbers to be included in a call group, press **GROUP NO.** in step 4 above. Your Murata fax offers up to 32 call groups, numbered 1 to 32. You may enter all 200 fax numbers in your unit's autodialer into a call group.

ECM	OFF	DIRECTORY	FAX
CONF.	OFF	024: Input	Group No.
STAMP	OFF	1 3	
SPACE		CANCEL	ENTER

Enter the call group number for the speed-dial or one-touch number being stored. Then press **SPACE** if you would like to enter the speed-dial or one-touch number in another call group. When finished, press **ENTER**.

## Printing a Directory of Call Groups

To print a list of call groups programmed in your fax, press **PROGRAM, 2, 1**.

## Editing or Deleting an Autodialer Number

1. To edit or delete a speed-dial number, press **PROGRAM, 1, 4**. To edit or delete a one-touch number, press **PROGRAM, 1, 5**. Then press **FAX** to edit a fax number or **TELEPHONE** to edit a voice number.

ECM	OFF	DIRECTORY	FAX
CONF.	OFF	SET/LIST	
STAMP	OFF		
		SET	LIST

2. Now press **SET**. Enter the number you want to edit or delete.

ECM	OFF	DIRECTORY	FAX
CONF.	OFF	024: Select	NO.
STAMP	OFF		
		CANCEL	ENTER

3. To delete the number, press **CANCEL**. To edit the number, press **Enter** and use the arrow keys and the numeric keypad to change the number as needed. When you've finished editing, press **ENTER**.
4. You can also edit the number's Location ID, group number or alternate number. Enter the correct information. Then press **NEXT, END**.
5. Press **STOP** to return to standby.

## Printing the Autodialer Directories

1. Press **PROGRAM**, 1, 4, to print a directory of speed-dial numbers. Press **PROGRAM** 1, 5, for a directory of one-touch numbers.
2. Choose the appropriate telephone or fax directory by pressing **TELEPHONE** or **FAX**. Then press **LIST**.

## Special Programmable Keys

The thirty-five one-touch keys on your Murata fax, A through Z and U1 through U9, can be used as standard one-touch keys or as special programmable keys, to put the unit's most powerful multi-step operations just a fingertip away.

These programmable keys are great when you have a frequent need for special fax functions. If your office must transmit a report to several locations every day, for example, program one of the programmable one-touch keys for a delayed broadcast to those locations. Then each day just insert your document, press the programmable one-touch key and walk away: Your unit will remember your instructions and send the report to each location at the time you specified.

You can program transmission, sequential broadcasts, relay broadcast initiation, SecureMail transmission, polling and database polling commands for one-touch access.

The first four steps to program these special keys are the same regardless of the specific command you need. The remaining steps vary based on the command you have chosen. The first four steps appear below. Steps 5 and beyond for each command appear on the pages that follow.

To enter a special programmable function:

1. Press **PROGRAM**, 1, 6.

ECM	OFF	PRG_ONE_T	
CONF.	OFF	SET/LIST	
STAMP	OFF		
		SET	LIST

2. Press **SET**. Press **ENTER** to program location A, or press any other one-touch key to select the programmable key you wish to modify. Then press **ENTER**. The LCD will read "One-touch stored" if you try to enter a one-touch key that has already been programmed with a one-touch number.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a :Input Dial No.	
STAMP	OFF		
		CANCEL	ENTER

3. Enter the number or numbers needed. You may enter up to 10 numbers, pressing the **BROADCAST** key between each. In the example below, group 5, speed-dial number 99 and one-touch key U3 have been entered.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a :Input Dial No.	
STAMP	OFF	G5 555-1212	
		CANCEL	ENTER

When entering telephone numbers remember:

- You can enter speed-dial numbers, one-touch keys, telephone numbers entered manually through the numeric keypad and group numbers. To enter a call group, press **GROUP** and the two-digit call group needed.
- Each manually entered telephone number can have up to 40 digits.
- By pressing **NEXT**, you can access special dialing and pause characters, useful when entering some telephone numbers (see page 25).

4. When you have finished entering your telephone numbers, press **ENTER**.

```
ECM   OFF   PRG_ONE_T   SET
CONF. OFF   a: Select Program
STAMP OFF
                      RELAY_TX   END
```

Specify a time for your command to be executed by pressing the **DELAYED DIAL** key. Enter the desired time through the numeric keypad and press **ENTER**. If you do not specify a time, your special programmable function will begin whenever you press the one-touch button programmed.

```
ECM   OFF   PRG_ONE_T   SET
CONF. OFF   a: Input Time
STAMP OFF   --:--
                      CANCEL   ENTER
```

Now choose the specific command you need:

If you select	See page
Transmission/Sequential transmission	30
Relay broadcast initiation	30
SecureMail transmission	31
Polling	31
Database polling	31

## Transmission

For an explanation of the uses and benefits of delayed transmission and sequential transmission, see page 38.

Steps 1 through 4 appear on page 29.

5. After you've programmed the telephone number or numbers and the transmission time, press **END** to program the next available one-touch key, or press the **STOP** key to return to standby.

## Relay Broadcast Initiation

For an explanation of the uses and benefits of relay broadcast initiation, see page 39. Steps 1 through 4 appear on page 29.

```
ECM   OFF   PRG_ONE_T   SET
CONF. OFF   a: Select Program
STAMP OFF   G5 555-1212
RELAY_TX           END
```



5. Press **RELAY\_TX**. Use the numeric keypad to enter the group number for the relay portion of the broadcast. Remember, the group number must be programmed at the remote Murata hub fax to which you are transmitting.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a: Input	Group No.
STAMP	OFF	23	
SPACE		CANCEL	ENTER

6. Press **END** to store the command. You may go on to program the next available one-touch key, or press **STOP** to return to standby.

## SecureMail Transmission

For an explanation of the uses and benefits of SecureMail, see page 49. Steps 1 through 4 appear on page 29.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a: Select	Program
STAMP	OFF	G5 555-1212	
		RELAY_TX	END

5. Press **SECUREMAIL**. Use the numeric keypad to enter the SecureMail mailbox number for the transmission. Remember that this mailbox must already exist at the remote Murata fax to which you are transmitting.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a: Input	Mail No.
STAMP	OFF	2	
		CANCEL	ENTER

6. Press **END** to store the command. You may go on to program the next available one-touch key, or press **STOP** to return to standby.

## Polling and Database Polling

For an explanation of the use of polling and database polling, see page 45.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a: Select	Program
STAMP	OFF	G5 555-1212	
		RELAY_TX	END

5. Press the **POLLING** key. If you are programming standard (non-database) polling, go to step 6. If you want to database poll, enter the file number you wish to poll.

ECM	OFF	PRG_ONE_T	SET
CONF.	OFF	a: Input	File No.
STAMP	OFF	4	
SPACE		CANCEL	ENTER

6. Press **ENTER**.

7. Press **END** to store the command. You may go on to program the next available one-touch key, or press **STOP** to return to standby.

## Printing the Special Prog. Key Directory

To print a directory of your special programmable keys, press **PROGRAM, 1, 6, LIST**.

ECM	OFF	PRG_ONE_T
CONF.	OFF	SET/LIST
STAMP	OFF	
		SET LIST

## Chain Dialing

With chain dialing, you can use speed-dial numbers and one-touch keys to automate the special prefixes, dialing pauses and long-distance service passcodes needed for some long-distance services.

With many long-distance telephone companies, a long-distance call involves three dialing sequences: the access number for the long-distance service, the number of the remote fax you're calling, and a unique pass code for your long-distance account. An example is shown below. Remember: Dialing pauses (-/) are especially helpful when entering long dialing sequences. See page 25 for information on these pauses.

Long-distance service number	9-/18005551212-/
Number you are calling	2144033499-/
Long-distance passcode	55555555

Some long-distance services require only the first two dialing strings. For either system, to shorten the string of numbers needed, program the dialing information as separate speed-dial and one-touch numbers.

Store the long-distance service number as, for example, speed-dial 001. Then store the number for the remote fax as speed-dial 002. Finally, store the pass code required for your long-distance service as one-touch A.

To transmit in the example above:

1. Insert your document into the feeder.
2. Press **SPEED DIALER, 001** to recall the long-distance service number.
3. Press **SPEED DIALER, 002** to recall the remote fax number needed.
4. Press one touch key **A** to recall your account pass code.

Your fax will begin dialing the long-distance service number, remote fax number and long distance pass code in sequence.

You can store the account pass code as a speed-dial number rather than a one-touch key. If you do, you must press **START** after entering the final speed-dial number in step 4 above. One-touch keys can only be used as the last autodialer number for chain dialing: As soon as you press a one-touch key, your fax will begin dialing.

# Reception

## Auto/Manual

Your Murata fax offers two ways to answer incoming telephone calls:

An automatic setting instructing your unit to respond after a set number of rings if you haven't manually answered the line. To select this setting, press **NEXT**. Then press **ANSWER** to set the unit at "FAX READY" or, if you have a second telephone connected to your fax (see page 13), "TEL/FAX READY".

A manual setting telling your unit to ignore all incoming calls so you can answer each call manually. To select this setting, press **NEXT**. Then press **ANSWER** to set the unit at "TEL READY".

## Manual Reception Options

If you manually answer an incoming fax call, you will hear distinctive fax transmission tones from the remote unit. The way you instruct your fax to print the incoming message varies depending on the way you answered the call:

1. If you answered the call with the fax machine's handset or with a second telephone connected to the fax, press **START** and hang up to begin reception.
2. If you answered the fax call in another room with the phone attached to your fax's second telephone connector, press or dial "6" two or four times (see page 70) to transfer the call back to your fax for reception.
3. If you answered the call with another telephone elsewhere in your office, lay the phone's handset down, go to your fax, pick up the fax handset and press **START**. Then hang up both handsets.

## Voice Prompt

When you have selected the TEL/FAX READY mode as described above and allow your fax to answer incoming calls automatically, callers to your fax will hear a pre-recorded voice prompt. Remote units trying to transmit to your fax will not be effected.

ECM	OFF	TEL/FAX	READY
CONF.	OFF		
STAMP	OFF	Feb 26, 90	15:44
NORMAL		NORM_DOC	PROGRAM

*"Hello. If you wish to send a fax, transmit now. If not, check the number and dial again. Thank you."*

While the prompt is being played, a special bell in your unit will ring softly, letting you know your fax has answered the telephone line but has not yet attempted reception. You can pick up the fax handset at any time during the 10-second message to turn off the voice prompt and listen to the incoming call through the handset.

The voice prompt is a pre-recorded part of the software inside your fax and cannot be changed. It is available in English.

## Call Reserve

Call reserve allows you to have both telephone and facsimile communication at different times during the same call. Without call reserve, your fax prevents telephone conversations after it begins fax communication. To use this feature, the remote fax must have a similar call-reserve capability.

To request a call during transmission or reception:

1. While the fax is sending or receiving, press **CALL/MONITOR**. At the remote fax, the telephone will ring after the transmission of each page. If an operator at the remote fax responds to the call request, your fax will ring several times.
2. When your fax rings, pick up the handset and press **STOP**. In a few seconds, the line will open.
3. Begin your conversation.

**Note:** To transmit after your conversation, insert a document into your fax before hanging up. At the end of your voice call, instruct the operator of the remote fax to press **START** before hanging up. When you hear facsimile tones, press **START** and return your handset to its cradle.

## Responding to a Call Request

1. When a remote operator reserves a call, your fax will ring after each page of the document is received.
2. To answer the request, pick up the handset and press **CALL/MONITOR**.
3. When the remote operator responds to your call request response, begin your conversation.

## Maximum Page Size

Each page received and printed by your fax is cut to match the length of the original document being transmitted to you: A memo-sized note sent to your unit will create a memo-sized fax, for example, and a legal-sized letter will create a 14-inch-long fax.

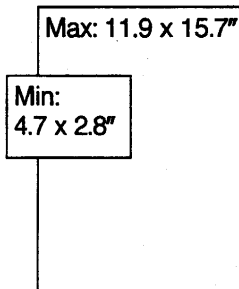
Your unit is initially set to stop reception if it encounters a single page longer than 10 feet. This setting helps detect paper jams or feeder jams at the remote unit.

Remember that this limit applies to **individual page length** only.

If you must receive long unbroken pages, like water petroleum logs and scientific strip charts, you can program your fax for unlimited page-length reception (see page 69).

# Transmission

## Acceptable Documents



Your fax can transmit images from any normal-weight paper whose dimensions fall within the maximum and minimum width and length requirements:

Maximum: 11.9" x 15.7" (W x L) or optional unlimited

Minimum: 4.7" x 2.8" (W x L)

When transmitting to a unit with an 8.5- or 10.1-inch print width, wider documents will be reduced automatically to accommodate the receiving unit. To transmit images from documents smaller than the minimum or from heavy paper, cardboard or other non-paper original, first copy the document on a copier. Use the copied image for your transmission.

Your unit includes a paper-jam sensor that causes an alarm when it detects unusually long pages during transmission. You can disable the sensor to transmit long unbroken pages like industrial logs and medical strip charts (see page 70), but doing so eliminates paper-jam detection. Do not leave your unit unattended while this sensor is disabled.

### Do not transmit:

Extremely thin or wrinkled pages

Documents carrying staples, glue, tape or paper clips

Pages with duplicating carbon on one side

You *can* transmit overhead transparencies with your fax.

## Document Feeder

The document feeder on your Murata fax will hold up to 50 sheets of normal-weight paper. The feeder advances pages through your unit from the bottom of the inserted stack.

The guides on the feeder adjust to accommodate A4, B4 and A3 paper sizes. The guides also control the automatic reduction of large documents when transmitting to a facsimile machine with an 8.5- or 10.1-inch print width. For example, if you set the feeder guides to B4 and insert two pages, one 10 inches wide and one 8.5 inches wide, both documents will be reduced when transmitting to a unit with an 8.5-inch printer. To avoid the unnecessary reduction of documents, do not mix pages of varying widths.

Your Murata fax allows you to control your unit's scanning width (see page 19). This setting can be used to cancel the automatic reduction of large documents.

To insert a document into the feeder:

1. Adjust the feeder guides to your document's width.
2. Fan the bottom edges of your document's pages slightly.
3. Insert your document face down into the feeder. The feeder will automatically advance the first page—the one on the bottom of the stack—partially into the unit.
4. Press **NORMAL** to scroll through the different transmission modes. Choose the one most appropriate for your transmission.

## Set Resolution

Normal is suited to most typed documents. Fine is ideal for detailed or handwritten documents. Superfine reproduces the detail of extremely complicated drawings or line images. Grayscale is used to accurately transmit halftone images and photographs. G2 and FM are used when transmitting to CCITT Group 2 and North American FM units, respectively.

5. Begin transmission as shown below.

**NOTE:** Your unit will fall back to the proper mode when transmitting to a Group 2 fax machine. If you select normal, fine, superfine or grayscale when sending to a Group 2 unit, your unit will send at G2 automatically. You must manually select FM whenever you transmit to a North American FM fax machine.

## Select Document Contrast

Your Murata fax lets you manually compensate for a light or dark original document. Dark compensates for dark documents. Light compensates for weak, "washed out" images.

Insert your document into the document feeder and press **NORM\_DOC** until the desired contrast mode is displayed. Choose from normal, dark, and light.

After your fax copies or transmits, the contrast will automatically reset to normal.

## Page Counter

The page count feature automatically counts and sequentially numbers the pages of a transmission (1/5, 2/5, 3/5, etc.).

To use the page counter:

1. Insert the document and press **Next** two times.

```
ECM    OFF    FAX READY
CONF.  OFF
STAMP  OFF Feb. 26, 1990 14:55
RELAY_TX  MESSAGE  PAGE_SET
```

2. Press **PAGE\_SET**. Then use the numeric keypad to enter the number of pages you have loaded in the document feeder.

```
ECM    OFF    PAGE_SET
CONF.  OFF Input Page Count
STAMP  OFF 5
                CANCEL    ENTER
```

3. Press **ENTER**. You are now ready to continue with your transmission in the instructions that follow.

## Redialing Busy Numbers

When your fax encounters a busy signal, it will automatically attempt to redial the number five times, waiting five minutes between each attempt.

While waiting to redial, your unit's LCD will display the current time and the time at which the next redial attempt will take place. Remember, your Murata fax is multi-tasking, so you can enter a new command even while the fax is waiting to carry out an existing instruction from memory.

## Transmitting with the Numeric Keypad

1. To transmit with the numeric keypad, insert your document into the document feeder.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb, 26, 1990	14:55
NORMAL		NORM DOC	PROGRAM

2. Enter the telephone number using the numeric keypad. Remember to enter "1" and an area code for long-distance transmissions, any necessary dialing pauses, and dashes that will make your numbers easier to read.

ECM	OFF		
CONF.	OFF	9-/1-214-403-3499	
STAMP	OFF		
INSERT		-	CANCEL

3. Press **START** to begin transmission.

ONLINE		TRANSMIT	
CONF.	OFF	214-403-3499	
STAMP	OFF	Feb. 26, 1990	14:55
NORMAL		NORM_DOC	PROGRAM

## Transmitting with a One-Touch Key

1. To transmit with a one-touch key, insert your document into the document feeder.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb. 26, 1990	14:55
FINE		NORM_DOC	PROGRAM

2. Press the one-touch key programmed for the remote machine. The Location ID, or, if the Location ID is not programmed, the telephone number for the remote machine will be displayed in your LCD.

ONLINE		TRANSMIT	
CONF.	OFF	MURATA	
STAMP	OFF		
FINE		NORM_DOC	PROGRAM

## Transmitting with a Speed-Dial Number

1. To transmit with a speed-dial number, insert your document into the document feeder.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb. 26, 1990	14:55
FINE		NORM_DOC	PROGRAM

2. Press **Speed Dialer** and enter the three-digit speed-dial number programmed for the remote machine.

ECM	OFF	
CONF.	OFF	S125
STAMP	OFF	
INSERT	-	CANCEL

3. Press **START**. The Location ID, or, if the Location ID is not programmed, the telephone number for the receiving unit will be displayed.

ONLINE	TRANSMIT	
CONF.	OFF	MURATA
STAMP	OFF	Feb. 26, 1990 14:55
NORMAL	NORM DOC	PROGRAM

## Transmitting with the Handset or Monitor

1. To transmit with the handset, insert your document into the document feeder. If you'd like to transmit in another transmission resolution, press **NORMAL** until you find the appropriate level.

ECM	OFF	FAX READY
CONF.	OFF	
STAMP	OFF	Feb. 26, 1990 14:55
FINE	NORM_DOC	PROGRAM

2. Pick up the handset.
3. Dial the telephone number of the remote machine using the handset's keypad.
4. When the remote machine answers and you hear facsimile tones, press **START** and return the handset to its cradle. If the fax operator answers the remote phone, explain that you are attempting transmission. Instruct the remote operator to press **START** and hang up.

ON LINE		
CONF.	OFF	
STAMP	OFF	Feb. 26, 1990 14:55
FINE	NORM_DOC	PROGRAM

## Transmission & Memory Transmission

Your Murata fax can store up to 10 delayed commands, allowing you to send documents from memory up to 24 hours later.

Delaying your document transmission until after business hours reduces the chance that your fax will be unable to contact a busy fax machine and may also reduce your telephone charges. Memory transmissions also allow multitasking--a true timesaver.

Transmissions from memory are also protected by a "retransmit at error" feature. If line problems cause your transmission from memory to be interrupted or cut off, the pages that were not received before the interruption will be retransmitted.

Finally, memory-to-memory transmissions to another Murata fax dramatically reduce transmission time. When transmitting from memory to another Murata memory fax, your machine will send your entire document into the memory of the remote unit, then



disconnect the telephone line. The remote unit will wait until after the telephone call is completed to print the document.

Since your documents can be sent into memory much faster than they can be printed out, memory-to-memory transmissions to other Murata fax machines can save significantly on the time needed for transmission.

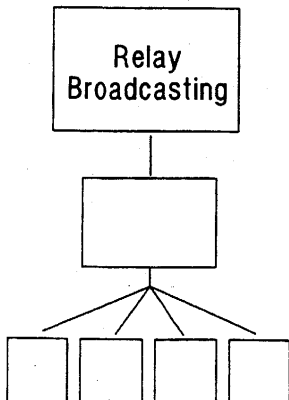
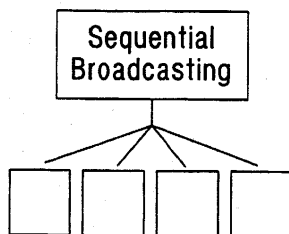
1. To initiate a delayed or memory transmission, insert your document into the document feeder.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb. 26, 1990	14:55
FINE		NORM_DOC	PROGRAM

2. Enter up to 10 telephone numbers for transmission. You can use a combination of speed-dial numbers, one-touch numbers and call groups, or enter telephone numbers using the numeric keypad. Press **Broadcast** between telephone numbers.
3. Now press **Delayed Dial**. To send the document immediately from memory, press **ENTER**, then **START**. Your document will be scanned into memory and transmitted. To send the document later, input the desired transmission time with the numeric keypad and press **ENTER**. Your document will be scanned into memory and transmitted at the time you specified.

ECM	OFF	DELAYED
CONF.	OFF	Input Time
STAMP	OFF	17:30
		ENTER

## Broadcasting



Broadcasting takes advantage of the powerful autodialer in your fax, sending a document sequentially to up to 200 remote locations, or teaming your fax with other Murata high-volume hub fax units to relay a single document to thousands of remote units.

### Sequential Broadcasting

For sequential broadcasting, enter a group number or a list of individual phone numbers before transmission. This instructs the unit to send your document sequentially to each unit in the call group or list of numbers.

ECM	OFF
CONF.	OFF 555-1212 G2 G5
STAMP	OFF
GROUP	CANCEL

### Relay Broadcast

In a relay broadcast, your unit transmits a document to other high-volume Murata fax units you select. As it sends the document, your unit will also designate a call group number for the remote units.

The remote units will, in turn, retransmit or "relay" your document to all the units in their designated call group.

Relay broadcasting is a faster way to transmit to many locations and could help reduce long distance telephone charges as well.

For example, a central office could send a document to 10 regional headquarters with instructions to relay the document to 10 local stores each. The 100 stores would receive the document much sooner than if the central unit had attempted to send it to each store sequentially. By using the regional headquarters as "hubs", the central office can also reduce the number of long-distance calls involved in the transmission.

To program a relay broadcast:

1. Insert the document to be broadcast into the document feeder. Press the **NEXT** key two times.

```
ECM   OFF   FAX READY
CONF. OFF
STAMP OFF   Feb. 26, 1990 15:44
RELAY_TX    MESSAGE    PAGE_SET
```

2. Press **RELAY\_TX**. Use the numeric keypad to enter the group number for the relay portion of the broadcast. Remember that this group number must already exist at the remote fax machines your unit will call.

```
ECM   OFF   RELAY_TX
CONF. OFF   Input Group No.
STAMP OFF   1
SPACE      CANCEL      ENTER
```

3. Press **ENTER** when you've input all the group numbers. Then enter the telephone number for the "relaying" remote fax machines. You can enter telephone numbers with the numeric keypad, or use speed-dial numbers, call groups or one-touch keys.

```
ECM OFF          RELAY_TX
CONF. OFF   555-1212
STAMP OFF
INSERT          CANCEL
```

4. If you'd like to delay this relayed broadcast, press the **DELAYED DIAL** key. Using the numeric keypad, input the transmission time and press **ENTER**.

```
ECM   OFF   DELAYED
CONF. OFF   Input Time
STAMP OFF   14:55
                        ENTER
```

5. Press the **START** key. Your document will be stored into memory for immediate transmission or the transmission time you have specified.

## Cover Sheet

To help the people who receive your documents better understand and route your transmission, send a cover sheet with your document.

Your fax includes an automatic cover-sheet option that includes the date and time of your transmission, your TTI and a message for your recipient. Choose from three pre-programmed cover messages included in your unit's memory, or create up to five of your own to choose from. See page 66 for more information.

You must choose the desired cover message each time you send a cover sheet.

To send the cover sheet:

1. Insert the document and press **NEXT** two times.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb. 25, 1990	14:55
RELAYED		MESSAGE	PAGE SET

2. Press **MESSAGE**. Your LCD will display the first pre-programmed message. Not all of the message may appear on your LCD; only the first 20 characters will be shown.

ECM	OFF	MESSAGE
CONF.	OFF	0: Select No.
STAMP	OFF	Please review the fo
		ENTER

3. Press the left or right arrow key to choose the message you want to send with your document. Messages 0, 1 and 2 have been programmed into your unit. Messages 3 through 7 are user-definable (see page 66).
4. After you've chosen the appropriate message, press **ENTER**.
5. Now enter the telephone number for the transmission using the numeric keypad and press **START**, or enter a one-touch or speed-dial number.



# Delayed Commands

You create a delayed command anytime you program your fax to perform a fax operation—transmission, polling, relay broadcast or any other fax transaction—and schedule a specific time for the operation. Your fax can store up to 10 delayed commands.

Use the commands below to manage your fax use and to review delayed operations programmed in your fax.

## Print Commands

To print a list of the delayed commands you have programmed in your Murata fax, press **PROGRAM, 3, 2, LIST**.

ECM	OFF	COMMAND	
CONF.	OFF	LIST/ERASE/PRINT	
STAMP	OFF		
LIST		ERASE	PRINT_DOC

## Print Stored Document

1. To print out a document that has been stored for delayed transmission without erasing it from memory, press **PROGRAM, 3, 2, PRINT\_DOC**.

ECM	OFF	COMMAND	PRINT_DOC
CONF.	OFF	Input Command No.	
STAMP	OFF		
		CANCEL	ENTER

2. Using the numeric keypad, enter the command number that corresponds with the stored document you want to print. Refer to a printed list of commands, if necessary. Press **ENTER**.

## Erasing a Command

1. To delete a delayed command from memory, press **PROGRAM, 3, 2, ERASE**.

ECM	OFF	COMMAND	ERASE
CONF.	OFF	Input Command No.	
STAMP	OFF		
		CANCEL	ENTER

2. With the numeric keypad, enter the number of the command you want to erase. Then press **ENTER**. The command and any pages stored in memory for the command will be deleted.

ECM	OFF	COMMAND	ERASE
CONF.	OFF	Command Erased	
STAMP	OFF		
		CANCEL	ENTER



# Polling

## How to Poll

Polling lets you store a document in your fax for automatic transmission to a remote fax when that fax calls. Polling also lets you call a remote fax and retrieve a document set to be polled.

Polling is convenient whenever a central fax machine must receive information from one or several remote units. By polling remote units, the central facility bears all telephone charges and prevents several units from calling at the same time. Polling is available between your unit and any Group 3 facsimile machine with polling capability.

Your unit can also be used for database polling. Database polling lets you store documents in numbered files in your unit's memory. Remote Murata units can then call and request specific files of information. Likewise, your unit can be used to request database files stored in Murata fax machines.

If you are a manufacturer, for example, use database polling to store sensitive pricing and discount information in database file 1, and lead-time and delivery information in file 2. Tell your distributors to call and request both files; tell your customers to request file 2 only.

Your unit can store up to 100 database files, numbered 00 to 99. Remember, however, that your unit is also limited by the amount of memory available for document storage.

Polling procedures can be protected by the use of a pass code (see page 20). When you enter a pass code into your unit, only Murata-manufactured units presenting the same pass code will be allowed to poll documents from your facsimile machine.

## Polling a Document

Use polling to retrieve documents stored in other fax machines. Polling can be started immediately or delayed to take advantage of late-night phone rates.

1. To poll a remote fax, press the **POLLING** key.

ECM	OFF	POLLING
CONF.	OFF	Input D.B. File No.
STAMP	OFF	
SPACE		CANCEL ENTER

2. If you are retrieving a standard polling file, press **ENTER** and go to step 3. If you will be polling a database file or files from a Murata F-50, F-55, or PCF 9, enter the file numbers to be polled. You can request up to ten files on a single call, dividing each file number by pressing **SPACE**. Press **ENTER**.

ECM	OFF	POLLING
CONF.	OFF	Input File No.
STAMP	OFF	1 4 6 34 16
SPACE		CANCEL ENTER

## Polling

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3. If you want polling to start immediately, go to step 4. If you'd like the polling operation to be delayed, press the **DELAYED DIAL** key. With the numeric keypad, input the desired polling time. Then press **ENTER**.

ECM	OFF	DELAYED
CONF.	OFF	Input Time
STAMP	OFF	17:30
		ENTER

4. Enter the dial number of the remote unit. If you are polling more than one number, press the **BROADCAST** key between each dial number.

ECM	OFF	POLLING
CONF.	OFF	Input Dial No.
STAMP	OFF	214-555-1212
NORMAL	—	CANCEL

5. Press **START**.

## Storing a Document to be Polled by Other Faxes

1. To store a document to be polled, insert the document into the document feeder. Press **PROGRAM, 1, 1, INPUT\_DOC**.

ECM	OFF	POLLING	INPUT_DOC
CONF.	OFF	Input D.B. File No.	
STAMP	OFF	—	CANCEL
			ENTER

2. If your document is to be saved for polling by any Group 3 fax, go to step 4. If your document is to be saved in a number memory file for database polling by another Murata unit, enter the file number under which the document will be stored. You can store up to 100 documents (numbered 00 - 99) for database polling.

ECM	OFF	POLLING	INPUT_DOC
CONF.	OFF	Input D.B. File No.	
STAMP	OFF	3	
		CANCEL	ENTER

3. If you enter a file number that is already being used, your LCD will display "File in Use". Press **CANCEL** and enter another number.

4. Press **ENTER**. Your document will be stored in memory.

ECM	OFF	Document storing
CONF.	OFF	
STAMP	OFF	Feb. 26, 1990 14:55
FINE		NORM_DOC PROGRAM



## Printing a Document Stored for Polling

If you'd like to review polling documents stored in memory, print them out as shown. This will not erase the documents from memory.

1. Press **PROGRAM, 1, 1, PRINT\_DOC.**

ECM	OFF	POLLING	PRINT_DOC
CONF.	OFF	Input D.B.	File No.
STAMP	OFF		
		CANCEL	ENTER

2. Press **ENTER** to print a document stored for standard Group 3 polling. To print a document saved in a database file, enter the file number and press **ENTER**.

ECM	OFF	POLLING	PRINT_DOC
CONF.	OFF	Input File No.	
STAMP	OFF	4	
		CANCEL	ENTER

## Erasing a Document Stored for Polling

1. To erase a document stored in memory for polling, press **PROGRAM 1, 1, ERASE\_DOC.**

ECM	OFF	POLLING	ERASE_DOC
CONF.	OFF	Input D.B.	File No.
STAMP	OFF		
		CANCEL	ENTER

2. Press **ENTER** to erase a document stored for standard Group 3 polling. To erase a document saved in a database file, enter the file number and press **ENTER**.

ECM	OFF	POLLING	ERASE_DOC
CONF.	OFF	Erase Document	
STAMP	OFF		
		CANCEL	ENTER

**Polling**

**Murata F-55**

---

# SecureMail

SecureMail is Murata's exclusive transmission feature for your most confidential documents: SecureMail transmissions are sent to electronic "mailboxes" in Murata memory faxes, where they are protected by an access code selected by the mailbox holder. Your fax offers up to 10 SecureMail boxes.

When a SecureMail message is received, your unit will print a message alerting the intended recipient of its arrival. If the message received at your fax is not retrieved within 72 hours, it will be erased from memory automatically and an erasure notice will be printed.

## Creating Your SecureMail Boxes

1. To create a SecureMail box, press **PROGRAM, 1, 2, SET**.

```
ECM   OFF   S_MAIL   SET
CONF. OFF   0: Select No.
STAMP OFF
                                     ENTER
```

2. Use the numeric keypad to enter the SecureMail box number. Choose from 0 to 9. Then press **ENTER**.

```
ECM   OFF   S_MAIL   SET
CONF. OFF   3: Input I.D. Code
STAMP OFF   0000
                                     ENTER
```

3. If you are entering information for this SecureMail box number for the first time, go to step 4. If you are modifying existing information in this SecureMail box, enter your current ID number and press **ENTER**.

4. Enter the mailbox's name using up to 11 characters. You can use upper and lower case letters, symbols and user fonts (see page 63). The name you enter will appear when you list your SecureMail boxes. Press **ENTER** when you're finished.

```
ECM   OFF   S_MAIL   SET
CONF. OFF   3:   :Upper Case
STAMP OFF   Prod. Dev.
MODE                CANCEL   ENTER
```

5. Use the numeric keypad to enter the passcode. Remember this passcode: It must be entered each time you want to access this SecureMail box.

```
ECM   OFF   S_MAIL   SET
CONF. OFF   6: Input I.D. Code
STAMP OFF   5432
                                     ENTER
```

## Printing a List of SecureMail Boxes

This list shows each active SecureMail box and the name assigned to it. To assure security of information stored in SecureMail boxes, this list does not show the passcodes needed to print documents stored in each box.

To print the SecureMail list, press **PROGRAM, 1, 2, LIST**.

## Printing SecureMail Messages

When a SecureMail document is received, your fax will print a message alerting the intended recipient. If not retrieved within 72 hours, the message will be erased from memory automatically.

1. To print a SecureMail message received into memory, press **PROGRAM, 1, 2, PRINT\_DOC**

ECM	OFF	S_MAIL	PRINT_DOC
CONF.	OFF	Input Mail Box No.	
STAMP	OFF	0	
		CANCEL	ENTER

2. Use the numeric keypad to enter the number of the mailbox in which the message is stored. Then press **ENTER**.

ECM	OFF	S_MAIL	PRINT_DOC
CONF.	OFF	Input Mail Box No.	
STAMP	OFF	3	
		CANCEL	ENTER

3. The LCD will prompt you to enter your four-digit passcode. Enter the code with the numeric keypad. Then press **ENTER**. If you entered the right code, the SecureMail message will be printed.

ECM	OFF	S_MAIL	PRINT_DOC
CONF.	OFF	Input Code	
STAMP	OFF	5432	
			ENTER

## Transmitting SecureMail

Documents sent to Murata PCF 7, F-45, F-25, M1800 and M1750 facsimile machines are stored in SecureMail for up to 24 hours. SecureMail messages sent to Murata F-50, F-55, and PCF 9 facsimile machines are stored for up to 72 hours.

1. To send a SecureMail transmission, insert your document into the feeder. Press **SECUREMAIL**.

ECM	OFF	S_MAIL	
CONF.	OFF	Input Mail Box No.	
STAMP	OFF		
		CANCEL	ENTER

2. Use the numeric keypad to enter the mailbox number of the remote unit.

```
ECM    OFF    S_MAIL
CONF.  OFF    Input Mail Box No.
STAMP  OFF    8
                        CANCEL    ENTER
```

Then press **ENTER**.

3. Use the numeric keypad to enter the telephone number for the remote fax. This number can be entered with the numeric keypad or can be a group number, speed-dial number or one-touch key. You may enter up to ten different numbers, pressing **BROADCAST** between each number.

```
ECM    OFF                S_MAIL
CONF.  OFF    Input Dial No.
STAMP  OFF    555-1212
INSERT    -                CANCEL
```

4. Press **DELAYED DIAL**. If you'd like transmission to begin immediately, press **ENTER**. If you'd like to specify a transmission time, enter the time with the numeric keypad and then press **ENTER**.

```
ECM    OFF    DELAYED
CONF.  OFF    Input Time
STAMP  OFF    15:44
                        ENTER
```

5. Press **START**. Your document will be scanned into memory.

If the message you send will not be retrieved within 72 hours, send another message to the same SecureMail box within the time limit. This will add another 72 hours to the time that your first message will be saved.



# Journals, Reports and Lists

## Activity Journal

Just as a checkbook records daily financial transactions, your Activity Journal records daily fax activities, allowing you to keep track of your important communications.

Your 25 most recent transmissions and receptions print as two separate journals, either automatically or any time you wish. Information on the activity journal includes transmission mode, day and hour of the transaction, the transmission length, the number of pages sent, the result and an indication of errors, if any were encountered.

Because the Activity Journal breaks down your fax communication, it can help you with recordkeeping: With it you can track fax calls, evaluate patterns of fax use, and identify communication billable to clients or vendors.

You can request the journal any time or use a setting to instruct your fax to print a journal automatically after every 25 transactions.

To request a journal automatically after 25 reception or transmission transactions:

### 1. Press **PROGRAM 2, 3, ON/OFF.**

ECM	OFF	JOURNAL
CONF.	OFF	Select ON/OFF
STAMP	OFF	OFF
ON		OFF LIST

### 2. Press **ON.** Then press **ENTER.**

To manually request a journal at any time, press **PROGRAM, 2, 3, LIST.**

**Note:** The Activity Journal will not print if you have just installed your unit and have no communications activity to report or if you have cleared your unit's memory since your last transaction. Only the 25 most recent transmissions and receptions are listed: Older entries are deleted as new activity is recorded.

1. **Period**—Records the start and end of the time period covered by the Activity Journal. The Activity Journal is printed manually or after 25 transmissions or receptions.

2. **No.**—Each fax transmission or reception is numbered, with the series beginning at 001 each day.

3. **Transmitter/Receiver**—Information identifying the sender or receiver is recorded in this space. The information printed in this column is sent to your fax by the remote unit and can be programmed by the remote operator as desired, so it may not be the same telephone number or business name you entered in your autodialer. When communicating with Murata-manufactured fax machines, the remote unit's TTI, if programmed, will be recorded here. When communicating with other fax machines, the Subscriber ID will usually be printed.

\*\* Transmit Journal \*\*

May 1.90 13:40

Period : May 1.90 12:58 - May 1.90 13:39

② NO.	③ Receiver	④ Mode	⑤ Start	⑥ Time	⑦ Page	⑧ Code	⑨ RESULT	⑩ Note
0001	MIX PRINTING CO	NORMAL	1.12:58	0'38"	1	0000	OK	
0002	MBS PRODUCT DEV	NORMAL	1.13:01	0'17"	1	0000	OK	
0003	12148915844	NORMAL	1.13:12	0'25"	1	0000	OK	
0004	MURATA MARKETING	NORMAL	1.13:27	0'31"	1	0000	OK	
0005	Carr Designs	NORMAL	1.13:32	0'39"	1	0000	OK	
0006	ACME GRAPHICS	NORMAL	1.13:35	0'39"	1	0000	OK	
0007	ACME GRAPHICS	NORMAL	1.13:37	0'39"	1	0000	OK	
0008	MURATA MARKETING	NORMAL	1.13:39	0'31"	1	0000	OK	

4. **Mode**—Records the resolution of the transmission or reception.
5. **Start**—The first two-digit number in this column shows the day the fax transaction occurred. For example, 03 means the transaction took place on the third day of the month. Use the period field at the top of each journal to determine the month (see above).  
The entry after the comma is the time the transaction took place. The time is recorded on a 24-hour clock, so an entry of 15:00 means the transmission or reception began at 3:00 p.m.
6. **Time**—Records the length of each transaction, from the time the phone connection is made to the time the last page is transmitted or received. This entry helps you keep track of phone costs.
7. **Page**—Records the number of pages transmitted or received.
8. **Code**—In the transmit journal, this column shows the department that made the recorded transmission. The code column of the receive journal shows departments that made the recorded polling. All other receptions will record 0000 as the department code.
9. **Result**—Shows the outcome of a transmission or reception. If an error occurs, the error code is listed here (see page 75).
10. **Note**—Tells the operator information about special operations. A fax transmission made using the handset, for example, is shown as "Manual".

### When "Location" Data is Missing or Wrong

If the Location column does not record the telephone number or business name you expected to see:

1. There may not be one programmed at the remote unit. The telephone number and TTI are optional on most units, and may not have been programmed by the operator of the remote fax. Communication with these units may be shown as "G3" or "G2" on your journal, showing you were communicating with a Group 2 fax.
2. Since these fields are optional, users can enter any information they want into them—even blank spaces. It is possible the Subscriber ID entered by the remote operator, for example, is not the same number your unit dialed to send the fax.
3. Many new home and small-office fax machines do not offer a programmable telephone number or TTI. Communication with these units will record a "G3" on your journal, showing you were communicating with a Group 3 fax.
4. The transaction may be cut off before the phone number and TTI can be exchanged. In such cases, your Activity Journal will usually show an error message showing the communication was not complete.
5. Poor telephone lines can sometimes block the transmission of the Subscriber ID and TTI.
6. A few fax manufacturers do not follow the standard for Subscriber ID and TTI data. In these cases, information appearing in your Location column can be garbled and unreadable.

## User Settings List

This lists serves as an overview of your unit's present settings.

To print the machine settings, press **PROGRAM 2, 2**.

\*\* MACHINE SETTINGS \*\*

Apr 24/90 9:51

Document TTI	
Journal TTI	
Subscriber ID	403-3384
Passcode	2345
Cover Page Transmit	ON



## Command List

To print the command list, press **PROGRAM, COPY**.

### \*\* PROGRAM MODE LIST \*\*

```

Program 1 1      : Input Polled Doc
                  : Erase Polled Doc
                  : Print Polled Doc
Program 1 2      : Set Mailbox
                  : Print Mailbox List
                  : Print Mailbox Messages
Program 1 3      : Set Cover Message
                  : Set Cover Page ON/OFF
                  : Print Message List
Program 1 4      : Set (TEL) Directory
                  : Print (TEL) Directory List
                  : Set (FAX) Directory
                  : Print (FAX) Directory List
Program 1 5      : Set (TEL) One Touch
                  : Print (TEL) One Touch List
                  : Set (FAX) One Touch
                  : Print (FAX) One Touch List
Program 1 6      : Set Program One Touch
                  : Print Program One Touch List
Program          : Print C

```

This is a comprehensive listing of the commands you'll use when working with your Murata fax. Print it out when you need a quick reminder.

## TCRs and RCRs

Transmit Confirmation Reports and Receive Confirmation Reports will help you track your important messages, assuring that your communications have reached their destination. See page 18 for instructions on how to set your unit to print TCRs or RCRs after your transmissions.

### \*\* TRANSMIT CONFIRMATION REPORT \*\*

Journal NO.	0001
Receiver	MBS PRODUCT DEV
Transmitter	PENNY
Date	May 1,90 8:07
Mode	G3 NORMAL
Document	pages: 1
Time	0'18"
Result	OK

A Transmit Confirmation Report is a signal from your fax that the document you set for transmission was sent to the location shown on the report. TCRs include the transmission's journal number, the receiver's name, your TTI, the date and time, the transmission resolution, the number of pages transmitted, the transmission length, and the result of the attempted communication. A TCR is available for any transmission.

```

*****
*
*          ** RECEIVE CONFIRMATION REPORT **
*
*   Journal No. : 026
*   Receiver    : MBS PRODUCT DEV
*   Transmitter : PENNY
*   Date        : Apr 11,90 14:07
*   Document    : 02 pages
*   Time        : 00'54"
*   Mode        : G3 NORMAL
*   Result      : OK
*
*****

```

A Receive Confirmation Report is available during transmission to other Murata-manufactured units. An RCR is a message sent back from the remote unit, signalling that the remote fax received and correctly printed the message you sent. It includes the transmission's journal number, the receiver's name, your TTI, transmission date and time, number of pages transmitted, the transmission length, transmission resolution, and the result of the communication. If you request an RCR when transmitting to a non-Murata unit, a TCR will be printed instead.

## Call Group Lists

To print a group list, press **PROGRAM, 2, 1.**

**\*\* GROUP LIST \*\***

May 1.90 8:32 P. 1

NO.	Location ID	GROUP NUMBER
000	Prod. Dev.	1.
001	Rackley Farm	23. 6.
002	LeeAnne	6. 8.
003	Carolyn's Ga	3. _____

This printout gives you a full listing of the group numbers you have programmed into your fax, the one-touch and speed-dial numbers that have been assigned to those groups, and their location IDs.

## Cover Page Message Lists

To print a list of cover page messages, press **PROGRAM, 1, 3, LIST.**

**\*\* COVER PAGE MESSAGE LIST \*\***

Apr 30.90 10:47

NO.	MESSAGE
0	Please review the following.
1	Please call if you have any questions.
2	Urgent! Please deliver immediately!
3	Attention: Accounting _____

Seven cover page messages, three already programmed into your fax and four that can be entered by you, are listed on this printout.

## SecureMail Lists

To print the SecureMail list, press **PROGRAM, 1, 2, LIST.**

**\*\* SECUREMAIL BOX \*\***

Apr 24.90 11:01

NO.	N A M E
0	RALPH
1	JENNIFER
2	BRYCE
3	PENNY

This list shows each active SecureMail box and the name assigned to it. To assure the security of information stored in SecureMail boxes, this list does not show the passcodes needed to print documents stored in each box.

## SecureMail Delivery Notice

When a SecureMail document is received by your fax, your unit will print a message alerting the intended recipient. If not retrieved within 72 hours, the message will be erased from memory automatically.

**\*\* SECUREMAIL DELIVERY NOTICE \*\***

PENNY received a secure message on Apr 24.90 11:20.

Please print out before Apr 27.90 11:20.

This Message was received from MBS PRODUCT DEV .

## Speed-Dial Fax Directory

To print the speed-dial fax directory, press **PROGRAM, 1, 4, FAX, LIST**.

\*\* DIRECTORY <FAX> LIST \*\*

May 1.90 8:31 P. 1

NO.	LOCATION	TELEPHONE NUMBER	GROUP NO.
000	Prod. Dev. (Alt. NO.)	3499 3384	1
001	Rackley Farms (Alt. NO.)	9-/555-3384 9-/555-7335	23 6
002	LeeAnne (Alt. NO.)	9-/555-1234 9-/555-4321	6 8
003	Carolyn's Garden (Alt. NO.)	9-/555-9876 9-/555-6789	3

This directory lists all the fax numbers you have programmed as speed-dial numbers, plus their location IDs and programmed group numbers.

## Speed-Dial Voice Directory

To print the speed-dial voice directory, press **PROGRAM, 1, 4, VOICE, LIST**.

\*\* DIRECTORY <TELEPHONE> LIST \*\*

May 1.90 8:16 P. 1

NO.	LOCATION	TELEPHONE NUMBER
00	Ralph	9-/555-1212
01	Penny's Office	9-/555-1234
02	Jamie's Office	9-/555-4321
03	Gauer Studio	9-/555-6543
04	Spence Graphics	9-/555-9876

This directory lists all the voice numbers you have programmed as speed-dial numbers, their location IDs and group numbers.

## One-Touch Fax Directory

To print the one-touch fax directory, press **PROGRAM, 1, 5, FAX, LIST**

\*\* ONE TOUCH <FAX> LIST \*\*

May 1.90 8:39 P. 1

NO.	LOCATION	TELEPHONE NUMBER	GROUP NO.
b	Ken (Alt. NO.)	3384 9-/555-3636	1 3 6
c	System Services	3939	3 6
d	Carolyn (Alt. NO.)	5321 9-/555-3434	

Print this directory for a listing of all the fax numbers you have programmed into one-touch keys, their location ID and group numbers.

## One-Touch Voice Directory

To print the one-touch voice directory, press **PROGRAM, 1, 5, VOICE, LIST**.

\*\* ONE TOUCH <TELEPHONE> LIST \*\*  
May 1.90 8:49 P. 1

NO.	LOCATION	TELEPHONE NUMBER
a	Distribution	1234
b	Jeff	3499
c	Wade & Son	9-/555-2212
d	Elsie's Kitchens	9-/555-3466
e	Holly	3699

For a listing of the voice numbers you have programmed as one-touch keys, their location IDs and group numbers, print this directory.

## Special Programmable Keys Directory

To print the special programmable keys directory, press **PROGRAM, 1, 6, LIST**.

\*\* PROGRAM ONE TOUCH LIST \*\*  
May 1.90 8:51 P. 1

NO.	NUMBER	START TIME	OPERATION
a	1234	05:50	Tx
q	3466	--:--	Secure Mail 1
r	1234	--:--	Tx
v	555	22:22	Tx

Print this directory for a listing of all the special programmable keys you have entered, the telephone numbers they reach, the start times if specified, and the operations you have programmed the keys to perform.

## Cover Sheets

To learn more about cover sheets and how to send them, see page 40.

Fax Transmittal Form	
Date: May 1. 90 8:55	
TO: 3499	From: PENNY
	FAX number: 403-3499
Please review the following.	
Pages to follow : 1	

Cover sheets help your receiver quickly identify your transmissions. You can send a cover sheet that includes your TTI and even a short message.

The telephone number you enter when dialing or the Location ID you've assigned to that number appears in the "To:" section of the cover sheet. Your TTI is printed in the "From:" section, and your Subscriber ID appears in the "Fax Number:" section. Any message you've programmed to appear on the cover sheet is printed at the bottom of the sheet, along with the number of pages to follow.

# Advanced Features

## Multitasking

One of the primary reasons you purchased a fax machine was to save time. With Murata's multitasking feature, your fax is always ready to handle your important communications, a clear advantage over conventional fax machines.

With multitasking, there's no need to wait in line to send a fax: You can enter another command at any time, even while your fax is sending from memory, receiving, or copying. You can even program a one-touch number, create a new SecureMail box or program a user logo while your fax is busy with another chore.

Let's say need to poll some important documents to poll from your regional sales offices. But your fax is busy with a broadcast to several groups of customers. No problem.

Just program the polling instructions into your fax while it broadcasts, assured that polling will take place immediately after the broadcast.

To make the most of this feature, send documents from memory whenever possible: That way, your document feeder is always free to program and store another transmission.

## Error Correction Mode

Your Murata fax offers CCITT-standard error correction to assure that important documents arrive looking clear and sharp. Here's how ECM works:

During transmission, your fax sends your document in high-speed segments. After each segment is sent, your fax waits briefly to receive a signal from the remote unit confirming the image data was received properly. If telephone line noise damaged the image, your fax will retransmit the block until it is received properly.

ECM reception works the same way: An ECM-equipped fax will transmit to your unit in high-speed blocks of image data. Your fax responds after each block is received, indicating whether the block should be sent again or was received error-free.

### When is ECM available?

ECM is a feature on many new Group 3 fax machines: Any machine with CCITT-standard ECM can send to or receive from your Murata fax in the ECM mode.

If you transmit to or receive from a fax not equipped with ECM, your call will continue like any normal Group 3 communication, but will not have the benefit of ECM error checking.

### Selecting ECM

Selecting ECM operation reduces slightly the amount of fax memory available to store documents for delayed transmission, polling and database polling. ECM reserves a very small portion of your fax memory to store image data during transmission and reception.

Selecting ECM operation may also slow transmission to and from your fax: Retransmitting damaged image data increases the time needed to send the complete document.

To activate the error correction mode, press the **ECM** key. Your LCD will indicate that ECM is on.

ECM	ON	FAX	READY
CONF.	ON		
STAMP	OFF	Jan 1, 90	12:00
NORMAL	NORM_DOC	PROGRAM	

## RS-232C Printing

The RS-232C interface at the back of your unit lets your Murata fax be used as a draft-quality printer for asynchronous ASCII computers—like your personal computer.

If you will not be using your fax as a printer, you can ignore all RS-232C settings described below.

Because your unit is multitasking, using it as a printer doesn't prevent you from performing normal fax functions—you can transmit and receive as always.

To use your fax as a printer, your computer—either through its operating system or through applications software running on it—must support the X-On/X-Off communications protocol. Your unit uses X-On/X-Off signals to control the flow of information from the computer to the fax.

IBM personal computers running the PC-DOS and MS-DOS operating systems do not support X-On/X-Off by themselves, but many software programs for these computers do. Communications software packages, for example, frequently offer X-On/X-Off options in their set-up or configuration menus. These and other software packages can be used to print a file from your computer on your unit.

The RS-232C parameters you select below will be influenced by the computer software and hardware you are using. Check your computer and software owner's manuals for more information.

Connect your Murata fax to your computer using a standard null modem RS-232C cable. To avoid interference with radio and television reception, make sure the RS-232C cable is shielded to prevent such interference.

1. To set the RS-232C parameters, press **PROGRAM, 5, 5**.

ECM	OFF	RS232C
CONF.	OFF	Input Baud Rate
STAMP	OFF	9600 bps
19200 bps	9600 bps	ENTER

2. Press **NEXT** to view all baud rate options. Choose the appropriate baud rate for your computer and software and press the corresponding key.

ECM	OFF	RS232C
CONF.	OFF	Input Baud Rate
STAMP	OFF	9600 bps
4800 bps	2400 bps	1200 bps

3. Press **NEXT** until you return to the LCD that reads **ENTER**. Then press **ENTER**.

4. Now select the data length. Select 7 or 8 bits. Then press **ENTER**.

```
ECM    OFF    RS-232C
CONF.  OFF    Select Data Length
STAMP  OFF    8 bit
7 Bit   8 Bit      ENTER
```

5. Now choose the data parity: Select even, odd, or none, pressing **NEXT** to view all the options.

```
ECM    OFF    RS-232C
CONF.  OFF    Select Parity
STAMP  OFF    NONE
NONE    ODD      ENTER
```

Then press **ENTER**. You're now ready to print ASCII text from your computer whenever you like.

### ASCII Print Control Characters

These control characters are needed to send ASCII files to your Murata fax and to provide basic formatting control over your text files. Before sending a text file to your fax, add this print initialization command at the top of the text file:

```
^F^F^F^F^F 6HFI, cr, lf
^F^F^F^F^F 6FTNA0,cr, lf
```

To end the RS-232C print and cut the resulting document, send:

```
^F^F^F^F^F FPE,cr,lf
```

These other formatting commands are available:

Character	Hex Value	ASCII Name	Fax Function
Carriage return	OD hex	Control M	When followed by a Line Feed character the fax will advance the paper one line.
Line Feed	OA hex	Control J	See above.
Form Feed	OC hex	Control L	The paper is cut.
End of			

### RS-232C Error Messages

If you choose the wrong RS-232C parameters, your fax will alert you with a status message identifying one of these conditions:

- \* RS232C:Framing Error
- \* RS232C:Overrun Error
- \* RS232C:Parity Error

## Plain Paper Interface Printing

### Connecting the Printer Interface Option

Murata's plain-paper interface offers you an economical, versatile and convenient way to produce plain-paper printouts of your fax receptions. And with Murata's multitasking abilities, your usual fax activity isn't hampered.

For plain-paper reception, you will need a Hewlett-Packard LaserJet Series II laser

printer or direct compatible with at least 1 MB of RAM and a Centronics printer cable with 36-pin-male to 36-pin-male connectors. If you plan to use a legal-sized paper tray in your laser printer, you may need more than 1 MB of RAM.

1. Use the Centronics cable to connect the printer to your fax. Then turn the printer on.
2. Now specify plain-paper output from your fax. At your fax, press **PROGRAM, 5, 2, PAR/THRML**.

```
ECM    OFF    PRINTER
CONF.  OFF    PAR_THRML/TRAY_SIZE
STAMP  OFF
          PAR/THRML    TRAY_SIZE
```

3. Press **PARALLLEL, ENTER**.

```
ECM    OFF    PRINTER    PAR/THRML
CONF.  OFF    Select    PAR/THRML
STAMP  OFF    PARALLEL
PARALLEL    THERMAL    ENTER
```

Then choose the paper size, letter or legal, that your printer will be using. All documents printed will be reduced to 90% of original size. Therefore, if your document is fully 11 inches long and a TTI is added, the document will be reduced by 90% so that all the information will fit on one printed page. Longer received documents will be printed on two or more pages.

1. To choose the paper size, press **PROGRAM, 5, 2, TRAY\_SIZE**.

```
ECM    OFF    PRINTER
CONF.  OFF    PAR_THRML/TRAY_SIZE
STAMP  OFF
          PAR/THRML    TRAY_SIZE
```

2. Press the appropriate paper size, **LEGAL** or **LETTER**. Then press **ENTER**.

```
ECM    OFF    PRINTER    TRAY_SIZE
CONF.  OFF    Select    Tray Size
STAMP  OFF    LEGAL
LEGAL    LETTER    ENTER
```

If your fax LCD displays "Printer Error" when printing, check that the cable connections are secure and make sure that your printer has not run out of paper. If the printer has run out of paper, refill the paper tray immediately. Your document will be reprinted starting with page one if printing was interrupted.

## Department Codes

The department coding feature lets you track use of your fax. When the department code setting of your unit is activated, each user will be prompted to enter their department code before sending or polling a document. All transactions are then documented by respective department on the Activity Journal.

Because your Activity Journal also documents each transmission's length and destination, the department code option makes cost accounting of fax use easy.



To activate the department code setting:

1. Press **PROGRAM, 4, 2, ON.**

ECM	OFF	DPT. _CODE
CONF.	OFF	Select ON/OFF
STAMP	OFF	ON
ON		OFF ENTER

2. Then press **ENTER.**

Your fax will now prompt each user for their department code before beginning transmission or polling. Assign each department a unique four-digit code number to enter when they are prompted.

To transmit or poll with the department code option in use:

1. Begin transmission as shown on page 43, polling on page 45.

ECM	OFF	DPT. _CODE
CONF.	OFF	Input Depart Code
STAMP	OFF	0000
		ENTER

2. Enter your department code using the numeric keypad. Then press **ENTER.**

ECM	OFF	DPT. _CODE
CONF.	OFF	Input Depart Code
STAMP	OFF	1004
		ENTER

Your fax machine will now send the document.

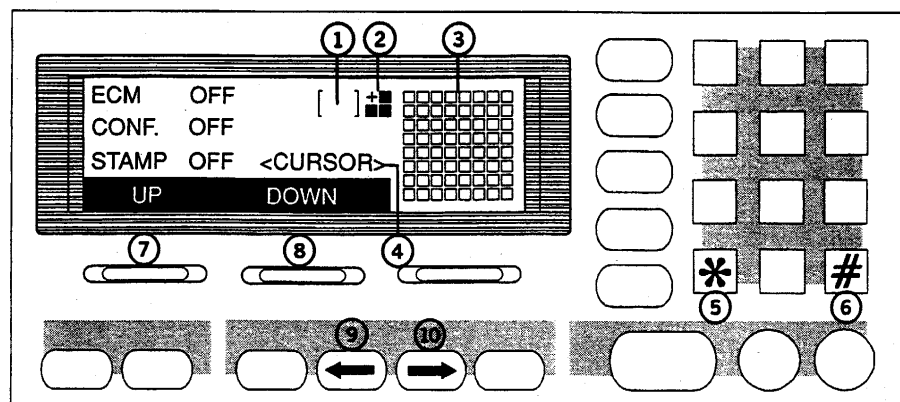
**Note:** The department code function on your fax is designed to provide a voluntary internal accounting system for fax use. The code does not prevent use by an unauthorized user. Any four-digit code entered in above will be recorded on the Activity Journal.

## User Fonts

User fonts are special graphic symbols that you create and store in your fax. These symbols can be included in your TTI and on the cover sheets that you send along with transmissions (see page 40). They can also be included as identifiers of SecureMail boxes. You can store up to 40 user fonts in your fax.

With user fonts you can recreate your company logo, visually reinforce the message you are sending, or just add a friendly touch to your transmissions.

A user font is made up of 256 dots within a 16x16 dot square. Your fax LCD displays one 8x8 quadrant of your user font at a time.



1. Watch this space to see how your user font will look when printed. As you enter dots, this space reflects the picture you are drawing.
2. These four squares represent the four quadrants in which you can enter dots. The quadrant that shows a "+" sign is the one in which you are working.
3. A full representation of the "active" quadrant. The dots you enter will be easily seen in this display. Your cursor position is represented by a "+".
4. This line tells you if you are in the drawing mode or not. "Cursor" lets you move around within the square without changing or adding any dots. Set the drawing mode to "Dot ON" if you want to fill in dots. Set it to "Dot OFF" if you want to erase dots.
5. Switches the Dot ON/Dot OFF indicator.
6. Press this key to go to and from Cursor and Dot ON/Dot OFF.
7. Moves the cursor up.
8. Moves the cursor down.
9. Moves the cursor to the left.
10. Moves the cursor to the right.

Before creating your user font, map out what you want the font to look like. Graph paper is perfect for this kind of drawing, or draw a 16 x 16 graph on a piece of plain paper. Fill in dots until the drawing is complete. We'll draw a Murata logo in our example. After finishing your sketch on paper, you're ready to create the user font with your fax.

1. Press **PROGRAM, 5, 1, SET**.

```

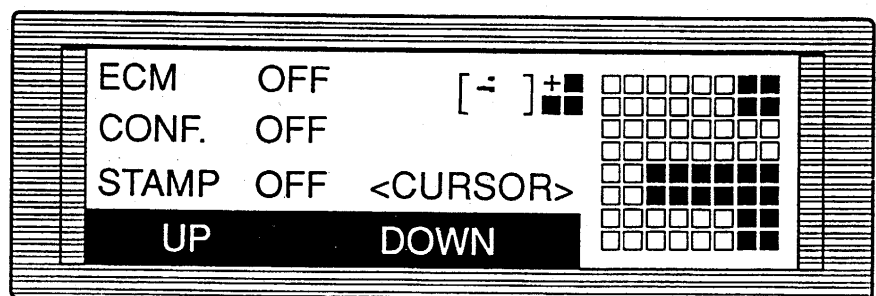
ECM    OFF  USER_FONT  SET
CONF.  OFF  01:  :Select No.
STAMP  OFF
                        CANCEL      ENTER
  
```

2. Choose the user font to enter, using the numeric keypad to select font 01 to 40.

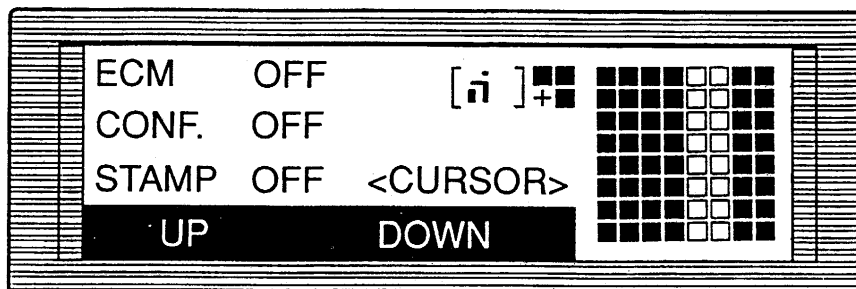
```

ECM    OFF  USER_FONT  SET
CONF.  OFF  05:  :Select No.
STAMP  OFF
                        CANCEL      ENTER
  
```

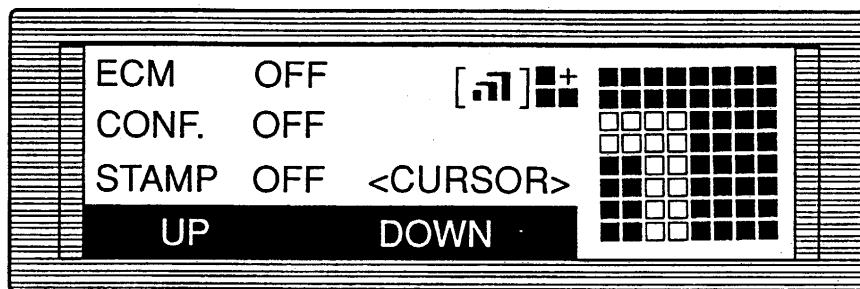
Then press **ENTER**.



3. Using the drawing you've made as a guide, enter dots where they should appear to form your picture. You'll start out in the upper left quadrant of the square, but moving around is easy: Just use the up and down keys found under the LCD and the left and right arrow keys to move anywhere in the square.



4. Here's our completed user font. Notice how the area between the brackets in the top of the LCD displays what we've drawn.



5. You can work by drawing each quadrant separately or drawing from quadrant to quadrant. To know which quadrant you are working in, watch the four squares at the top of the LCD.
6. When you've completed the user font, press **START**. You can enter another user font or press **STOP** to return to standby.

ECM	OFF	USER_FONT	SET
CONF.	OFF	06:	:Select No.
STAMP	OFF		
		CANCEL	ENTER

## Editing a User Font

To edit a user font that you've already created, follow the above steps 1 and 2, entering the appropriate font number. Set the indicator to "Dot OFF" to erase dots and "Dot ON" to add new ones. When you're finished editing, press **START**. Then press **STOP** to return to standby.

## Printing the User Font List

1. To print a list of the user fonts you have entered, press **PROGRAM, 5, 1, LIST**.

ECM	OFF	USER FONT
CONF.	OFF	SET/LIST
STAMP		
	SET	LIST

## Cover Sheet

With your Murata fax, there's no need to write out and send transmission cover sheets manually. Instead, instruct your unit to send one with each transmission.

The cover sheet includes vital information helpful to those who receive your transmissions. Make sure to program your TTI so that all necessary information will be included on your cover sheet.

### Setting the Cover Sheet Message

Program your unit with different messages, appropriate to your business needs. The first three messages, numbered 0, 1 and 2, have been preset for you. They are:

No.	Message
0	Please review the following.
1	Please call if you have any questions.
2	Urgent! Please deliver immediately.

You can store up to five of your own messages, numbered 3 through 7, to add personal, seasonal or professional messages to your correspondence.

1. To create a message for your cover sheets, press **PROGRAM, 1, 3, SET**.

ECM	OFF	MESSAGE	SET
CONF.	OFF	0: Select No.	
STAMP	OFF	Please review the fo	
		ENTER	

2. Select the message you will program using the numeric keypad or the left and right arrow keys. Choose from messages 3 through 7. Then press **ENTER**.

ECM	OFF	MESSAGE	SET
CONF.	OFF	3: : Upper Case	
STAMP	OFF		
MODE		CANCEL	ENTER

3. Now use the one-touch and numeric keypads to enter your message. Upper and lower case letters, symbols and user fonts are available when creating your message. Press **MODE** to scroll through these options (see page 16). Each message can contain up to 40 characters. Remember that each user font used takes up two of the 40 spaces available. All other characters take up one space.

ECM	OFF	MESSAGE	SET
CONF.	OFF	3: : Lower Case	
STAMP	OFF	Seasons Greeting!	
MODE		CANCEL	ENTER

4. When you've completed your message, press **ENTER**. You can continue programming messages by entering another message number, or press **STOP** to return to standby.

## How the Cover Sheet is Sent

You can instruct your fax to send cover sheets attached to the first page of your transmitted document, or as a separate sheet.

1. To determine how your cover sheet will be sent, press **PROGRAM, 1, 3, PAGE**.

ECM	OFF	MESSAGE	PAGE
CONF.	OFF	Select	ON/OFF
STAMP	OFF	ON	
ON		OFF	ENTER

2. If you'd like the cover sheet attached to the first page of your document, press **OFF, ENTER**. If you'd like the cover sheet to be sent as a separate page, press **ON, ENTER**.

ECM	OFF	PAGE	
CONF.	OFF	Select	ON/OFF
STAMP	OFF	OFF	
ON		OFF	ENTER

## To Send a Cover Sheet

Do this each time you'd like to send a cover sheet:

1. Insert the document to be transmitted. Press the **NEXT** key two times.

ECM	OFF	FAX	READY
CONF.	OFF		
STAMP	OFF	Feb 26, 90	14:55
RELAY_TX		MESSAGE	PAGE_SET

2. Press **MESSAGE**. Message number 0 will automatically appear in your LCD.

ECM	OFF	MESSAGE
CONF.	OFF	0: Select No.
STAMP	OFF	Please review the
		ENTER

3. Use the numeric keypad or the left or right arrow keys to select the number of the message to be printed on the cover sheet or use the arrow keys to scroll through the available messages.

ECM	OFF	MESSAGE
CONF.	OFF	2 : Select No.
STAMP	OFF	Urgent! Please dial
INSERT	-	CANCEL

4. Now press **ENTER** and enter a telephone number, speed-dial number or call group for the transmission.

ECM	OFF	
CONF.	OFF	Input Dial No.
STAMP	OFF	
RELAY_TX	MESSAGE	PAGE_SET

## Facsimile Interface Processor

Murata's exclusive Facsimile Interface Processor can couple the power of computers with the scanning, transmission and reception capabilities of your fax machine, for high-volume communication, graphics input and direct computer-to-fax transmission.

FIP is a powerful link between your personal computer, network, minicomputer or mainframe and the global world of high-speed fax communication.

For more information about FIP, consult your FIP manual or contact your local Murata dealer.

## Encryption Interface

To ensure communications security for you and your business, your Murata fax is equipped with SecureMail and closed network features. For the strongest in communications security, Murata also offers encryption, an upgrade to your unit, allowing the RS-232C port to be used as a CCITT V.24 standard encryption interface.

For more information on this optional upgrade, contact the Murata Customer Support Center for your area (see page 3).

# Software Switches

Some special features in your fax are available by selecting soft dip switches—on/off switches in your unit's software.

Use care when making these settings, because it is possible to change or prevent proper fax operation with an incorrect switch setting. If you think you made an incorrect setting, call the Murata Customer Support Center. You can also use the clear memory command to instantly return all dip switches to their factory settings, but this command deletes all user information—like TTI, Subscriber ID and autodialer entries—from your unit's memory.

## Unlimited Page Length: Reception

A sensor in your fax stops reception if it ever detects a single page longer than about 10 feet.

If you must receive very long uncut pages, like medical strip charts or petroleum logs, use the setting below to disable this sensor.

1. Press **PROGRAM**, \*, \*.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	00
STAMP	OFF	00000000
ENTER		

2. Press **ENTER** three times to reach dip switch 3.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	03
STAMP	OFF	00000000
ENTER		

3. Enter a "1" using the numeric keypad.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	03
STAMP	OFF	10000000
ENTER		

4. Press **ENTER**, **STOP** to return to standby.

## Unlimited Page Length: Transmission

If you must transmit very long unbroken pages, like medical strip charts or petroleum logs, use the setting below to disable your fax's paper jam sensor.

1. Press **PROGRAM**, \*, \*.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	00
STAMP	OFF	00000000
ENTER		

2. Press **ENTER** three times to reach dip switch 3.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	03
STAMP	OFF	00000000
ENTER		

3. Press the right arrow key one time.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	03
STAMP	OFF	00000000
ENTER		

4. Enter a "1" using the numeric keypad.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	03
STAMP	OFF	01000000
ENTER		

5. Press **ENTER**, **STOP** to return to standby.

6. After transmission, return the setting to "0" to re-enable the paper jam sensor.

## Switch to Fax Signals

The switch-to-fax feature lets you transfer an incoming fax call from the second telephone back to the fax for printing (see page 14).

Your unit initially requires you to press "6" two times on the phone handset to send the call back. Use the setting below to change that setting to four times.

Although it is unlikely, it is possible for the human voice to duplicate the signal frequencies of the "6" on your handset. If this happens, your fax could disconnect the line during communication. Changing the setting below requires you to press "6" four times to send a call back to the fax, making accidental disconnection even more unlikely.

1. Press **PROGRAM**, \*, \*.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	00
STAMP	OFF	00000000
ENTER		



2. Press **ENTER** six times to reach dip switch 6.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  06
STAMP  OFF  Q00000000
ENTER
```

3. Press the right arrow key four times.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  06
STAMP  OFF  0000Q000
ENTER
```

4. Enter a "1" using the numeric keypad.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  00
STAMP  OFF  00001Q00
ENTER
```

5. Press **ENTER, STOP**.

## Subscriber ID Print

Most fax users enter a Subscriber ID—usually their fax's telephone number—in their units to be recorded by the machines with which they communicate. Your fax, for example, records the Subscriber IDs of remote non-Murata units in the Activity Journal (see page 53).

If you would like your fax to print the Subscriber IDs of units from which you receive documents, activate the following dip switch. The Subscriber IDs will be printed at the top of the page.

1. Press **PROGRAM, \*, \***.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  00
STAMP  OFF  Q00000000
ENTER
```

2. Press **ENTER** four times to reach dip switch 4.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  04
STAMP  OFF  Q00000000
ENTER
```

3. Press the right arrow key one time.

```
ECM    OFF  Set Soft Dip Switch
CONF.  OFF  06
STAMP  OFF  Q00000000
ENTER
```

4. Enter a "1" using the numeric keypad.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	00
STAMP	OFF	01 <u>0</u> 00000
		ENTER

5. Press **ENTER**, **STOP**.

## Voice Prompt Delay

The pre-recorded voice prompt is played when you have your unit set to the TEL/FAX READY mode (see page 33) and allow the fax machine to answer an incoming call. Most automatic fax machines calling your unit will not be hampered by this voice prompt. If callers tell you their faxes are unable to send messages when you have the voice prompt in use, use the setting below to add a delay before your fax begins the prompt. This delay makes it easier for these units to send messages to your unit.

1. Press **PROGRAM**, **\***, **\***.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	00
STAMP	OFF	<u>0</u> 0000000
		ENTER

2. Press **ENTER** six times to reach dip switch 6.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	06
STAMP	OFF	<u>0</u> 0000000
		ENTER

3. Press the right arrow key seven times.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	06
STAMP	OFF	000000 <u>0</u>
		ENTER

4. Enter a "1" using the numeric keypad.

ECM	OFF	Set Soft Dip Switch
CONF.	OFF	06
STAMP	OFF	000000 <u>0</u> 1
		ENTER

# Help Section

## Check Messages

	Occasionally your unit will detect a problem with the telephone line in use or encounter some problem with transmission or reception. When it does, it will alert you with one of the following check messages and error codes.
	Press <b>STOP</b> to cancel the beeping alarm tone and return your fax to standby.
<b>Feeder Error</b>	The documents are not properly set. Open the front cover and reset your documents.
<b>Insert Document</b>	A command has been attempted that requires a document in the feeder. Set your documents and repeat operation.
<b>Feeder In Use</b>	A command requiring the feeder has been entered while the feeder is already in use. Remember, using delayed commands from memory keeps your feeder free for multi-tasking—making the best use of your fax.
<b>Replace Rx Paper</b>	Replace the recording paper roll. All printing is suspended until the recording paper is replaced. See page 11 for instructions.
<b>Close Top Cover</b>	The paper cover is open. Press firmly on both sides of the cover to close.
<b>Close Front Cover</b>	The front cover is open. Press firmly on both sides of the cover to close.
<b>Hang Up Phone</b>	The telephone handset is off the cradle. Replace it immediately.
<b>Call for Service</b>	Self diagnostics have detected a possible problem within your unit. Contact the service center.
<b>Memory Overflow</b>	<p>You have attempted to enter more pages than your unit can store. When you encounter this message, you have two options:</p> <ol style="list-style-type: none"><li>1. Press <b>START</b>. Your unit will store up to the last page entered before memory overflow and will preserve all delayed commands programmed. Pages left unscanned when the memory overflowed cannot be entered into storage.</li></ol> <p><i>or</i></p> <ol style="list-style-type: none"><li>2. Press <b>STOP</b>. Your unit will delete the pages entered into memory during the current command. Previous pages and commands stored will be unaffected.</li></ol>
<b>Power Was Lost</b>	Documents and instructions stored in your fax have been erased due to power failure.
<b>Feed Document Again</b>	A document is caught in the document feeder. Open the front cover and gently remove the document. Firmly press the front cover until it clicks closed.
<b>Clear Rx Paper</b>	Paper has jammed in your unit. Remove the wrinkled paper from your unit, cut it from the roll, and re-install the roll.
<b>No Stored Document</b>	You have requested a document from a SecureMail box that contains no documents. Confirm the SecureMail delivery notice. Then enter the SecureMail box number again.

<b>Command Full</b>	Your limit of ten delayed commands has been met. No other delayed commands can be entered. Wait until one of the commands has been executed, or erase a command and enter your new command.
<b>No Stored Command</b>	No command has been stored under the number you specified. Confirm this by printing out a command list.
<b>No Stored Numbers</b>	No number has been stored in the speed-dial, one-touch, or programmed one-touch key that you requested. Confirm that the number you requested is correct.
<b>Verify Operation of Remote Machine</b>	Your unit could not contact the remote unit. Call the operator of the remote machine to verify that the unit is working. This message will also be displayed if the remote unit is limiting access with a pass code.
<b>Please Transmit Again</b>	The document you are transmitting may not have reached its destination. Check your TCR or RCR to verify. If your stamp setting is turned on, check each page for a transmittal stamp. Print an Activity Journal and review how many pages were transmitted. You may want to retransmit to insure readability.
<b>Please Transmit Again From P.#</b>	Your document did not transmit completely. Transmit the remainder of the document, beginning with the page number indicated on your LCD.
<b>Unable To Contact Remote Machine</b>	All attempts to contact the remote machine, including automatic redialing, were not successful. Try transmitting again. If the same message appears, call the receiving party on a separate phone and ask them to check the condition of their machine.

# Error Codes

These codes are printed on your unit's Activity Journal and can be used with the other messages to identify the cause of an error. Codes prefaced by a "T" occur during transmission. Those with an "R" occur during reception and "D" codes occur while dialing.

T.1.1. - The remote unit did not respond properly to your facsimile and may not be working or the phone number may have been incorrectly entered in your fax. Call the operator of the remote unit.

T.1.2. - The page counter in your unit detected a possible document feeder error. Carefully re-insert the document into the feeder and try the call again.

T.1.3 - Handshaking between units was not completed: The remote fax was disconnected. Call the operator of the remote unit.

T.1.4. - The Stop button was pressed at the remote unit in the middle of the handshake. Call the operator of the remote unit.

T.2.1. - The telephone line disconnected during transmission or facsimile communication became impossible because of poor line conditions. Try the call again.

T.2.2. - The machine you are attempting to communicate with is not compatible with your fax, does not have SecureMail, or is part of a closed network.

T.2.3. - Communication was not possible because of poor line conditions. Try the call again.

T.3.1. - The page counter in your unit detected a document feeder error. Or the operator entered an incorrect page count input during transmission. Carefully re-insert the document into the feeder and try the call again. Call for service if this does not solve the problem.

T.4.1. - The telephone line disconnected during the transmission of a page because of excessive modem errors caused by poor telephone lines or because the receiving unit ran out of paper. Try the call again.

T.4.2. - Poor line conditions developed after the start of transmission. Verify readability of transmitted copy.

T.4.3. - The remote fax disconnected during the transmission of the page. Call the operator of the remote unit.

T.4.4. - Call mode was requested by the receiving fax unit. Re-transmit the document, starting with the page indicated on your printout.

T.5.1., T.5.2. and T.5.3. - Telephone line noise or other problems prevented ECM transmission.

T.7.1. - Poor line conditions were detected before transmission in Group 2 began. Try the call again.

T.7.3. - Poor line conditions were detected after Group 2 mode transmission of a page, or the receiving unit ran out of recording paper. Try the call again.

T.7.10. Receiver depressed **STOP** key during transmission. Call the operator of the remote unit.

R.1.1. - The calling unit did not respond properly to your facsimile. The error can be caused by a wrong number reaching your fax or by a calling unit restricting access with a pass code.

R.1.2. - The calling unit was not compatible, did not have a valid database number for a poll request, or attempted to access an invalid SecureMail box.

R.1.4. - The **STOP** key was pressed during reception. Call the operator of the remote unit and request another transmission.

R.1.5. - Possible transmission from non-facsimile device. Verify the operation of remote unit if possible.

R.2.3. - Communication was not possible because of poor line conditions.

R.3.1. - The transmitting fax detected too many errors from the receiving unit. This is frequently caused by an intermittently poor phone line.

R.3.2. - The phone line in use disconnected just after the handshake but before the first page was received.

R.3.3. - The transmitting unit is not compatible or had a document feeder problem.

R.3.4. - The transmitting unit is not compatible or your telephone line was unable to receive the communication. Call the operator of the remote unit.

R.4.1 - Recording paper feed error. You have run out of paper or poor line quality is affecting reception. Call the operator of the remote unit or replace your recording paper.

R.4.2. - The phone line disconnected during reception, probably due to line problems. Call the operator of the remote unit and attempt reception again.

R.4.4. - Your unit has reached its memory capacity and is unable to receive into memory.

R.5.1. - Line noise or other problems prevented ECM reception.

R.7.1. - Unable to initiate reception in the Group 2 mode from transmitting unit due to a line-related problem. Call the operator of the remote unit and attempt reception again.

R.7.2. - Unable to complete reception in the Group 2 mode due to loss of synchronization. This is a line-related problem. Call the operator of the remote unit and attempt reception again.

R.7.4. - The transmitting unit had a document feeder problem or disconnected during transmission in the Group 2 mode.

R.7.11 - Unable to confirm complete reception of page. Verify readability of received copy in the Group 2 mode.

D.0.0. - The remote machine is busy. Try the call again.

D.0.1. - The remote unit did not respond. Try the call again. If the message is repeated, call the operator of the remote unit to verify the unit's operation.

Note: Reception errors R.2.3 through R.7.4 can occur at the beginning of fax communication, before your unit prints the remote unit's TTI or Subscriber ID, or after several pages during the transmission of a multiple-page document. You may be able to fax the remote unit in these instances and identify the reception error you detected for the remote operator. Errors R.1.1 and R.1.2 occur before the TTI can be transmitted, and do not allow you to identify the transmitting unit.

# Common Questions

**Q:** Where is the serial number on my fax?

**A:** Look on the bottom of your fax. You will see a label with a bar code printed on it. The last eight numbers form your serial number (see page 3).

**Q:** My fax rings and the LCD shows "CALLED", but a fax message never comes through. What's wrong with my machine?

**A:** The caller may have dialed the wrong number, then hung up. Also, if you're using a second telephone with your fax, make sure it's properly set up to handle incoming calls (see page 33).

**Q:** When printing a transmit journal, usually the name or number of the receiving fax is printed. Sometimes "G3" is printed instead. Why?

**A:** Several things can keep a telephone number from appearing in the Location column of your Activity Journal:

1. There might not be one programmed at the remote unit. The telephone number, called the Subscriber ID, and the name, called the Transmit Terminal Identifier, are optional... Some people simply choose not to program them into their fax machine.
2. The transmission or reception might be cut off before the Subscriber ID or TTI can be exchanged. In these cases, your Activity Journal will usually show an error message, indicating the transmission was not complete.
3. Poor telephone lines can block the transmission of the Subscriber ID or TTI.
4. A few manufacturer's fax machines do not use standard Subscriber ID or TTI messages. In these cases, you may see a garble of numbers, letters and other characters.
5. Finally, some machines do not offer a Subscriber ID or TTI. Many small home fax machines, for example, do not offer these features.

**Q:** The telephone number that appeared on my Activity Journal is not the same as the number I dialed. Why not?

**A:** The information that appears on the Activity Journal doesn't come from your fax: It is received from the remote fax during transmission and reception.

Let's say you transmit to a fax at telephone number 1-214-403-3499. It's possible your Activity Journal will just show 403-3499, or even another number altogether, because the information is programmed by the remote operator. (And because your Subscriber ID and TTI appear on the journals of remote units, take a minute to make sure the information is correct and includes your area code. That way, people you communicate with always receive your full name and telephone number.)

**Q:** Sometimes a phone number appears in the Remote Location column of my Activity Journal, and sometimes a company name appears. Why?

**A:** When your fax communicates with another Murata-manufactured unit, the TTI or company name (see page 15) in the remote unit is saved in your Activity Journal. When you communicate with non-Murata units, the Subscriber ID or telephone number is saved.

**Q:** How do I clear my Activity Journal?

**A:** There is no need to clear your journal: The Activity Journal displays only the 25 most recent transmissions and receptions. When your fax reaches the 25-transaction limit, it will drop the oldest entry and add the most recent to the bottom of the journal.

**Q:** Why is the number "001" used more than one time on the Activity Journal?

**A:** The journal begins numbering at "001" each day. Your Transmit Journal, for example, may have several occurrences of "001" because several days of fax activity were recorded.

**Q:** When I unplug my machine, will I lose my programmed information (TTI, autodialer numbers, time and date, etc.)?

**A:** No. The battery for your fax is charged fully after the first two or three days of uninterrupted use. Thereafter, it protects user settings for several days if power fails or you decide to move your fax. Remember, however, that battery back-up does not extend to documents and delayed commands in memory, only to user settings.

**Q:** Sometimes my fax machine transmits very slowly. Is there any way to speed transmission time?

**A:** Your fax can transmit at 9600 bps, the fastest transmission possible for a Group 3 fax machine. Sometimes, however, it must slow down to compensate for poor phone lines or an older, slower fax machine.

**Q:** People I send fax messages to say all my documents are received at a reduced size. Is the problem with my machine or with theirs, and what can I do to correct this problem?

**A:** Make sure that the guides on your document feeder are adjusted to the width of the pages you send. If you leave the guides adjusted for an 11-inch page, for example, any 8.5-inch-wide pages you transmit will be reduced when printed at the remote machine.

**Q:** Do I have to dial a "1" for long distance?

**A:** Yes. Remember to include any numbers needed for long-distance dialing when you program your one-touch and speed-dial numbers. You can even include a special pause character needed when calling through a telephone system that requires "9-" to reach an outside line (see page 25).

**Q:** How do I send to an overseas telephone number?

**A:** Dialing requirements for overseas calls may vary depending on your local telecommunication company's requirements. For most overseas calls, dial 011, then the appropriate country code, city code and phone number. Country and city codes are frequently included in the front section of telephone directories. Your Murata fax includes a special dialing character used when transmitting on extremely poor overseas telephone line. Dialing pause characters can also be helpful. See page 25 for details on these special characters.

**Q:** How do I send to a fax unit that's on a telephone system extension?

**A:** Insert your document into the feeder and place your call using your fax machine's handset. When the system operator answers, ask for the desired extension. When you hear fax tones from the remote unit, press **START**, then hang up the handset.

**Q:** Can I transmit if my fax is out of paper?

**A:** Yes, however confirmation reports (see page 55) are not available when transmitting without recording paper in your fax.



**Q:** Can I transmit pages from a newspaper?

**A:** No. Newspaper can jam in your document feeder.

**Q:** Can I transmit a document after using correction fluid on it?

**A:** Yes, as long as the fluid is completely dry before the document passes through the machine.

**Q:** How can I manually receive a fax while I am talking on the phone?

**A:** If you want to receive a fax message, tell the operator to insert a document in the remote unit and press **START**. After you hear fax tones, press **START**. Your fax will take over the line and receive the document. If you wish to reconnect the voice line after the message has been received, press **MONITOR/CALL** while the fax is printing. After the transmission is complete, your fax machine will ring. You can then pick up the handset and resume your conversation.

**Q:** Can I transmit and receive at the same time?

**A:** No, but use the call mode (see page 34) to ask the remote operator if he or she wants to transmit or receive after your transaction is completed. Remember, you can always program delayed commands to make full use of your unit. See page 59 for information on multitasking.

**Q:** Can I use a dust cover on my fax?

**A:** No: A dust cover blocks air circulation and could cause your fax to overheat.

**Q:** I'm using the HP LaserJet Series II printer to get plain paper fax. Half of my message prints on one page and the other half on another page. Why?

**A:** You probably do not have enough RAM in your printer.

# Glossary

The terms and words below are often used when discussing facsimile machines and fax communication. Not every word or term included below will apply to your Murata fax. Some, like "private line" and "analog facsimile", are included even though they **do not** apply to your unit because you may encounter them during your fax use.

Use these definitions for your reference only. Specifications and technical information are subject to change, so call the Murata Customer Support Center (see page 3) if you have any questions.

## **A4, B4, A3**

Standard stationery sizes defined by the International Standards Organization, an agency of the United Nations. A4 paper is 8.5 inches wide. B4 is 10.1 inches wide and A3 paper is 11.9 inches wide.

## **Activity Journal**

Murata fax machines offer an Activity Journal to help track and account for your transactions. Made up of individual transmit and receive journals, the Activity Journal includes information on the transmission mode, number of pages sent, result and any errors encountered. You can set the Activity Journal to print automatically or on demand.

## **Analog Facsimile**

An analog facsimile machine converts each picture element of black or white into an electrical signal. These signals in turn generate constantly changing electrical signal that is transmitted to a receiving fax. Analog facsimile machines are characterized by extremely slow document transmission, 3 minutes per page or more, and are more susceptible to the signal "noise" encountered on standard telephone lines.

## **Automatic Reduction**

Many Murata fax machines will automatically reduce documents being transmitted to accommodate the effective printing width of the receiving unit. For example, a fax machine with a 10-inch scanning width can send an image 10 inches wide to a unit with an 8.5-inch print width. The complete image will be transmitted and reduced in size when printed at the receiving unit.

## **Bit**

The smallest unit of information in a computer. Contraction of "binary digit". Some Murata fax machines, which are themselves computers used for telecommunications, allow you to change bits of information to provide or cancel features through software settings. Check your operating instructions.

## **Broadcast**

Some Murata fax machines offer broadcasting, a feature that lets you transmit a single document to dozens of preprogrammed locations in a call group.

## **BPS**

Bits per second. Used to express the speed of transmission. Because fax transmission treats a document as a graphic image rather than as a series of alphabetic and numeric characters, bps does not correspond to the number of characters transmitted per second. Murata fax machines transmit and receive at 9600 bps, with automatic fallback to 7200, 4800 and 2400 bps if required by poor telephone line conditions.

## **Byte**

A group of digital elements, usually sent as eight bits to the byte.

## **Call Group**

A preprogrammed group of fax locations used by Murata units with internal memory to speed broadcasting, polling and other functions.

**Call-Waiting Service**

Many telephone systems offer an optional call-waiting service that identifies when another party is calling while you are on the phone. Call-waiting signals may cause interruption of facsimile transmission or reception.

**CCD**

Charged coupled device arrays. The scanning mechanism used in Murata fax machines to convert a document image into digital facsimile information. Fluorescent light reflected off your document is received by the CCD array and is converted into a digital signal for transmission.

**CCITT**

Abbreviation for the Consultative Committee for International Telegraph and Telephone, a telecommunications forum for member countries of the United Nations. CCITT Study Group XIV established the primary groups for facsimile equipment, covering communication protocol and transmission. Murata's Group 3 fax machines offer the fastest transmissions allowed by CCITT when communicating with other Group 3 units. Some Murata fax machines offer compatibility with older Group 2 and North American FM systems, as well.

**CCITT V.29 and V.27 ter.** A standard set of communication procedures allowing fax machines to talk to all other units adhering to those standards.

**Closed Network**

A network of fax machines that limit access to the network to other units having the same passcode. Some Murata fax machines offer passcode protection and can participate in a closed network.

**Compatibility**

The term "compatible" describes the ability of separate things to function together. Murata fax machines offer CCITT Group 3 compatibility, the modern standard for worldwide communication. Many Murata units offer Group 2 and North American FM compatibility, as well.

**Copy Mode**

You can use your Murata fax as a convenience copier. Many Murata units can copy in two or more levels of resolution.

**Database Polling**

See Polling.

**Data Compression**

Used in digital fax machines to speed transmission. See Digital Facsimile, MH, MR and MSE, SMSE.

**Delayed Transmission**

Some Murata fax machines offer one or more delayed commands, allowing you to load documents into your fax machine during work hours for transmission after hours.

**Digital**

The description of information using a series of two characters or signals. Morse code, for example, represents each character of the alphabet with a unique series of dashes and dots. Digital fax machines convert the graphic image of your document into a series of zeros and ones.

**Digital Facsimile**

Unlike analog systems that scan every portion of a document, digital fax machines survey a document's overall picture content. Digital fax machines scan a line and convert the information into a binary code of zeros and ones. The fax machine can take this information and compress it, providing transmission speeds of less than one minute per page. Murata units offer the standard Group 3 data compression method for rapid transmissions to any other Group 3 fax, and many Murata units offer proprietary transmission speeds for faster transmissions between Murata-manufactured units.

**Dip Switches**

Dual in-line package switch: A two-position on-off switch. Many Murata fax machines include dip switches to control optional settings or features. Check your operating instructions for more information.

<b>DTMF</b>	For dual tone, multiple frequency. The dialing signals generated by push-button or "touch-tone" telephone systems. DTMF telephone service is an option in most North American telephone systems.
<b>ECM</b>	Error correction mode. A CCITT-approved feature for Group 3 fax machines. ECM transmission sends document image data in blocks, and retransmits each block until received properly by the receiving unit.
<b>Effective Printing Width</b>	The widest image that can be printed on your fax. The effective width can be influenced by the CCITT group of the unit transmitting to your fax machine.
<b>Effective Scan Width</b>	The maximum width the scanner in your fax can scan during transmission.
<b>Encryption Device</b>	This device adds security to your fax messages by "scrambling" the fax signal during transmission. The message is unscrambled by a similar encryption device at the receiving end.
<b>Facsimile</b>	Although business fax use has grown rapidly since the advent of fast, powerful Group 3 units, facsimile communication itself has a surprisingly long history. The first facsimile system was introduced in 1842, and wide-spread service was underway before 1910. In the United States, fax units attached to home radios provided facsimile newspaper service in several cities through the late 1940s. Facsimile's growing success for news transmission was halted, however, by the development of commercial television.
<b>Facsimile Interface Processor</b>	An upgrade that allows some Murata fax machines to operate with asynchronous ASCII host devices, coupling the power of computers with the scanning and transmission capabilities of fax machines for high-volume communication, graphics input and direct computer-to-fax transmissions.
<b>Fallback</b>	Group 3 fax machines operate at the highest transmission speed possible on a given telephone line. Murata systems offer automatic fallback, so if line quality drops during transmission your fax machine will reduce speed to the fastest possible level.
<b>Fine Resolution</b>	203H x 196V lpi. Also shown as G3F on some units.
<b>FM</b>	Or North American FM. Used to identify CCITT Group 1 units designed for use in North America.
<b>Grayscale</b>	Not a level of resolution, but a method of scanning and transmitting halftone images. Murata fax machines with grayscale abilities interpret photographs in levels of gray between white and black. The transmitting fax machine must have grayscale ability to send a photographic image accurately, but the receiving machine does not need it to print the image.
<b>Group 4</b>	A CCITT standard for capturing, processing, communicating and outputting all forms of data. Group 4 will be used for extremely high-volume fax communication in coming years, but the expense of leased, dedicated digital telephone lines will continue to make Group 3 fax the best choice for millions of fax owners.
<b>G2</b>	Used on some Murata units to identify Group 2 resolution or to identify when a document is being transmitted to a Group 2 fax machine.
<b>Handshaking</b>	Used by telecommunications and computer equipment to "introduce" two systems to each other. Facsimiles use a handshaking protocol, for example, to identify the CCITT group of each unit and to begin fax communication.

<b>Hz</b>	Or hertz. A measure of frequency equal to one cycle per second. Used in the specifications for your fax, it identifies the AC power your unit requires. Call your electrician if you don't know the specifications of your office outlets.
<b>Internal Memory</b>	Some of Murata's most advanced fax machines include internal memory to store documents for transmission or to store incoming messages in SecureMail boxes.
<b>LCD</b>	Liquid crystal display. Used on some Murata units for status displays.
<b>LED</b>	Light emitting diode. Used on some Murata units for displays and lamps.
<b>Laser Printer Interface</b>	Murata's Laser Printer Interface is an upgrade available for some high-volume fax machines, interfacing your laser printer with your fax for plain-paper fax messages.
<b>Load Number</b>	A number assigned to telecommunications equipment used in Canada and designed to prevent overloading on a telephone circuit. Read the Canadian Department of Communications information in your operating instructions or call your local telecommunications company for more information.
<b>Location ID</b>	An optional identifier used on Murata fax machines. The Location ID lets you identify by name the telephone numbers programmed in your autodialer.
<b>MH</b>	Modified Huffman, the CCITT Group 3 standard data compression method. A feature of all Murata fax machines, MH assures better than one-page-per-minute transmissions when communicating with other Group 3 units, regardless of manufacturer.
<b>MR</b>	Modified Read, the optional CCITT Group 3 data compression method. Used in some Murata fax machines and in Murata's Facsimile Interface Processor and FIP-PC Application Software.
<b>Modem</b>	Originally an abbreviation of modulator-demodulator, but now a common word in fax and computer use. A modem is a digital device that converts digital data (like the information from your fax machine) into an analog signal for transmission over analog lines (like your ordinary telephone line). A modem is included in your fax machine and allows it to be connected directly to your PSTN telephone line.
<b>MSE, SMSE</b>	Proprietary data compression methods, allowing transmissions faster than with MH and MR whenever you are communicating with a Murata-manufactured unit. MSE and SMSE are features on many Murata fax machines.
<b>Normal Resolution</b>	Shown as Norm. 203H x 98V lpi. The standard resolution mode for Group 1 and 2 units, and available on all Group 3 units.
<b>Original Document Size</b>	Used when defining the largest (or smallest) document that can be fed safely through your fax machine. Check your unit's operating instructions for more information.
<b>Passcode</b>	A proprietary feature available on some Murata fax machines. The four-digit passcode limits access to information set to be polled to units with the same passcode. The code also allows several Murata systems to create a closed network, limiting access to the network to systems with the same code.
<b>PBX</b>	Private branch exchange. Often called PBX, PABX and others. Privately owned telephone equipment serving a particular building, business or area. Many PBX systems use digital transmission lines which, unlike more common PSTN lines, are not compatible with fax machine use. Do not connect your Murata unit to a PBX without first checking with the system manufacturer or service representative.

**PCAS**

Personal Computer Applications Software. Used with FIP, PCAS is a computer-fax interface for Murata's high-volume fax machines. Allows you to send documents automatically from your computer, store fax transmissions onto your hard disk for viewing and editing, and create fax phone groups of more than 1,000 locations.

**Polling**

Polling allows you to set a document in your fax machine for automatic transmission to a remote unit when that unit calls, or to call a remote unit and receive a document set to be polled. Polling is convenient whenever a central unit must receive information from one or several remote units. By polling the remote units, the central facility bears all telephone charges and prevents several remote units from calling at the same time. In database polling, remote units can call and request specific files of information stored inside a Murata unit with internal memory.

**PPS**

Pulses per second. Used to identify rotary dialing requirements.

**Private Line**

Or Leased Line. A service offered by many telephone systems that provides an exclusive phone circuit between two geographic points. Your Murata unit does not require a private line.

**PSTN**

Public switched telephone network. PSTNs are the most common type of telephone lines and service in use, and are in contrast to private or leased lines. Murata units provide fast, reliable data transmission over PSTN lines. You do not need a special line or a dedicated telephone line for your Murata unit.

**Relay Broadcasting**

Some Murata fax machines can store a scanned image in internal memory, transmit the image to all units in a call group, and instruct those remote units to retransmit the image to each fax machine in the remote unit's call group. This relay broadcasting feature speeds extremely high-volume fax communication and allows a single command to initiate document transmission hundreds of preprogrammed fax locations.

**Resolution**

The resolution of documents transmitted or copied by fax machines is measured by the number of horizontal (H) and vertical (V) lines per inch the unit can print. Your Murata unit may offer one or more of these resolution levels:

FM	203H x 98V lpi
G2	203H x 98V lpi
Norm	203H x 98V lpi
Fine	203H x 196V lpi
Superfine	203H x 392V lpi

Some Murata units also offer grayscale transmissions for accurate reproduction of photographs.

**Receive Confirmation Report**

A receive confirmation report is your assurance that the document you transmitted was received. The RCR prints out after your transmission. It identifies the receiving unit and records the date, time, transmission mode, number of pages sent and result. The RCR is an exclusive feature of Murata fax machines and is available only when transmitting to another Murata unit.

**RJ-11C**

A standard plug-in telephone jack. The RJ-11C is commonly used in North America for telephone line connections, but call your telephone company if you are unsure of the type of jacks in your office.

**Rotary, Tone Dialing**

Most telephone systems in the United States offer rotary and touch-tone dialing options. Murata units are compatible with both rotary and tone dialing signal requirements. Check your operating instructions for information on setting your unit for rotary or touch-tone dialing. Murata units also offer two types of rotary dialing signals: 20 pps and 10 pps. Check with your telephone company if you have rotary dialing service.

**SecureMail**

A feature on many Murata fax machines. SecureMail allows you to send a document to a memory "mail box" in a Murata unit with internal storage. The transmission is protected at the receiving end by an access code created by the mail box holder.

**Subscriber ID**

The Subscriber ID is your unit's telephone number. Part of the TTI, the Subscriber ID is printed at the top of each page received from your unit.

**Touch-Tone**

A push-button telephone or the characteristic tones made by such a phone. Also a registered trademark of Western Electric for a brand of telephones

**Transmit Confirmation Report**

Like the RCR, a TCR provides proof that the document you set for transmission was sent. Printed after transmission, the TCR identifies the telephone number to which you programmed the document to be sent.

**Transmit Terminal Identifier**

Your programmable TTI is sent automatically with every page you send, and appears at the top of each page printed by the receiving unit. The TTI can be your personal or business name or any other identifier.

# Maintenance

With proper installation and a little maintenance, your Murata fax machine should provide dependable fax service for years to come.

Although little day-to-day care is required for your fax, you can take three simple precautions to ensure long system life:

- Make sure your unit is installed according to Murata's specifications.

Proper installation is crucial to the maintenance of your unit. Review the requirements on page 7 before you install your unit. Don't install your fax where it can overheat, gather dust or get splashed by water or other liquids.

- Use Murata thermal facsimile paper.

Murata's facsimile paper is designed specifically for the sophisticated thermal printhead in your unit (see page 12). Other paper won't provide the high-quality fax reproductions you get with Murata paper and could damage your unit.

- Clean your fax, if needed.

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## Cleaning Outside

Use a mild cleaning solution sprayed onto a lint-free towel or cloth to wipe down the fax machine's cover, handset and paper tray.

Never spray cleaner directly on your facsimile machine. The drifting spray could damage components inside your unit.

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## Cleaning Inside

**Always unplug your unit before cleaning.**

Use lint-free swabs, a specially formulated cleaning solution and a supply of compressed dust-free air to clean inside your fax.

Use a lint-free cloth moistened with cleaning solution to wipe the paper box and other plastic surfaces inside your unit.

Use the lint-free swabs moistened with cleaning solution to gently wipe components inside your fax.

Use dry, dust-free compressed air to gently blow dust and other material from areas you cannot reach with swabs.

Never attempt to clean inside sealed areas of your unit and never spray cleaning solution directly onto your fax.

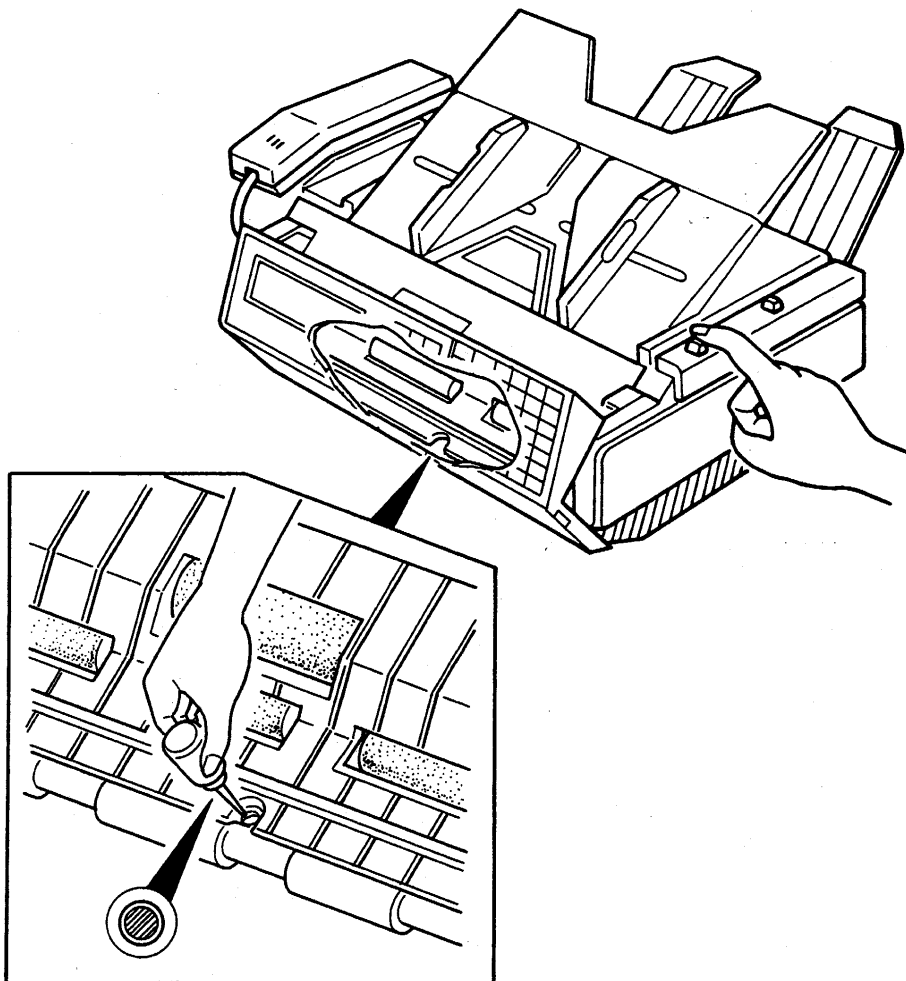


## Ink Dropper

When unpacking your Murata fax, you'll find a small ink dropper, supplied so that you can replenish your confirmation stamp's ink supply. The ink stamp in your fax should last for several thousand impressions.

When your stamp begins to fade:

1. Snip the tip of the enclosed ink tube.
  2. Open the front cover of your Murata fax.
  3. Locate the ink stamp.
  4. Apply 2 or 3 drops of ink onto the stamp and allow to absorb for 3 minutes.
- Your confirmation stamp is now ready for use.



# Limited Warranty

This warranty is made by Murata Business Systems, Inc. ("Murata"). This warranty is valid only on Murata products purchased and used in the United States of America. This warranty applies to the product only while owned and used by the original purchaser (hereinafter referred to as the "Customer"). If ownership of the product is transferred, this warranty terminates. This warranty does not apply to any product in use for rental purposes.

This Murata product is warranted against defects in material and workmanship for ninety (90) days commencing the date of original Customer purchase. If the product is defective in material and/or workmanship (normal wear and tear excepted) during the warranty period, Murata or its authorized representative will, during Murata's established service availability hours, make necessary adjustments and repairs, including at Murata's option installation of replacement parts. Murata's service availability hours are 8:30 a.m. to 5 p.m. Monday through Friday, excluding Murata-recognized holidays. Murata will complete the necessary adjustments and repairs within a reasonable time period, as dictated by the nature of the problem and by Murata's service schedule. Replacement parts may have been used and/or reconditioned. Parts that have been replaced will remain the property of Murata. This warranty is subject to the OBLIGATIONS and EXCLUSIONS set forth.

## OBLIGATIONS

1. This warranty will be honored only on presentation of the original dated authorized Murata bill of sale or Murata dealer bill of sale or sales slip to an authorized Murata service representative, authorized dealer or service center. For the name of your nearest authorized Murata service center, contact Murata Business Systems, Inc., toll-free telephone number 1-800-347-3294.
2. During the warranty period, the Customer must notify Murata by telephone of any defective product material and/or workmanship.
3. Transportation (including prepayment of freight and insurance charges) of the product to and from an authorized Murata service center, designated by Murata, is the responsibility of the Customer.
4. If Murata provides maintenance or responds to a call which is outside the scope of this warranty, such maintenance shall be billed to the Customer at Murata's then current rates for maintenance and parts and shall be due and payable in full upon receipt of invoice.

## EXCLUSIONS

1. This warranty shall not cover a product with missing or altered original identification marks.
2. This warranty applies only to products that the purchaser has properly installed, adjusted and operated in accordance with the instructions set forth in or provided with product literature. This warranty does not apply to any product which has been subjected to tampering, alteration, misuse, abuse, neglect, improper installation or transportation damage. Nor does it apply to costs for any service requested for demonstration or to confirm proper operation of this product.
3. This warranty shall not apply to adjustments, repairs or replacements necessitated by any cause beyond the control of Murata (whether foreseeable or not) including, but not limited to, any malfunction, defects or failure caused by or resulting from any of the following: improper unpacking or installation, unauthorized service or parts, or improper maintenance or cleaning, modification or repair by the Customer, accident (including without limitation, unavoidable accidents), fire, flood or other acts of God, improper telephone or electrical power or surges thereof, interconnection with or use of non-compatible equipment or supplies (including paper), or placement of the product in an area which does not conform to Murata space, electrical and/or environmental requirements.
4. Murata will not be required to make adjustments, repairs or replacements if the product is installed or used at a location deemed by Murata to be hazardous to health or safety, or if Murata is not provided with free and reasonable access to the product and a telephone during service availability hours, or if the product location is not accessible by an authorized Murata service vehicle.

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Some States do not allow the exclusion or limitation of incidental or consequential damages, and some States do not allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.