

Model 43



the 43 teleprinter



HOW TO OPERATE

©1977 and 1978 by Seligman Corporation
All rights reserved.
Printed in U.S.A.

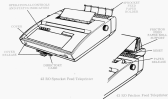
TABLE OF CONTENTS

HOW TO OPERATE THE INSTRUMENT

Introduction	1
Connections and Power Turn On	2
Operational Control and Status Indicators	3
Communications With Remote Terminals	4
Printer Operation	5
Telephone Supply Maintenance	6
Installing Paper (Spread Feed)	7
Installing Paper (Strip Feed)	8
Installing Ribbons	9

SUPPLEMENTARY OPERATIONAL INFORMATION

Printer Test and Reset Keys	10
TEST READY Key	11
End's Key	12
ALARM Key	13
Telephone Calls	14
Special Characters	15
When Trouble Occurs	16



(A) Speaker Feed Telephone

(B) Pusher Feed Telephone

HOW TO OPERATE DISCREETLY

(Pages 1 Through 9)

INTRODUCTION

The 42 Bell 80 Teleprinter provides character-at-a-time (crt-at-time) printed operation. Data reception is normally provided at 10 characters per second (cps) (200 wpm).*

The 42 80 Teleprinter may be connected to an external communications device or system or internal data set and may be associated with a telephone. A permanent connection via private line may also be used in the arrangements with an external device. This may be automatic and disconnected automatically upon the telephone line.

In some arrangements the 42 80 Teleprinter may be connected directly to a computer or console terminal which will control data mode transfer.

*See reverse side of directory card for a detailed an option reception that provides data reception at 10 characters per second (cps) (200 wpm) or any other reception to standard operating stations.

Messages are printed with up to 100 characters per line on printers equipped for 10 inch wide spaced line paper. Spaced line paper may be fed from a manual box or loaded directly up to place in a paper holder that clips on the rear of the teleprinter.

On station line printers, messages up to 80 characters per line are printed on 8-1/2 inch wide roll-type paper. The roll is held in a support attached to the rear of the teleprinter.

The ribbon is part of a cartridge that can be readily replaced with the cover open. Replacement ribbon cartridges can be obtained from Teletype Corporation (see Page 9). An order form is provided with each new ribbon.

A printed directory card holder under the front of the teleprinter may be used to write in frequently used telephone numbers and make any corrections (see Page 9).

Note: The paper used with the spaced line teleprinter is a heavy 11 inch wide spaced line. See Page 9 for ordering information.

CONNECTING AND POWER TUBE CEM

Make sure no power cord and antenna cable are used in any external communications device are connected or driven before turning on power.

REMOVE EXTERNAL CABLES AND
ANTENNA



When no power to telephone by depressing upper half of POWER SWITCH.

When power is turned on, the pilot lamp will come fully on. The pointer will perform one line test and the TUBE MILEAGE lamp on the opposite side will light, provided no other conditions exist.

OPERATOR HEADPHONE
AND OTHER DEVICES

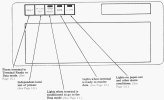
TUBE
MILEAGE



Power should normally be left on to automatically transfer to the line mode. However, when not in use, the power to the telephone may be turned off.

OPERATIONAL CONTROLS AND STATUS INDICATORS

Wiring and function of the operational control and status indicators should be reviewed before the H3 HFD Telephone is operated.



■ **Interrupting connection and transferring to the Data mode automatically** is basically under the control of the communications device function) — see the related network or user program files. In some programs terminals are already connected to the distant terminal or computer. Use of external devices should be specified locally after many variations are possible, i.e., pushbutton or touch, or its phone, if present, including, sub-control keys, etc.

■ The procedure is shown below, that normally apply to operation of the controls of the terminal, should be followed.

■ **To Condition Terminal to Transfer to Data Mode:**

1. Place terminal in Terminal Ready mode:

1. Turn off or power (see Page 1).
2. Clear any alarm condition (power-on).
3. Depress RESET key.

■ **Transfer from Terminal Ready to Data Mode.**

The DATA key lights under control of the external device, if present, or distant station.

Note: Data can be received online only when the DATA key is lit.

■ **Transfer from Data mode to Terminal Ready Mode.**

1. The RESET key is depressed.
2. Right line leads are received after a paper-out condition (paper-out lead only).
3. Printer test is initiated.
4. Telephone call is disconnected for any reason, with or received EOL. See the back side of the *Handbook* used for any exceptions of the feature, Option 100.5.

PRINTER OPERATION

■ Paper

The printer prints all received characters that pass through when the CPU is active.

■ Signal Bell

The signal bell sounds when characters are printed when characters before and after the same character, in, space or CR, being printed are. Accordingly, a bell sounds when both characters before and after a CR character is printed or when a space and character is printed in one and the same line is distinguished.



■ Margins Setting

When power is turned on, the left and right margins (margin positions) are 1 and 120 on standard line no. 1 and 120 on standard line. These may be set or changed within the printing range, however, 100-120 on the printer when margin position, both ends become,

■ Indentive Mark

Several printing locations of the print head (indicated by the same head number) at the print indicator mark after a 1 second delay. The print head automatically stops printing process or when a character character are printed.

LAST PRINTED CHARACTER IN THE PRINTING POSITION

(78-16)

POSITION OF NEXT PRINTED CHARACTER

PRINT HEAD NUMBER AFTER 1 SECOND
(Character 120 and 120, Number 100-120 on Printer)

POSITION OF PRINT HEAD NUMBER
AFTER 1 SECOND (78-16-17)

PRINT HEAD NUMBER



TELEPRINTER SUPPLIES MAINTENANCE

It is your responsibility to keep the teleprinter equipped with sufficient paper and ribbon. In addition, an adequate supply of these items should be ordered and kept in storage.

Ribbon

Only cartridges with ribbon designed for use with 43 Teleprinter should be used. Teletype part number is 430044.

The cartridge with ribbon can be ordered from Teletype Corporation, 2000 Tandy Center, Dallas, TX 75201. An order form included with each new cartridge may be used for this purpose or established ordering procedures may be followed for large orders.

The ribbon should be replaced whenever it becomes loose or print density becomes light. After the last few ribbons, replacement ribbons should produce three distinct or more legible characters of printing.

Paper

Paper for the 43 Operator Front Teleprinter must be 11 inch wide operator lead. The weight and up to four-page multiple format may be used. Paper designedly used with the teleprinter is single-ply and has 9-1/2 inch hole to provide 11 inch x 9-1/2 inch copy when the carriage is removed. The single-ply 43 ground lead paper may be obtained from the supplier listed below or other supplier.

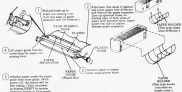
Walker-Barnes Paper Inc.
204 W. Grand Ave.
Chicago, IL 60602
Tel. No. 644729

Engler Products Co.
224 W. 11th
Des Moines, IA 50319
Tel. No. 1-4252-1247

Paper for the 43 Station Front Teleprinter should be standard 9-1/2 inch wide, single-ply paper furnished in 11 inch maximum diameter rolls with a 1 inch diameter spindle hole.

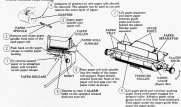
Washed paper as shown with the coated paper removed. If a papered condition occurs (L.A.M.M. too light) while data is being received, pull until DATA lamp goes off. If DATA lamp is on and no data is being received open panel (to prevent printing without disconnecting the cable).

Note: Paper may be fed directly from the supply box or if the paper holder is used, a limited stack of forms may be placed in the holder and fed over the deflector.



INSTALLING PAPER (Previous Feed)

- Install paper as shown after removing the covered paper trays for service. It is not necessary to turn off power or open the cover when replacing the paper but the correct line of data, paper should be replaced after the inside bracket stops feeding.



INSTALLING RIBBON

■ Install ribbon as shown after opening the cover and manually rotating the print head with the power turned off.

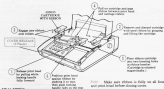


FIG. 4.4. RIBBON
INSTALLATION



TERM READY KEY



Key lights in Terminal Ready mode.

- In the Terminal Ready mode, the teleprinter will be conditioned to transfer to the Data mode (Page 22).
- The Terminal Ready mode is normally entered when power is turned on or the **RESET** key is depressed following paper replacement.

Note: Complete line systems for **TERMINAL** lamp lights only when the terminal is ready but the line card or remote terminal is not ready.

- With **DATA** or **ALARM** keys in the **TERM READY** key cannot be lit.

- The Terminal Ready mode can also be entered:

- **Automatically** — following calls to the Data mode. (See Page 22 for Data mode.)
- **Automatically** — following a ringing **DATA** lamp when a call is not completed (**DATA** lamp off).
- **Manually** — depressing the **RESET** key manually. If depressed during the Data mode the call may disconnect or **DATA** lamp may extinguish.
- **Manually** — depressing and releasing the **PRIME TO TEST** key.



- The Terminal Ready mode can be interrupted by:

- Opening the cover.
- Operating local printer feed.
- Reversing paper.
- Turning off power.
- Going to Data mode, i.e., receiving a call or automatically.



Key light in Data mode.

• Data can be received online in the Data mode only.

• On some configurations (without an internal data set) the DATA key will light automatically following the Functional Ready mode.

• On other configurations the Data mode is entered automatically from the Functional Ready mode:

- Following a received telephone call (internal directly).
- Under control of some external communication devices or when directly connected to a station terminal (may vary on associated telephones). Data key may light without TERM READY key-light in close.

• The Data mode may be terminated when:

- Light bar levels are received after paper-out error.
- READY key is operated (Page 20).
- The character SET (FIM, 4) is received.*
- Data signals from the remote station are lost.
- The local PRINTER TEST key is operated (Page 20).
- A telephone call is disconnected for any reason.
- Power is turned off.

*Unless Option 420 is installed.

• Variations in operation of Data mode:

- The DATA key may flash (indicating a short interruption in data signals (not Data)).
- On units with an internal data set and a telephone, transfer to the Data mode cannot be completed if the power is turned on after the call was answered.
- On units with an internal data set and a telephone, the phone normally rings once, followed by a transfer to the Data mode. If the transfer is not completed (data signals not received), the station will then appear busy in subsequent calls for 22-seconds.

ALARM KEY



Key lights when Alarm condition exists or has been.

Alarm conditions are:

- Paper-out. ALARM key lights when paper-out condition is sensed. This is an advance warning that right-angled line feeds have the CUTA mode will be terminated and after bypass line feeds, paper will be cut at the print head. If data mode was terminated, ALARM key will remain on after paper is replaced.
- Cover open (including 3-shield).
- Printer lock (Page 10).

Note: Alarm condition key flashing condition.

Alarm key flashes when:

- Teletypewriter is placed in a Longhaul mode by special character sequences received for testing (Page 10).

Note: In some systems the ALARM key may be flashing during normal operation accompanied by printing.

Note: Flashing ALARM key should be cleared after extended periods unless otherwise indicated.

Alarm-out is cleared by:

- Replacing paper. Replaces BEEP to restore Normal Ready or Data mode if terminated by paper-out.
- Flushing cover with BABA key in or releasing PRINT/RE-TEST key.
- Releasing BEEP key.

Flashing ALARM key can be cleared by:

- Receiving special character sequence (Page 10).
- Releasing BEEP key or turning off power.



Some telephones may be connected to the line by answered telephone call. A telephone line is present.

■ If a telephone is directly connected to a telephone with an internal switch, it will ring when a call is received. The telephone may be used to originate and answer calls in the Talk mode only:

- With power off.
- When **BLIND** lamp is lit.

■ Calls normally will be disconnected when:

- The Data mode is terminated (See III) and a directly connected telephone is on-hook.
- The handset is placed on-hook in the Talk mode.

■ Distances between phone sets on-hook may interfere with proper data operation or call placement.

SPECIAL CHARACTERS

■ The special escape sequences listed below are functional in the **ED** Teletypewriter by inserting the character immediately following the escape character. (Characters following ESC will not print.)

- ESC l — ESC lower case **l** set left margin.
- ESC r — ESC right margin.
- ESC s — Close left and right margin.
- ESC S — Release left and right margin.
- ESC O — Return carriage to left margin with line feed.
- ESC C — Digital Lockbreak¹
- ESC = — Print Lockbreak

¹ Used for testing on the console system for circuit maintenance purposes. (See Page 12.)

The substitute character ■ is printed in either of 2 ways:

1. A marked X-character is received.
2. A character with an odd number of bits in its code is received as a "parity error".²

² Two instances of this type used for a record of an action to indicate printing of the substitute character ■ as a parity error. Control with.

WHEN TROUBLE OCCURS

Trouble that is encountered with the terminal should be reported as heavily specified. A number to be called in case of trouble may be attached to the standard card pulled by the installer.


If it can be determined that the trouble is in the remote equipment, the architect at the location in trouble should follow local procedures for that area.

The following table of analysis questions is arranged to aid in the isolation of a trouble item:

- Local connection.
- Connection at the remote location.
- Addressing errors pertinent to address of trouble-visit or Analysis Question results.

Before reporting a trouble, follow the Analysis Questions in the table always starting with Question No. 1 and then proceed according to the "Y" or "N" direction on the following page.



QUALIFYING QUESTIONS	YES	NO
<p>1. Are any of the three status indicators lit? (FROM READY, DATA, ALARM) (Power switch on.)</p>	Go to 2.	<ol style="list-style-type: none"> 1. Check that power cord is connected. 2. Check source of power: (Wall switch, other equipment (AC), circuit breaker, etc.) 3. Report as local trouble (trouble in equipment).
<p>2. Does test message print properly when the PRINTER TEST key is depressed?</p>	Go to 3.	Go to 3.
<p>3. Is test message on power supply lit? (Visible through slot at front left and front right.)</p> 	Report as local trouble in power.	Report as local trouble in power supply.

AN RELATED QUESTION	YES	NO
<p>6. Does the LED key light following received call in Terminal Ready mode?</p>	<p>Go to 8.</p>	<ol style="list-style-type: none"> 1. Remove station from site up to 100m mode. 2. Check that receiver cord is connected to line jack. 3. If key does not flash on light, report on trouble to supervisor.
<p>7. Are data messages properly received in the Data mode?</p>	<p>Go to 8.</p>	<ol style="list-style-type: none"> 1. Check the proper operating speed for other stations. 2. Report on on-line trouble to supervisor unless trouble occurs with only one other station.
<p>8. Is trouble present but not isolated by questions 1 through 6?</p>	<p>Report what trouble is reported to local maintenance.</p>	



TELETYPE CORPORATION
1000 Taylor Avenue, Suite 1000, New York, NY 10017
Telephone: (212) 904-2000

HOW TO OPERATE MANUAL 274
Issue 2, March 1978