

muratecTM

M4500 Operating Instructions

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A Quick Introduction

This brief overview will help you more quickly learn how to use your Muratec fax machine. Of course, please be sure you read the rest of the instructions, too!

What's a Fax Document?

Simply put, a fax document is anything you want to fax to someone else. It can be just one page or as many pages as you need. That's up to you. If it's the right size and will feed safely and cleanly through the fax machine, it can be a page of text, a photograph, your child's latest drawing — anything you want to send. So, what *fax document* means is always *your choice!*

How Do You Send a Fax Document?

It's easy to send a fax document. Just place your document into your fax machine's feeder, dial the appropriate *fax number* (see next item), and press the **Start** key. The fax machines — yours and the one you're calling — will take it from there.

What's a Fax Number?

Since your fax machine operates on standard phone lines, a fax number is just a phone number on which someone is using a fax machine. And, because your Muratec fax machine is also a high-quality, full-featured telephone, your fax number can be your regular phone number if you prefer. You can — *but this isn't necessary!* — dedicate a phone number to your fax machine, letting you use one number just for ordinary voice calls and one number just for incoming and outgoing faxes.

How Can You Send a Fax to a Frequently Called Number?

Just as is true for many ordinary telephones nowadays, your Muratec fax machine has a built-in *autodialer*. This handy device stores your more frequently called fax numbers — so you don't have to remember them. Each stored number can include long-distance codes, area codes and even pauses. Your Muratec fax machine can save 20 of these autodialer numbers for you to dial by just pushing one key. These are *one-touch numbers*. The remaining numbers are available for *speed dialing*, which involves pushing just three keys to dial a stored number — for example, * 0 8 for your speed-dial number 8.

What's All This About "Resolution" and "Grayscale"?

The sharpness of a fax transmission is measured by its *resolution*. This is expressed in *lines per inch* (or lpi). There are three levels of resolution in the fax world. Ranked by quality, they are: *normal* (203× 98 lpi), *fine* (203 × 196 lpi), and *superfine* (203 × 392 lpi).

Similarly, a fax transmission can be judged by the quantity of its *grayscale levels*, or shades of gray — really halftones, such as you might see in a newspaper photo. When you need this capability (such as when sending a photo), you want as many grayscale levels as possible for maximum quality. Your Muratec fax machine can transmit with either 16 or 64 grayscale levels — you decide which.

So why not always set your fax machine for superfine resolution, or for 64 grayscale levels? Because these settings require your fax machine to transmit much more data, making your transmissions last much longer and (on those long distance calls) driving up your phone bills. That's why — as you'll see — we make it easy for you to customize the settings on your Muratec fax machine for the most efficient and truest fax transmission of the types of documents **you** send!

EasyStart

Your Muratec fax machine comes with EasyStart — a quick introductory program which makes it easy for you to enter the basic information necessary to get started right away.

Important: You can **always** change **any** of these settings later, as you familiarize yourself with your fax machine and your fax communications needs.

Clearing Memory

Before you enter information into your fax machine, it's best to clear its memory. The fax machine's user settings, protected by a long-life battery backup, store information such as your fax number and the date and time. Clearing the memory ensures that only your information is stored.

To clear the fax machine's memory:

1. Press →/Program, *, 2.

Clear User Settings
Check Program/Enter

2. Press Enter.

Clear User Settings
** Complete **

Entering Initial Settings

1. Press →/Program, *, 4.

Enter Time
'94 09/11 20:31

If your fax machine's date/time display is accurate, simply press **Mode/Enter**. Otherwise, enter the date and time using the numeric keypad, "typing over" the numerals displayed. If you want to change just one numeral in the date or time, press ← to move leftward in the line or →/Program to move rightward. To save the change, press **Mode/Enter**. To abort the change, press **Stop**.

2. Use the numeric keypad to enter your fax number, up to 20 digits in length. (To put in a dash for easier reading, as shown here, press **Dialing Options** once.) To save the number, press **Mode/Enter**.

Your Fax Number
214-555-1985

- Note:** If you make a mistake, just press **Contrast/Cancel** to erase, leftward. Then re-enter until the fax number is just as you want it.

3. Enter the name you want to appear at the top of your faxes. Make sure it doesn't exceed 22 characters. (Your fax machine's display will scroll to show 21st and 22nd characters.)

ABCDEFGHIJ... 20
And Sew It Goes Co.

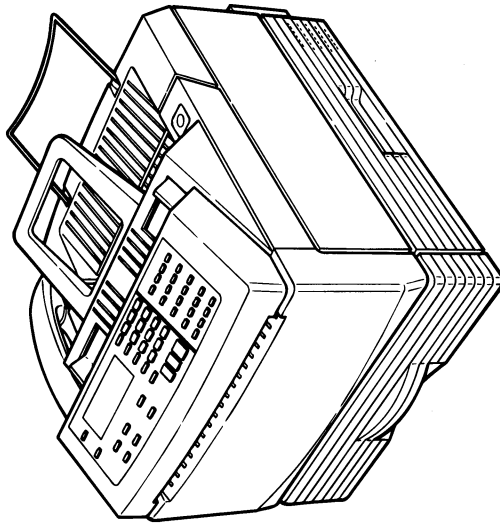
You can choose among uppercase letters, lowercase letters, numerals and symbols. Use the numeric keypad, as shown, to select character choices and enter characters. (For spaces, use the leftmost character in each line of choices.)

Note: If you make a mistake, press **Contrast/Cancel** to erase, leftward. Then re-enter until the name is as you wish.

↑	↓	←	→	3
Change character choice	Change character choice	Change character choice	Change character choice	Change character choice
1	4	Enter	6	9
Scroll within set	Scroll within set	Enter	Scroll within set	Change character choice

Your Fax Machine

Your Muratec plain-paper fax machine is a powerful addition to your small office or home office. In one compact package, your Muratec fax machine provides fax, phone, and copier capabilities. Send business correspondence to your clients, fax catalog orders or send résumés with the touch of a key. The copier feature lets you copy documents without making an extra trip to the copy machine — an especially handy feature if you don't yet have a separate copier! Communication was never so fast and easy.



Tips for Use

To keep your fax machine in perfect working order, be sure to install it away from:

- **Dust** — Dust build-up can damage your fax machine.
- **Splashes** — Keep your fax machine away from sinks, water fountains, and other sources of splash and spray.
- **Vibration** — Keep your fax machine on a level, vibration-free surface to improve performance and system life.
- **Overheating** — Allow at least 12" of clearance around your fax machine. Don't install it in direct sunlight and never cover it with a cloth or dust cover.

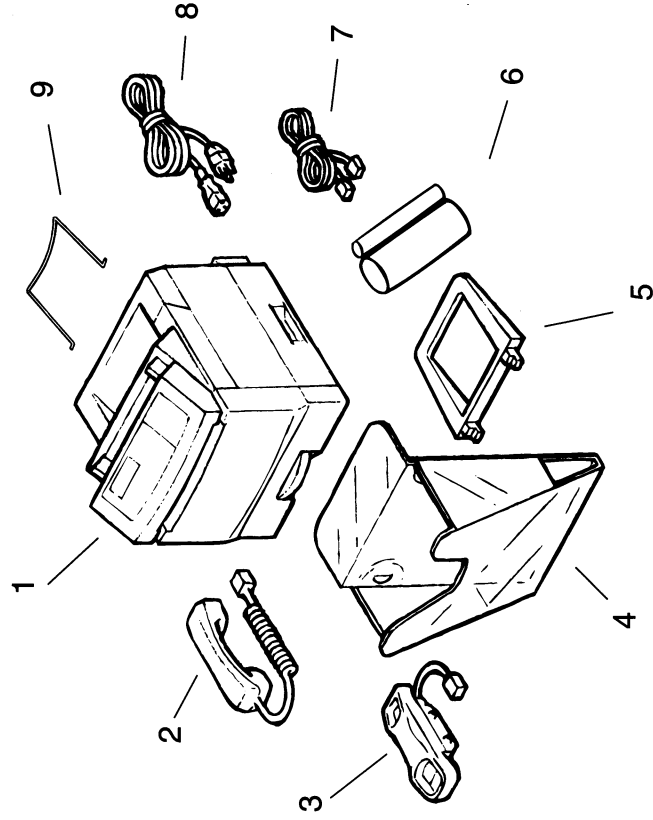
See page 59 for more information on how a fax machine works.

Unpacking

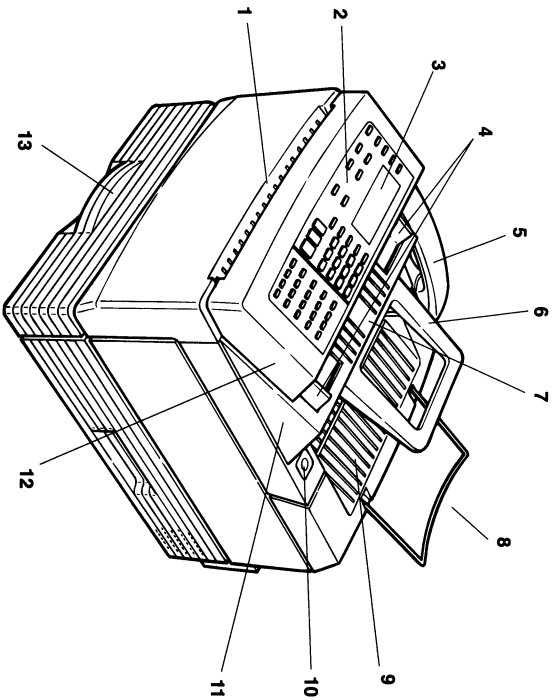
As you unpack your fax machine, check for the following items:

1. Fax machine
2. Starter roll of donor film
3. Handset and curl cord
4. Handset holder
5. Power cord
6. Paper tray wire
7. Document tray
8. Document hopper
9. Be sure to save the box and packing materials for reshipment.

Be sure to save the box and packing materials for reshipment.



Machine Layout

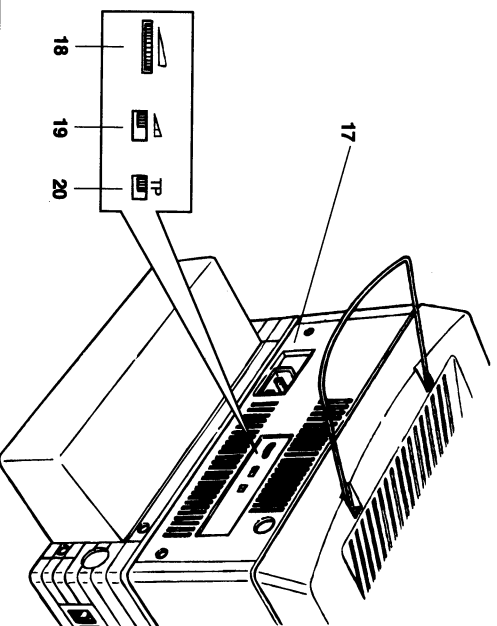
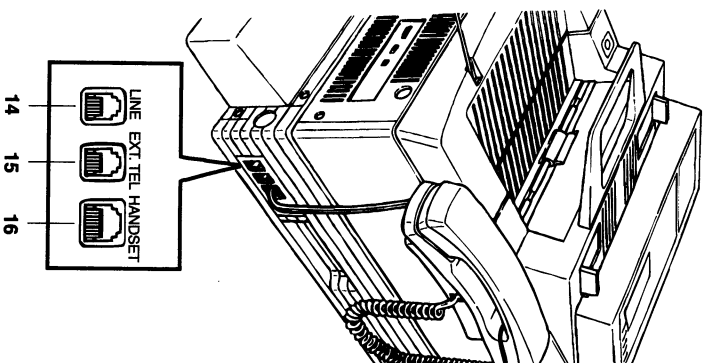


Note: Don't worry if some of the terms used here are unclear to you right now! We'll explain everything fully. Once you're more familiar with these terms, this page will be an even handier reference to your Muratec fax machine.

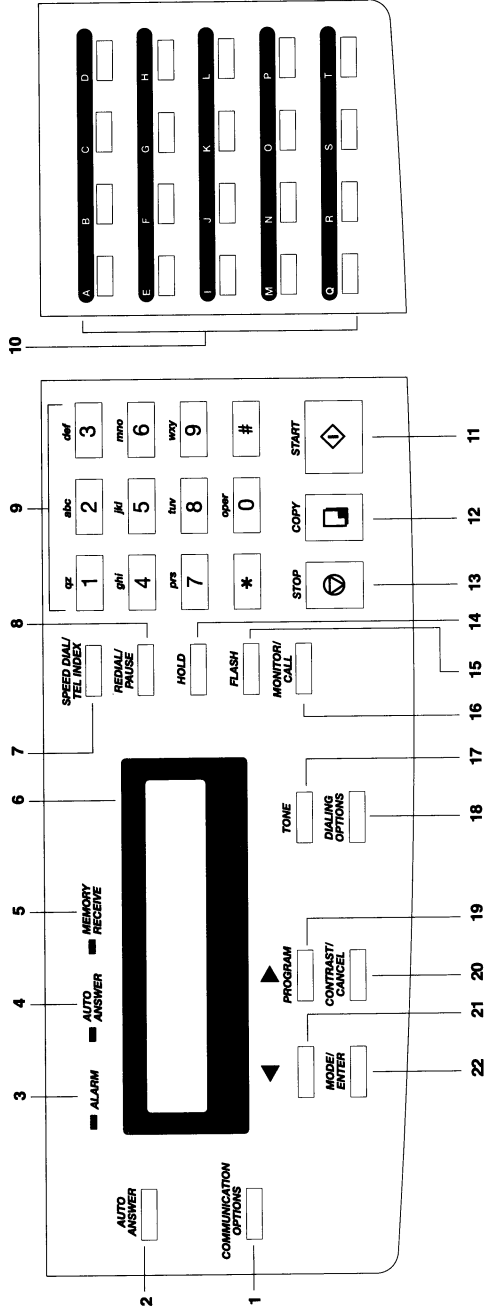
1. **Original Document Exit** — Slot from which the pages of your *original document* (the pages you insert into the fax machine for faxing) exit.
2. **Control Panel** — Location of the keys used to operate your fax machine. See next page for more details.
3. **LCD** — Two-line, 20-character *liquid crystal display*. It shows the system status and fax operation.
4. **Document Guides** — Adjust to align your document in the document feeder (see item 7, below).
5. **Handset** — Used for voice communication, just as with a telephone.
6. **Document Hopper** — Supports the documents for straighter feeding.
7. **Document Feeder** — Holds up to 20 pages for faxing or copying.
8. **Paper Tray Wire** — Supports printed documents (incoming faxes or copies).
9. **Printed Document Exit** — Slot from which printed documents exit.
10. **Document Mount Release** — Push to open your fax machine's document mount (see next item).
11. **Document Mount** — Opens to provide access to donor film (or occasional printed document jams).
12. **Control Panel Cover** — Opens to provide access to original document during occasional jams.
13. **User-adjustable Paper SmartCassette** — Holds up to 250 sheets of letter- or legal-sized paper.

14. **LINE Jack** — Standard RJ-11 modular telephone jack for connecting your fax machine to the phone line.
15. **EXT. TEL. Jack** — Standard RJ-11 modular telephone jack for (optionally) connecting your telephone answering machine or your second telephone (including a cordless model).
16. **HANDSET Jack** — Standard RJ-11 modular telephone jack for connecting your fax machine's telephone handset.

17. **AC Power Jack** — Female jack for connecting AC power cord.
18. **Monitor Volume Control** — Controls the volume of your fax machine's monitor speaker for more pleasant off-hook dialing.
19. **Ringer Volume Control** — Adjusts the ringer volume to one of three settings: *High*, *Low*, or *Off*.
20. **Tone/Pulse ("TP") Setting** — Use to set your fax's dialer as required by your telephone system.



Keypad Layout



1. **Communications Options** — Chooses among four fax options: delayed transmission, SecureMail transmission, relay broadcast or polling.
2. **Auto Answer** — Selects which mode your fax machine uses to handle incoming calls: answering automatically as a fax machine ("auto-answer mode") or waiting for the user to pick up the handset ("manual-answer mode"). You may prefer the latter if using the fax machine as your primary phone, too.
3. **Alarm Light** — If lit, indicates a problem has occurred during fax communication. (Also accompanied by several beeps at the beginning of the problem; but the alarm light stays lit to notify you of the problem even if you're out of hearing range at the time.) To turn off this light, press **Stop**.
4. **Auto Answer Light** — If lit, advises you that your fax machine is in auto-answer mode; otherwise, your fax machine is in manual-answer mode.
5. **Memory Receive Light** — If lit, indicates out-of-paper reception is underway. (See page 27.)
6. **LCD (Liquid Crystal Display)** — A two-line, 40-character display which keeps you in touch with your fax machine's status and its fax operations. Its messages vary, depending upon what your fax machine is doing or how it is set.
7. **Speed Dial/Tel Index** — Toggles between letting you enter speed dial numbers and displaying speed dial entries (including names!) on the LCD.
8. **Redial/Pause** — When you're entering an autodialer number, pressing this key produces a variety of special characters which can be useful for long-distance numbers (especially numbers outside the U.S.). Otherwise, this redials the last number you dialed.
9. **Numeric Keypad** — Serves as a keypad for dialing numbers, and also teams with other keys for a variety of functions.
10. **One-Touch Keys (A through T)** — Used for setting your machine and one-touch dialing.
 11. **Start** — Press to start manual fax transmission or reception.
 12. **Copy** — Press to copy a document.
 13. **Stop** — Pressing this all-purpose "Whoa!" key stops your fax machine's current operation; also feeds a document on through the feeder and kills alarms.
 14. **Hold** — Toggles between putting a caller on hold and returning to call.
 15. **Flash** — Press during a call to send a "flash" signal; during dialing, inserts dashes and other symbols into phone numbers.
 16. **Monitor/Call** — Press for hands-free dialing using fax machine's built-in speaker. During transmission, pressing this key activates call request.
 17. **Tone** — If you use your fax machine on a rotary-dial telephone line, press this key to enter special characters necessary for successful dialing.
 18. **Dialing Options** — Press to insert special symbols into telephone numbers.
 19. **→/Program** — Press to scroll (move) through features and command options as displayed on the LCD.
 20. **Contrast/Cancel** — When a document is in the document feeder, press this key to toggle among normal, dark, or light contrast settings. Otherwise, press this key to delete characters on the LCD and cancel commands.
 21. **←** — Press to scroll through features and command options as displayed on the LCD.
 22. **Mode/Enter** — When a document is in the document feeder, press this key to toggle among the three resolution modes and the halftone (grayscale) mode. Otherwise, press this key to confirm user settings, begin certain operations and move through command levels.

Specifications

Type: High-speed, facsimile transmitter and receiver for home and office use.

Phone Line: Public Switched Telephone Network (PSTN) or equivalent.

Modem: 9600 bps with fallback to 7200, 4800, and 2400 bps per CCITT, V.29 and V.27ter.

Data Compression Methods: CCITT-standard MH and MR, and Murata-proprietary MSE and SMSE.

Compatibility: CCITT Group 3.

Transmission Speed: 18 seconds per page.*

Document Feeder: 20 pages.

Resolution: Normal 203 H x 98 V lpi, fine 203 H x 196 V lpi and superfine (CCITT) 203 H x 392 V lpi.

Original Document Size:

Single sheet

8.5" (W) x 35.4" (L) maximum

5.8" (W) x 3.9" (L) minimum

Two or more sheets

8.5" (W) x 14.0" (L) maximum

5.8" (W) x 5.8" (L) minimum

Dimensions:

Standard configuration

13.1" (W) x 14.4" (D) x 10.5" (H).

With second paper cassette

13.1" (W) x 14.4" (D) x 13.3" (H).

Grayscale: 16- or 64-level, user-selectable.

Printing Width: 8.5".

Scanning Width: 8.5" or 8.2", user-selectable.

Scanning Method: Solid-state CCD.

Recording Paper: Plain paper, cut sheets.

Power: 120V ± 10%, 50/60 Hz.

Weight:

Standard configuration — 22.0 lbs.

With second paper cassette — 30.8 lbs.

* Based on transmission of CCITT Test Document 1 to a Muratec fax. Your transmission times will vary, but your fax machine will always provide the fastest transmission speeds possible under CCITT 9600 bps guidelines and phone line conditions.

Do You Have A Comment?

Your comments and suggestions regarding this manual are welcome. Fax your comments to Muratec Marketing Department, (214) 403-3465.

Setting Up Your Fax Machine

Phone and Electrical Requirements

Dos and Don'ts

- Do place the fax machine near a wall outlet, so you can easily unplug it.
 - Do use an electrical surge protector. This will shield your fax machine from high-voltage electrical surges that may damage it. Many surge protectors guard both telephone and electrical lines.
 - Do plug your fax machine into a standard three-pronged 120 VAC electrical outlet.
 - Do leave your fax machine plugged in so you never miss a fax. In standby, your fax machine uses only about as much electricity as a clock radio.
 - Don't connect to a multi-line (PBX) office phone system without first checking with your PBX's manufacturer or service representative.
 - Don't plug your fax machine into an electrical outlet controlled by a wall switch; you'll risk missing fax messages.
 - Don't plug your fax machine into the same outlet as a large appliance such as a refrigerator or air conditioner. High-consumption appliances can cause electrical "draw-downs" — temporary drops in power available for other equipment on the circuit — and could damage your fax machine.
- Note:** To disconnect the machine from the power, it is necessary to unplug the power cord from the wall socket or remove the power cord from the rear of the unit. For convenience, the unit must be installed so that easy access to the power outlet is provided.
- Avertissement:** Débrancher le cordon électrique à la fiche au dos de l'appareil ou à la prise murale pour le mettre hors tension. La prise murale doit se trouver près de l'appareil pour un accès facile.

Voltage requirements and power consumption

Voltage Requirements:	120 VAC ± 10, 50-60 Hz		
Power Consumption:	Standby	10W	Transmission 20W
	Reception	40W	Maximum 160W
	Copy	60W	

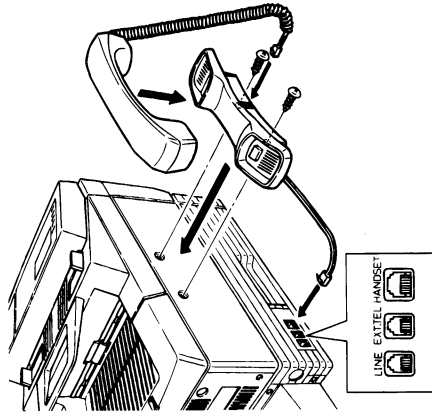
Call-waiting signals

Telephone call-waiting signals can stop fax transmission and reception. If you must use only one phone line, consult your telephone company for information on how to disable call-waiting service while using the fax machine.

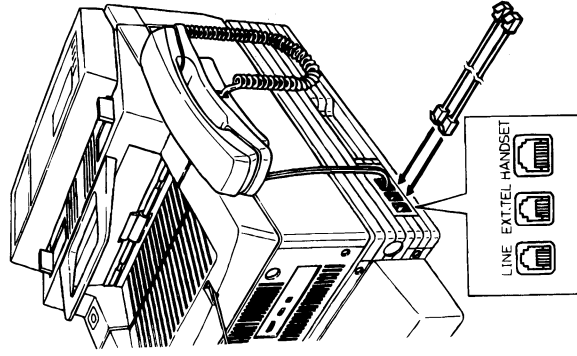
Quick Set-up

First, select a place within five feet of a standard three-pronged, 120 VAC electrical outlet and a standard ("modular") telephone jack (an RJ-11).

1. Using a small Phillips screwdriver, attach the handset cradle to the side of your fax machine using the handset cradle screws.
2. Plug the handset cord into the **HANDSET** connection on the left side of your fax machine. Plug one end of the handset curl cord into the jack on the handset cradle and the other end of the handset curl cord into the jack on the handset. Place the telephone handset on the cradle.

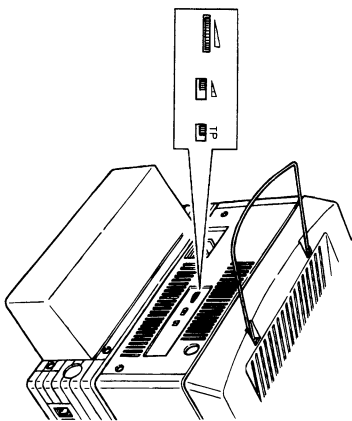


3. Plug one end of the uncurled telephone line cord into the **LINE** connector on the left side of the fax machine. Plug the other end into a standard telephone wall jack, if you will be using an answering machine or second telephone with your fax machine, plug the jack from that other device's telephone line cord into the **EXT. TEL** connector, also on the left side of the fax machine. (See "Attaching a Second Telephone or Answering Machine," page 15, for more information.)

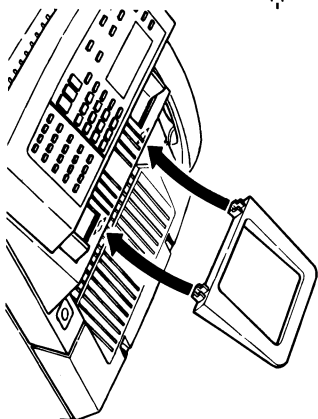


Note: Do not connect the answering machine or second telephone directly into a telephone wall jack. The other device now receives its telephone signals through your fax machine.

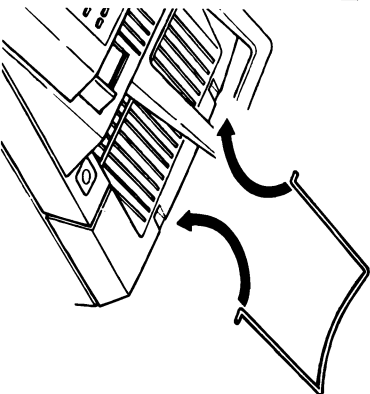
4. Check the **Tone/Rotary** setting on the back of your fax machine. Select **T** for tone or **P** for rotary or pulse dialing.
- Note:** If unsure which you should select, contact your telephone company.



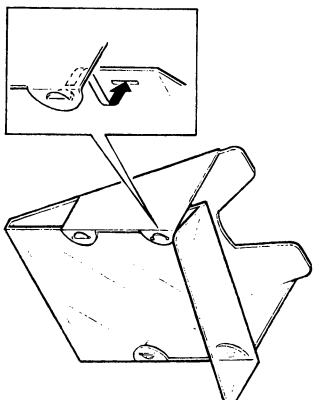
5. Attach the document hopper by inserting its two pegs into the appropriate holes at a slight upward angle. When released, the document hopper then will settle downward into place. (See also "Adjusting the Document Hopper," page 31.)



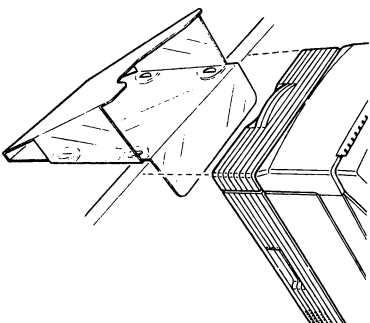
6. Attach the paper tray wire — with its convex (curving-outward) side pointed down — by gently bending its legs slightly inward as you insert them into their slots. Once it's attached, you can adjust it for different paper lengths by sliding it.



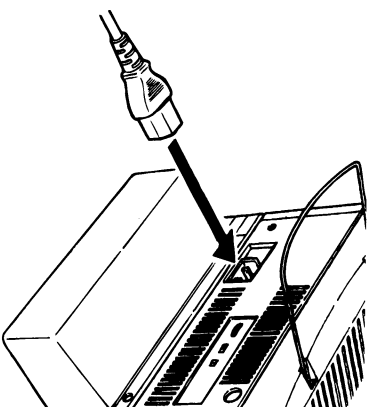
7. Assemble the document tray by bending its tabs in a curving motion behind the tray until they pop into the slots (similar to re-closing a cereal box).



8. Then position the fax machine on top of the long "lip" of the document tray, holding the tray in place.



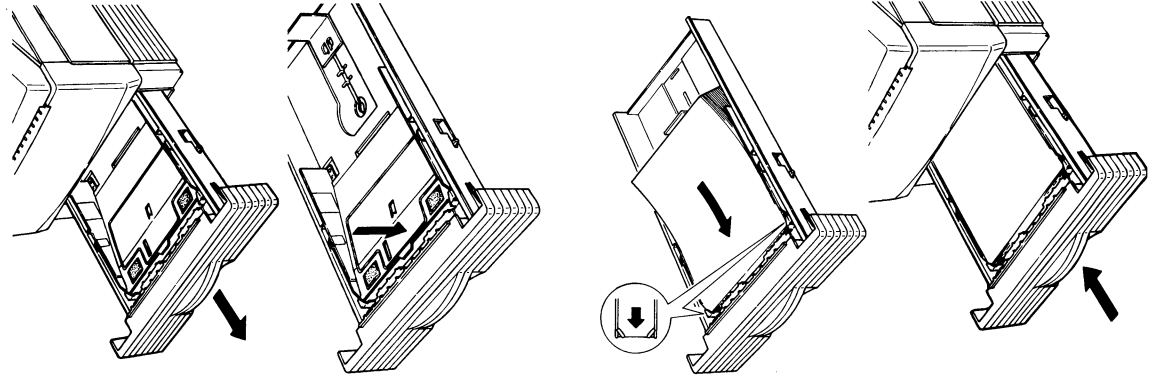
9. Plug the non-pronged end of the power cord into the back of the fax machine, as shown. Plug the pronged end of the power cord's plug into a 120 VAC electrical outlet (preferably on a surge suppressor, as mentioned on page 11).



Installing Paper

Of course, one of the best features about your Muratec fax machine is how it prints faxes and makes copies on plain paper! Now, everything that comes out of your fax machine is ready for distribution or archiving from the start.

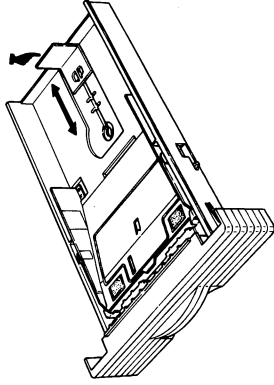
To install paper in your Muratec fax machine:



1. Pull forward on the paper cassette to open it.
2. Gently press down on the spring-loaded cassette plate until it "click-locks" onto the bottom.
3. Insert up to 250 sheets into the cassette, being sure to place the edges of the top sheet under the metal tabs near the handle-side of the cassette.
4. Push the paper cassette back into its original, closed position within your fax machine. (The spring-loaded cassette plate will return to its normal, unlocked position.) You'll feel a click when it's properly in place.

Changing Paper Size

It's easy to adjust your paper cassette for either letter- or legal-sized widths. To change the setting, just pull up slightly on the paper guide inside the cassette and slide it to the slot marked with the setting ("LTR" or "LGL") you wish.

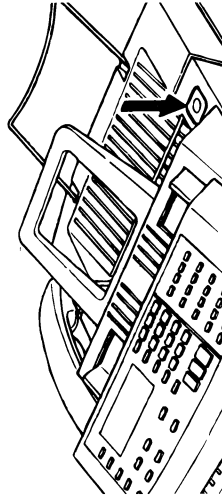


Installing/Changing Donor Film

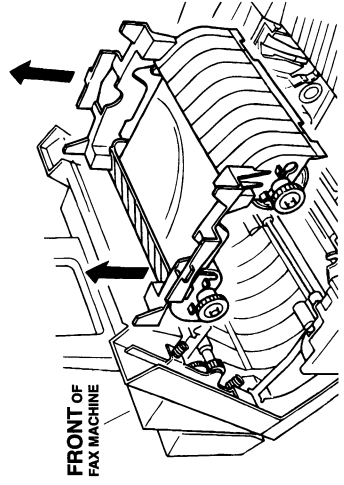
The Muratec Film Imaging™ system provides high-quality fax printouts and copies on plain paper — and economically at that — using clean, easy-to-handle and easy-to-load donor film. Here's how to install or change the film.

Note: If you are installing donor film for the first time rather than changing donor film which already is in your fax machine, skip to step 5. Also, be aware that the donor film roll which ships with your fax machine is a special, complimentary roll. A regular roll is more than three times longer. This first roll is just to make sure you can use your fax machine right away!

1. Press the document mount release button and open the top of your fax machine.

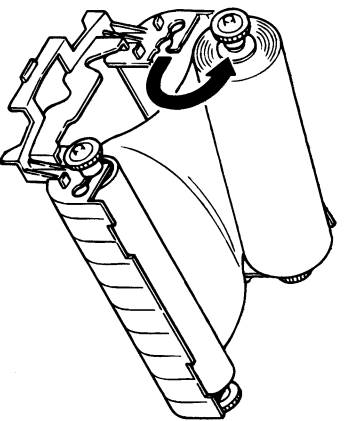


2. Grab the handles on each side of the donor film cartridge and lift it straight up out of your fax machine.

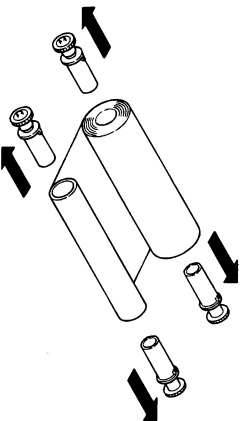


Important: Notice that the diagram at right shows a view from the right rear side of the fax machine, **not** its front.

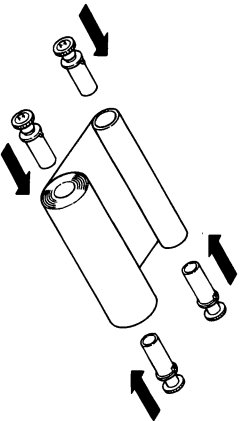
3. Turn over the donor film cartridge and rest it upside down on its handles. Take note of the color-coordinated gears on the ends of the donor film rolls. Grasp the cartridge frame firmly and remove the donor film rolls from the cartridge.



4. Remove the color-coordinated gears from the ends of the used film rolls. Please dispose of the used rolls in a proper receptacle.

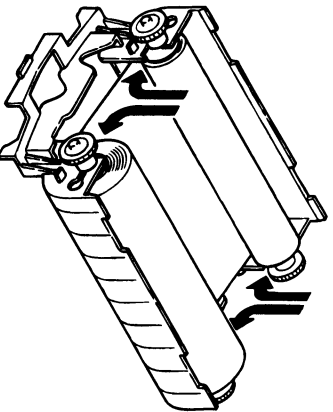


5. Insert the color-coordinated gears into the ends of a set of new donor film rolls. The blue gears belong with the supply (full) roll, which will be near the front of the machine — the film rolls from front to back. The gray gears belong with the takeup (empty) roll.

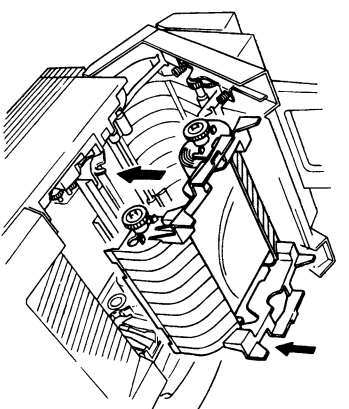


6. Snap the new rolls into the donor film cartridge.

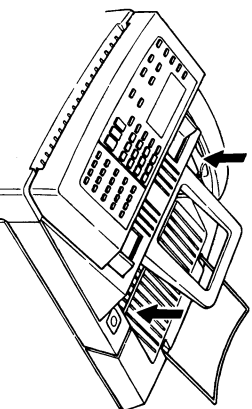
Important: You must turn the rolls until **only the black donor film** — and **none of the blue leader film** — is showing. **The blue leader film cannot print.**



7. Now you're ready to put the cartridge back in (or just in, if this is the first time) the machine. Turn the cartridge right-side up again and position it so that each roll's pair of color-coordinated gears are over the gear stand with the same color (remember: blue in front, gray in back). Gently put the cartridge back in; if you have positioned it correctly, it will "drop" in smoothly.
- Note:** Your fax machine won't work if the cartridge isn't in the proper position.



8. Close the top cover of your fax machine. You will feel a click when it is closed.
- Note:** Your fax machine won't work if the top cover isn't closed.



Muratec Donor Film

As mentioned previously, the donor film roll which comes with your fax machine is much shorter than the regular roll. This starter roll is supplied so you can quickly begin using your Muratec fax machine. In the meantime, we recommend you purchase at least one replacement roll right away.

For the best results and the longest life from your fax machine, use Muratec donor film. Ask for Muratec donor film at your authorized Muratec facsimile dealer, or call 1-800-292-2492 for donor film and other supplies.

Adjusting Monitor and Ringer Volume

For your convenience, your fax machine allows you to set the volume of the monitor speaker and of the ringer.

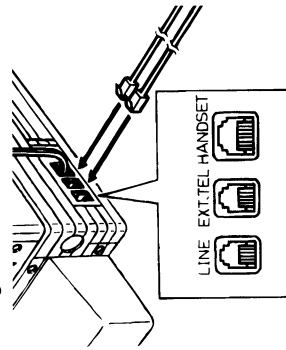
1. Press **Monitor/Call**. You should hear a dial tone. If not, go back and re-check your connections so far.
2. Adjust the volume with the monitor speaker dial on the back of your fax. Press **Monitor/Call** once more to turn off the monitor.

You may set the ringer volume to one of these three levels: high, medium, or low. To do so, use the ringer volume switch, also at the back of your fax machine.

Attaching a Second Telephone or an Answering Machine

1. Plug the line of your second telephone or answering machine into the **EXT. TEL** jack on the side of your fax machine.

Note: Do not plug your second phone or answering machine into the wall jack. In order for your fax machine and answering machine to work together, the answering machine must be connected to the fax machine's EXT. TEL jack, as shown.



2. Plug your answering machine's power cord into a standard electrical outlet.
3. Set your answering machine so that it will **always** let the phone ring at least two times. This is necessary to allow the fax machine to detect the appropriate signals in a call which indicate it's a fax call.

Note: If your answering machine uses a "toll-saver" feature which causes the phone to ring fewer than two times, this may cause difficulty. Please be sure your answering machine is set to allow at least two rings, regardless of whether it has any messages waiting.

Using an Answering Machine with Your Fax Machine

1. Press **Auto Answer** repeatedly until the "Auto Answer" light is lit.
2. Press these keys in the following order: →**Program**, **F**, **1**, **1**, **Mode/Enter**.

Important: Look to the "one-touch" keys on the right side of the control panel to find the **F** key.

Then press →**Program** until the display shows:

Ans/Fax Ready
Program/Enter

Then press **Mode/Enter** to confirm your choice of answering machine/fax machine — "Ans/Fax" — receiving mode.

3. Set your answering machine to answer calls after **no fewer than two rings**. Consult your answering machine's operator manual for instructions. Set your fax to answer after six rings.
4. Create an outgoing message for your answering machine. Here's a suggested outgoing message for your answering machine that you can modify to suit your needs:

*You have reached [your name or telephone number].
To leave a voice message, wait for the beep. To send
a fax now, press **Start**. Or, leave a voice message and
then press **Start** to send a fax. Thanks!*

For best results, keep your message short — under ten seconds.
(See page 59.)

Telephone Features

Your fax machine is a personal communications center designed to satisfy your fax and copier needs. You'll soon find it is also a full-featured phone, equipped with many handy conveniences. Indeed, you can use it to do one thing regular phones can't do: you can use the phone to make either voice calls or fax calls!

Note: When calling a remote fax machine either by using your fax machine's handset or by dialing on-hook using the Monitor/Call feature, wait until you hear fax reception tones and then press **Start** to transmit the document which is in the feeder of your fax machine.

Your fax machine's phone features include:

Redial

Pressing **Redial** automatically redials the last number you dialed.

During transmission, if your fax encounters a busy signal when dialing a number you have entered with a one-touch key, a speed-dial number or on the numeric keypad, your fax will automatically redial the number. How many times it redials, and the length of the interval between redials, is something you can set (see page 34 for more details).

Note: Your fax machine initially is set to redial five times at three-minute intervals. **Important:** if you encounter a busy signal on a call you have entered manually through the handset or by using the Monitor/Call feature, you will need to redial manually by pressing this key.

Hold

You can put a caller on hold during your telephone conversation by pressing **Hold** and hanging up the handset. To return to your call, pick up the handset and press **Hold** again.

** On Hold **
9-555-3300

As a courtesy feature, your fax machine will beep at one-minute intervals to remind you of the call on hold. If you do not pick up the call after five minutes, your fax machine will hang up the call, automatically.

Monitor/Call

Press **Monitor/Call** to get a dial tone for hands-free dialing. Dial the telephone number using the numeric keypad, a one-touch key, or a speed-dial number. If you're using the numeric keypad, press **Start** when the remote fax answers. When you use one-touch and speed-dial keys, your fax will attempt to transmit automatically; there's no need to press **Start**.

** Tel Mode **

Telephone Index

With the alphanumeric (using letters and numbers) autodialer index, you can look up other fax numbers by the name of the company or person using the fax machine! When the name you want appears, press **Start** and your fax machine will automatically dial the number. We'll tell you later how you can easily store this information in your autodialer (see "Autodialer," page 37). Here's how to search your autodialer index for a fax name:

1. Press **Speed Dial/Tel Index** two times. The first listing — by alphabetical order — in your autodialer directory will appear. (If this first listing which appears is the one to which to desire to send a fax, skip to step 3.)
2. Your autodialer alphabetizes using three **character sets**: uppercase letters, then lowercase letters, then certain symbols. Use the following keys on the numeric keypad to scroll through your fax machine's autodialer listings:
 - **8** to scroll forward among the character sets
 - **2** to scroll backward among the character sets
 - **6** to scroll forward **within** a selected character set
 - **4** to scroll backward **within** a character set

Try it! You'll see how easy it is.

3. When the desired name appears, press **Start** to begin sending a fax to that person or company.

Telephone Index [A]
ABC Company : A

User Settings

Note: If you used the "EasyStart" feature (see page 5), you may already have performed a few of the settings described in this section.

Important: Anytime these instructions ask you to press a letter key — such as the **B** key or the **G** key — look to the "one-touch" keys on the right side of the control panel.

You can enter most of these settings at any time, and in any order, you want. However, you'll want to make two particular settings right away so that you can begin fax communications immediately. The other settings can be entered, or ignored, as you see fit.

Must-Do Setting #1: Set Date and Time

Your fax machine's clock is protected from power failures for several days by a long-life internal battery. The LCD displays time in 24-hour format — for example, it would show 2:00PM as 1400.

To enter the date and time into your fax machine:

1. Press →/**Program, D, Mode/Enter**.

```
Enter Time
'94 09/11 20:31
```

2. Enter the date and time using the numeric keypad. If you want to change just one number in the date or time, use ← to move backward (leftward) in the sequence. Use →/**Program** to move forward (rightward).

```
Enter Time
'94 09/11 20:30
```

3. If you wish to save the change, press **Mode/Enter**. If you wish to abort the change, press **Stop** to return to standby.

Must-Do Setting #2: Enter Your TTI

In the United States, the Telephone Consumer Protection Act of 1991 requires that each fax user add his or her name and telephone number to any fax message. To fulfill these requirements, set the *Subscriber ID* and *Transmit Terminal Identifier (TTI)* on your Muratec fax machine. The Subscriber ID is your fax machine's telephone number. The TTI can be your name or business name; it can be as long as 22 characters. Your Subscriber ID and TTI appear at the top of each page you send.

To enter your fax number and name:

1. Press →/**Program, E, 1, Mode/Enter**.
2. Use the numeric keypad to enter your fax number, up to 20 characters in length. (To put in a dash for easier reading, as shown here, press **Dialing Options** once. Each dash takes up one of your allotted 20 characters.) To save the number, press **Mode/Enter**.

```
Your Fax Number
214-555-1985
```

Note: If you make a mistake, just press **Contrast/Cancel** to erase, leftward. Then re-enter until the fax number is just as you want it.

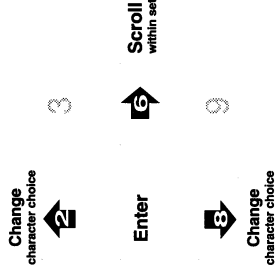
3. Enter the name you want to appear at the top of your faxes. Make sure it doesn't exceed 22 characters. (Your fax machine's display will scroll to show 21st and 22nd characters.)

```
ABCDEFGHIJ_ 20
And Sew It Goes Co.
```

You can choose among uppercase letters, lowercase letters, numerals and symbols. Use the numeric keypad, as shown, to select character choices and enter characters.

(For spaces, use the leftmost character in each line of choices.)

Note: If you make a mistake, press **Contrast/Cancel** to erase, leftward. Then re-enter until the name is as you wish.



Erase Your TTI

You can erase your TTI if you wish. Just remember that you'll need to have one if you send any fax documents. To erase your TTI:

1. Press **→/Program, E, 2, Mode/Enter**.
2. Here, your choices are to cancel this operation (*i.e.*, not to erase the TTI) or to go ahead and erase the TTI. To cancel, press **→/Program**. To go ahead and erase, press **Mode/Enter**.

Erase Your TTI Check Program/Enter

Print Your TTI

If you want to print and review your TTI:

1. Press **→/Program, E, 3, Mode/Enter**.
2. Here, your choices are to cancel this operation (*i.e.*, not to print the TTI) or to go ahead and print the TTI. To cancel, press **→/Program**. To go ahead and erase, press **Mode/Enter**.

I3 Print Your TTI Program/Enter

Set Primary (Transmission) Mode

Your fax offers three standard transmission modes — three resolution options, plus grayscale — so every document arrives looking its best. See page 3 for more information on resolution and grayscale.

Note: This setting has no effect on the faxes you receive. The **sending fax** machine controls the resolution of the received fax document.

With this setting, you tell your fax which transmission mode — normal, fine, superfine (shown on the display as "S Fine") or grayscale ("Gray") — you use most often.

Note: This setting lets you select grayscale, but not which of the two grayscale modes — 16-level or 64-level — you will use. To make that choice, see "Set Grayscale," next page.

You always can change the resolution before sending (see the note following step 3), but this will be your default. To set the primary transmission mode:

1. Press **→/Program, F, 0, 3, Mode/Enter**.

Primary: Normal Program/Enter

2. Press **→/Program** until your chosen mode appears. (In this example, we've chosen superfine.)

Primary: S Fine Program/Enter

3. Press **Mode/Enter** to select your choice.

Note: Any time you wish to override this primary transmission mode choice, enter the document you wish to fax and press **Mode/Enter** until the display shows the mode you want. The transmission mode appears as the second item from the left on the second line.

Document Ready 100% A4 SFine Normal
--

(The right side shows the contrast setting. For more information on the contrast, see "Sending a Fax," page 31.)

Set Grayscale

When you use grayscale transmission, you may use one of two grayscale modes:

- “Gray 16” — 16 levels of grayscale; doesn’t take as long to transmit, but the results don’t look as good, as compared to the 64-level mode
- “Gray 64” — 64 levels of grayscale; takes longer to transmit but gives more realistic results

You must set the grayscale mode separately from the setting of the transmission mode. Here is how you do it:

1. Press →/Program, F, 0, 2, Mode/Enter.

```
Gray16
Program/Enter
```

2. Press →/Program or ← to select the grayscale mode you prefer.

```
Gray64
Program/Enter
```

3. Press Mode/Enter.

Set Number of Rings

You can determine the number of times your fax machine will ring before it responds to a call. With this setting, you can choose between two and ten rings.

Note: If you’re using an answering machine with your fax machine (see page 15), this setting won’t matter; the answering machine will answer first.

1. Press →/Program, F, 0, 5, Mode/Enter.

```
Set # Of Rings
# (02-10) : 02
```

2. If you’re satisfied with the current setting, press Mode/Enter. Otherwise, use the numeric keypad to enter the desired number of rings.

```
Set # Of Rings
# (02-10) : 02
```

3. Press Mode/Enter.

Set Paper Size

Your Muratec fax machine can print on either letter- or legal-sized paper. All you have to do is let it know which one it’s using! Additionally, it will want to know whether it’s also using the optional second cassette. Here’s what you do:

1. Press →/Program, F, 1, 6, Mode/Enter.

```
PaperSize: Letter
Program/Enter
```

2. Press →/Program to toggle between the sizes. When the one you want is shown, press Mode/Enter. (In this example, we’ve chosen legal.)

```
PaperSize: Legal
Program/Enter
```

3. Now you tell the fax machine whether it has the optional second paper cassette. If not, press →/Program until the display shows “Off,” as shown below, then press Mode/Enter (and you can forget the remaining steps for this item).

```
Set 2nd Cassette:Off
Program/Enter
```

If two paper cassettes are installed on your fax machine, press →/Program to toggle to “On” and press Mode/Enter.

4. Finally, set the fax machine for the paper size in the optional second cassette. (Again: you don’t have to do this if you don’t have a second cassette installed.) Press →/Program until the display shows the size — letter or legal — you will use in the optional second cassette. Then press Mode/Enter to confirm your choice.

```
2nd PaperSize:Legal
Program/Enter
```

Set Print Reduction

Now you've set your fax machine for the size of paper it's using. But what if someone faxes you a document on a larger sheet? That's why your Muratec fax machine has *print reduction* — it reduces the fax printout from that incoming document to a size that will fit on the paper you're using.

Here are the options:

- Auto** Reduces incoming fax documents' printouts at variable rates (70% real size is the smallest). Tries to reduce printout to fit on one sheet of your chosen paper; if can't, prints the image at 100% on two or more pages.
- 100%** Performs no reduction. May print two pages when receiving a one-page document to compensate for the sender's TTI. (See **91%**, below)
- 97%** Slightly reduces all fax messages and copies.
- 91%** Reduces an 11" original and its TTI so that it will be printed on one page.
- 81%** Provides even greater reduction for some international stationery sizes and special applications.
- 75%** Turns legal-sized originals into letter-sized printed copies.

After you choose your desired option, your fax machine will ask you to enter a measurement for the *reduction margin* (measured in millimeters). When a fax message comes in, your fax machine measures its length and then compares it to the length of your selected paper plus the reduction margin you select. If the incoming message's length is shorter than this total, your fax machine prints the message on just one sheet. But, if the length exceeds the calculated total, your fax machine prints the message on more than one sheet of paper.

Note: An "Auto" reduction setting and a reduction margin setting of 85mm work best in most cases, allowing most incoming pages to be printed as a single page. We advise that you give these settings a try first; then, only if you have problems, select different reduction and reduction margin settings.

To set the print reduction rate and reduction margin:

1. Press **→/Program, F, 1, 4, Mode/Enter**.

```
Print Reduc Rate:Auto
Program/Enter
```

2. Press **←** and **→/Program** to toggle among the reduction settings. When you make your choice, press **Mode/Enter**.

3. Now use the numeric keypad to enter the reduction margin you want. Press **←** and **→/Program** to move the cursor if you need.

```
Set Print Reduct
Margin (0-85mm) : 85
```

When you have entered the desired reduction margin, press **Mode/Enter**.

Set Copy Reduction Rate

When you use your Muratec fax machine to make copies, you can have the fax machine reduce them for your convenience. The same options, in terms of both reduction settings and reduction margins, are available for copy reduction as for print reduction. (See the preceding discussion, "Set Print Reduction," for an explanation of reduction settings and reduction margins. The difference, here, is that you probably are better off with a setting of "00" on the reduction margin.)

To set the copy reduction:

1. Press **→/Program, F, 1, 5, Mode/Enter**.

```
Copy Reduc Rate:Auto
Program/Enter
```

2. Press **←** and **→/Program** to toggle among the reduction settings. When you make your choice, press **Mode/Enter**.

3. Now use the numeric keypad to enter the reduction margin you want. Press **←** and **→/Program** to move the cursor if you need.

```
Set Copy Reduct.
Margin (0-85mm) : 00
```

When you have entered the desired reduction margin, press **Mode/Enter**.

Block Junk Fax

If activated, the Block Junk Fax feature guards your machine from unauthorized faxes (so-called "junk fax"); but, first, please understand how this feature works, so you can determine if it is right for you.

When you've activated Block Junk Fax and a fax call arrives, your fax machine checks to see if any phone number in your autodialer matches the last four digits of the remote fax machine's Subscriber ID. If it finds no such match, your fax machine disconnects the call.

So, before activating this feature, consider:

- Not all fax machine owners enter their phone numbers in their Subscriber IDs. Indeed, some fax machines do not even have a Subscriber ID. So, using Block Junk Fax, your machine would reject faxes from these units.
- If some of your autodialer entries end with long distance access codes, Block Junk Fax will block out calls from those fax machines. (Those other fax users won't put *your* codes at the end of *their* Subscriber IDs, after all.)

To proceed with activating Block Junk Fax:

1. Press →/Program, F, 1, 0, Mode/Enter.

Block Junk Fax: Off
 Program/Enter

2. Press →/Program to "toggle," or switch, between on and off.

Block Junk Fax: On
 Program/Enter

3. Press Mode/Enter to select your choice.

Set Silent Mode

You can turn off the beep that your fax machine makes after transmitting, receiving or making a copy. To change the silent mode setting:

1. Press →/Program, F, 1, 2, Mode/Enter.

Silent Mode Off
 Program/Enter

2. Press →/Program to toggle between on and off.

Silent Mode On
 Program/Enter

3. Press Mode/Enter to confirm your choice.

Note: Want to hush up things even more? Use the ringer volume control (at the back of your fax machine) to silence the ringer! Of course, that makes sense only if you're not using the machine to receive **voice** calls, as well.

Print User Settings

After you customize your fax machine's user settings, print a list of settings for reference. You can do this at any time, saving you the trouble of going through all the various settings just to make sure everything is the way you want it — a particularly important consideration if you share this machine with others who may, sometimes, change the settings for one reason or another.

Note: Since some settings have only to do with certain operations which we will explain later, we have not yet described all of the settings which will be on this list. Please refer to the index at the back of these instructions to find the location of any setting which you do not recognize or understand.

To print a list of your fax machine's user settings, press →/Program, F, 1, 9, Mode/Enter.

Print Settings
 ** Printing

The list will print automatically.

Clear All Settings

This command **deletes all user information** from your fax machine and returns all internal settings to their factory positions. **Do not** use this command unless you want to delete *all* user information — every setting you've made — from your fax machine.

To begin this operation, press →/**Program**, *, 3.

All RAM Clear Check Program/Enter

Then, **only** if you **really** want to clear all settings, press **Mode/Enter**. If you wish not to clear the settings, press **Stop** to return to normal, standby mode.

Note: The term "RAM" in the display stands for random access memory.

Reception

Your fax offers several ways to respond to incoming calls:

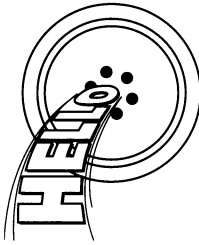
Reception Option	Operation
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Tel Ready Sep 11 94 20:30 </div>	Your fax ignores all calls. You answer each call manually using the fax's telephone handset or another telephone in your home or office.
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Fax Ready Sep 11 94 20:30 </div>	Your fax answers all calls automatically and begins fax reception.
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Ans/Fax Ready Sep 11 94 20:30 </div>	Your fax supports an answering device or second telephone attached to its EXT. TEL jack. In Ans/Fax Ready , the fax listens silently and comes onto the line only when it detects a remote fax machine attempting transmission.
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Tel/Fax Ready Sep 11 94 20:30 </div>	Your fax answers all calls automatically and, when you receive a voice call, alerts you with a special ring.

These options are more fully explored on the following pages.

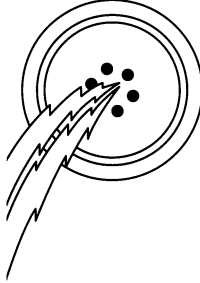
Answering calls manually — for all reception modes

In any reception mode, you can always answer calls manually:

1. Pick up the fax handset.



If it's a normal voice call, go ahead and talk as you would normally.



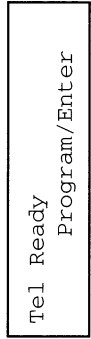
If you hear distinctive fax tones . . .

2. Press **Start**. Hang up. Reception will begin.

Tel Ready

Tel Ready is ideal if you have one telephone line that serves double duty for fax and business use. To select Tel Ready:

1. Make sure that the **Auto Answer** feature is disabled by pressing **Auto Answer** until the **Auto Answer** light is not lit.
2. Press **→/Program, F, 1, 1, Mode/Enter**. Press **←** or **→/Program** until the display shows "Tel Ready," as shown below. Then press **Mode/Enter**.



Now you can toggle between Tel Ready and Fax Ready (see "Fax Ready," next page) simply by turning the **Auto Answer** function on or off. Under this setting, if **Auto Answer** is on, **Fax Ready** is on; and, if **Auto Answer** is off, **Tel Ready** is on.

In **Tel Ready**, your fax will never answer calls automatically. You must answer each call and handle it as described above.

Fax Ready

Use Fax Ready if you have a dedicated line for the fax and receive voice calls on a separate line. In Fax Ready, your fax answers all calls after a number of rings you determine (see page 21), exchanges standard fax tones with the transmitting unit, and then attempts reception.

To select Fax Ready:

1. Make sure that the Auto Answer feature is enabled by pressing **Auto Answer** until the Auto Answer light is lit.
2. Press **→/Program, F, 1, 1, Mode/Enter**. Press **←** or **→/Program** until the display shows "Fax Ready," as shown below. Then press **Mode/Enter**.

Fax Ready
 Program/Enter

Ans/Fax Ready

Choose the Ans/Fax Ready option if you are using an answering machine or a second telephone with your fax machine.

Using an answering machine with your fax machine

Important: This discussion assumes you've already properly connected your answering machine to your fax machine and set the answering machine to answer after no fewer than two rings (see page 15).

When your fax machine is in Ans/Fax Ready and a call comes in, the answering machine answers first. Your fax listens silently while your answering machine's outgoing message plays; callers making voice calls won't know the fax is there. But, if your fax detects standard fax transmission tones at any time, it will disconnect your answering machine and begin reception.

To put your fax in Ans/Fax Ready:

1. Press **→/Program, F, 1, 1, Mode/Enter**. Press **←** or **→/Program** until the display shows "Ans/Fax Ready." Then press **Mode/Enter**.
2. Modify your answering machine's outgoing message (see page 15).

Using a second phone with your fax machine

Your Muratec fax machine lets you combine the mobility offered by your cordless phone (or any other second telephone which normally connects with a regular wall jack) with the convenience of fax communication.

To attach a second phone to your fax machine, attach the phone cord from the second phone to the **EXT. TEL** jack on the back of your fax machine; then, put your fax machine in Ans/Fax Ready. This allows you to conduct normal conversations on your second phone. If you receive a fax call while on the second phone, simply hang up. Your fax machine will automatically attempt reception.

In Ans/Fax Ready, your fax always assumes a fax may be coming in. Each time you hang up, your fax listens for the tones signalling an incoming fax, so you may have to wait momentarily to dial out again. If your fax hears no tones, it will free the line. You may occasionally notice that when you answer the second telephone, the line will immediately go dead. This means your fax recognized fax tones when you answered the phone and is now receiving the fax.

Tel/Fax Ready

Tel/Fax Ready is ideal if you do not have a dedicated fax line and you receive an equal mix of fax and voice calls. In Tel/Fax Ready, your fax:

- Begins reception automatically on incoming fax calls
- Sounds a special ring for about 30 seconds for voice calls.

In Tel/Fax Ready, you can still answer calls manually before your fax answers (see page 25). To use the Tel/Fax Ready mode:

1. Press **Auto Answer** until the Auto Answer light is lit.
2. Press **→/Program, F, 1, 1, Mode/Enter**. Press **←** or **→/Program** until the display shows "Tel/Fax Ready."
3. Let your fax answer all your calls. Pick up the fax handset only when you hear the special ring telling you a person is calling.

Silent fax operation in Tel/Fax Ready

Use silent Tel/Fax Ready if you want your fax machine to receive faxes silently and alert you only when there's a voice caller. You won't hear the initial ring your phone makes. If a caller sends a fax, your fax machine will receive it silently unless there is an error.

If a person wants to speak with you, however, the fax machine sounds the special ring for about 30 seconds. If you hear this special ring, you know it's a voice caller.

1. Set the fax machine for Tel/Fax Ready, as previously described.
2. Turn off the ringer volume at the back of your machine (see page 8).

Note: Of course, turning off your fax machine's ringer will not turn off the ringers on other telephones in your house or office, nor will other phones distinguish between fax and voice calls.

What if I answer a fax call in another room?

1. **Don't hang up.** Put the telephone handset down. (If the phone on which you answer has a "Hold" feature, you may use it.)
2. Walk to your fax machine, pick up its handset and press **Start**.
3. Hang up the fax handse. Then return to the telephone and hang up its handset (if you didn't use a "Hold" feature as mentioned in step 1).

"Being Called" Display

When your fax machine answers a call, you will see the following display:

** Being Called **

If the call is from a fax, the LCD will display the remote fax's phone number (as shown on the remote fax machine's TTI). It also tells you you're receiving a fax message and shows the resolution at which it is being received.

214-555-3465
Receive Normal

Out-of-Paper Warning

When your fax machine runs out of paper, it beeps, lights the Alarm light, and shows the following message on the display:

Check Rx Paper

("Rx" is industry shorthand for *receive*.) Your fax machine cannot print fax messages without paper.

However . . .

Out-of-Paper Reception

If your fax machine runs out of paper while you are away, it will store up to 10 separate receptions in its memory. This is called *out-of-paper reception*. When you put more paper in the paper cassette, the fax machine will print these messages automatically!

Note: How many pages (as opposed to receptions) your fax machine can store for out-of-paper reception depends upon not only the fax machine's memory capacity but also the types of documents being sent, and the resolution settings at which the documents are sent, to your machine. The maximum number is probably around 15 pages, and this refers to white pages which are relatively light in text and graphics and are sent to your fax machine at normal resolution.

Detection of "Silent" Fax Machines

A few older fax machines do not send out fax tones when transmitting. If you're using your answering machine with your fax machine, this might be a problem: under these circumstances, your fax machine would fail to detect the remote (calling) fax machine, thus leaving your answering machine to record calls from such machines. However, your Muratec fax machine can accommodate these "silent" fax machines without disrupting your answering machine operation.

With silent fax detection activated in Ans/Fax Ready, your fax machine gives the caller six seconds to begin speaking after the answering machine starts recording. If there's no voice response, your fax will attempt reception. See page 46 for information on activating this capability in your Muratec fax.

Call Request

This feature allows you to send or receive a fax message and carry on a voice conversation on the same call, regardless of whether you are the transmitter or recipient of the fax message.

For this feature to work, the remote fax machine must have a similar call-reserve capability. You may fax first and then talk, or talk first and then fax.

To send/receive a fax first and then talk:

1. Write your fax machine is transmitting or receiving the fax message, press **Monitor/Call**.

Call requested

2. At the remote fax machine, the ringer will ring after each page is printed (whether it is there or on your machine, depending upon which is sending and which is receiving).
3. If someone answers at the remote fax machine, your fax machine will ring several times. If so, pick up the handset. In a few seconds, the line will open and you can begin your conversation.

To talk first and then send/receive a fax:

1. **Before** you hang up, insert a document into your fax machine.
2. At the end of your conversation, tell the remote fax machine operator to press **Start** and to hang up his/her handset.
3. When you hear fax tones, press **Start** and hang up your machine's handset.

To respond to a requested call

If someone requests a call from you, you'll hear a long ring after each page is sent or received. To answer the call request, pick up your fax machine's handset and wait a few seconds, during which you may hear a brief series of fax tones. Shortly, the line will open and you and the remote fax operator can converse.

Online+ Distinctive Ring Detection

It used to be that to have two phone numbers, you had to have two phone lines (and the more expensive phone equipment that usually involves). But many phone companies now offer their customers a special service which makes it possible for one phone line to do the work of two — a real boon in this age of the small office/home office.

Physically, you still have only one phone line; but, electronically, you have two phone numbers; and each rings your phone in a different way from the other.

This makes it easy for you to have both, say, a business number and a home number on one phone line (so you can answer one, "Jane Doe Consulting," and the other, "Hello"). You get the idea. This works because you're smart enough to detect the distinctive *patterns* of the two rings.

But what if your fax machine also was smart enough to know the difference between the two numbers' ringing patterns? Then it could ignore one number, "knowing" that it's supposed to answer only the other one. Well, as you've probably guessed by now, that's exactly what your Muratec fax machine can do. All you have to do is give it a little help at the beginning and begin to enjoy the benefits of its Online+ distinctive ring detection (DRD) feature.

Your phone company must set up your distinctive ring service, at which time it will assign you a ring pattern, expressed as time. For example, the standard telephone ring is 2 seconds "on" (ringing) and 4 seconds "off" (silent) after which it repeats itself (hence the term, *ring pattern*). This time usually is described in terms of *milliseconds*. A millisecond is 1/1000 of a second (and, by the same token, a second is 1,000 milliseconds). Once you know your assigned ring pattern, match up this information with the ring patterns in the chart below and you'll know to which distinctive ring pattern — A, B, C, D, E or F — you should set your fax machine for DRD:

Pattern	One complete ring pattern
A	800 ms on, 400 ms off, 800 ms on, 4 seconds off
B	400 ms on, 200 ms off, 400 ms on, 200 ms off, 800 ms on, 4 seconds off
C	300 ms on, 200 ms off, 1 second on, 200 ms off, 300 ms on, 4 seconds off
D	1 second on, 500 ms off, 1 second on, 3 seconds off
E	500 ms on, 500 ms off, 500 ms on, 500 ms off, 1 second on, 3 seconds off
F	500 ms on, 500 ms off, 1 second on, 500 ms off, 500 ms on, 3 seconds off

For example, pattern C is 300 ms ringing, 200 ms silent, 1 second ringing, 200 ms silent, 300 ms ringing and 4 seconds silent; then it goes back to the first 300 ms ring and starts over.

To use DRD on your fax machine:

1. Press **→/Program, F, 0, 8, Mode/Enter**.

Set DRD: Off Program/Enter

2. Press **←** or **→/Program** until the display shows "On." Your fax machine now will recognize only one of the six specific distinctive ring patterns; press **Mode/Enter** so you'll be able to specify which pattern.

3. If "A" is the correct pattern, proceed to step 4. Otherwise, press **←** or **→/Program** until the display shows the appropriate pattern.

Ring Pattern: A Program/Enter

4. Press **Mode/Enter**.

Important: Remember that, with your fax machine set for using DRD, it will not respond to another ring pattern other than the one you set in step 3. So, if you must change the machine's phone number for some reason — for example, if you get a true second line and put the fax machine on that line — you'll have to repeat steps 1 and 2, except that in step 2 you'll press **←** or **→/Program** until the display shows "Off," rather than "On"; then press **Mode/Enter** to return to standby. The fax machine is now able to respond to a normal ring pattern.

Sending A Fax

Your fax will communicate with virtually any modern fax machine in the world. You can transmit a piece of normal-weight paper as small as a notepad or one nearly three feet long! The exact dimensions for a single sheet transmission are:

Maximum: 8.5" x 35.4"

Minimum: 5.8" x 3.9"

And the exact dimensions for a multiple-sheet transmission are:

Maximum: 8.5" x 14.0"

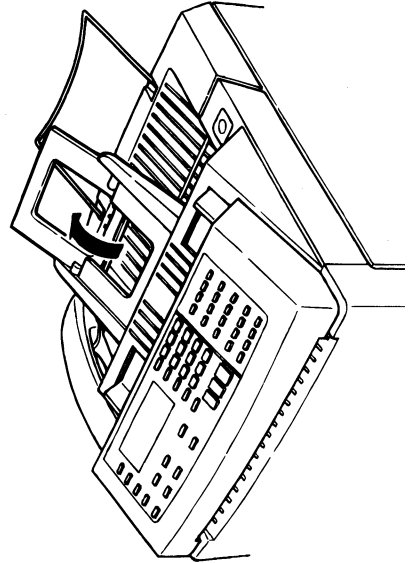
Minimum: 5.8" x 5.8"

Do not transmit:

- Folded, curled, torn, wrinkled or very thin pages
- Documents carrying staples, glue, tape, paper clips or still-wet correction fluid
- "Sticky notes"
- Cardboard, newspaper or fabric
- Pages with duplicating carbon on either side.

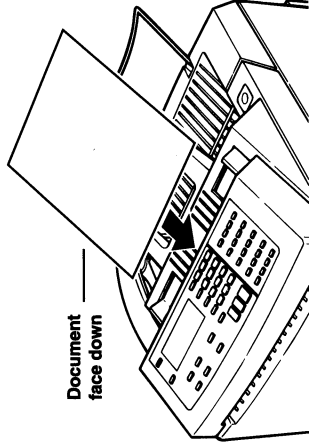
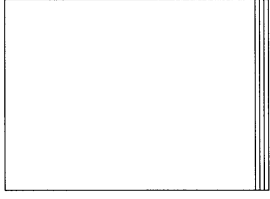
Adjusting the Document Hopper

The document hopper is easily adjustable to handle larger documents. Simply flip the top up or down, as your documents' sizes require.



Inserting Pages

1. Adjust the document guides to fit the pages you're transmitting. Your document feeder will accommodate up to 20 pages. For multi-page documents, fan the pages slightly (see right). The first page of the fax should extend just slightly from the rest.



2. Insert the document face down (see left). The fax machine will "grab" the first page of the document and position it for faxing.

Resolution

Use **Mode/Enter** to select the proper transmission resolution for your document.

- **Normal** is suitable for most typed documents and simple drawings.
- **Fine** is ideal for maps, moderately complicated drawings, floorplans or handwritten documents.
- **Superfine** reproduces the detail of extremely complicated drawings or line art.
- **Grayscale** is used to capture halftones in photographs or drawings.

Note: You can send in superfine mode to any fax machine with Group 3 superfine; other fax machines will receive a superfine transmission in fine mode. You can send in grayscale mode to any Group 3 machine, even those without grayscale transmission capabilities.

Note: If you use grayscale mode, remember to set the grayscale mode, 16-level or 64-level, you prefer. For an explanation, see page 21.

Contrast

Use **Contrast/Cancel** to select the proper contrast.

- **Normal** is suited to most documents.
- **Light** lightens overly dark, muddy originals.
- **Dark** darkens weak, "washed-out" images.

Note: Until becoming accustomed to using the **Light** and **Dark** settings, some users might tend to get them confused. Just remember what we say above — "Light lightens" and "Dark darkens" — and you can keep it straight!

Special Dialing Characters

Your fax machine provides special dialing characters for entering autodialer numbers and telephone numbers for transmission and polling, or when dialing through special telephone exchanges. Please see page 37 for more information on special dialing characters.

Transmission

1. Insert the document. Adjust the contrast and resolution as desired.

Document Ready	100%
A4	Normal

The document in this example is set to transmit at normal resolution and normal contrast.

2. Enter the remote fax number using a one-touch key, speed-dial number, or the numeric keypad. (If you use a one-touch key, skip to step 4.)

Press Start Key
9214555198528_

As you can see, you enter any access codes along with the number. If you need not dial any codes, enter only the remote fax number.

Note: For more information on one-touch and speed-dial numbers, see pages 37–40.

3. Press **Start**.

Note: If you are using a one-touch key, there's no need to press **Start**.

4. When a remote fax machine answers, your fax machine's display shows the other machine's fax number (if it has been set by that machine's user and if that machine can send it during this part of the operation).

501-555-2455
A4
Normal

If the remote fax is busy, your fax will automatically attempt the call again (see page 34).

Transmission With the Handset or Monitor

1. Insert the document. Adjust the contrast and resolution as you wish, as described on the previous page.

Document Ready	100%
A4	Normal

The document in this example is set to transmit at normal resolution and normal contrast.

2. Pick up the handset or press **Monitor/Call** and listen for a dial tone.

3. Enter the telephone number you need using a one-touch key, speed-dial number, or the numeric keypad.

Note: For more information on one-touch and speed-dial numbers, see pages 37–40.

4. When you hear fax tones from the remote unit, press **Start** to begin transmission. **Note:** If a person answers the phone, tell him/her you're trying to send a fax. When the other person is ready, press **Start**.

5. If you're using the handset, hang up after pressing **Start**. If you're using the monitor, your fax will do the rest.

Delayed Transmission

Take advantage of lower evening long distance rates with *delayed transmission*. Your fax can store one delayed transmission command, which you can program up to 31 days in advance. However, it is necessary for the fax document to be in the feeder at the moment when you want the machine to send the fax.

To program a delayed transmission:

1. Insert the document.
2. Press **Communication Options, Mode/Enter**.

Delayed
Enter Time: 12/11:39

Your fax machine uses its built-in clock/calendar to plan execution of your delayed command. In the example, the 12th is the date for the delayed transmission, and 11:39 AM is the time scheduled. (Remember that we're using 24-hour time format; 11:39 PM would be expressed as 23:39.)

Note: As you'll notice, your fax machine asks you for only the *date* for the command, not the *month*. So, if you want to program a delayed transmission to occur on the same day of *next* month, be sure to wait until after the desired time before you program — or your fax machine understandably will perform the transmission today! For example, if it's March 10 and you want your fax machine to do something at 5:05 PM on April 10, wait until after 5:05 PM on March 10 to program the command. (Of course, the simplest way around this is to wait until the next day — in this example, March 11 — to do the programming! But, if you must program on the same day of the month as your "target" date, keep this information in mind.)

3. Enter the remote fax number using a one-touch key, speed-dial number, or the numeric keypad.

Press Start Key
9214555198528_

As you can see, you enter any access codes along with the number. If you need not dial any codes, enter only the remote fax number.

Note: For more information on one-touch and speed-dial numbers, see pages 37–40.

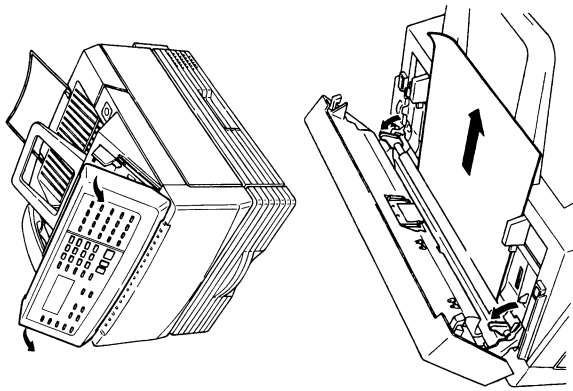
4. Press **Start**. Your fax machine will return to standby with a *****Reserved***** notice, like this:

** Reserved **
Sep 11 94 20:30

This means your fax machine has stored a delayed transmission command. While reserved, the machine can receive documents but cannot transmit.

Cancelling a Delayed Transmission Command

If you've stored a delayed transmission command in your fax machine, it will hold it — and the original document involved — until it can either carry it out successfully or it reaches its maximum number of redial attempts (see page 34). If you need to cancel the command, remove the document from the machine. To do so:



1. Open the control panel by placing your fingers on its upper left and right corners and tilting it toward you.
2. Notice the small plastic document release levers on either side of the document. Gently flip these up (toward the underside of the control panel), releasing the document. Then lift the original document from the fax machine.
3. Close the top cover (the document release levers will return to their normal position automatically), making sure both sides are securely snapped down. Your fax machine now is back to normal operation, having cancelled the delayed command.

Erased Commands

If the power goes off or someone unplugs your fax machine, the machine will “forget” a delayed command stored in it. However, when your fax machine is powered up again, it will automatically print for you a warning sheet alerting you that the command was erased.

Automatic Redial

When your fax machine encounters a busy signal, it will automatically attempt to redial the number if you tried to transmit using a one-touch key, a speed-dial number, or a number entered on the numeric keypad. (It will not perform automatic redialing if you were using either the telephone handset or the Monitor.)

How long the fax waits between redials (the *redial interval*) and how many times it redials the number is up to you.

To set the redial interval:

1. Press **→/Program, F, 0, 7, Mode/Enter**.

Set Redial Interval Inter. (3-5) : <u>3</u>
--

2. Use the numeric keypad to enter the desired length (in minutes) in the redial interval. You may choose three, four or five minutes. When done, press **Mode/Enter**.

To set the number of redials:

1. Press **→/Program, F, 0, 6, Mode/Enter**.

Set # Of Redials # (2-5) : <u>2</u>
--

2. Use the numeric keypad to enter the desired number of rings. You may choose two, three, four or five rings. When done, press **Mode/Enter**.

Redial Key

If you have dialed a number manually — either with the handset or by pressing **Monitor/Call** — your fax machine will not redial automatically. You will have to redial manually. Fortunately, it's easy to do!

To redial a fax number, simply place the document in the feeder, press **Redial**, then **Start**.

To redial a voice number, pick up the handset or press **Monitor/Call** and press **Redial**.

Dialing Pause

You can include short pauses in your dialing sequences to simplify long-distance dialing. Some long-distance systems require dialing pauses, and they are often useful when dialing through special telephone exchanges.

To enter a pause when dialing or in your autodialer, press **Redial/Pause** where you want your fax to pause in the dialing sequence. (A “-” will appear on the display.) You may use as many pauses as you like, but remember that each pause uses two of the characters you're allocated in dialing.

You can set the length of the dialing pause, which initially is set for five seconds each. (In other words, using the factory setting for dialing pauses means your fax machine would dial 9-5550294 as: “9 [five-second pause] 5 5 5 0 2 9 4.”) To make this setting:

1. Press **Program, J, 0, 4, Mode/Enter**.

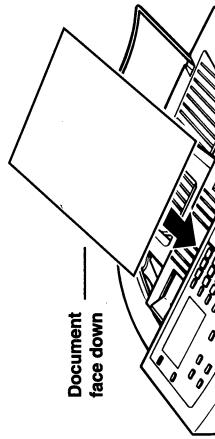
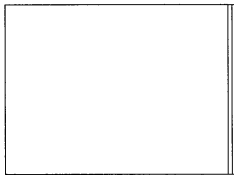
Set Dialing Pause Time (05-99)

2. Use the numeric keypad to enter the desired length of the pause (*i.e.*, each press of the **Flash** key), in number of seconds. You may select a pause of from five (“05,” as you can see above) to 99 seconds. (We recommend the factory setting of five seconds, unless your dialing requirements demand otherwise.) When done, press **Mode/Enter**.

Making Copies

Your fax serves as a handy one-printout-at-a-time copier for your insurance forms, receipts and letters. To make copies:

1. Adjust the document guides to fit the pages you're copying. Your document feeder will accommodate up to 20 pages. For multi-page documents, fan the pages slightly (see right). The first page of the fax should extend just slightly from the rest.



2. Insert the document face down (see left). The fax machine will "grab" the first page of the document and position it for copying.

3. Press **Copy**. The copy will feed out through the recording paper exit at the rear of the machine, and your original will exit through the original document exit at the front.

Autodialer

Your fax machine stores a total of 80 fax and phone numbers — 20 one-touch numbers (available through the keys, marked **A** through **T**, on the rightmost side of the Control Panel) and 60 speed-dial numbers. Even the most complicated international calls now are only a few keystrokes away. The autodialer simplifies the dialing of whomever you call or fax most often.

For maximum convenience, you can mix in numbers for regular phone calls, along with fax numbers. If you command the autodialer to dial a number, the fax machine chooses which way to dial — *i.e.*, as a fax machine or just as a phone — based on whether there's a document in the feeder: if there is, it dials as a fax machine; if there isn't, it dials as a phone.

Your fax machine also features a built-in directory function that lets you enter your fax/phone numbers along with descriptive names. The autodialer sorts these listings alphabetically so you can look them up by their names, just as if you were using a phone book!

Before we tell you how to store numbers in your autodialer, let's cover a feature you may wish to use in that operation.

Using Special Dialing Characters

Which number do you find easier to read: 9/2145552938 or 9-1-214-555-2938? Obviously, it must be the latter, which separates the phone number into its various parts (in this example: an outside-line access code, the "1" to reach long distance, the area code and the phone number). Imagine how much more important this becomes if you also have to use special long distance access codes, country codes for international calling and so forth.

Additionally, certain calls may require special symbols, in addition to just numerals, to get through. If you make calls to foreign countries or just have your fax machine on an unusual phone system, you'll want to be able to put the appropriate characters in the phone numbers you store. Otherwise, your fax machine's autodialer won't be so "auto" after all!

Now you can appreciate the value of the *special dialing characters* your fax machine makes available. Here's a brief description of these characters and how you can put them in the numbers you store in your fax machine's autodialer:

Char.	Key to Press	Times to Press Key	Usability
-	Dialing Options	1	Makes long numbers easier to read. Does not change any fax machine operation.
/	Dialing Options	2	(Has no effect in United States.)
!	Dialing Options	3	Instructs your fax machine to pause until it detects a dial tone.
-/	Redial/Pause	1 (after entry of at least one other character)	Enters a pause. One pause by itself lasts the time you have set (see page 34); each consecutive pause adds one more second to the total pause. You may use as many pause characters as you like, but note that each uses two of the characters you can store in one phone number.
-!	Tone	1	If your fax machine operates on a rotary (not TouchTone®) phone line, switches from rotary dialing to tone (DTMF) dialing. Use after the actual phone number but before any characters (such as a long distance carrier's access code) which must be in DTMF tone. Do not use on a TouchTone line.
/	Flash	1	(Has no effect in United States.)

One-Touch Keys

Entering/changing a one-touch number

1. Press **→/Program, Mode/Enter, Mode/Enter**.

Select One-Touch No.
A: No Number Stored

2. Press the desired one-touch key. Then press **Mode/Enter**.

A: Fax Number
_

3. Use the numeric keypad to enter the phone number. (Remember also the special dialing characters, as explained on the previous pages.) You may store a fax/phone number up to 40 characters in length.

A: Fax Number
9-1-214-555-1985_

Note: To view characters beyond the 20 currently visible, press ← or →/**Program** to scroll back and forth. To change any of the characters, press ← or →/**Program** to position the cursor (the underline) under the character you wish to change. Press **Contrast/Cancel** to erase the character, then use the numeric keypad to enter the character you want.

4. You also can enter a *Location ID* for this number, for easy retrieval from the autodialer's alphanumeric directory. (To avoid entering a Location ID, move on to step 5.) Make sure the Location ID doesn't exceed 16 characters.

ABCDEFGHIJL_ 16
Chamberlain & Co.

Use the numeric keypad, as shown, to select character choices and enter characters. (For spaces, use the leftmost character in each line.)

Note: To change any character you've entered in the Location ID, press **Contrast/Cancel** to erase, leftward. Then re-enter until the name is as you wish.

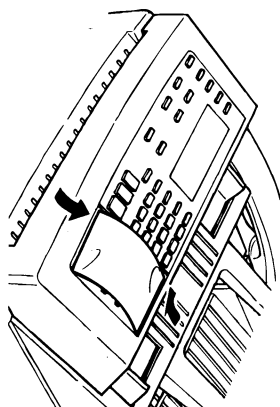
5. Press **Mode/Enter**.

	1	Change character choice	2	3
Scroll within set	←	Enter	→	Scroll within set
	7	Change character choice	8	9

6. Enter another one-touch number (repeating steps 1-5), or press **Stop** to return your fax machine to its normal, standby mode.

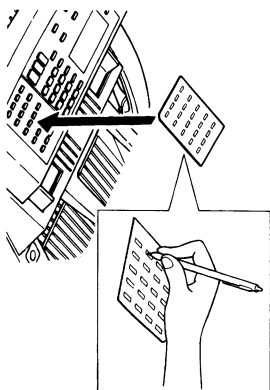
Now, if you'd like, you can write labels for the stored number(s) right on the keypad for easy reference (you also can print out your directory; see page 39).

7. Gently push up on the clear plastic cover over the one-touch keys until it pops up. Then pull it off the keys and put it to the side for a moment.

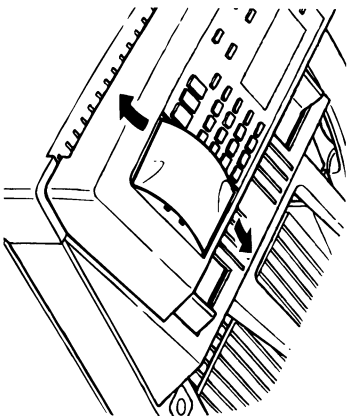


9. For each one-touch key you've programmed, label it lightly in pencil or with an erasable pen. (You may want to make changes!)

Note: Make sure any ink you use is fully dry on the keypad before proceeding to step 10.



10. When you are through with the labeling, re-insert the plastic cover's tabs into the slots and pop the cover back over the one-touch keys.



Erasing a one-touch number

1. Press **→/Program, Mode/Enter, →/Program, Mode/Enter**.

Select One-Touch No.
A: 9-1-214-555-1985

2. To erase the one-touch number for key **A**, skip to step 3. Otherwise, press the desired one-touch key. If you change your mind and wish to select a different one-touch key, just press that key before proceeding to the next step.
3. Press **Mode/Enter**.
4. You now have one chance to change your mind before erasing the number.
 - To go ahead and erase this number, press **Mode/Enter**.
 - To finish the operation without erasing this number, press **Stop**.
 - To cancel the erasure of this number while still staying in the erasure operation (so you can erase a different number), press **→/Program**. Then return to step 2, above.
5. To erase another one-touch number, repeat steps 2 and 3 above. Or press **Stop** to return to standby.

Printing a one-touch list

Your fax will print a list of one-touch numbers anytime you need it. The list includes the one-touch letter, the Location ID, and the telephone number.

To print a list of your one-touch numbers, press **→/Program, A, 3, Mode/Enter**.

Speed-Dial Numbers

Your fax will store 60 speed-dial numbers. You may access one of them by pressing **Speed Dial/Tel Index** followed by a two-digit number.

Important: Since each speed dial number must be two digits in length, each of the first nine numbers **must** begin with a "leading" zero. For example, the first number is **01**, not just **1**. If you enter only the second digit, this will confuse your fax machine.

Entering/changing a speed-dial number

1. Press **→/Program, B, Mode/Enter, Mode/Enter**.

2. If you want to enter or change a phone number for speed-dial number 01, skip to step 3. Otherwise, enter a two-digit speed dial number from 02 through 60. (In our example, here, we've chosen to enter **07**.)

Enter Speed-Dial No.
07: No Number Stored

3. Press **Mode/Enter**.

07: Fax Number

4. Use the numeric keypad to enter characters. (Remember also the special dialing characters, as explained on the previous pages.) For each of speed-dial numbers 01 through 10, you may store a phone number up to 40 characters in length; and for each of the remaining speed-dial numbers, you may store a phone number up to 20 characters in length.

07: Fax Number
9-1-214-555-1985_

Note: To view characters other than those currently visible, press **←** or **→/Program** to scroll back and forth. To change any of the characters, press **←** or **→/Program** to position the cursor (the underline) under the character you wish to change. Press **Contrast/Cancel** to erase the character, then use the numeric keypad to enter the character you want.

5. You may enter a Location ID for this number, so you can look it up in the autodialer's alphanumeric directory. (If you don't want to enter a Location ID, move on to step 6.) Make sure the Location ID doesn't exceed 16 characters.

ABCDEFHIJ_ 16
NW Region Office

As you did for the one-touch keys (see page 38), use the numeric keypad to select character choices and enter characters. (For spaces, use the leftmost character in each line.)

Note: To change any of the characters, press **←** or **→/Program** to position the cursor (the underline) under the character you wish to change. Press **Contrast/Cancel** to erase the character, then use the numeric keypad to enter the character you want.

6. Press **Mode/Enter**.
7. Enter another speed-dial number (repeating steps 1–6), or press **Stop** to return your fax machine to its normal, standby mode.

Erasing a speed-dial number

1. Press **→/Program, B, 2, Mode/Enter**.

Enter Speed-Dial No. 01:9-1-214-555-6579

2. To erase speed-dial number 01, skip to step 3. Otherwise, enter the desired speed-dial number (02 through 60). If you change your mind and wish to select a different speed-dial number, just enter it before going on.
3. Press **Mode/Enter**.
4. You now have one chance to change your mind before erasing the number.
 - To go ahead and erase this number, press **Mode/Enter**.
 - To finish the operation without erasing this number, press **Stop**.
 - To cancel the erasure of this number while still staying in the erasure operation (so you can erase a different number), press **→/Program**. Then return to step 2, above.
5. To erase another one-touch number, repeat steps 2 and 3 above. Or press **Stop** to return to standby.

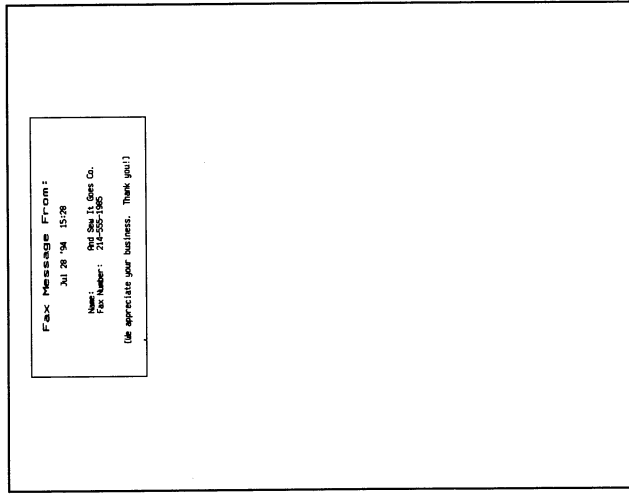
Printing a speed-dial list

Your fax will print a list of speed-dial numbers for your reference. The list includes the speed-dial number, the Location ID, and the telephone number. To print a list of your one-touch numbers, press **→/Program, B, 3, Mode/Enter**.

Special Communication Features

Cover Page

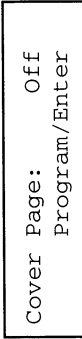
Your fax machine offers a *cover page* transmission option for the documents you send. This feature sends a short cover message before transmitting the rest of the document. This page includes the date and time, your name, fax number and a message of up to 40 characters in length.



Set Cover Page

To turn on or off the cover page feature:

1. Press →/Program, G, 1, Mode/Enter.

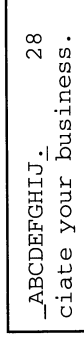
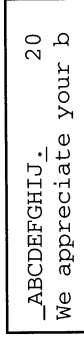


2. To change the setting, press ← or →/Program. Once it's as you wish, press Mode/Enter.

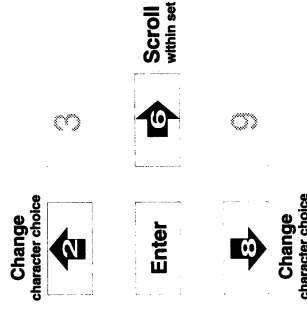
Enter Cover Page Message

To enter a message to appear on the cover page:

1. Press →/Program, G, 2, Mode/Enter.
2. Enter the message you want to appear on your cover page. Make sure it doesn't exceed 40 characters. (Your fax machine's 20-character-wide display will scroll, as in this example, to show characters beyond the 20th.)



You can choose among uppercase letters, lowercase letters, numerals and symbols. Use the numeric keypad, as shown, to select character choices and enter characters. (For spaces, use the leftmost character in each line of choices.)



Note: If you make a mistake, press **Contrast/Cancel** to erase, leftward. Then re-enter until the name is as you wish.

Print Cover Page

If you want to make sure the cover page is as you wish, just print a sample by pressing →/Program, G, 3, Mode/Enter.

Confirmation Reports

Each time your fax machine transmits, it can then print a *confirmation report* to let you know:

- The date and time of the transmission
- The receiving location
- The number of pages transmitted.

This report can provide reassurance when you have vital information to transmit.

The "Location" listing may be different from the number you called, or it may be blank: this information is part of the remote fax machine's TTL. You also will see a "Result" listing: a successful transmission will appear in the Result column as "OK." If a transmission fails, the report will include an explanation of the error and a corresponding error code.

There are two types of reports: RCRs (reception confirmation reports) and TCRs (transmission confirmation reports). You can receive a TCR after sending a fax to any compatible fax machine; however, the RCR function works only when you are sending to a compatible Muratec machine. Choose the type of report you want, based on the fax machines to which you'll be transmitting.

Note: If *receiving* a fax from another Muratec machine, your fax machine cannot cause a sending Muratec fax machine to generate an RCR. Instead, the sending machine will print a TCR. This is true even if the sending machine is the same Muratec model as your machine.

First, to choose between TCR or RCR:

1. Press **→/Program, F, 0, 1, Mode/Enter.**

TCR Selected Program/Enter

2. To change the setting, press **←** or **→/Program**. Once it's as you wish, press **Mode/Enter**.

However, since you might want to avoid printing this report under certain conditions (such as when your paper supply is very low), your fax machine also lets you choose whether even to print the report for each transmission.

So, to turn the confirmation report feature on or off:

1. Press **→/Program, H, 2, Mode/Enter.**

Comm. Report: OFF Program/Enter

2. To change the setting, press **←** or **→/Program**. Once it's as you wish, press **Mode/Enter**.

Set Activity Journal

Just as a checkbook records your daily financial transactions, your fax machine keeps an *activity journal* which records the machine's 25 most recent communications, sending and receiving. The activity journal includes the following information for each transaction:

- An assigned number — starting anew each day at "001"
- Remote location
- Resolution mode
- Starting and finishing date and time
- Duration in minutes and seconds
- Length in number of pages
- The result of the call
- Any special operators. For example, a fax call made using the handset will be shown as "Manual."

If you wish, your fax machine will print the activity journal automatically after every 25 transactions. To toggle this automatic printing on or off:

1. Press **→/Program, C, 1, Mode/Enter.**

Auto Print: On Program/Enter

2. To change the setting, press **←** or **→/Program**. Once it's as you wish, press **Mode/Enter**.

Printing an activity journal manually

You can print an activity journal at any time. Just press **→/Program, C, 2, Mode/Enter**.

Polling

Polling lets you retrieve a page or document from another fax machine. (For example, use polling anytime you need to receive a fax and don't want the source to pay for the phone call. With polling, you pay for the call and get the information you need.) You can perform either regular polling or *database polling*.

- Regular polling retrieves a document physically waiting in the remote machine.
- Database polling — possible only if you're in communication with a memory-equipped Muratec fax machine — involves polling of a document which is stored as a file in the remote fax machine's memory. This is great for always being able to retrieve someone else's latest price list, current résumé or even perhaps your grandchildren's newest "refrigerator art"!

Regular polling

To perform regular polling of a document from any remote fax machine:

1. Make sure:
 - The remote fax operator has a document stored in his/her fax machine's feeder, ready to be polled.
 - There's no document in your fax machine's feeder.

2. Press **Communications Options** four times. Then press **Mode/Enter**.

3. Enter the fax number of the machine from which you'll be polling the document. You may use a one-touch key or a speed-dial number, or simply enter the number using the numeric keypad.

Note: To enter a speed-dial number, press **Speed Dial/Tel Index** and the desired two-digit speed-dial number.

To begin polling now, skip to step 5. To perform delayed regular polling, go to step 4.

4. To perform delayed regular polling, press **Communications Options** once, then press **Mode/Enter**. (Otherwise, skip to step 5.) Use the numeric keypad to enter the date and time when your fax machine should do the delayed regular polling. Then press **Mode/Enter**.

Delayed Enter Time: 15/17:05

Note: Remember that you have only one delayed command. If you have already set up another one, you will not be able to set up delayed regular polling until your fax machine has completed the command.

5. Press **Start**.

Database polling

To perform database polling:

1. Make sure:

- The remote fax machine is a memory-equipped Muratec (or Murata) fax machine with a file stored in its memory, available for you to poll.
- You know the one- or two-digit *file number* of each database file you wish to poll.
- There's no document in your fax machine's feeder.

2. Press **Communications Options** four times. Then press **Mode/Enter**.

Polling File No.: —

3. Enter the database file number or numbers for the information you want to retrieve. You can enter as many as 10 file numbers. (To enter more than one — as below — press **Communications Options** between each one to insert a comma. **Do not** insert a comma after the last file number.)

Polling File No: 5,26,84

When you're done, press **Mode/Enter**.

4. Enter the fax number of the machine from which you'll be polling the database file. You may use a one-touch key or a speed-dial number, or simply enter the number using the numeric keypad.

Note: To enter a speed-dial number, press **Speed Dial/Tel Index** and the desired two-digit speed-dial number.

To begin delayed polling now, skip to step 6. To perform delayed polling, go to step 5.

5. To perform delayed database polling, press **Communications Options** once, then press **Mode/Enter**. (Otherwise, skip to step 6.) Use the numeric keypad to enter the date and time when your fax machine should do the delayed database polling. Then press **Mode/Enter**.

Delayed Enter Time: 15/17:05

Note: Remember that you have only one delayed command. If you have already set up another one, you will not be able to set up delayed database polling until your fax machine has completed the command.

6. Press **Start**.

Set Passcode

For more secure communications, a *passcode* system lets you protect documents set for polling; to poll documents from a Muratec fax machine which also uses a passcode and to operate in a closed network (see “Set Closed Network,” below) with other Muratec fax machines.

Under normal circumstances, your fax machine has a passcode of “0000”; this means the passcode operation is off, allowing calling fax units to communicate freely with yours. If you change the passcode, then your machine can communicate only with Muratec fax machines, other manufacturers’ fax machines — even those with protection code systems of their own — can’t get through.

Note: However, of course, if you’re using the Block Junk Fax feature, even incoming calls which meet the passcode test must come from fax machines also having appropriate Subscriber IDs. See page 23.

To set your fax machine’s passcode:

1. Press **→/Program, F, 1, 3, Mode/Enter.**

Set Passcode	0000
Passcode :	0000

2. Use the numeric keypad to enter your passcode, then press **Mode/Enter.**

Note: To turn off the passcode at any time, reset the passcode to “0000.”

Set Closed Network

If you are interested in providing the utmost communications security and all of the fax machines with which your unit will communicate are Muratec machines, then you may wish to use a *closed network*. It limits your fax machine to transmissions from only Muratec fax machines “presenting” the proper passcode; once set this way, your fax machine will disconnect calls coming in from other machines. Essentially, it’s as if your fax machine’s now being guarded by a stern sentry who won’t let anyone through without hearing the right password! To operate in a closed network:

1. Press **→/Program, F, 0, 9, Mode/Enter.**

Closed Net. :	Off
Program/Enter	

2. To change the setting, press **←** or **→/Program**. Once it’s as you wish, press **Mode/Enter.**

Set Relay Broadcast Initiation

Broadcasting is a fax function allowing one fax machine to send one fax document to numerous other machines with a minimum of trouble for the user. While your machine doesn’t do broadcasting, it can perform *relay broadcast initiation*. In this process, your fax machine transmits a document to a high-volume “hub” Muratec fax machine and specifies a *call group* — a designated group of fax numbers stored in that machine’s autodialer — to which the hub fax machine should broadcast the document. The remote fax then receives your document, stores the document in memory and retransmits the document to each number in the designated group of fax numbers stored in that machine’s autodialer. (So, of course, you’ll have to know the proper call group number in order to do this.) To initiate a relay broadcast:

1. Insert the document and press **Communication Options 3** times, then **Mode/Enter.**

Relay TX	
Group No. :	—

2. Use the numeric keypad to enter the number of one call group to which you want the hub fax machine to broadcast the document. (You can specify just one group for each relay broadcast initiation.) Then press **Mode/Enter.**

Relay TX	
Group No. :	2

3. Enter the telephone number of the hub fax machine. (You may use a one-touch or speed-dial number or simply enter a number on the numeric keypad.) To proceed with the relay broadcast initiation now, skip to step 5. To delay the command, press **Communications Options, Mode/Enter.**

4. Use the numeric keypad to enter the day, hour and minute for broadcast. (As always, use 24-hour format for the time.) Then press **Mode/Enter.**

Delayed	
Enter Time :	11/20:30

5. Press **Start**. If you set the relay broadcast initiation to begin right now, your fax machine will start dialing the hub fax machine. If you set the command for delayed operation, the fax will go into “reserved” mode. (See page 33.)

Custom Settings

Your fax machine is controlled by what we call *memory switches*. As you can probably guess, these aren't real, physical switches you can feel with a finger. Rather, they're the various settings your fax machine retains in memory.

In fact, you've already adjusted many of these settings as you've gone through these instructions. It's just that you've done it through the more usual methods we provide. In the vast majority of cases, you won't have to do any more.

However, you may have some special requirements. In addition to the more common memory switch settings you've already seen, your fax machine offers some special settings to let you customize the unit to your needs. Still, please use care; **it's possible to change or even disable proper fax operation if you make an incorrect setting.**

Note: If you think you **have** made an incorrect memory switch setting, call the Muratec Customer Support Center at 1-800-347-3294; or you can use Clear All Settings (see page 24). It instantly returns your fax machine's memory switches to their factory settings — **but** this will delete all user information (including your TTI, Subscriber ID and all your autodialer entries) from your fax machine's memory. So, if possible, print your settings (see page 23) and your autodialer entries (see pages 39–40) before performing this drastic measure.

Add to Document Length for TTI

Your fax machine includes a special feature which serves as a courtesy to the owners of other plain-paper fax machines with which you communicate.

The TTI normally adds extra length to a transmitted page. This is not a concern for users of fax machines which print on a paper roll; and many plain-paper fax machines automatically reduce incoming fax pages to accommodate this. However, there are some plain-paper fax machines which will print an extra, blank (or nearly blank) page due to the presence of the sending fax machine's TTI.

To prevent this, your fax machine normally deletes a very small portion of the top of every page transmitted. The top 1/8" of your document is not transmitted, but your TTI and Subscriber ID are sent in its place.

To cancel this feature (and thus add to the document length to accommodate the TTI *and* the entire document), use the following setting.

Note: Remember that cancelling this feature can cause some plain-paper fax machines to print two pages for each page you send.

1. Press →/Program, *, 1, Mode/Enter, B, 2, Mode/Enter.

B2:	00000011
	Program/Enter

2. Press →/Program to move the cursor until it is under the leftmost "1." (If you overshoot, press ← to back up.)

B2:	000000 <u>1</u> 1
	Program/Enter

3. Press 0 on the numeric keypad.

B2:	0000000 <u>1</u>
	Program/Enter

4. Press Mode/Enter, Stop.

Note: If you wish to return to the regular setting, repeat steps 1–4 (of course, the cursor will now be coming to rest under the rightmost "0") but press 1 in the third step.

Unlimited Page Length: Transmission

Normally, your fax machine can send pages up to 35.4" long (single pages). However, if you must transmit even longer unbroken pages, such as medical strip charts or logs from oil or water wells, use the setting below to disable your fax machine's paper-jam sensor.

Note: Be sure to restore normal operation afterwards. See the note after Step 4.

1. Press **→/Program, *, 1, Mode/Enter, D, 0, Mode/Enter.**

D0:	00001101
	Program/Enter

2. Press **→/Program** to move the cursor until it is under the rightmost "1."

D0:	0000110 <u>1</u>
	Program/Enter

3. Press **0** on the numeric keypad.

D0:	00001100
	Program/Enter

4. Press **Mode/Enter, Stop.**

Note: To return to the regular setting after sending an unusually long sheet, repeat steps 1–4 (the cursor will now be coming to rest under the rightmost "0") but press **1** in the third step.

Set Scanner Width

Your fax machine accepts original documents up to 8.5" wide. For quicker transmissions, your unit is set initially to scan the center 8.2" of 8.5" documents. However, if you wish, you can increase the scanning width to the full 8.5".

Note: Under this setting, certain documents will require longer transmission times.

To change the scanner width setting:

1. Press **→/Program, *, 1, Mode/Enter, D, 1, Mode/Enter.**

D0:	00001101
	Program/Enter

2. Press **→/Program** to move the cursor until it is under the rightmost "0."

D0:	0000110 <u>1</u>
	Program/Enter

3. Press **1** on the numeric keypad.

D0:	00001111
	Program/Enter

4. Press **Mode/Enter, Stop.**

Note: To return to the regular 8.2" scanning-width setting, repeat steps 1–4 (the cursor will now be coming to rest under the next-to-rightmost "1") but press **0** in the third step.

Set Silent Fax Detection

If you're using your answering machine in connection with your Muratec fax machine and expect to receive fax calls from any non-standard fax units (*i.e.*, those which do not emit fax tones), you might want to set your fax machine to use its *silent fax detection* feature (see page 27). This keeps your answering machine from recording silence if a older, non-standard fax machine calls.

Important: If you use this feature for normal fax operation and you make or receive any voice calls on the same line, your voice calls will be disrupted; long pauses (such as on-hold times) in your conversation will trigger your fax machine to come on-line and attempt fax reception. So make sure that you activate silent fax detection **only** if you are using an answering machine with your fax machine **and** you are sure you'll be receiving fax calls from a nonstandard fax machine.

To activate silent fax detection:

1. Press **→/Program, *, 1, Mode/Enter, H, 0, Mode/Enter.**

H0:	00000110
	Program/Enter

2. Press **→/Program** to move the cursor until it is under the rightmost "0." (If you overshoot, press **←** to back up.)

H0:	0000011 <u>0</u>
	Program/Enter

3. Press **1** on the numeric keypad.

H0:	00000111
	Program/Enter

4. Press **Mode/Enter, Stop.**

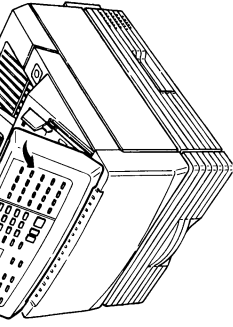
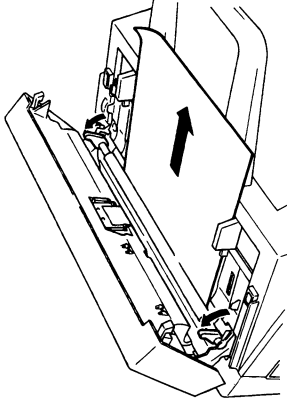
Note: If you wish to return to the regular setting, repeat steps 1–4 (the cursor will now be coming to rest under the rightmost "1") but press **0** in the third step.

Problem Solving

Your fax machine is designed to work reliably for years. However, you may occasionally experience one type or another of paper jam. Here's what to do.

Original Document Jam

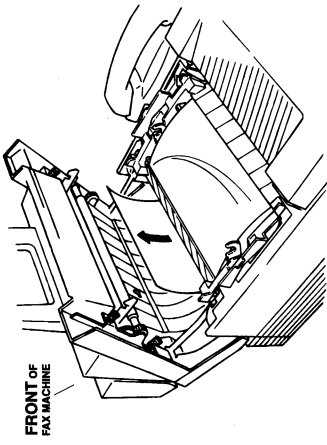
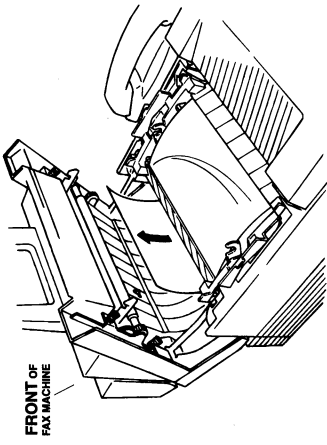
To clear an original document jam:

1. Open the control panel by placing your fingers on its upper left and right corners and tilting it toward you.
 
2. Notice the small plastic document release levers on either side of the document. Gently flip these up (toward the underside of the control panel), releasing the document. Then lift the original document from the fax machine.
 
3. Close the top cover (the document release levers will return to their normal position automatically), making sure both sides are securely snapped down. Then try the transmission again.

Note: If the original document has become wrinkled or torn, don't attempt to resend it.

Printout Jam

To clear a printout jammed inside your fax machine:

1. Press the document mount release button and open your fax machine's cover.
 
2. Gently pull out the jammed paper. **Do not** try to pull the document through your fax machine's document exit.
 
3. Close your fax machine, pressing firmly on the both sides of the document mount until you hear it click.

Troubleshooting

Occasionally, your fax machine will detect a problem with the telephone line in use or encounter some trouble in transmission or reception. When it does, it will alert you with the lighted Alarm lamp and a beeping alarm tone. You can further identify the problem with the LCD messages, Activity Journal check messages and printed error codes. See the following sections for information about these troubleshooting methods.

Alarm

Your fax machine will alert you by lighting the Alarm lamp and beeping if the machine suffers either of these problems:

- It has trouble transmitting or receiving.
- It runs out of paper.

Press **Stop** to cancel the Alarm light and tone.

LCD Error Messages

Your fax machine's display message can help you to easily spot problems that halt communications. If you receive one of the following messages, just follow the directions and then press **Stop** to return to standby.

Reset Document

Your document was not inserted correctly or the machine you are sending to cannot accommodate the length of your page. Reset the page and try to transmit again.

Insert Document

There was no document in the document feeder when you tried to send a fax or make a copy. Place a document in the feeder and try again.

Hang Up Phone

The handset is off-hook. Return it to its cradle, making sure the upper part of the handset presses on the "hook" button.

Call for Service

The printing device, a light-emitting diode (LED) array, is printing dimly or is not functioning. You'll need to have the array replaced. (If you are in a high-moisture environment, it may be that internal condensation is the problem. See if making repeated copies will help.)

Too Many Characters

You tried to enter too many numbers or characters in the item you were entering. Press **Cancel** to delete the extra characters and try the command again.

Invalid Number

You pressed a key which has no function during your current use of the fax machine.

No Number Stored

You selected an autodialer number for which there is no phone number programmed. Either choose another autodialer number or dial a phone number directly through the numeric keypad.

Communication Error

A communication error disrupted the reception or transmission underway. Press **Stop** to end the error message, then try the transmission again.

Close Document Mount

Close Panel Cover

The named item is open. Please close it.

Check Rx Paper

Your fax machine has run out of paper. Please add paper to the paper cassette.

Please Remove Paper

Your fax machine has detected a paper jam (see page 47 to see how to clear the jam).

No Report

You have requested an activity journal or confirmation report, but your fax machine has no record of any communication having occurred. Even if you have used the fax machine, you'll still get this message if you've cleared the machine's memory (see page 24).

Replace Imaging Film

The Film Imaging donor film must be replaced. Please insert a new roll.

Error Codes

Your fax will occasionally experience errors, caused by anything from lightning to telephone line interference. These same factors cause the line noise you sometimes hear when talking on the telephone.

Often, simply trying your call again is all that's necessary. If the problem persists, call Muratec Customer Service (see page 63) or your local telephone company for help.

When an error occurs, your fax prints an error report. Each fax error report lists an error message that includes:

- The cause
- A possible solution
- Date of the transmission attempt
- Sending location (if the remote fax stores a Location ID)
- Number of pages

You will also see a code listed in the Result column of the report. Result codes indicate the specific problem encountered:

- "D" codes occur while dialing
- "R" codes occur during reception
- "T" errors occur during transmission

Here is a list of error codes your fax may print.

Dialing Errors

D.0.2 The remote fax machine is busy. Call again.

D.0.6, D.0.7 Either the remote fax unit didn't respond, the call somehow didn't go through or someone pressed **Stop** while the calling fax machine was dialing. Call again.

Reception Errors

R.1.1 The calling fax machine didn't respond to your fax machine. This can happen if someone dials a wrong number or if the remote fax machine restricts access through use of a passcode.

R.1.2 The two fax machines were incompatible. (Your fax machine sends and receives only CCITT Group 3 fax communication, the industry standard since the early 1980s.)

R.1.4 Someone pressed **Stop** on the receiving fax machine.

R.2.3 Poor phone line conditions made fax communication impossible. Call the remote fax machine's operator.

R.3.1 The sending fax machine detected too many errors from the receiving fax machine.

R.3.3 The sending fax machine is incompatible or had a document feeder program during transmission.

R.3.4 Poor phone line conditions may have prevented your fax from properly printing some or all of the pages it received.

R.4.1 The remote fax unit is out of paper.

R.4.2 Either the line disconnected before transmission or the transmitting fax unit needs maintenance.

R.4.4 The remote fax unit is set to receive into memory (or is using out-of-paper reception) but has reached its memory capacity.

Transmission Errors

T.1.1 The remote fax machine didn't respond to your machine. Call the operator of the remote unit.

T.1.2 Your fax machine's page counter detected a possible document feeder error. Carefully put the document back into the feeder and try the call again.

T.1.4 Someone pressed **Stop** at the remote unit in the middle of the "handshake" (the very first part of the fax communication, when the two units "agree" on the settings they will share).

T.2.1 Either the phone line disconnected during transmission or fax communication became impossible due to bad phone line conditions. Try the call again.

T.2.2 The two fax machines were incompatible. (Your fax machine sends and receives only CCITT Group 3 fax communication, the industry standard since the early 1980s.)

T.2.3 Bad phone line conditions made fax communication impossible. Try the call again at another time. (Conditions can change within minutes.)

T.3.1 During transmission, your fax machine's page counter detected a possible document feeder error. Carefully put the document back into the feeder and try the call again.

T.4.1 The remote fax machine is out of paper. Call that machine's operator (even if you know that machine has out-of-paper reception, as does your fax machine).

T.4.2 After transmission began, poor line conditions developed. Try the call again.

T.4.3 During the "handshake" (see "T.1.4," page 49), the remote fax machine disconnected. Call that machine's operator.

Communication Error Messages

When a fax call goes awry and your fax machine sees an error, it produces an error printout headed by the words "Check Message." This printout lists the error code on the left, the phone number of the fax machine with which your machine had attempted to communicate on the right and, in the middle, a *communications error message*. Here's some added information on each one:

Error Message	Possible Meanings
Check condition of remote fax	<ul style="list-style-type: none"> • Remote machine malfunctioned • No "handshake" signals from remote machine • Wrong phone number reached
Check received documents	<ul style="list-style-type: none"> • Receive confirmation signal not received from remote machine • Poor image due to poor phone line conditions
Repeat transmission	<ul style="list-style-type: none"> • Poor phone line conditions prevented communication • No "handshake" signals from remote machine • Document misfeed or miscount • Unable to reach remote control after attempting specified number of redial attempts
Line is busy	<ul style="list-style-type: none"> • Remote machine's line was busy or failed to answer
Memory full	<ul style="list-style-type: none"> • Remote machine's memory capacity exceeded
Dialing number is not set	<ul style="list-style-type: none"> • Stored phone number failed to dial properly
[Message area blank]	<ul style="list-style-type: none"> • Stop was pressed during communication • Printer error occurred during communication

Caring for Your Fax Machine

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

Although your fax machine requires little day-to-day care, you can take these simple precautions to keep it in top form.

Always...

- Always make sure your fax machine is installed according to Muratec specifications. Review the requirements on page 11 before installing.
- Always use good, copier-quality paper.
- Always clean your fax as needed.

Never...

- Never install your fax where it can overheat, gather dust, or get splashed by water or other liquids.

Cleaning Tips

Always...

- Always unplug your unit first.
- **For cleaning external surfaces only**, such as the cover and handset, always use a mild cleaning solution sprayed onto a lint-free towel or cloth.
- Always use a lint-free cloth or lint-free swabs moistened with alcohol to gently wipe components inside your fax.
- Always use dry, dust-free compressed air to gently blow dust and other material from areas you cannot reach with swabs.

And remember...

- **Never** spray any cleaner directly on your fax. The drifting spray could damage components inside your fax.
- **Never** attempt to clean inside sealed areas of your unit.

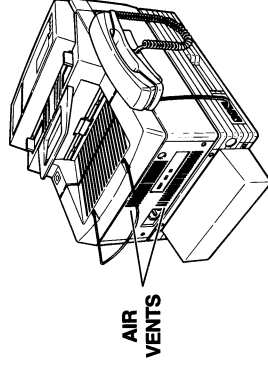
Corrective Cleaning

Following are some simple cleaning procedures for keeping your fax machine operating smoothly. Use each as the need arises.

Air vents

Excessive dust on the **air vents** can cause overheating, so remove dust periodically with a vacuum cleaner or brush. Also, remember not to locate your fax machine in a dusty area.

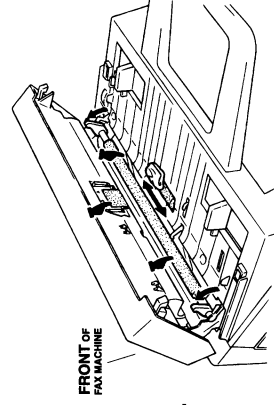
Note: Do not wipe with a damp cloth.



Separator pad, separator roller, document feeder roller

If you're having trouble with getting your original documents to feed properly into your fax machine, try this cleaning procedure.

1. Get a soft, lint-free cloth and moisten it with a cleaner suitable for platen/rubber rollers.
2. Unplug your fax machine.
3. Open the panel cover.
4. Use the moistened cloth (see step 1) to clean the face of the **separator pad, separator roller and document feeder roller**, as shown. Rotate the rollers by hand to allow cleaning of the entire roller surface.

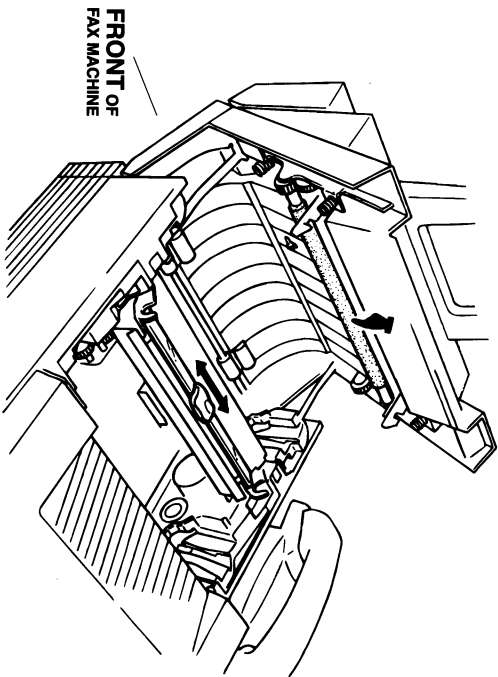


Thermal head and platen roller

If you notice poor copy quality of the faxes you receive or the copies you make, clean the **thermal head** and the **platen roller**.

1. Unplug your fax machine.
2. Get two soft, lint-free cloths. Moisten one with isopropyl alcohol; moisten the other with a cleaner suitable for use on platen/rubber rollers (as you used in cleaning the document feeder roller, as described on page 51).
3. Open the document mount.
4. Remove the donor film cartridge.
5. Using the cloth (see step 2) which you moistened with isopropyl alcohol, clean the thermal head.

Note: Do not use abrasive materials on the surface of the thermal head.



6. Using the cloth (see step 2) which you moistened with the platen/rubber roller cleaner, clean the platen roller. Rotate the platen roller by hand to allow cleaning of the entire roller surface.

Glossary

The terms and words below are often used when discussing facsimile machines and fax communication. Use these definitions for your reference only. Specifications and technical information are subject to change, so call the Customer Support Center (see page 63) if you have any questions.

A4

Standard stationery size defined by the International Standards Organization, an agency of the United Nations. A4 paper is 8.5" inches wide.

Activity Journal

Muratec 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 a constantly changing electrical signal that is transmitted to a receiving fax. Analog facsimile machines are characterized by extremely slow document transmission, three minutes per page or more, and are more susceptible to the signal "noise" encountered on standard telephone lines.

BPS

Bits per second. Used to express the speed of transmission. Because fax transmission treats a document as a graphic image rather than a series of alphabetic and numeric characters, bps does not correspond to the number of characters transmitted per second.

Broadcasting

Transmit a single document to dozens of preprogrammed locations in another fax machine's call group. A function on some Muratec fax machines.

CCD

Charged coupled device arrays. The scanning mechanism used in Muratec 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

Consultative Committee for the 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. Muratec's Group 3 machines offer the fastest transmission allowed by CCITT when communicating with other Group 3 units.

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.

Call Group

A preprogrammed group of fax locations used by Muratec 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.

Compatibility

The term "compatible" describes the ability of separate things to work together. Your Muratec fax machine offers Group 3 compatibility, the modern standard for worldwide fax communication.

Copy

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

Data Compression

Used by digital fax machines to speed transmission. See also *Digital Facsimile*, *MH*, *MR*, *MMR* and *MSE*, *SMSE*.

Digital Facsimile

Unlike analog systems that scan every portion of a page, digital fax machines survey a page'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. Muratec units offer the standard Group 3 data compression method for rapid transmissions to any other Group 3 fax machine, and many Muratec units offer proprietary transmission speeds for faster transmissions between Muratec units.

DIP Switches

Dual In-line Package switch. A two-position on-off switch. Many Muratec fax machines include DIP switches — in these operating instructions, we call them simply “memory switches” — to control optional settings or features.

DTMF

Dual tone, multiple frequency. The dialing signals generated by push-button or Touch-Tone (a registered trademark of Western Electric) telephone systems. DTMF service is an option in most North American telephone systems.

ECM

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.

Effective Printing Width

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.

Effective Scan Width

The maximum width the scanner in your fax can scan during transmission.

Facsimile

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. The growing success of fax for news transmission was halted, however, by the development of commercial television.

Fallback

Group 3 fax machines operate at the highest transmission speed possible on a given telephone line. Muratec systems offer automatic fallback, so if line quality drops during transmission your fax machine will reduce speed to the fastest possible level.

Fax Number

The Fax Number is your unit's telephone number. Part of the TTY, your Fax Number is printed at the top of each page received from your unit. See also *Subscriber ID*.

Fax Report

A fax report is your assurance that the document you transmitted was received. The report prints after your transmission. It identifies the receiving unit and records the date, time, number of pages sent, and result.

G3, Group 3

CCITT Group 3. Your machine is a Group 3 fax. Group 3 compatibility is the modern standard for worldwide communication as determined by the CCITT.

Group 4

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.

Grayscale

Not a level of resolution, but a method of scanning and transmitting halftone images. Muratec 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.

Handshaking

Used by telecommunications and computer equipment to “introduce” two systems to each other. Facsimiles use a handshaking protocol, for example, to identify the type of unit and to begin fax communication.

Hz

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.

LCD

Liquid crystal display. Used on some Muratec units for status displays.

LED

Light-emitting diode. Used on some Muratec units for displays and lamps.

Load Number

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.

Location ID

An optional identifier used on Muratec fax machines. The Location ID lets you identify by name the telephone numbers programmed in your autodialer. Also known as the Transmit Terminal Identifier.

MH

Modified Huffman, the CCITT Group 3 standard data compression method. A feature of all Muratec fax machines, MH assures better than one-page-per-minute transmissions when communicating with other Group 3 units, regardless of manufacturer. See also *MH*, *MR* and *MSE*, *SMSE*.

MR

Modified Read, the optional CCITT Group 3 data compression method. Used in some Muratec fax machines.

MSE, SMSE

Proprietary data compression methods, allowing transmissions faster than MH, MR, and MMR whenever you are communicating with a Muratec-manufactured unit. MSE and SMSE are features on many Muratec fax machines.

Modem

Originally an abbreviation for 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.

Normal Resolution

The standard resolution mode for Group 3 units.

Normal: 203H x 98V lpi

Fine: 203H x 196V lpi

Superfine: 203H x 392V lpi

Original Document Size

Used when defining the largest (or smallest) page that can be fed safely through your fax machine. Check your unit's operating instructions for more information.

PBX

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 Muratec unit to a PBX without first checking with the system manufacturer or service representative.

PPS

Pulses per second. Used to identify rotary dialing requirements.

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. Muratec units provide fast, reliable data transmission over PSTN lines. You do not need a special line or a dedicated telephone line for your Muratec unit.

Polling

Polling allows some fax users to set a document in their 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.

Private Line

Also called a leased line. A service offered by many telephone systems that provides an exclusive phone circuit between two geographic points. Your Muratec unit does not require a private line.

Pulse (Rotary), Tone Dialing

Most telephone systems in the United States offer pulse (rotary) and touch-tone dialing options. Muratec units are compatible with both rotary and tone dialing signal requirements. Check your operating instructions for information on setting your unit for pulse or touch-tone dialing. Check with your telephone company if you have pulse dialing service.

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 unit also offers grayscale transmissions for accurate reproduction of photographs.

RJ-11

A standard plug-in telephone jack. The RJ-11 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 home or office.

SMSE

See *MSE*, *SMSE*.

SecureMail

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

Subscriber ID

Your fax machine's telephone number. Part of the TTI, the Subscriber ID is printed at the top of each page received from your unit. The Telephone Consumer Protection Act of 1991 requires all fax users to provide their name and phone number on each fax, along with the date the fax is sent.

Surge Protector

A device that protects your telephone or electrical lines. A telephone power surge protector can absorb and divert high-voltage surges caused by lightning or static electricity without interfering with normal telephone operation. An electrical surge protector protects your fax machine from high-voltage surges in the AC line that may cause damage to your fax machine and other appliances.

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 Terminal Identifier (TTI)

Your 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. The Telephone Consumer Protection Act of 1991 requires all fax users to provide their name and phone number on each fax, along with the date the fax is sent.

Common Questions

General Questions

- Q:** Where do I add ink or toner to make my fax machine print darker?
A: Your fax machine doesn't use ink or toner. Instead, it uses a special printing technique called *thermal transfer printing*. You can adjust the darkness of the pages you transmit and copy; see page 32.
- Q:** When I unplug my machine, will I lose the information I've stored (TTL, autodialer numbers, time and date, etc.)?
A: No. Your fax machine's internal battery protects user settings for several days if power fails or you decide to move your fax machine.
- Q:** Can I use a dust cover on my fax machine?
A: No. A dust cover blocks air circulation and could cause your fax machine to overheat. (See also "Caring for Your Fax Machine," pages 51–52.)

Error Alarm

- Q:** How do I turn off my machine's error alarm?
A: Press **Stop**. In some cases, your fax will print an error report for help in diagnosing the problem (see pages 49–50).

Transmitting

- Q:** I just tried to send a fax, using the Monitor/Call feature. I dialed a number and heard a horrible screeching sound, so I hung up.
A: Don't worry. You'll hear such sounds any time you call a fax machine which is set to answer automatically. Fax machines use these special tones to signal a fax communication.
 Next time you hear the tones, press **Start** to send a fax.
- Q:** I just sent a fax, but the number that appeared in my machine's display while the fax was being sent was not the number I dialed. Why?
A: That number you saw is the programmed into the remote fax machine by the user (see pages 5 and 19 for details on how you do it for your fax machine). Some users (perhaps for privacy's sake?) prefer different numbers to appear than the ones they're really using; and, frankly, some people take over others' already-programmed fax machines and don't know *how* to change the originally set number!
- Q:** Can I transmit and receive at the same time?
A: No. Use the call request feature (see page 28) to ask the remote operator if he or she wants to transmit or receive after your fax transaction is complete.
- Q:** Do I have to dial a "1" for long distance?
A: Yes. Dialing a fax number is just like dialing any other phone number, so be sure to include any special long distance codes or dialing pauses when dialing. Also, remember to include them when you program your autodialer numbers.
- Q:** How do I send a fax to an overseas telephone number?
A: Dialing requirements for international calls may vary depending on your local telephone company's requirements. For most international calls, dial **0 1 1**, then the appropriate country code, city code and phone number. Country and city codes are often included in the front section of the telephone directory.
- Q:** Can I transmit if my fax is out of paper?
A: Yes; however, fax reports (see page 42) are not available when transmitting without recording paper in your fax.
- Q:** Can I transmit a document that's extra long?
A: You can if the receiving fax machine is equipped to handle long documents. Many fax machines have a special setting that allows them to receive documents that exceed the normal length.
- Q:** Can I transmit pages from a newspaper?
A: No. Newspaper can jam in your document feeder. First, use a copying machine to make an appropriately sized copy of the material in the newspaper pages, then transmit the copy.
- Q:** Can I transmit a page with correction fluid on it?
A: Yes, as long as the fluid is completely dry before you begin transmission.
- Q:** How can I be sure my fax was received?
A: Your machine can print out a report to verify a transmission (see page 42).
- Q:** I don't want to install a dedicated phone line for my fax, so I've connected my fax to a PBX phone system. When I get a fax call, all the phones ring. How do I prevent this?
A: Call your PBX manufacturer or telephone company for assistance. They may be able to convert one of the PBX lines for fax use only.

- Q:** When I dial a remote fax using my fax handset I don't hear fax receiving tones. Am I doing something wrong?
- A:** When this happens, try pressing **Start**, then hang up the handset as you normally would. It's possible you're calling a fax that doesn't emit answering tones. A few Group 3 faxes on the market sound a sending tone but do not sound a receiving tone. After you transmit, call the remote operator to see if your document was received.
- Q:** I inserted a document in the feeder and dialed the remote fax, but my machine didn't transmit; however, "*** Reserved ***" appears on my LCD. What does this display mean?
- A:** The remote machine was busy; your fax machine is now "reserved" to try again. You may wish to limit the number of times it will redial a busy number (see page 34).
- Q:** These operating instructions list an average per-page transmission speed, but when I transmit a page it can take much longer. Why?
- A:** The average transmission speed stated in your manual is based on transmission of CCITT Test Document 1, a standardized letter used to test fax transmission times. Some reasons for varying transmission speeds follow:
- The pages you transmit may contain more information to be scanned than the CCITT Test Chart.
 - The transmission time measured for test documents does not include handshake time. The handshake is the protocol fax machines use to "introduce" themselves.
 - Your transmissions that use fine, superfine or grayscale take longer to transmit than transmissions using normal mode.

Journals and Reports

- Q:** I called the number 011-555-555-1212, but not all of the digits appear on my Fax Report. Why didn't the whole number appear, and how can I be sure my document was transmitted to the right location?
- A:** The numbers you enter using the fax keypad are temporarily stored in a memory "buffer"; and it's only the last part of the phone number that the buffer "remembers." An easy way to avoid getting incomplete telephone numbers on your printouts is to store your most frequently used numbers as one-touch keys or speed-dial numbers. Numbers stored in the autodialer will appear in their entirety on your reports.

Receiving Fax Messages

- Q:** My fax never answers. What's wrong?
- A:** Check and make sure your fax is properly connected to a working outlet and phone jack (see pages 11-15 for installation instructions). If you are using a second device with your fax, make sure it is connected properly, and make sure your fax machine is set up for use with a second device. If you're using an answering machine with your fax, make sure the LCD displays *Ans/Fax Ready* (see pages 25-26). Call your telephone company if you continue to have problems.
- Q:** Sometimes when I answer my fax I hear a beeping sound that repeats every few seconds. Is this a fax?
- A:** Yes. When you hear a beeping sound, someone is trying to send you a fax. Next time, press **Start** and hang up to receive the fax message.
- Q:** Does my fax have to be plugged in just to receive a message?
- A:** Yes. Your phone will ring if the phone line is connected, but you can't receive a fax unless your fax machine is plugged in. Make sure your fax machine is always plugged in so you never miss an important reception.
- Q:** Can I receive a fax if I'm using the phone on my machine?
- A:** You can receive a fax from the person to whom you're talking. When that person has a document ready in his/her machine's feeder, press **Start**. However, like your regular one-line phone at home, your fax machine can only handle one call at a time. Distinctive Ring Detection (see pages 28-29) allows you to receive calls on up to two phone numbers if your telephone company has installed the appropriate service, but you can use only one number at a time.

Polling

- Q:** What's polling used for?
- A:** Polling lets you automatically "pull" a document from another fax machine's document feeder. You can poll anytime you need to retrieve information and don't want the source to pay for the phone call. With polling, you pay for the call and get the information you need.

Working With Your Answering Machine

- Q:** Remote operators have complained that they call my fax and hear my answering machine message, but are cut off before they can send a fax. What happened?
- A:** Any remote fax machine attempting a fax transmission must start to “hear” responding fax tones within somewhat under 45 seconds — after the pressing of the **Start** key. (Remember: that time period includes getting the dial tone, the dialing of the number, the pause while waiting for the ringing to begin and then waiting for the ringing fax machine actually to answer. Only after that period of time does your message play, adding still more elapsed time since the process began.) Otherwise, the remote fax machine gives up and disconnects the call. That’s why we urge you to make a *short* outgoing message: the shorter the overall period of waiting, the more likely it is that the remote fax machine will be satisfied and proceed to transmit normally. So please change your outgoing message so it is shorter than 10 seconds long (see page 15 for a suggested message).

Telephone Features

- Q:** My fax machine’s speakerphone doesn’t work.
- A:** It’s not a speakerphone. It’s a monitor — a *listen-only* speaker intended only for off-hook dialing and hands-free fax transmissions, not voice conversations. You must use the handset to carry on a voice conversation. (Of course, if someone puts you on hold and you don’t wish to hold the handset while waiting, you can push **Monitor/Call** and hang up the handset. Then, when the person comes back on the line, pick up the handset again and continue the conversation. Otherwise, however, use only the handset for voice calls.)

How Your Fax Machine Works

Your fax machine works on ordinary telephone lines, so it’s easy to understand fax operation if you compare it to the way a regular telephone works. Having a fax, in fact, is a lot like having a telephone with bonus features.

The concept of how a fax machine works is simple. Here’s a helpful analogy. Imagine if you want to mail a gift to a friend. You **take** the item, **wrap** it and **send** it. Days later, your friend **receives** the package, **unwraps** it and **uses** it. So, on one side, the idea is to **Take, Wrap** and **Send**; and, on the other side, the idea is to **Receive, Unwrap** and **Use**.

When you insert a page into your fax machine’s document feeder and connect with another fax machine, a *scanner* in your machine examines the information on the page. This is how the fax machine **takes** the document. Then the fax machine translates that information into a numeric code and compresses the code for the fastest possible transmission speed. This is how the fax machine **wraps** the document. Finally, the fax machine sends the compressed code, and that’s how it **sends** the document.

The only difference between a fax call and a regular telephone call is the content of the transmission: an image is sent instead of your voice. When you receive a fax call, your fax will ring in exactly the same way a voice call would. If your fax is operating in the Tel/Fax Ready mode and you have other telephone extensions on the same line, all the other phones will still ring.

In fact, there is no way to tell if an incoming call is from a fax or from a person until you or your fax machine answers the line. You’ll know it’s a fax call if you answer a call and hear a beeping sound that repeats every few seconds. This sound is the fax machine’s way of identifying itself to other faxes. It’s much like your making a voice call and identifying yourself, “Hello, this is (your name).” When you press **Start**, your fax responds to these signals using special receiving tones which are its way of responding to the other unit’s “greeting.” This acknowledgment — just like greetings exchanged between you and your friends — is called “handshaking.”

The way fax machines work is closely regulated by international standards. These standards ensure the compatibility of your fax machine with the millions of other fax machines worldwide, but they also limit the way your fax can be used with other telephones or answering machines.

FCC/DOC Information

FCC Regulations

Ringer Equivalence Number: 3.0B

Note: This facsimile machine has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against such interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that 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 or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

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 have to make changes in its 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.

Note: This equipment is hearing-aid-compatible (HAC).

Notice: The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains, either in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it was sent and an identification of the business or other identity, or other individual sending the message and the telephone number of the sending machine or such business, entity or individual.

Type of Service

Your fax is designed for use on standard device telephone lines. The fax 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.

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. For information, contact the Murata Customer Support Center (see page 63).

DOC Regulations

DOC Load Number: 20

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur 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. The DOC Load Number for your fax is 20.

Limited Warranty

This warranty is made by Murata Business Systems, Inc. ("Murata"). This warranty is valid only on Muratec 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 ("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 Muratec 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 AM to 5 PM 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 or service center. For the name of your nearest authorized service center, contact Murata, toll-free telephone number 1-800-347-3295.
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 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.

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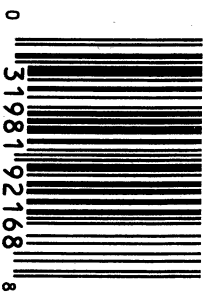
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