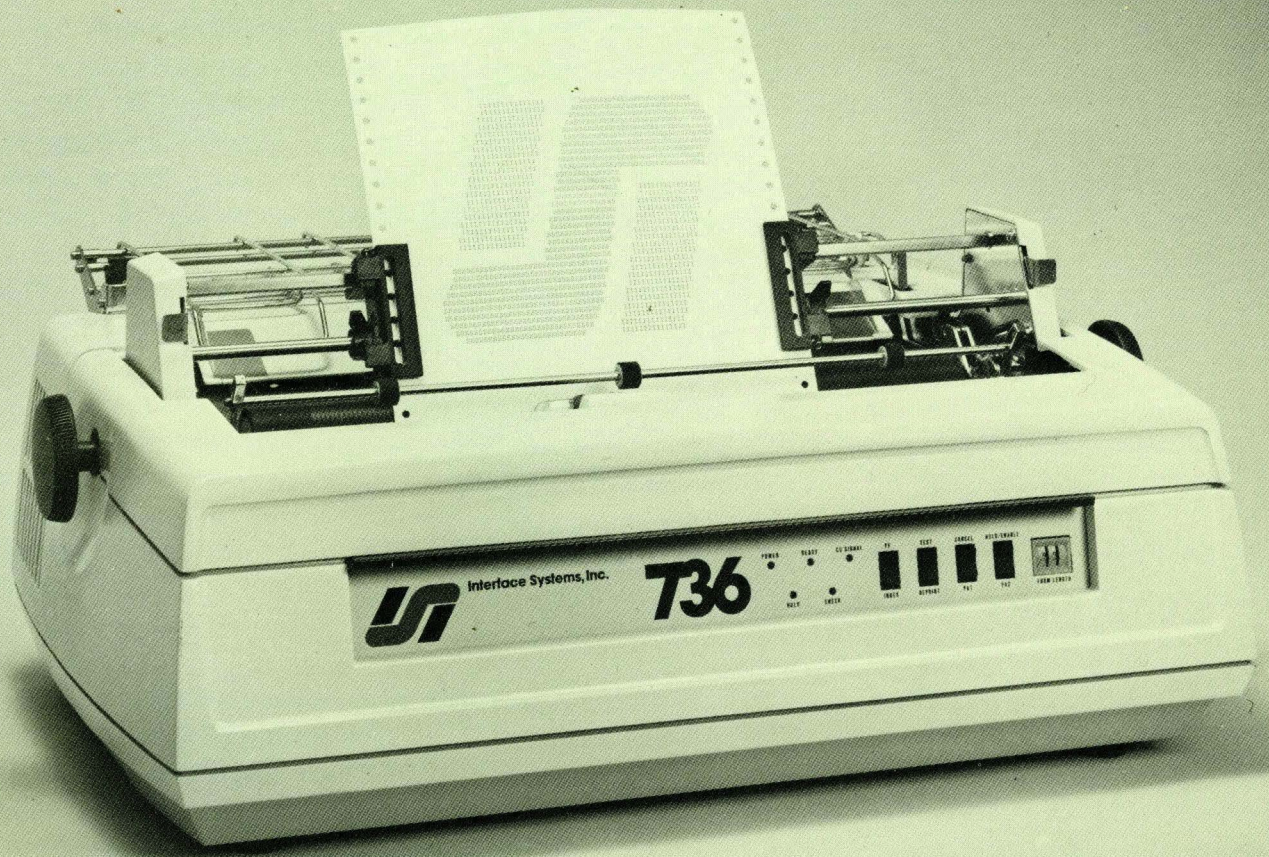
Interface Systems, Inc.



MODEL 736 OPERATOR'S GUIDE

THIS OPERATOR'S GUIDE . . .

covers the ISI Model 736 Letter Quality Printer and provides general information intended for instructional purposes. For information regarding the service and maintenance of this printer, contact your ISI representative.

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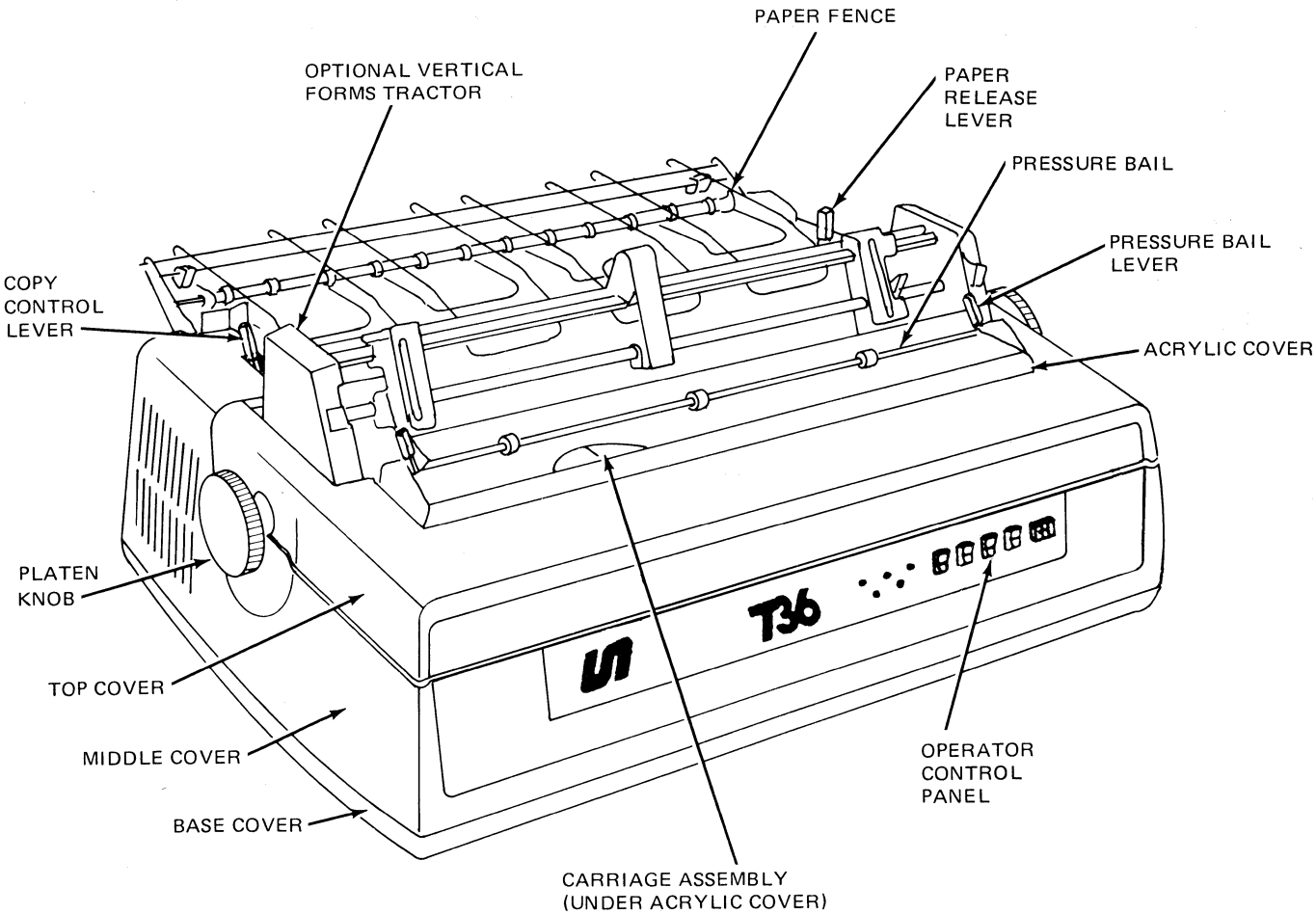

PAPER FENCE
OPTIONAL VERTICAL FORMS TRACTOR
PAPER RELEASE LEVER
PRESSURE BAIL
PRESSURE BAIL LEVER
COPY CONTROL LEVER
ACRYLIC COVER
PLATEN KNOB
TOP COVER
MIDDLE COVER
BASE COVER
OPERATOR CONTROL PANEL
CARRIAGE ASSEMBLY (UNDER ACRYLIC COVER)
T36

GETTING TO KNOW YOUR ISI MODEL 736

The ISI Model 736 is the only printer available that provides the unique NEC thimble technology for an IBM 3270 system user. This printing mechanism delivers crisp, clean typewriter quality output with high readability.

The ISI 736 replaces any IBM 3270 printer connected to an IBM 3274/3276 (Type A) controller. The ISI 736 is compatible with SNA/SDLC too, including full SCS support. The 736 can also be implemented with the following systems: the Memorex 2076, Telex 276, and the MDS/Trivex 8074.

The 736 is available with a variety of paper handling systems including a vertical forms tractor, friction feed platen, and "Twinfeeder" dual sheet feeder. Equipped with the "Twinfeeder," an ISI 736 is the ideal output device for on-line word processing applications. Contact your ISI representative for more information about these options.

The preceding page contains a drawing of the 736, indicating the major parts and controls of the printer mechanism. Familiarize yourself with these parts and their functions; detailed for you throughout this guide, BEFORE preparing your unit for operation.

The 736 is a self-contained, compact unit designed for long life and high reliability. With the proper care and handling, you can keep your printer in optimal working condition.

– WARNING –

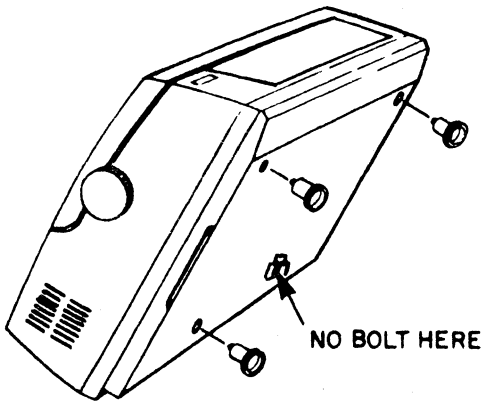
Failure to follow the instructions in this manual or receive written approval from the manufacturer, prior to placing the unit into any sort of enclosure, may void the warranty or alter the terms of the field service contract.

UNPACKING PROCEDURE FOR THE ISI 736

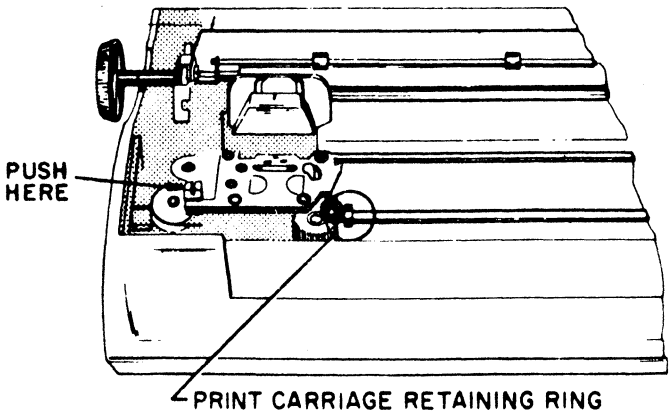
Before unpacking the 736, inspect its carton for any damage. If the carton is damaged, notify the shipper's representative immediately. Do not open the carton until the shipper's representative inspects it. If the carton is undamaged, remove the 736 in the following manner:

- Peel off sealing tape and open the carton flaps.
- Lift out the molded styrofoam braces from each side of the top of the carton.
- Remove the plastic sheets.
- Lift the 736 from the carton and put it on a STURDY table (capable of supporting 60 lbs. at least).
- Remove the plastic bag from the power cord and the ties from the paper fence.

- Compare the items against the packing list and make sure that you have received all parts. Notify the shipper of any shortages.
- Remove all shipping tags, straps, and tapes.
- Save all packing materials and the carton.
- Remove the manuals from the front of the printer.
- Tilt the 736 up on its back until it settles to expose its base. Keep one hand on the printer to prevent it from falling.
- Remove the three red thumbscrews in the base by turning them to the left (counterclockwise). These thumbscrews secure the base plate to the printer assembly during shipping. Store them with the other packing materials.



- Lower the 736 to its base.
- Lift the top cover by pulling on the bar on the front of the printer.
- Remove the red retaining ring beside the print carriage. First slide the ring to the right, then lift it off.



- Push the print carriage to the center, away from the left margin. This position allows the 736 to reset when it is first turned on.
- Close the top cover; you will hear it snap into place.

PREPARING THE ISI 736 FOR OPERATION:

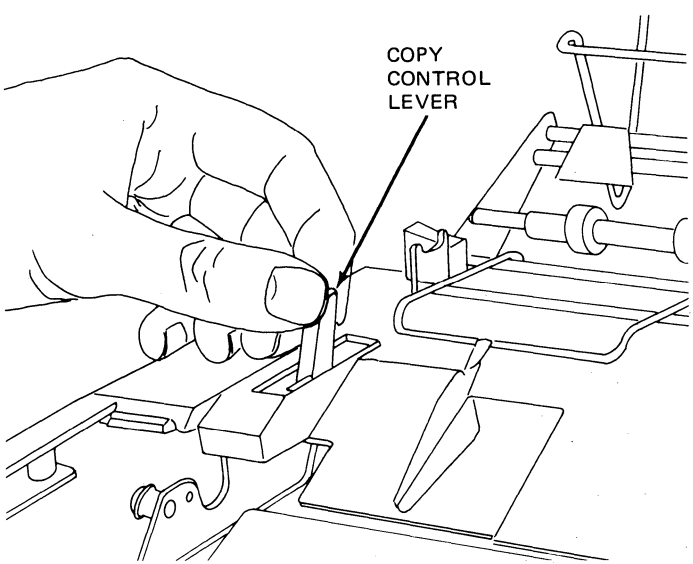
- make sure the operator control panel switches are set correctly (see page 6),
- set copy control and paper release levers (see pages 3-4),
- make sure a thimble and ribbon cartridge are inserted (see pages 8-9),
- load the paper (see page 10),
- connect the coax (see page 11),
- turn on power to the printer (see page 12).

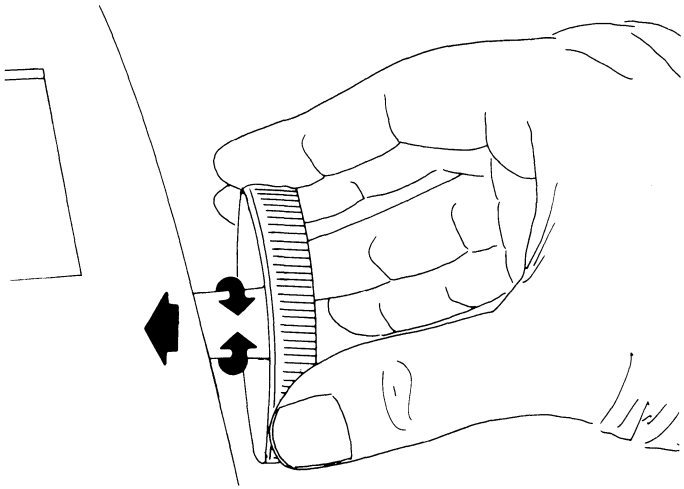
– CAUTION –

The 736 comes equipped with a UL and CSA required and approved power plug. Always insert this plug into a properly grounded, 3-prong outlet to ensure safety.

SETTING THE COPY CONTROL LEVER

This lever moves the platen forward or backward to accommodate various forms thicknesses or multiple copies. For a single copy, set the lever all the way forward. For an original and five carbon copies, set the lever all the way back. For forms thicknesses between these two extremes, set the lever between these two positions.





USING THE PLATEN KNOBS

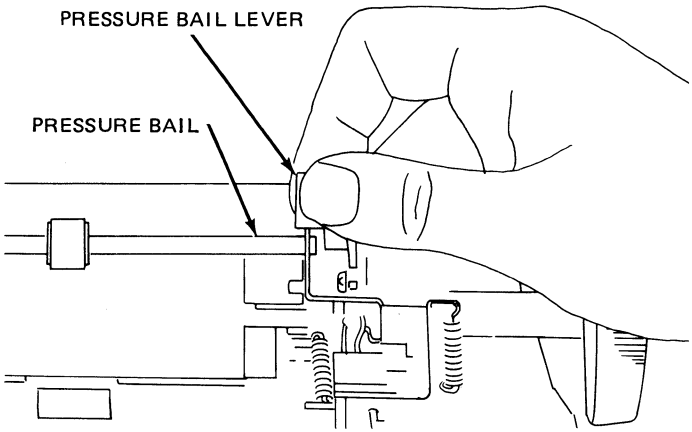
These knobs are used to turn the platen, allowing for the insertion and proper positioning of paper. Push the right knob in and the platen rolls freely in either direction, permitting you to change the position of the print line.

– NOTE –

These knobs are to be used only during paper loading or when aligning forms. DO NOT use the platen knobs to manually advance forms once the printer is operating. Such use will disrupt the form length setting.

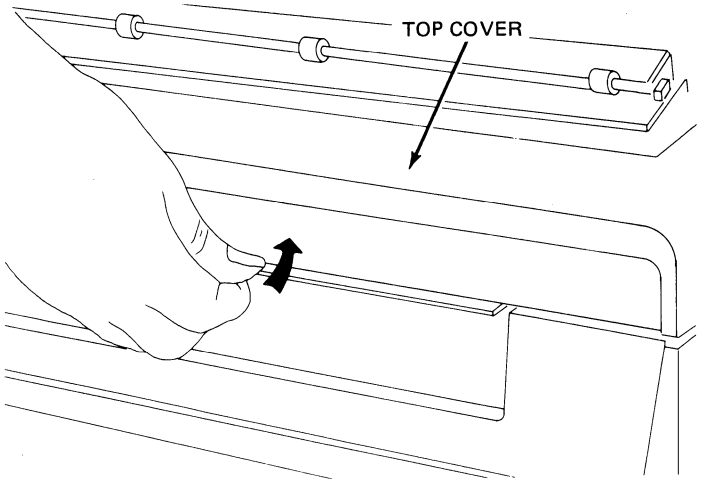
USING THE PRESSURE BAIL LEVERS AND PRESSURE BAIL

The pressure bail ensures excellent print quality and quiet operation by holding the paper against the platen. To insert paper, use the bail levers to pull the bail forward, away from the platen. When a vertical forms tractor, or "Twinfeeder" is engaged, move the pressure bail forward, away from the platen.



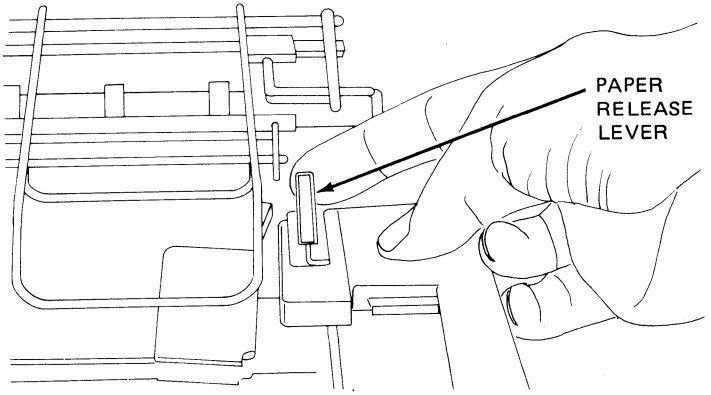
USING THE TOP COVER

This cover can be easily lifted to provide access to the printer mechanism, replace a ribbon cartridge, change the print thimble, or modify the option switches. When this cover is raised, printing stops. Therefore, be sure the cover is closed tightly for printing.



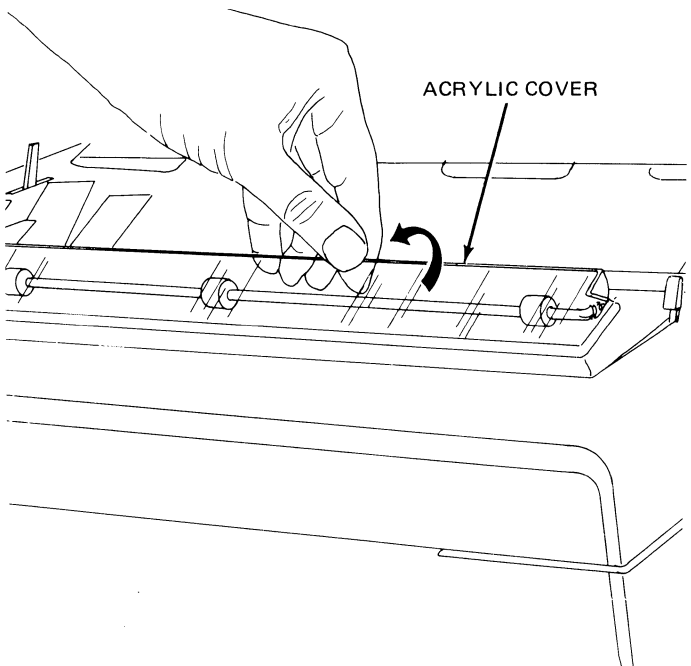
SETTING THE PAPER RELEASE LEVER

Place this lever in the forward position to release tension on the paper. You may now reposition or remove the paper. Leave the lever in the forward position when using a tractor assembly. Place the lever back when using a friction feed platen or a "Twinfeeder."



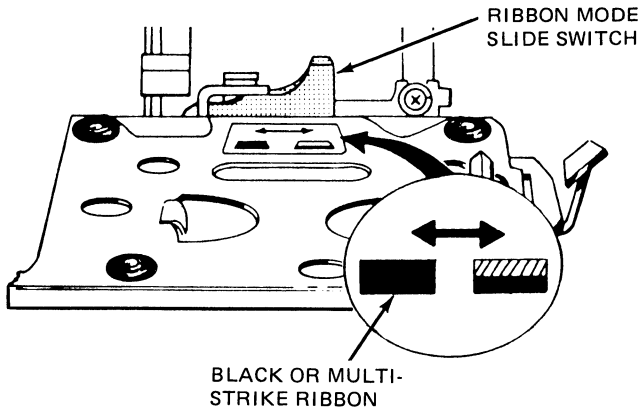
USING THE ACRYLIC COVER WITH COMBINATION SCALE

When this transparent cover is raised, printing stops. Therefore, be sure the cover is closed for printing. The combination scale indicates the print head position along the print line. It is marked for 10 and 12 characters per inch (CPI or "pitch").



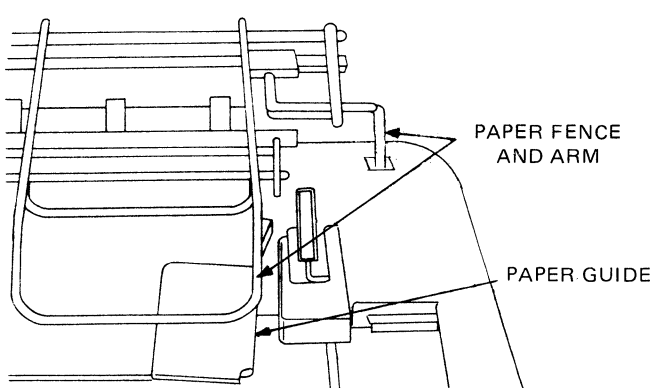
SETTING THE RIBBON MODE SLIDE SWITCH

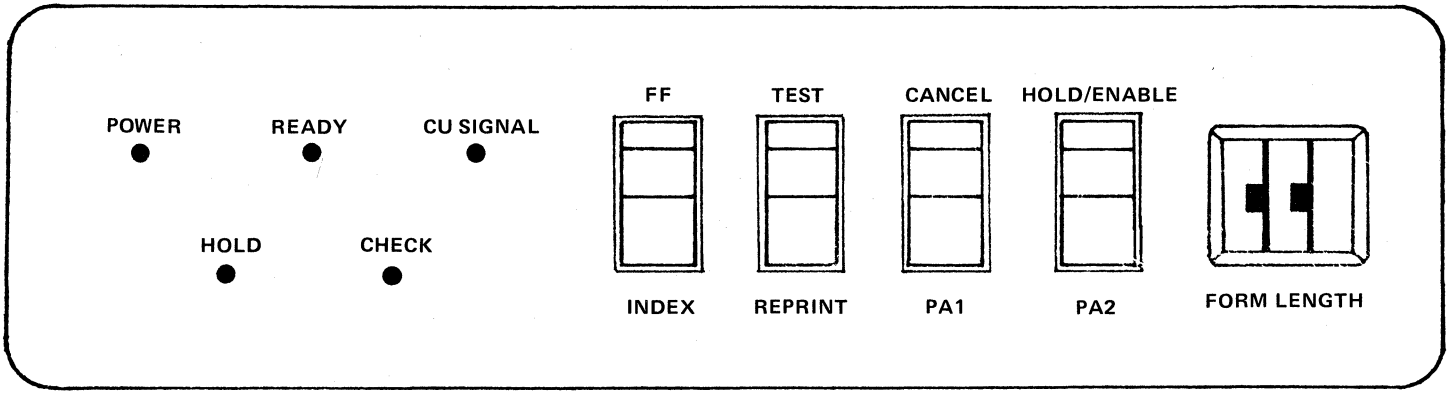
Locate the slide switch under the top cover, beneath the ribbon cartridge. For multi-strike carbon ribbons and all-black fabric ribbons, be sure to slide the switch to the left position.



USING THE PAPER FENCE AND GUIDES

These fixtures are set during paper loading to ensure proper feeding and alignment of forms. The paper fence is easily lowered into place and the guides can be moved to accommodate various forms widths. The paper fence has the additional property of detecting when paper is out. When the paper fence is properly lowered onto the forms being used, its arm rests lightly on the paper out switch. This switch is tripped when paper runs out.





USING THE OPERATOR CONTROL PANEL

HOLD/ENABLE PRINT SWITCH – This switch determines the print condition of the 736. When this switch is pressed, the printer is placed in the HOLD state (the HOLD light comes on) and printing stops after completion of the last line in progress.

> *– NOTE –*
>
> ***In order to operate any of the other switches, the printer must be in the HOLD state.***

When this switch is pressed again, the printer is in the ENABLE state (the READY light comes on) and printing may resume.

FF SWITCH – Push this switch to advance the paper to the top of the next form.

INDEX SWITCH – Push this switch to advance the paper one line.

TEST SWITCH – Push this switch and the ISI 736 will run a series of built-in self tests.

REPRINT SWITCH – If the printer is operating in non-SCS mode and this switch is pressed, the 736 will reprint all of the data stored in the buffer under the following conditions:

- The printer runs out of paper while it is printing, and the HOLD/ENABLE PRINT switch has been pressed within 60 seconds.

–OR–

- The HOLD/ENABLE PRINT switch is pressed while the printer is printing.

CANCEL SWITCH – If the printer is in SCS or test mode and this switch is pressed, the 736 will stop printing and clear all remaining print data from the buffer.

PA1 & PA2 SWITCHES – If the printer is in SCS mode and either of these switches are engaged, the printer sends a Program Attention signal to the host processor.

FORM LENGTH SWITCH – These switches are used to specify the number of lines printed on a form, from 0 to 99. The page length value is read from the Selector Switches during a power-up or when a form-feed is performed by the operator.

POWER LIGHT – This light indicates that power is applied to the ISI 736.

READY LIGHT – This light indicates that the printer is ready to print the data that it receives. When the printer is in the HOLD state the READY light goes off if the printer is in non-SCS mode or flashes on and off if the printer is in SCS mode.

CU SIGNAL LIGHT – This light indicates that the ISI 736 is connected to a control unit and communication can take place. If this light fails to come on, check your coax cable connection.

HOLD LIGHT – When this light is on, the printer is in the HOLD print condition and printing cannot take place.

CHECK LIGHT – This light indicates that a condition exists which must be corrected before operation can continue. When the light comes on the alarm also sounds. Place the printer in the HOLD state to silence the alarm and proceed to check the following items:

1.) Is the paper empty?

– NOTE –

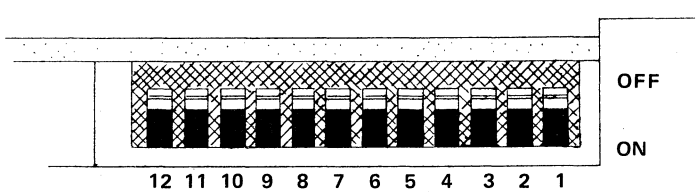
Paper may not be empty, but improperly loaded. Check to see that it is properly loaded, making sure that the paper fence is raised during loading.

2.) Is the ribbon empty? (Only applicable when using a multistrike cartridge.)

3.) Is the acrylic or top cover open?

If any of these conditions exist, correct them, and place the printer in the ENABLE state to continue operation.

If none of the above conditons exist, but the CHECK light remains on, your printer may be signaling an internal diagnostic complication. When this occurs, it is best to contact your ISI representative for help.



SETTING THE OPTION SWITCHES

The option switches are located under the front cover of the printer, on top of the operator control panel. The switches are turned on when positioned toward the operator. These switches must be set up before the printer is turned on. They should be accessed only with extreme care. FREQUENT CHANGING OF THESE SWITCHES IS NOT RECOMMENDED. The function of each switch is described below:

SWITCH #1 – This switch determines the number of lines per inch. ON = 8 and OFF = 6.

SWITCH #2 – This switch determines the spacing between lines. ON = Double and OFF = Single.

SWITCH #3 – This switch determines the case letters are to be printed in. ON = Upper and lower and OFF = Upper case only.

SWITCH #4 – This switch determines whether or not a form feed is performed after an operator initiated local print. ON = Selected and OFF = Not Selected.

SWITCH #5 – This switch determines the characters per inch (CPI or "pitch") and must be set in accordance with the thimble being used. ON = 12 and OFF = 10.

SWITCH #6, 8, 9 – SHOULD BE SET OFF. ON when a it remains OFF.

SWITCH #7 – This switch must be set ON when a "Twinfeeder" is installed, otherwise it remains OFF.

– CAUTION –

Exercise extreme care whenever handling the carriage or print mechanism. Failure to do so may cause misalignment of the print head and consequently, poor print quality.

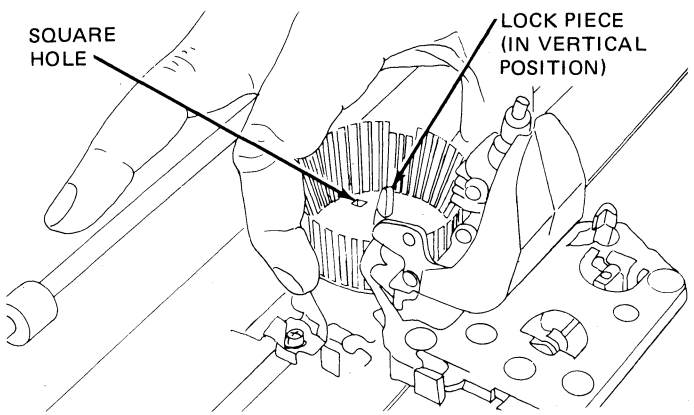
INSTALLING THE PRINT THIMBLE

Print thimbles come in two type sizes: 10 or 12 characters per inch. (CPI or "pitch"). Follow the instructions below carefully to change print thimbles.

- When replacing the thimble, put the printer in the HOLD state.
- Turn off the power and raise the top cover.
- Remove the ribbon cartridge.
- Push the hammer lock lever toward the platen, then tilt the hammer cover up and toward the front of the ISI 736.
- Slide the lock piece to one side and pivot it up so that it is vertical.
- Remove the thimble by lifting it up off the carriage.

– IMPORTANT –

Hold the thimble at the center to avoid damaging the character type area.



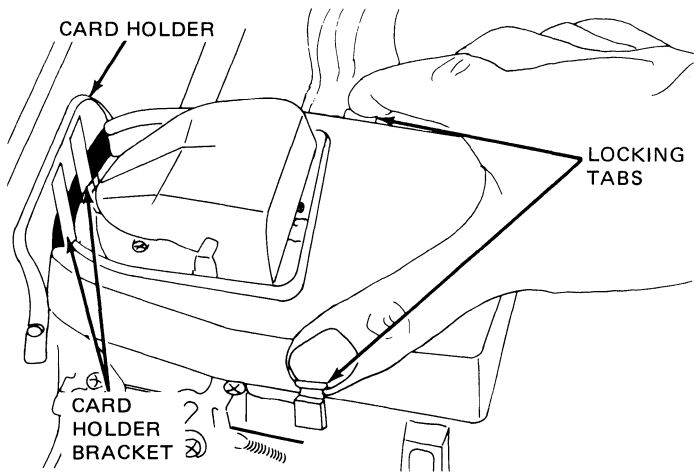
- Place the new thimble in position by aligning the square hole in the bottom of the thimble with the square block insert on the thimble holder.
- Gently press the thimble down to make sure it is in place.
- Lay the lock piece flat and slide it back into its original position. Make sure that the lock piece is centered so that it extends evenly across the center of the thimble.
- Push the hammer cover back down into its normal position; it locks into place.
- Insert the ribbon cartridge.
- Close the top cover lightly; make sure the acrylic cover is closed also.
- If replacing the thimble, place the printer in the ENABLE condition.

LOADING THE RIBBON CARTRIDGE

Your ISI 736 prints with a long-life black fabric ribbon or a multistrike carbon ribbon for letter quality printing. Replace a fabric ribbon cartridge at regular intervals to maintain clear printing. Replace the multistrike ribbon cartridge when you see the yellow crosshatch pattern on the ribbon and the ribbon reaches the "E" on the ribbon cartridge.

> *– NOTE –*
>
> ***Use only ISI approved ribbons with your 736 printer. These ribbons are available through ISI. Contact your representative for ordering information.***

- When replacing a ribbon, do not turn off the printer if you want to keep the current print data in the ISI 736 intact. Instead, place the printer in the HOLD state.
- Raise the top cover.
- Grasp the ribbon cartridge, gently spread the two red locking tabs that hold the cartridge in place, and lift the cartridge out of the 736.



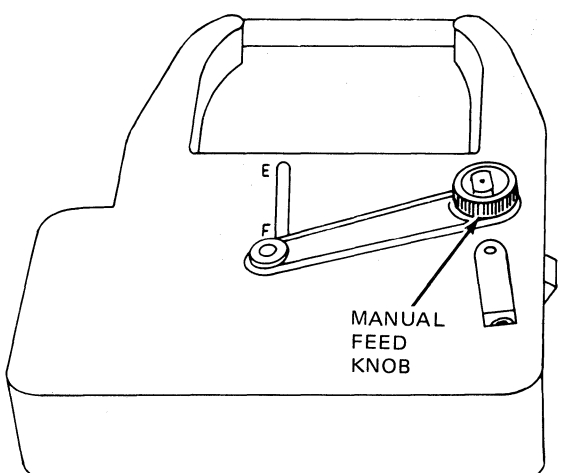
- Turn the manual feed knob on the new cartridge in the direction of the arrow to put some tension on the new ribbon.
- Place the new ribbon cartridge over the mounting plate and insert the ribbon between the card holder and card holder bracket.
- If you use a multistrike ribbon, insert the ribbon in the ribbon sensor.

- Press the ribbon cartridge downward until the locking tabs engage.

– NOTE –

Turn the manual feed knob on the cartridge in the direction indicated by the arrow to ensure proper seating and to put tension on the new ribbon.

- Close the top cover.
- If replacing a ribbon, place the printer in the ENABLE condition.



MULTISTRIKE RIBBON CARTRIDGE

LOADING THE PAPER

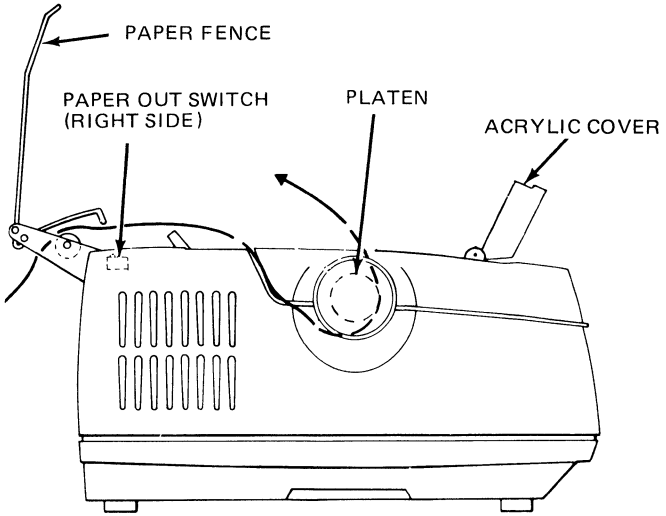
The method of loading paper into the 736 is determined by the forms handling attachment and the paper handling method you use. The following procedures show how to load paper into a 736 equipped with friction feed and vertical-type tractor feed. If your 736 has the "Twinfeeder" dual sheet feeder option, refer to the separate instructions that accompany the attachment.

Though the 736 printer mechanism has a bottom feed paper path, it is advised that you do not use this method unless:

- Your forms demand it, and
- You can manually monitor the paper supply (there are no paper empty switches installed for this method).

FRICTION FEED PAPER LOADING

- Raise the paper fence and acrylic cover.
- Move the pressure bail away from the platen.
- Pull the paper release lever forward.
- Insert the paper with the printing surface down.
- Align the paper horizontally and vertically.
- Push the pressure bail toward the platen.
- Move the paper to the top of form position you want.
- Adjust the copy control lever for the number of copies.
- Lower the paper fence and acrylic cover.



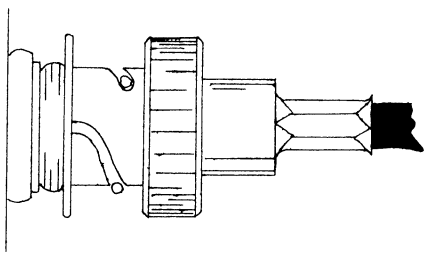
REAR FEED PAPER PATH

- Align the paper guides.
- If replacing paper, put the printer into the ENABLE condition.

TRACTOR FEED PAPER LOADING

- Raise the paper fence.
- Raise the acrylic cover.
- Move the pressure bail away from the platen.
- Push the paper release lever backward.
- Open the tractor doors.
- Insert paper with the printing side down and turn the platen to forward it.
- Pull the paper release lever forwards; it must remain in the forward position.
- Align the paper feed holes with the pins of the left and right tractor assemblies.
- Close the left tractor door.
- Align the right tractor with the paper feed holes. If you have to move the tractor assemblies to align the paper, release the locking knobs on the tractor and slide the assemblies to the position you want.
- Push in and turn the right platen knob to position the paper to the first line.
- Lower the paper fence and acrylic cover.
- Align the paper guides.
- Press the FF button to check the forms.
- If replacing paper, place the printer in the ENABLE condition.

PRINTER HOUSING (A/C)



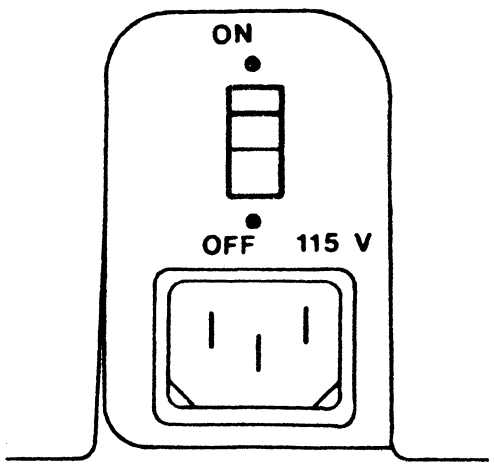
CONNECTING THE COAX

To connect the coax:

- Make sure the power to the printer is OFF.
- Attach the slotted end of the coax cable to the pegged hook-up on the back of the printer. Rotate the coax cable end until it locks on securely.

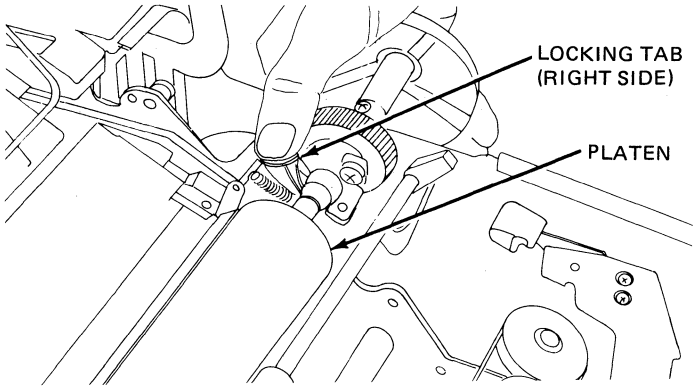
TURNING ON POWER

The Power switch for your ISI 736 is at the rear of the printer. BEFORE you turn the switch on, be sure the top cover and acrylic cover are tightly closed, and you have plugged into a well-grounded, 3-prong outlet.



Now press the power switch at the top to turn the printer on. If the carriage is not at the left margin, it should move to the left margin and the thimble will spin to the Home position. The POWER and READY lights on the operator control panel should be on.

If the carriage does not reset to the left, the POWER and READY lights do not come on, or the CHECK light is on, see "If You Have a Problem."



REMOVING AND REPLACING THE FRICTION FEED PLATEN

- Turn off power to the ISI 736 and raise the top cover.
- Remove the forms tractor attachment, if installed.
- Press the locking tabs and lift the platen out of the printer.
- Insert the replacement platen into position, aligning the wide platen gear with the line feed idler gear.

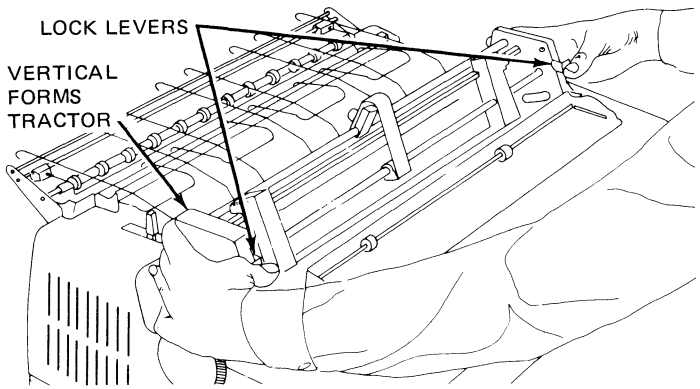
– NOTE –

Because it is possible to install the platen backwards, make sure that the wider gear is on the right as you install the platen from the front.

- Grasp the platen knobs and press the platen downward until it locks into place.
- Close the top cover. Make sure the acrylic cover is also closed.

REMOVING THE VERTICAL TRACTOR ASSEMBLY

- Turn off power to the printer and raise the top cover.
- Move the pressure bail away from the platen.
- Press the lock levers and raise the assembly upward and toward the back of the printer to remove the vertical tractor assembly.
- Close the top cover. Make sure the acrylic cover is also closed.



MAINTAINING HIGH QUALITY PRINT

Here are several suggestions you can use to maintain high quality print.

- Select the proper ribbon. Multistrike ribbons give you sharper impressions than fabric ribbons. Replace dried or malfunctioning ribbons.
- Use high quality paper to obtain sharp, crisp characters and maximum black and white contrast.
- Keep the platen clean and free of mars and scratches.
- Keep thimble characters free of ink build-up (see "Cleaning Your ISI 736").

CLEANING YOUR ISI 736

To make sure your ISI 736 maintains its attractive appearance and continues to operate properly, you should clean and inspect it periodically.

- Using a soft, lint-free cloth, clean the carriage rails.
- Use a mild detergent to remove any stains on the cover.
- Using a soft, lint-free cloth, clean the entire surface of the platen with Fedron (can be bought at an office supply store) or rubbing alcohol.
- Remove any pieces of paper attached to the tractor assembly and pressure bail.
- Remove the print thimble and with a toothbrush and rubbing alcohol, scrub the thimble characters lightly. ONLY FOLLOW THIS PROCEDURE WHEN THE THIMBLE SHOWS A MARKED INK BUILD-UP AND PRINT QUALITY IS POOR.

– CAUTION –

Do not use Fedron to clean any plastic items or surfaces. Do not use alcohol to clean plastic items or the cover.

IF YOU HAVE A PROBLEM

If your ISI 736 does not operate correctly, try these corrective actions. If your ISI 736 still does not operate correctly, notify your service representative.

PROBLEM INDICATION	CAUSE	CORRECTIVE ACTION
Does not print (fan not running). Power light off.	Power source	Connect the ISI 736 to a well-grounded, 3-prong, ac outlet. Set Power switch to ON position.
CU SIGNAL light not on.	Coax cable not connected	Connect coax cable or check connection.
	Control unit not functioning	IPL control unit.
	Coax cable damaged	Check cable for damage and replace if necessary.
Does not print. Carriage does not move (fan running). CHECK light on. Alarm ringing.	Top cover or acrylic cover open	Place printer in HOLD state. Close the top cover. Close the acrylic cover.
	Ribbon end	Place printer in HOLD state. Check ribbon cartridge. If using a multistrike ribbon, make sure that it is not at the end (window on cartridge will be full).
	Paper out or loaded improperly	Place printer in HOLD state. Check paper supply. Load paper correctly.
	Red retaining ring has not been removed	Place printer in HOLD state. Remove red retaining ring.

PROBLEM INDICATION	CAUSE	CORRECTIVE ACTION
Does not print. Carriage moves.	Ribbon broken or not installed properly	Replace if necessary with ISI approved parts or ribbon. Be sure ribbon and thimble are installed properly.
Prints but carriage does not move.	Obstruction in path of carriage	Check for obstruction.
	Broken carriage cable	Call service representative.
Paper is tearing.	Paper loaded improperly Obstruction in paper path	Check paper loading.
	If using tractor, too much tension may exist	Adjust tractors.
	Paper release lever set incorrectly	Check paper release lever.
Printing too light or not sharp.	Ribbon worn, jammed, or broken	Replace if necessary.
	Ribbon or thimble not installed properly	Check installation.
	Non-ISI approved ribbon being used	Use only ISI approved ribbons.
	Copy control lever set incorrectly	Check position of copy control lever.
	Damaged platen or thimble	Inspect for mars and abrasions. Replace if necessary.
	Ink build-up on thimble characters	Remove thimble and scrub characters with rubbing alcohol.
Printing is uneven.	Thimble is not installed properly	Insert thimble correctly.
	Non-ISI approved ribbon is installed	Install ISI approved ribbon.

ESCAPE SEQUENCE INSTRUCTIONS

An escape sequence allows your ISI 736 to perform a variety of special functions, such as sub- and super-scripting, overstriking with an offset (to print bold-face characters) and printing multistrike characters. Different escape codes utilize the full capacity of your ISI 736's data stream.

The escape sequence is &% followed by four digits (treated as hex):

&%XXXX

Where 'XXXX' is defined as:

Bit	16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
	X	X	S	S	D	D	D	D	D	D	D	D	D	D	D	D

X = Not Applicable
S = Select

14	13	
0	1	= Character Select
1	0	= Carriage Motion
1	1	= Paper Motion

D = Data defined as follows:

1) Character bit definition.

12	11	10	09	08	07	06	05	04	03	02	01
I	I	I	O	A	A	A	A	A	A	A	1

I = Hammer Intensity
A = Character Absolute Code

For each possible character on your thimble, an absolute code exists. The absolute codes for a Courier 72/ Multilingual A thimble are identified in the following table:

ABSOLUTE CODES

	01234567
0	|˜HX]'mg,
1	|^N?[`ixß
2	|´S*)^h&¨
3	|`R#(˜r;Æ
4	|_O"/■a:"
5	|.E!%¶e£ø
6	|,T¢7¤t§¡
7	|QA¨6•o†æ
8	|ZI\3qnA˘
9	|VM|lzs¿œ
A	|BP$0ypØ´
B	|GC@2ju¬-
C	|JY>5wcıå
D	|WD<4ldij=
E	|LK}9vk°•
F	|UF{8fb€+

2) Carriage motion bit definition.

12	11	10	09	08	07	06	05	04	03	02	01
D	/ -------- Steps in 1/120th" ------- /										

D = Direction
O = Forward
1 = Reverse

3) Paper motion bit definition.

12	11	10	09	08	07	06	05	04	03	02	01
D	/ ------- Steps in 1/48th" ------ /										0

D = Direction
O = Forward
1 = Reverse

Operation:

If a valid 4 character &% sequence is found in the data stream, the sequence will be sent to the interface. It is up to the programmer to get the printer back in sync after using these sequences.

Examples:

To print H_20 (Subscript), send:

H&% 30082&%38080

&%3008 spaces the print line down 4/48th of an inch. 2 is the subscript indicated.
&%3808 spaces the print line back up 4/48th of an inch.

To print "DATA" in boldface, send

DATACR&%2001DATA&%2801

DATA prints 'DATA.' CR (carriage return) &%2001 offsets the printhead 1/120th of an inch. 'DATA' is printed again. &%2801 resets the printhead back 1/120th of an inch to original character alignment.

– ATTENTION –

When using a "Twinfeeder" or any forms handling option which demands unique print head positioning, precise escape sequence instructions must be followed. Refer to the separate instructions that accompany the attachment or contact your ISI representative for the appropriate information.

OPTIONS AVAILABLE FOR YOUR ISI 736

FORMS HANDLING METHODS YOU CAN USE

ISI offers the following forms handling methods to help you configure a system best suited to your own forms handling needs. For further information, contact your ISI representative.

Twinfeeder (not shown) – accepts single cut sheet paper from either of two input hoppers eliminating the need for expensive special paper and forms. The twinfeeder includes paper out and jam detectors. Each input hopper adjusts from 5.5 to 12 inches wide and from 3.6 to 14 inches long and holds 180 sheets of average weight paper.

Vertical Forms Tractor – provides precise paper feed. The tractor handles paper from 3 to 16 inches wide.

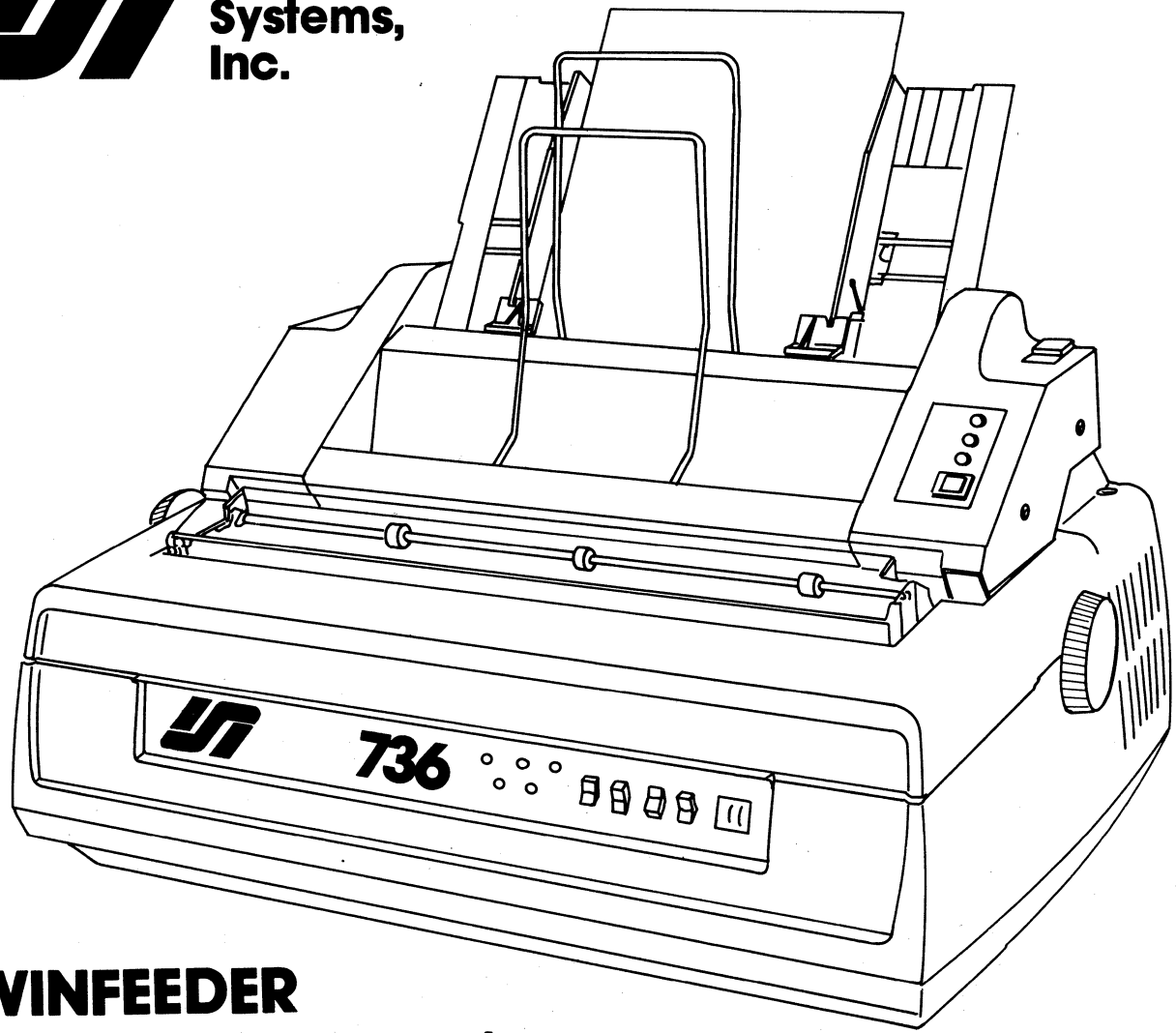
QUIET COVER

ISI offers a specially designed acoustical cabinet which reduces your printer's operating noise level by 80%. This enclosure meets all the requirements necessary to ensure the optimal performance of your 736. A cabinet is also available which accommodates the Twinfeeder option. Contact your ISI representative for more information.

PRINT THIMBLES

Each NEC thimble contains up to 128 characters. These thimbles come in a variety of type styles. Your ISI 736 can accommodate any "Multilingual A" thimble. They are available directly through ISI. Contact your representative for ordering information.

Interface Systems, Inc.



TWINFEEDER

Installation / Operator's Guide

GETTING TO KNOW YOUR TWINFEEDER

The Twinfeeder is an optional forms handling device for your ISI Model 736 letter quality printer. Under software control, the Twinfeeder feeds single sheets to the 736 for printing and stacks the printed sheets in an output bin. The Twinfeeder is easily installed and operated. It eliminates the cost of expensive, continuous forms and the task of feeding single sheets by hand. With the Twinfeeder, printing of single sheets is simple, speedy, and precise, allowing you to produce high-quality documents. For word-processing applications the Twinfeeder is ideal.

The Twinfeeder is named for its dual hoppers. Either hopper can be selected for paper feeding. Hopper 1 (rear position) accepts paper from 5.5 to 12 inches wide and from 3.6 to 14 inches long. Hopper 2 (front position) accepts paper of the same width and from 6.3 to 14 inches long. A different type of paper can be used in each hopper. For example, letterhead can be used in one hopper while plain bond is being used in the other. This feature allows you to produce documents comprised of any combination of letterhead and plain bond sheets. Two different paper sizes can also be used: one size in each hopper. The Twinfeeder automatically senses and adjusts for the start of forms.

The Twinfeeder has its own vertical paper feed mechanism that is gear driven by the 736 platen. This arrangement makes the Twinfeeder respond to the same vertical feed commands as the 736. The Twinfeeder control panel, located on the right side of the unit, features three lamps that light to display the status of the option.

THIS INSTALLATION/OPERATOR'S GUIDE. . .

covers the Twinfeeder forms handling option and provides general information intended for instructional purposes. The ISI 736 Operator's Guide should be used in conjunction with this guide for complete installation assistance. For information regarding the service and maintenance of this printer, contact your ISI representative.

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Using the Twinfeeder Control Panel 6
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Manually Setting the Left Margin 8
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Cleaning the Twinfeeder 11

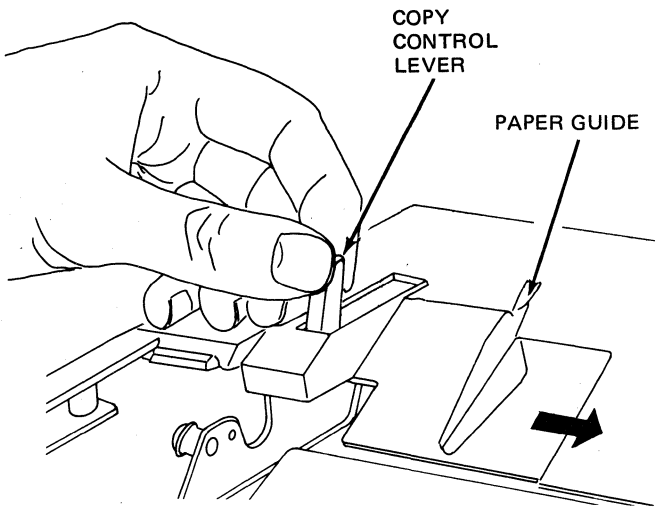
–WARNING–

Failure to follow the instructions in this manual or receive written approval from the manufacturer, prior to placing the unit into any sort of enclosure, may void the warranty or alter the terms of the field service contract.

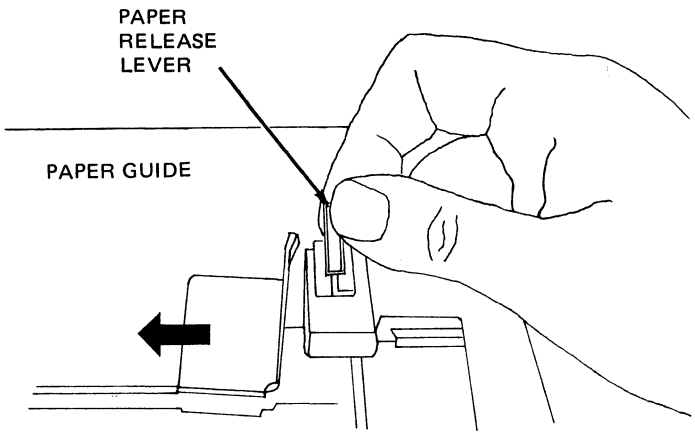
PREPARING THE ISI 736 FOR TWINFEEDER INSTALLATION

Before installing the Twinfeeder, prepare your ISI 736 in the following manner:

- Turn power OFF and unplug the power cord from the ac outlet.
- Set option switch #7 ON (see "Setting the Option Switches" in the ISI 736 Operator's Guide).
- Position both paper guides in the center of the printer housing. Note the position indicated by the arrows in the following illustrations.
- **Move the copy control lever as far forward (toward the front of the printer) as possible.** Note the position in the illustration below.



- **Set the paper release lever as far back (toward the rear of the printer) as possible.** Note the position in the illustration below.



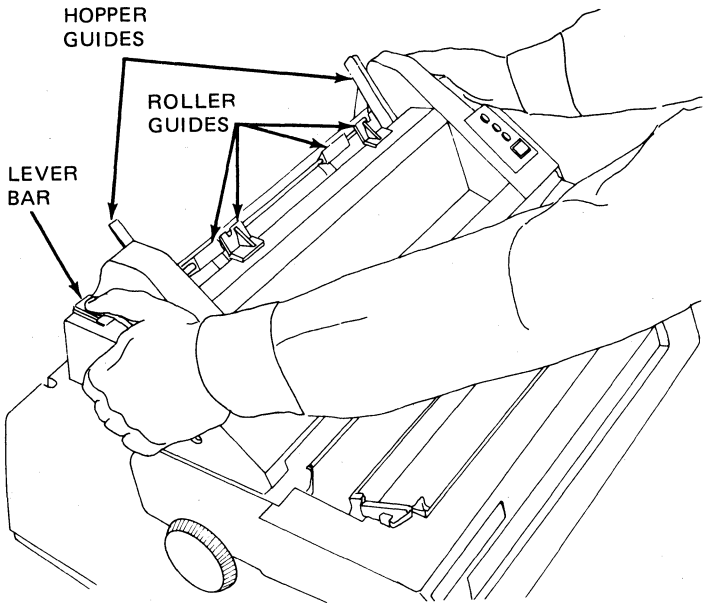
– IMPORTANT –

All of the above steps must be performed in order for your Twinfeeder to operate correctly.

INSTALLING THE TWINFEEDER

Once your ISI 736 meets the requirements listed above, proceed to install the Twinfeeder as follows:

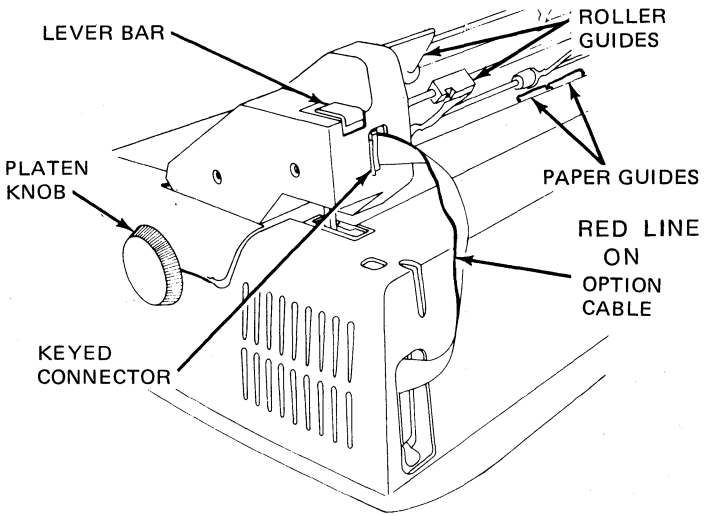
- Hold the Twinfeeder on both ends, above the printer. Push in on both of the lever bars (orange pushbuttons) with your thumbs, lower the Twinfeeder into place, and release the lever bars.



- With your hands still holding the ends of the Twinfeeder, lift up gently to make sure that the unit is properly attached to the 736. If the Twinfeeder does not feel firmly attached, repeat the installation procedure.
- Grasp the Twinfeeder cable that exits the rear of the printer housing.
- Connect the cable to the Twinfeeder through the hole that is behind the Twinfeeder control panel. Note that the connector is keyed.

– CAUTION –

To avoid possible damage to the Twinfeeder, make sure to line up the keyways on the connector. When the connector is correctly attached, the red line on the cable will be on top and the key will be on your right.



– WARNING –

Never remove the Twinfeeder from the ISI 736 without first disconnecting the cable from the Twinfeeder.

PAPER SPECIFICATIONS

To ensure optimum performance of your Twinfeeder, the paper that you use should meet the following specifications:

1. Weight: 18 to 24 pound bond or equivalent.
2. Width: 5.5 inches (140 mm) to 12 inches (305 mm).
3. Length: For Hopper 1 - 3.6 inches (90 mm) to 14 inches (356 mm). For Hopper 2 - 6.3 inches (160 mm) to 14 inches (356 mm).

All of the paper placed in the Twinfeeder should be new, unused, and without packing damage. To ensure feed reliability, all papers should be riffled before being placed in the supply tray. The papers defined below are the only papers considered acceptable for use in the Twinfeeder.

Plain bond paper of one of the following compositions:

- No. 1 sulfite (100% chemical wood pulp)
- 25% cotton content
- 50% cotton content
- 100% cotton content
- paper made from recycled office paper

The following types of paper are not recommended for use in the Twinfeeder:

- coated paper
- vellum paper
- coated erasable bond paper
- synthetic paper, such as rice paper and parchment
- translucent paper
- multi-sheet forms and documents
- dark colored paper
- envelopes
- card stock
- paper with exposed gummed surfaces, holes, perforations, etc.
- embossed paper
- preprinted paper containing substances that leave a residue on the Twinfeeder or printer components
- paper with excessive curl or waviness
- paper with curled or folded edges
- paper exposed to excessively high or low temperatures or humidity

– NOTE –

This list is not intended to be all inclusive. Many other types of paper are available. It is possible that some of them may be used. Test them first. If problems arise, discontinue use and contact your ISI representative.

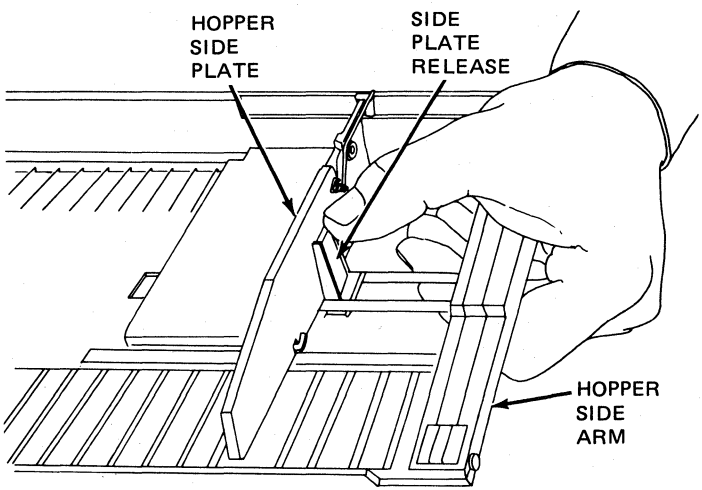
ADJUSTING THE HOPPERS FOR PAPER LOADING

The hoppers adjust to accept single sheets of different sizes. Adjust the hoppers as follows:

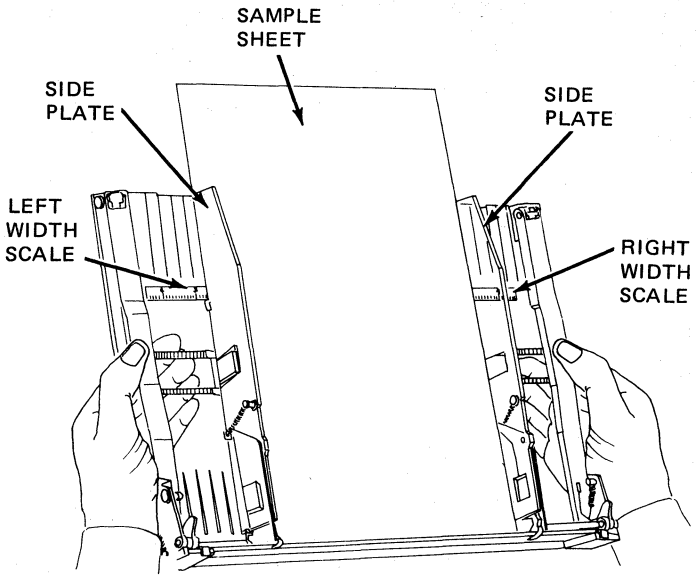
- Holding a hopper with both hands, move the side plates far enough apart to accommodate

the paper width. Move the side plates by pressing the side plate release and sliding the side plate toward the outside hopper arm.

- Place a sample stack of paper, 1/8 of an inch thick, into the hopper so that the centerline of the paper corresponds to the centerline of the hopper.
- Move each hopper side plate to the edge of the stack, leaving 1/32" clearance. The readings of the right and left scale will be the same value.



- Remove the sample stack of paper from the hopper.



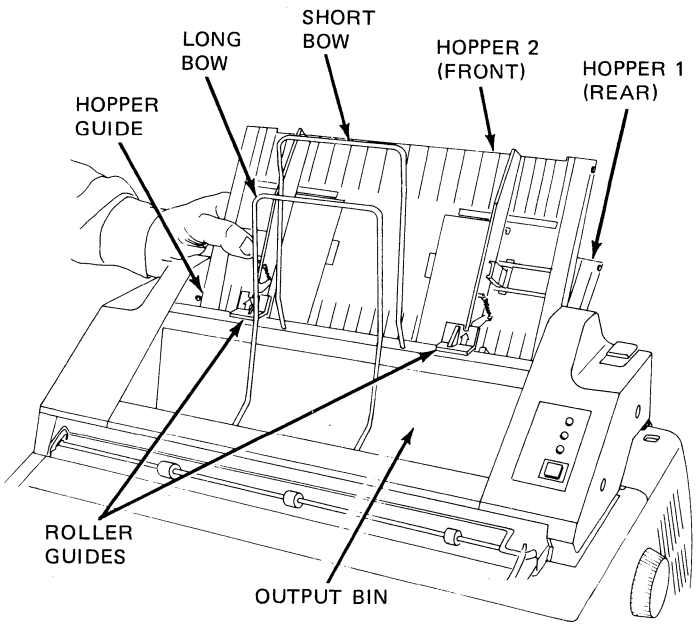
INSTALLING THE HOPPERS

- Insert a hopper halfway into the rear hopper guides on the Twinfeeder, and align the arrows on the roller guides with the hopper side plates.
- Gently slide the hopper all the way into the hopper guides, until you feel it stop.

– WARNING –

Do not exert force when inserting hoppers, as undue pressure may damage them. If hoppers do not slide easily into place, check alignment of the roller guides.

- Install the other hopper into the front hopper guides in the same way.
- Install the front and rear bows for the output bin on the Twinfeeder. The long bow goes in front.

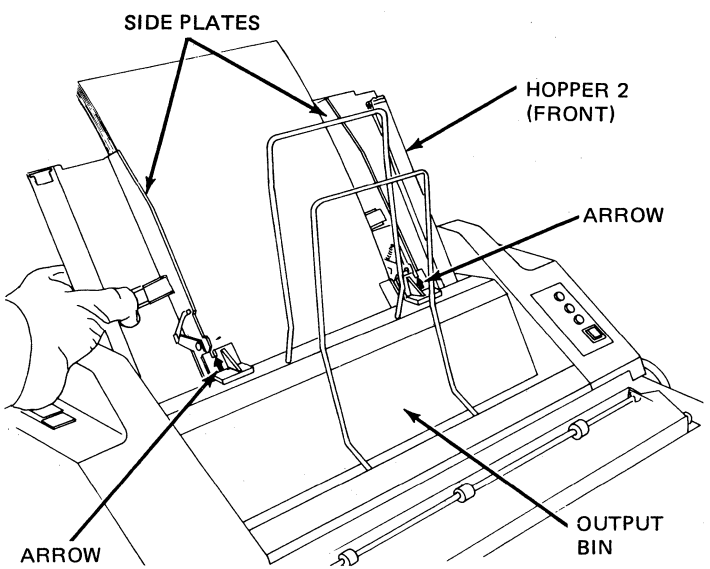


LOADING PAPER

Use the following procedure to load paper into the Twinfeeder.

- Make sure that the hopper you choose to load has been adjusted correctly (see "Adjusting the Hoppers for Paper Loading") and is seated in the Twinfeeder (see "Installing the Hoppers").
- Push down at the center of both hopper arms until the hopper arms lock in the down position.

> *– NOTE –*
>
> ***If you experience difficulty trying to engage the hopper arms, carefully slide the hopper up, about 1 inch, along the hopper guides. The arms will now lock down and the hopper can be moved into position.***



- Take a stack of sheets measuring the thickness indicated by the mark on the hopper's left side plate (1/2"). Riffle the edges to loosen any sheets that are stuck together, and place the stack of sheets into the hopper, between the

side plates. If you are using letterhead stationery, insert the stack top edge down, with the print side of the paper towards the rear of the printer.

- Plug the printer's power cord into an ac outlet and turn the printer ON. The printhead should immediately travel to the home position ("0" on the scale of the acrylic cover) and then move to the center of the platen "65" on the scale of the acrylic cover).
- During this check sequence, the printer alarm will be on. As soon as the first sheet of paper has been fed, the alarm will be silenced.
- If your printer completes this check sequence, you are ready to print. If not, see "If You Have a Problem." If the corrective actions suggested do not help, call your ISI representative.
- If your printer performs the check sequence, but the alarm signals remain ON, see "Using the Twinfeeder Control Panel."

> *– CAUTION –*
>
> ***Only turn the printer ON after the Twinfeeder and cable are properly attached.***

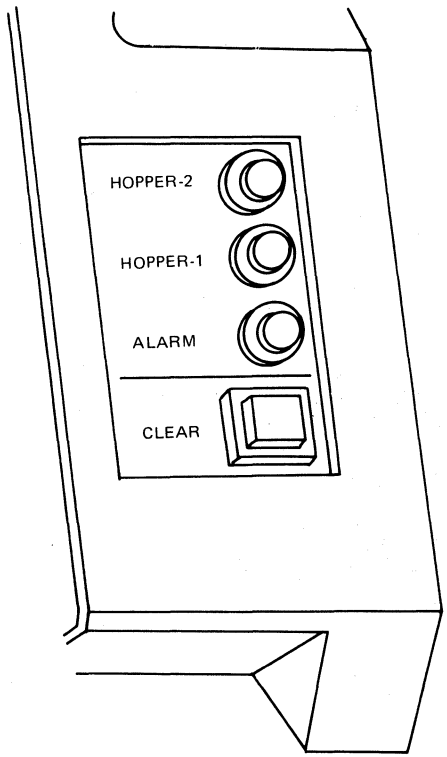
USING THE TWINFEEDER CONTROL PANEL

The Twinfeeder control panel has three lamps and one switch that function as follows:

– HOPPER-1 and HOPPER-2 green lamps indicate which hopper is selected as the paper supply.

– The ALARM red lamp coincides with the printer alarm and CHECK light to indicate a paper out or paper jam condition.

– The CLEAR pushbutton resets the ALARM lamp after you correct the paper out or paper jam condition.



– If the alarm signals (alarm tone, light, and CHECK light) occur during power up, proceed in the following manner:

1. Turn the power OFF.
2. Determine whether a paper out or paper jam condition exists and correct the problem.
3. Turn the printer ON.

If the alarm signals occur during printing, proceed in the following manner:

1. Place the printer in the HOLD state (see "Using the Operator Control Panel" in the ISI 736 Operator's Guide). This action silences the alarm but the alarm light remains on.
2. Determine whether a paper out or paper jam condition exists and correct the problem.
3. Place the printer in the ENABLE state.
4. Press the CLEAR pushbutton on the Twinfeeder. The alarm light will go out and printing resumes. The Twinfeeder will always feed sheets from the Hopper last selected.

– NOTE –

If the form feed (FF) switch is pressed while the printer is in the HOLD condition, the Twinfeeder will alternately select from Hopper-1 and Hopper-2.

If only the alarm tone and CHECK light come on during power up or printing, the carbon ribbon is empty and needs to be replaced (see "Loading the Ribbon Cartridge" in the ISI 736 Operator's Guide).

ESCAPE SEQUENCE INSTRUCTIONS FOR OPERATING YOUR TWINFEEDER

Operating the Twinfeeder requires the use of escape sequences to program the ISI 736 to perform special functions, such as changing the hopper selection or left margin setting. To achieve the results you desire, follow the procedures below.

HOPPER SELECTION

At power up the printer will automatically select from Hopper 1 (rear hopper) and the Hopper-1 lamp is lit on the Twinfeeder. To select Hopper-2 (front hopper):

- a control panel form feed (FF) must be executed

– OR –

- the &%H2 command must be included in the final line of data, sent to the printer, for the **page preceding the page to be selected** from Hopper-2

LEFT MARGIN SETTING

The initial left margin setting for Twinfeeder operation is 30_{10} (10 CPI) spaces. If your use of the Twinfeeder requires a different setting, you can achieve this setting by:

– Programming the printer through the use of special escape sequences. Contact your ISI representative and request instruction sheets entitled "Changing the Left Margin Print Position."

– OR –

– Manually setting the printer for the desired left margin. Follow the procedure outlined below IN THE ORDER LISTED.

MANUALLY SETTING THE LEFT MARGIN

1. Prior to power up, set option switch #10 ON (see "Setting the Option Switches" in the ISI 736 Operator's Guide).
2. Turn the printer ON. When the READY light comes ON, place the printer in the HOLD condition (see "Using the Operator Control Panel" in the ISI 736 Operator's Guide). The printhead will be centered.
3. Press the INDEX switch 12 times to space the paper to a point where the left margin can be observed.
4. Dial the FORM LENGTH switches to the desired margin setting. This setting will be the number on the 10 CPI scale of the acrylic cover that corresponds with the desired margin.
5. Press the TEST switch on the front panel. The printhead will move to the margin requested. If the margin is not satisfactory, the FORM LENGTH switches can be reset and the TEST switch pressed again to move the printhead to a new margin.
6. When a satisfactory margin setting has been determined, set the FORM LENGTH switches back to the proper form length setting.
7. Set any other switches necessary for your use of the printer at this time.
8. Place the printer in the ENABLE condition (see "Using the Operator Control Panel" in the ISI 736 Operator's Guide). Printing will now begin.

– IMPORTANT –

Once the printer has been placed in the ENABLE condition, the margin will remain in effect until power is turned OFF. The margin must then be reset by repeating the entire procedure.

IF YOU HAVE A PROBLEM

If your Twinfeeder does not operate correctly, try these corrective actions. If your Twinfeeder still does not operate correctly, notify your service representative.

PROBLEM INDICATION	POSSIBLE CAUSE	CORRECTIVE ACTION
Twinfeeder does not power up.	Twinfeeder cable is improperly connected	Check the cable connection on the back of the Twinfeeder and correct if necessary.
Printhead does not move to the center during power up.	Option switch #7 is not ON	Set option switch #7 to ON position (toward the operator).
Paper not feeding properly or jamming.	Twinfeeder not seated properly on printer	Check Twinfeeder attachment to printer. If connection is faulty, depress lever bars (orange pushbuttons), readjust Twinfeeder, and release lever bars.
	Hoppers are not adjusted correctly	Check adjustment of hoppers. Make sure side plates accommodate paper width, leaving 1/32" clearance on both sides.
	Debris build-up on Feed Rollers (located on the underside of the Twinfeeder)	Remove Twinfeeder. Remove hoppers. From the underside, clean the Feed Rollers with pre-moistened towelette.
	Pressure Rollers beneath the ISI 736 platen are not making contact	Make sure paper release lever is positioned as far back as possible. Place printer in the HOLD state. Remove the Twinfeeder and open the top cover of the ISI 736. Visually check below the platen to make sure all

PROBLEM INDICATION	POSSIBLE CAUSE	CORRECTIVE ACTION
Paper not feeding properly or jamming (continued).		roller heads are making contact. Remove the platen and gently bend any rollers which are missing contact, slightly upward. Replace the platen. When rollers are properly aligned, replace the Twinfeeder, ENABLE the printer, and press the CLEAR pushbutton.
Twinfeeder is feeding extra sheets.	Incorrect bond of paper is being used	Use only paper types called out in "Paper Specifications" in this guide.
	Paper not riffled	Be sure to riffle all paper thoroughly before placing it into hoppers.
	Hoppers are overfilled	Make sure stack of paper inside hopper is not any higher than mark indicates (1/2").
Poor print quality.	Problem exists in ISI 736	See "If You Have a Problem" in the ISI 736 Operator's Guide. Follow the suggested corrective action.
	Incorrect bond of paper being used	Use only paper types called out in "Paper Specifications" in this guide.
	Paper release and/or copy control lever set incorrectly	Set paper release lever as far back as possible (toward the rear of the printer) and the copy control lever as far forward as possible (toward the front of the printer).

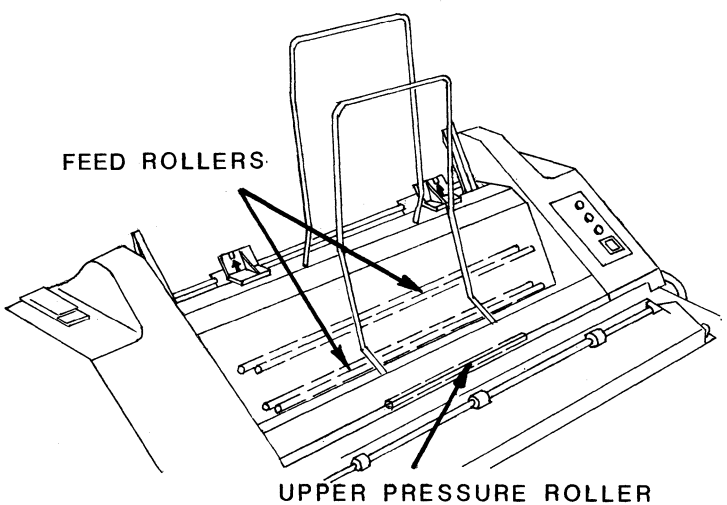
PROBLEM INDICATION	POSSIBLE CAUSE	CORRECTIVE ACTION
Poor print quality (continued).	Hoppers are not adjusted correctly.	Check adjustment of hoppers. Make sure side plates accommodate paper width, leaving 1/32" clearance on both sides.
	Ink build-up on Upper Pressure Roller (located inside output bin).	Place printer in the HOLD state. Remove any paper from the output bin. Reaching in the bin, clean the roller with the pre-moistened towelette.

CLEANING THE TWINFEEDER

To maintain optimum performance of your Twinfeeder, it is essential that you periodically:

- Clean any dust from the Twinfeeder and the hoppers with a lint-free cloth,
- Remove any stains from the housing with a mild detergent, and
- Remove the Twinfeeder and check the Feed Rollers (visible from the underside) for any debris build-up and the Upper Pressure Roller (inside of the output bin) for ink build-up. Clean the rollers wih the pre-moistened towelette provided. Use only similar towelettes for cleaning. Other cleaning agents may damage the rollers.

Note the position of these rollers in the following illustration. Dotted lines indicate where the part is located beneath the printer housing.



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