LS COMMERCIAL SYSTEMS

TP1

Printer

The Darher

DataGeneral

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The Darher TP1 Printer

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THE DISK DRIVE THE CARTRIDGE DISK DRIVE THE MAGNETIC TAPE DRIVE THE DASHER™ TP1 PRINTER THE DASHER™ LP2 PRINTER THE LINE PRINTER

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FEATURES

Speed:	30 or 60 characters-per-second
Туре:	Upper- and lowercase characters at 10 characters per inch
Line Length:	Up to 132 characters
Page Length:	From 1 to 99 lines
Page Width:	From 4 inches (10.1 cm) to 15 inches (38.1 cm)
Multi-part Forms	
and Copies:	1-6 copies printed simultaneously
Optional Features:	Automatic Form Feed which can be set for varying form lengths

THE DASHER[™] TP1 PRINTER

The DASHERTM TP1 Printer prints reports or other documents generated by the computer and can be used with any of the CS Commercial Systems.

It is easy and convenient to use.

This manual explains how to operate the DASHER™ TP1 Printer, how to keep it in peak operating condition, and how to correct some of the common problems that can arise while it is operating.

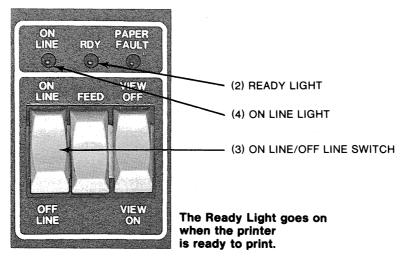


1. OPERATING PROCEDURES

Operating the DASHER^{IM}TP1 Printer is easy. Fold out the back cover of this manual while you study the procedures for operating it. Note that each part of the printer is numbered on the diagram. When the text refers to that part, it will give its number to help you locate it on the diagram.

Preparing the Printer

1. **Turn the Printer On.** When ready to start printing, first be sure that the computer is turned on. Then press the On/Off switch on the pedestal *(1)* to the On position. After about five seconds, the Ready light *(2)* will go on. If it does *not* go on, refer to the "Troubleshooting Guide" for instructions.

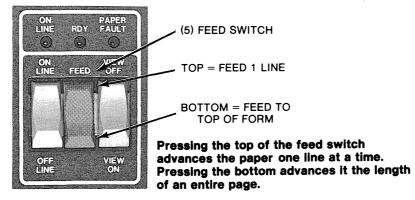


NOTE

If the printer has already been turned on, make sure that it is switched off line so that it is disconnected from the computer and can't do any printing. The printer must always be off line before you adjust it in any way.

When you finish working with the printer, always be sure to press the On Line switch (3) to reconnect it to the computer so that it can begin printing when instructed to do so. When the printer is **on line**, the On Line light (4) will go on.

- 2. Check the Paper. Raise the cover by lifting up on the lower edge and raising it until it latches, exposing the inside of the printer. Replace and align paper or forms, if necessary, using the procedure in the "Loading Paper" section.
- **3.** Advance the Paper. With the cover still open, press the bottom of the Feed switch (5) to advance the paper to the first printing line on the page. Do this whether you changed paper or not. Check the position of the printhead (11) to be sure printing will start at the top of the page. If necessary, adjust the paper one line at a time by pressing the top of the Feed switch. Then press the Top of Form Initialization (TOF INIT) button (15) to set the form feed.

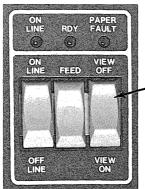


4. Close the Printer Cover. Close the cover, carefully bringing the paper up through the slot in the cover, over the top of the printer, and down the back. It's a good idea to feed enough paper through the printer to form a neat pile. This assures that your printing will stack itself instead of falling unevenly.



Paper must be brought through the large slot on the printer's cover.

5. Set the View Off/View On Switch (6). When this switch is in the View On position, the printhead automatically moves aside a few spaces every time there is a pause in the printing so that you can see the last few characters that have been printed. When the switch is in the View Off position, the printhead remains in printing position. Set this switch to the desired position before putting the printer on line.



(6) VIEW OFF/VIEW ON SWITCH

Switches on the Control Panel can be used with the cover either up or down.

6. Put the Printer On Line. Press the On Line switch (3) to connect the printer to the computer, permitting printing to begin.

NOTE

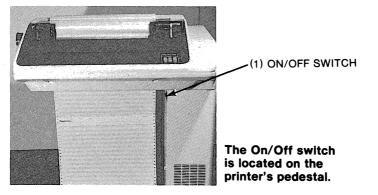
When you press the On Line switch, the On Line light (4) will go on. If the printer malfunctions during operation, this light will go off, indicating that the printer is off line — even though the switch may still be in the on line position. When the malfunction has been corrected and the On Line switch pressed, the light will come back on.

Removing the Printed Copy

- **1. Put the Printer Off Line.** Press the Off Line switch (3) to disconnect the printer from the computer so that no new printing can start while you are removing paper.
- 2. Advance the Paper. Press the bottom of the Feed switch (5) to advance the printed copy out through the slot on top of the printer. (You may need to press it more than once to be sure that all of the printed pages have been brought through the slot in the cover.)
- **3. Tear Off the Printed Paper.** Hold it on both sides to prevent uneven tearing or jamming of the paper. It is easier to tear if you approach it from the back of the printer. Be sure that paper still extends through the slot on top of the printer when you are done so that it won't get jammed inside the cover when printing starts again.
- **4. Put the Printer Back On Line.** Press the On Line switch to reconnect the printer to the computer.

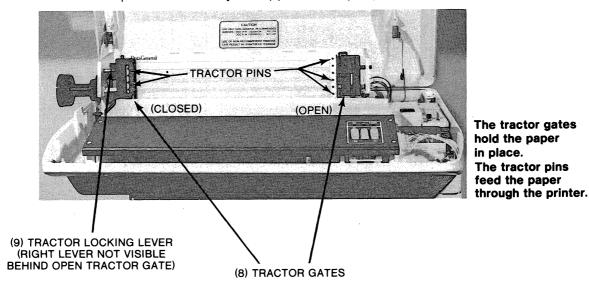
Turning Off the Printer

- **1. Put the Printer Off Line.** Make sure that printing is finished, then press the Off Line switch (3).
- 2. Turn the Printer Off. Press the On/Off switch (1) to the Off position.

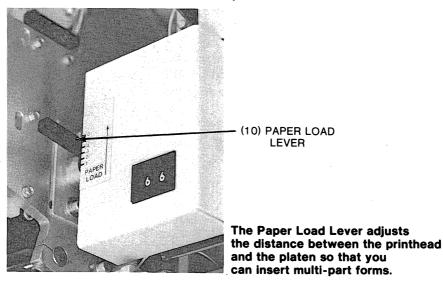


Loading Paper

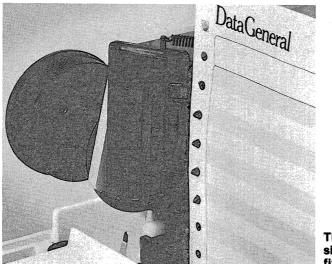
- 1. Put the Printer Off Line. Always disconnect the printer from the computer when loading paper so that it can't start printing again before the paper is properly loaded.
- 2. Open the Cover. Swing the cover up until it latches.
- **3. Open the Tractor Gates** (8). If there is paper in the printer, remove it from the tractor pins and let it slide through the bottom of the printer. If you're going to use different-width paper or forms from those you had been using, move the tractors farther apart or closer together by unlocking the Tractor Locking levers (9) which hold them in place. When they are approximately in position, release the levers.



4. Open the Paper Load Lever (10). Set it at its widest setting (past number 6) so the paper can slide into place easily.



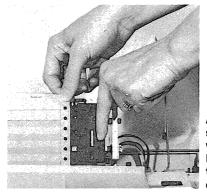
5. Load the New Paper. Put the paper under the printer. Then, with print side facing the front of the printer, bring the paper up through the opening in the bottom of the printer and place the holes in the left side over the tractor pins. Close the left tractor gate.



The holes in the side of the paper fit over the tractor pins.

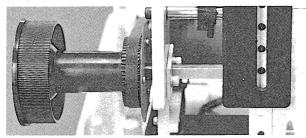
6. Fit the Paper on the Right Tractor Pins. Line up the paper horizontally so that the corresponding holes on the right side of the paper fit over the right tractor pins, then close the tractor gate to hold it in place.

If you have changed the size of the paper, adjust the right tractor to fit the new paper. There should be slight tension on the paper, but it should not be stretched so tightly that it buckles. Too much tension can cause the paper to jam. Move the right tractor to the right for more tension, to the left for less. When the paper fits smoothly, release the Tractor Locking lever and close the right tractor gate.



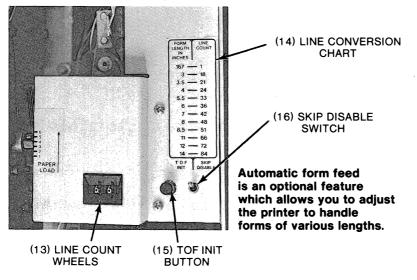
Adjust the tractor gates so that the paper fits smoothly without too much tension. Be sure to align the paper horizontally on the tractor pins.

- 7. Set the Paper Load Lever (10). Set the Paper Load lever to correspond to the number of copies in the form (1 to 6).
- 8. Advance the Paper to Printing Position. The first line of print will be even with the top of the printhead (11). To line up the paper, press the bottom of the Feed switch (5) to advance the paper to the top of the next page. Then, if necessary, press the top of the Feed switch to advance the paper one line at a time until the paper is lined up properly. You can also line up the paper by using the Paper Feed knob (12). Pull it out (toward the left), then turn it in either direction until the paper is correctly positioned. Then press the TOF INIT (Top of Form Initialization) button (15) to set the form feed.



You can use the Paper Feed Knob to adjust the vertical position of the paper.

- **9. Optional: Set the Automatic Form Feed.** If your printer is equipped with an Automatic Form Feed, it must be reset whenever you change the length of paper or forms being used. (If it has been set already and you're using the same length paper, it isn't necessary to reset it.)
 - a. Set the Line Count wheels (13) with your thumb to the total number of lines between perforations on the paper. Use the Line Conversion chart (14) to convert form length to line count.
 - b. Press (and release) the Top of Form Initialization button (TOF INIT) (15) to set the line count registered on the Line Count wheels.
 - c. Set the Skip Disable switch (16). If you want the printer to advance the paper between forms (at the perforation), turn off the Skip Disable switch by flipping it toward you. When this switch is **on** (pointed toward the back of the printer), it won't advance the paper between forms.



- **10.** Close the Cover. Feed the paper carefully through the large slot in the cover. Arrange the paper so that it feeds over the top and down the back of the printer. It's a good idea to feed enough paper through the printer to form a neat pile. This assures that the rest of your printing continues to stack itself instead of falling unevenly.
- **11. Press the On Line Switch.** Reconnect the printer to the computer so that printing can begin.

Loading Paper 9

Changing the Ribbon

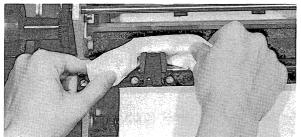
NOTE Replace the ribbon with Data General ribbons: DGC P/N 119-A (fabric) or DGC P/N 119-B (mylar).

- **1. Put the Printer Off Line.** Press the Off Line switch *(3)* to disconnect the printer from the computer.
- 2. Open the Cover.
- 3. Open the Paper Load Lever (10). Set it at its widest setting (past number 6).
- **4. Remove the Paper.** Open the tractor gates (8) and let the paper slide out of the printer.
- **5. Rewind the Ribbon.** Use the Ribbon Advance switch (17) to rewind the ribbon onto one spool.
- 6. **Remove the Ribbon.** Lift the ribbon spools off the spindles and take them out of the printer. If the ribbon is worn out, discard it.

NOTE

The printer only uses the top half of the ribbon. You can double the life of your ribbon by turning it over and using the other half.

7. Clean the Printhead (11). Wipe it with a dry, folded, lint-free tissue. Repeat, using clean tissues, until it's clean.



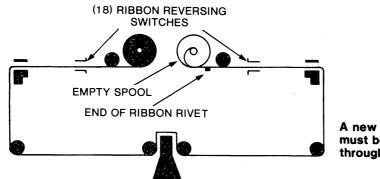
Use a folded tissue to clean the printhead.

CAUTION

Don't push or try to move the printhead while you're cleaning it.

- 8. Clean the Platen. Wipe it with a dry, lint-free tissue.
- **9.** Put the New Ribbon on the Spindles. Put the full spool on one of the spindles and the empty spool on the other. It doesn't matter which spool is put on which spindle. Be sure that the two pins on the spindles go into the holes in the spool.
- **10. Thread the Ribbon.** Thread it carefully through the ribbon guides and switches as shown in the ribbon path diagram below. This diagram is also printed on the inside of your printer next to the right spindle. It is extremely important that you follow it exactly. Any deviations from the proper path will cause the ribbon to jam.

CAUTION There is an **end-of-ribbon rivet** at each end of the ribbon used to signal the Ribbon Reversing Switch (18). The end-of-ribbon rivet must be placed between the spindle and the Ribbon Reversing switch, as shown in the ribbon path diagram. Thread the ribbon on the empty spool so that the rivet is located between the spindle and the Ribbon Reversing switch.



A new ribbon must be threaded properly through these guides and switches.

- **11. Take up Slack in the Ribbon.** Wind one of the spools gently to take up any slack.
- **12. Reload the Paper.** Use the procedure described in the "Paper Loading" section to reload paper in the printer.
- **13. Reset the Paper Load Lever** (10). Set it to the number of thicknesses you're printing (1-6).
- 14. Close the Cover.
- **15. Press the On Line Switch.** Reconnect the printer to the computer so that printing can begin.

2. CARE AND HANDLING

The DASHER TP1 printer is easy to care for, and should give you efficient, trouble-free service if you observe the following rules.

- **1. Keep the Printer Cover Closed.** This reduces the noise of operation and keeps foreign objects and dirt out of the printer. Don't put anything on top of the printer cover.
- 2. Clean the Cabinet. Use a soft, lint-free cloth dampened in soap and water solution. Don't use cleaning solutions or alcohol. Be careful not to get liquid into the printer. When finished, wipe the cabinet with a damp cloth and buff dry.

3. TROUBLESHOOTING GUIDE

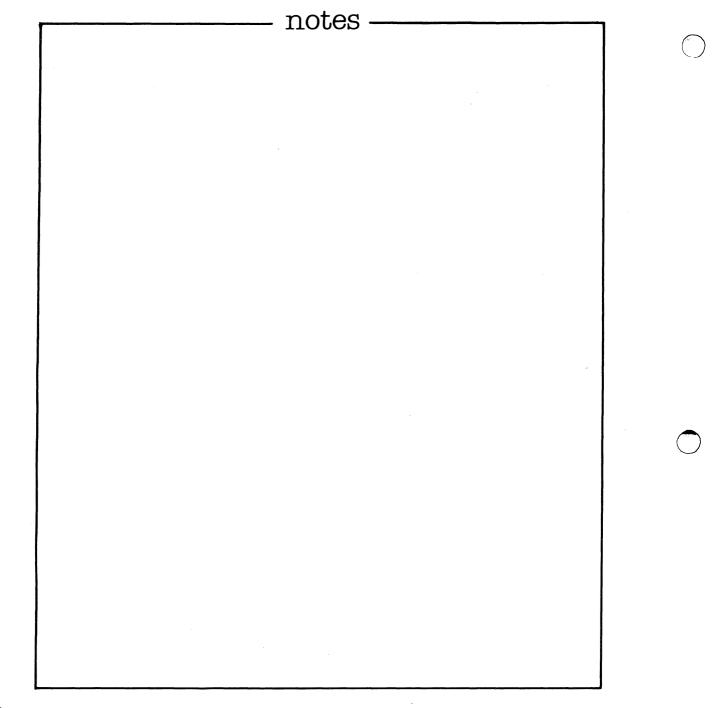
Many problems with your printer are easily corrected. This section provides instructions for correcting the most common problems. If these procedures don't solve the problem, call for technical assistance.

CAUTION

Always switch the printer off line and turn it off before attempting to make any adjustments!

PROBLEM	CAUSE	SOLUTION
The Ready light won't go on.	The power cord isn't plugged into either an electrical outlet or the printer.	Make sure the electric power cord is plugged into the printer and an electrical outlet. If all connections are secure and the Ready light still doesn't go on, call for technical assistance.
The Fault light is on.	The printer is out of paper.	Load paper.
	The paper isn't feeding properly.	Correct the installation of the paper.
The printer is on but won't print.	It isn't on line.	Press the On Line switch.
	The printhead is too far from the platen.	Adjust the Paper Load Lever.
The paper is tearing, bunching, or not advancing; <i>or</i> the lines of print are bunching.	The paper is too taut.	Move the right tractor slightly to the left to ease the pressure.
	The printhead is too close to the platen.	Adjust the Paper Load Lever.
	The paper isn't aligned horizontally on the tractor pins.	Realign the paper on the tractor pins.
	The paper isn't loaded properly.	Correct the installation of the paper.

ne printhead is too close to the aten. ne ribbon mechanism isn't work- g properly. ne printhead is too far away from e platen. ne ribbon is worn.	Adjust the Paper Load Lever. Check the ribbon path and reload the ribbon, if necessary. If the problem continues, change the rib- bon. Adjust the Paper Load Lever. Change the ribbon.
g properly. ne printhead is too far away from e platen.	the ribbon, if necessary. If the problem continues, change the ribbon. Adjust the Paper Load Lever.
e platen.	
ne ribbon is worn.	Change the ribbon.
ne Line Count Wheels aren't set r the correct number of lines on e form.	Reset the Line Count Wheels, press and release the TOF INIT button, and advance the paper to the top of the next form, by press- ing the bottom of the Feed Switch.
	Switch the printer Off Line, turn the power off, unplug the power cord, then remove the object.
r	the correct number of lines on



GLOSSARY

Carriage Assembly. The mechanism that supports the printhead.

Control Panel. A panel containing three switches and three lights used frequently during normal printer operation and accessible with the cover either up or down.

End-of-Ribbon Rivet. Rivet located near either end of the ribbon which triggers the Ribbon Reversing switch.

Feed Switch (5). Two-position switch which advances paper through the printer, either one full form at a time (bottom) or one line at a time (top).

Line Conversion Chart (14). Chart used to convert form length (in inches) to line count. This is part of the optional Automatic Form Feed function.

Line Count Wheels (13). Wheels which must be set to the number of lines per form as part of the optional Automatic Form Feed function.

On Line/Off Line Switch (3). Switch which connects the printer to the computer. When the switch is in the on line position, the printer is controlled by the computer and the On Line light will go on. When off line, the computer has no control over the printer's operation.

Paper Fault Light (7). Light which goes on when the paper is not feeding properly through the printer.

Paper Feed Knob (12). Knob used to adjust the vertical alignment of the paper.

Paper Load Lever (10). Lever which adjusts the distance between the platen and printhead to allow insertion of paper or forms of varying thicknesses (up to 6).

Pin Feed. The printer's paper feed mechanism, which uses "pins" fitting into holes in both sides of the paper. As the pin feed revolves, the paper advances through the printer.

Platen (19). The surface struck by the printhead during printing.

Printhead (11). The mechanism containing the character set which strikes the ribbon to produce printed copy.

Ready Light (2). Light which goes on when the printer is ready to be switched On Line for printing. It will blink on and off during normal operation of the printer, and stay off if the printer isn't working properly.

Ribbon Reversing Switch (18). Switch which automatically reverses the direction in which the ribbon is moving.

Skip Disable Switch (16). Switch which determines whether or not the printer will advance the paper at the perforation between forms. This feature can be used to create a top and bottom margin when desired.

Top of Form Initialization Button ("TOF INIT") (15). Button which registers the top line of a form. From this point, the printer counts lines until it reaches the number set in the line count wheels. It then performs a form feed. The variable line count is optional. On printers without this feature, form feed occurs at a fixed interval.

Tractor Gates (8). Braces which hold the paper in position on the tractor pins.

Tractor Pins. The pins which fit into the holes in the paper and feed it through the printer.

View Off/View On Switch (6). Switch which determines whether the printhead moves aside to permit inspection of printed copy (View On position), or remains in place over the last character printed (View Off position).

reader comment form

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Name	Title
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answer to a question is "NO" or requires qualification, please explain.

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 Complete 			 Well illustrated 		
 Accurate 			 Easy to read 		
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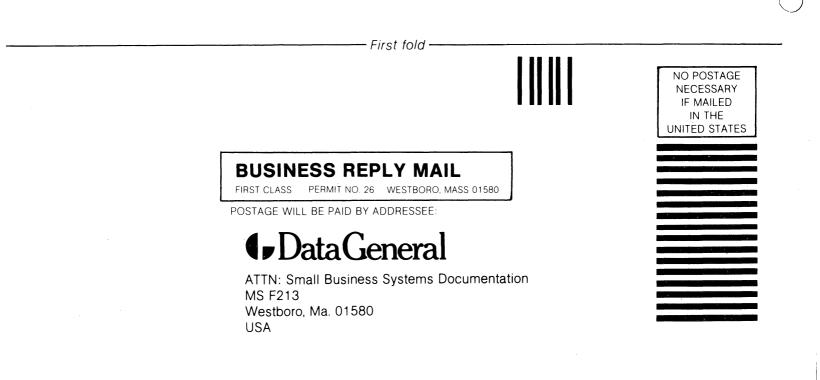
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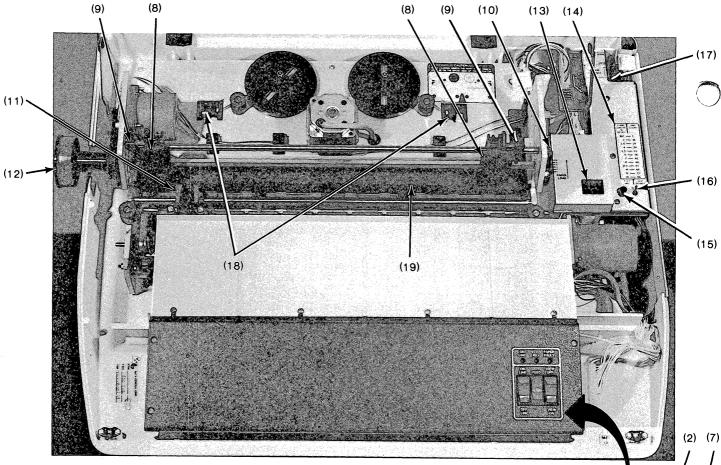
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PRINTER	PARTS
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(1) ON/OFF SWITCH

CONTROL PANEL

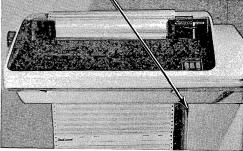
- (2) READY LIGHT
- (3) ON LINE/OFF LINE SWITCH
- (4) ON LINE LIGHT
- (5) FEED SWITCH
- (6) VIEW OFF/VIEW ON SWITCH
- (7) PAPER FAULT LIGHT

PAPER

- (8) TRACTOR GATES
- (9) TRACTOR LOCKING LEVERS
- (10) PAPER LOAD LEVER
- (11) PRINTHEAD
- (12) PAPER FEED KNOB
- (13) LINE COUNT WHEELS
- (14) LINE CONVERSION CHART
- (15) TOF INIT BUTTON
- (16) SKIP DISABLE SWITCH

RIBBON

- (17) RIBBON ADVANCE SWITCH
- (18) RIBBON REVERSING SWITCH
- (19) PLATEN



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