



TX 20 TELEPRINTER OPERATING MANUAL



Telecom Australia

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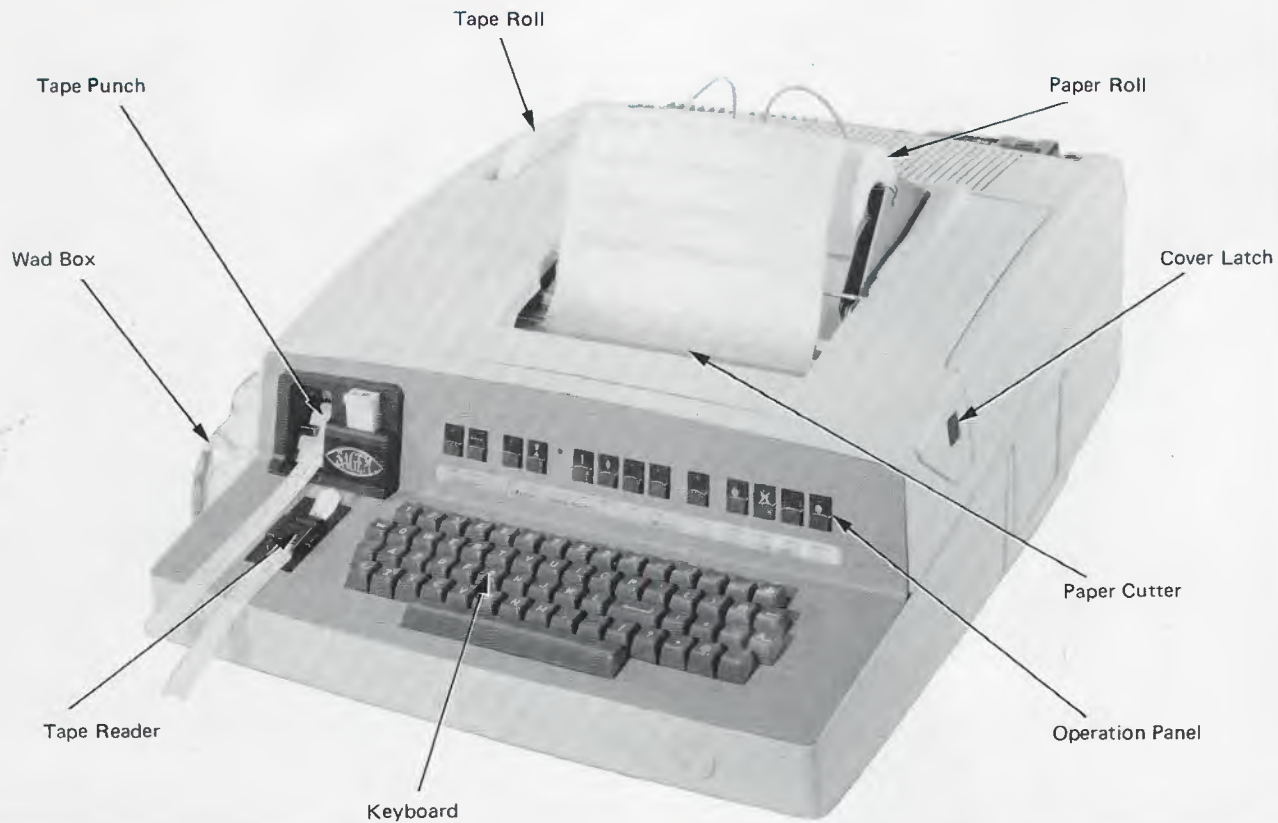
In Australia the TX-20 teleprinter will only be provided in the beige/brown colour combination.

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the TX 20 teleprinter



The TX 20 Teleprinter has similarities in appearance and operation in comparison to a conventional office typewriter. The essential difference is that while a typewriter can produce only local copy, one teleprinter can be linked to another so that characters typed on either one will be printed simultaneously on the other.

Your Teleprinter is equipped with a tape punch attachment (See page 2). You may receive incoming messages in the form of a perforated tape in addition to being able to prepare messages on tape in advance for later transmission. A tape reader is situated immediately below the perforated tape outlet for the transmission of messages to line, or to obtain additional page copies of messages previously received on perforated tape.

The paper and tape supplies in the teleprinter are monitored and when nearing depletion, alarms are operated to indicate to the operator that paper and/or tape is nearing depletion.

Teleprinter Mounting

The TX 20 Teleprinter may be installed on either a typing table or a pedestal mounting. (See page 24 for further information on the pedestal).

A typing table if used must be approximately 700 mm high and not less than 900 mm wide by 750 mm deep.

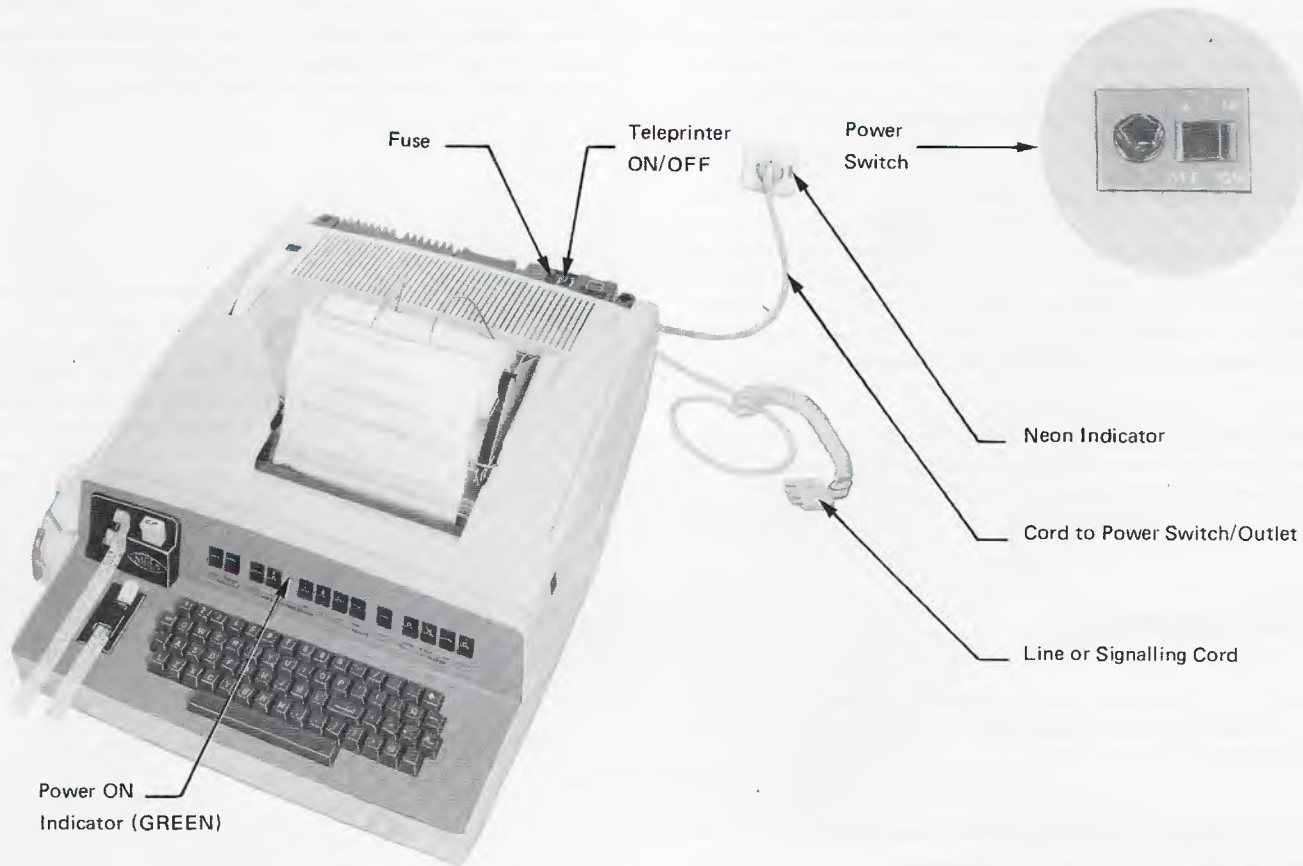
The Teleprinter mounting should stand out about 8 cm (3") from the wall leaving sufficient space to allow the page paper to pass freely at the rear of the machine. This will reduce one of the usual causes of failure when the teleprinter is left unattended.

Power

This machine requires 240 volt 50 hertz power. For reliable teleprinter communication, it is necessary to have an exclusive 240 V A. C. fuse and power circuit for the teleprinter. The fuse should be loaded with 6 A fuse wire and not more than two teleprinters should be connected to it. Other appliances such as radiators, table lamps and hot water jugs should not be connected to the teleprinter power circuit. The power point should be fitted with a neon pilot light in the visible position and the point should be within one metre of the machine. Double adaptors should not be used.

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preparing your teleprinter ready for use

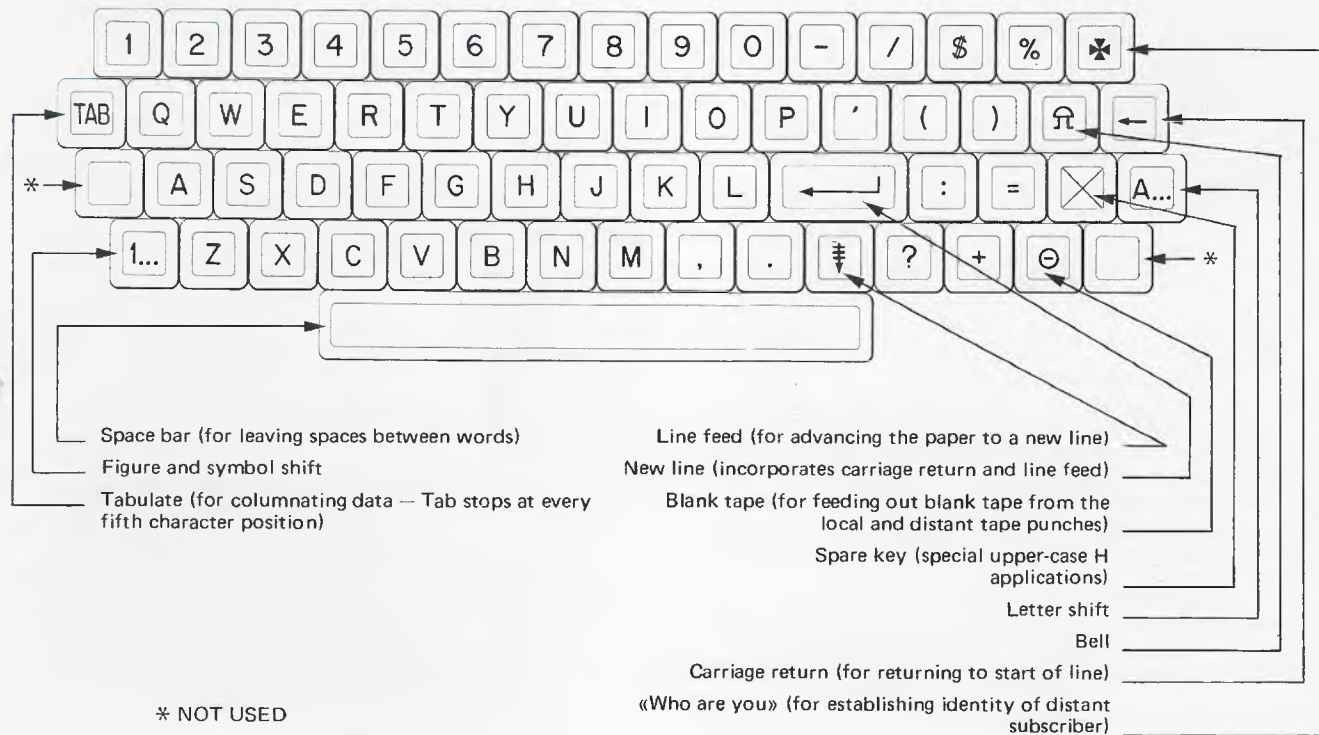


The TX 20 can only function under the following conditions :

1. When there is a supply of paper and tape (see page 16).
2. Cords for power and line plugged in and the power outlet switch «ON».
3. Teleprinter «ON/OFF» switch «ON».
4. GREEN indicator lamp «POWER» lit-up.
5. Line Test Switch set to W (see page 12).

The print head is automatically positioned at the beginning of the line and your teleprinter is ready for use.

keyboard



General Layout

This teleprinter is equipped with a four row keyboard. Each key has a separate function such as figures, letters or symbols. The diagram gives the full layout of the keyboard.

Special Symbols

Two of the three symbols on the keyboard coloured in red namely \$ and % are for National use only. The third symbol X indicates that the key is special. This key is reserved for a special switching function at present and should not normally be operated.

Repeat Character Operation

With the exception of the «WHO ARE YOU», «NEW LINE» and «TABULATE» keys, holding a key operated for more than one second will cause the keyboard to repeat a character or function until the key is released.

Keyboard Block

The keyboard is provided with a small character store to enable, for short periods, the keyboard typing rate to exceed the rate at which characters can be sent to line. If the typing speed exceeds the rate at which characters are forwarded from the store, the store is filled, the keyboard is blocked to prevent further input and the KEYBOARD indicator lamp glows. When the last

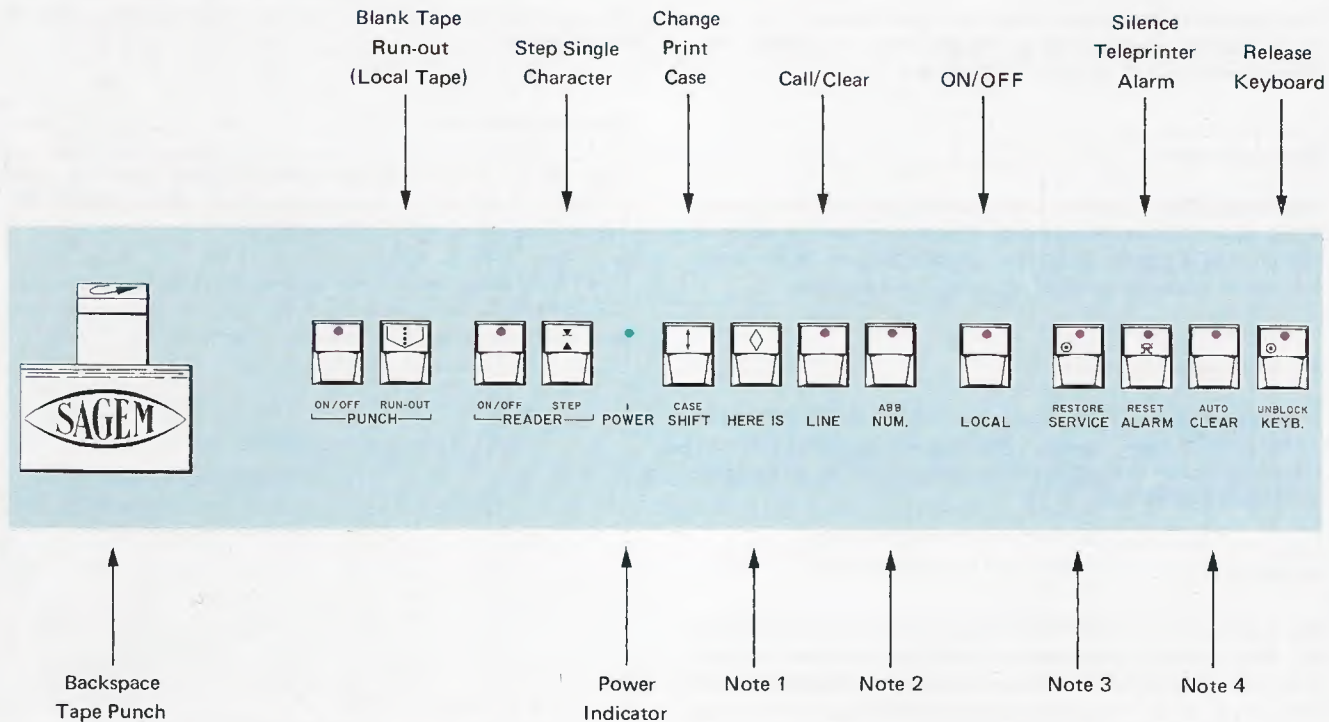
character in the store has been printed the operation of the KEYBOARD switch on the Operation Control panel will restore the keyboard to operation and the indicator lamp will be extinguished.

Automatic Case Shift

Your TX 20 is fitted with AUTOMATIC CASE SHIFT. It is not necessary to depress the case shift keys when letters, numbers and symbols are intermixed in a message.

The TX 20 Teleprinter automatically precedes the keyed character with the corresponding shift character. However, the separate shift keys have been provided for use when required.

operation panel control switches



Notes :

1. When pressed, automatically transmits your answer-back code to the distant teleprinter.
2. Used only when ABBREVIATED CALLING is provided on the teleprinter as an Optional Extra.
3. Operation will restore the teleprinter to service after replacement of the page paper roll, or correction of a fault condition.
4. If pressed after transmission by tape has commenced, the End of Message format is automatically transmitted when the tape transmission is completed.

special facility switches

A series of switches, (located beneath the lid of the cover, beside the paper tape receptacle) provide for a choice of operation to suit individual needs. The simple movement of the selected switch or switches will provide for :

- perforated tape of all incoming messages,
- a selection of single or double line spacing, and
- text visibility.

The designation and function of each of the switches is as follows:

Punch Facility Switch

The Punch Facility Switch allows the operator to select whether as a normal requirement a punched tape of incoming messages is obtained in addition to the page copy or whether a page copy only is obtained.

With the Punch Facility Switch set to :

PUNCH IN :

A page copy and a punched tape of incoming messages will be obtained. The PUNCH ON/OFF lamp on the Operation Panel will glow.

PUNCH OUT :

A page copy only of incoming messages will be obtained. The PUNCH ON/OFF lamp on the Operation Panel will be extinguished.

NOTE : The PUNCH ON/OFF switch on the Operation Panel can over-ride the setting of the Punch Facility Switch for a particular call.

Operation of the PUNCH ON/OFF switch when the Punch Facility Switch is set to :

PUNCH IN :

Will disconnect the tape punch and extinguish the PUNCH ON/OFF lamp.

PUNCH OUT :

Will connect the tape punch and light the PUNCH ON/OFF lamp.

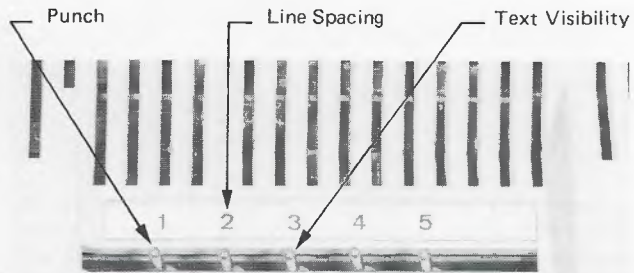
Line Spacing Facility Switch

Should it be required to alter the line spacing in the teleprinter, a selection of single or double spacing is available with the movement of the Line Spacing Facility switch to the required position.

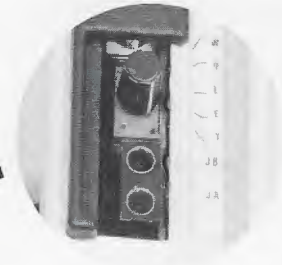
Test Visibility Switch

During transmission the typed characters are obscured by the inking ribbon. After a delay after the last character is printed the inking ribbon is automatically withdrawn to provide an unobscured view of the typed characters. The delay period for the

withdrawal of the inking ribbon can be 750 milliseconds for slow typing speeds or 250 milliseconds for faster speeds. This is done by selecting the appropriate position on the Text Visibility switch.



line test switch



Working
Open
Loop
Earth
Transposed

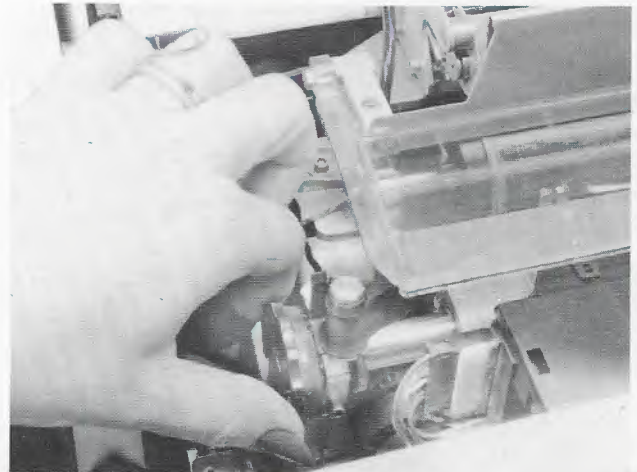
Your machine features a five position switch to be used as instructed by the maintenance technician.

The Line Test Switch should be left in the «working» (W) position until such time as the maintenance technician requests otherwise.

re-adjusting printing impact for multi-copies

An adjustment is provided to permit the pressure of the printing impact to be varied to suit the number of copies being printed. The adjustment can be altered by moving the type-head away from the papers by means of an adjustment device located inside the teleprinter on the left hand side directly below the ribbon spool.

NOTE : This adjustment should not be used to compensate for light printing due to a wornout ribbon. Remember to adjust the printing impact when changing between single-copy and multi-copy rolls.



page copy identification

Three types of character styles make it possible to distinguish on the page copy when a message is locally prepared, has been transmitted, or is a message received.

A message locally prepared is printed slanted towards the left :

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890

A message transmitted is printed slanted towards the right :

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890

A message received is printed vertically :

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890

local paper tape preparation and transmitting by paper tape

Refer to the relevant operating manual detailing the operation of your teleprinter when connected to the Telex network or to a leased private line.

remote control of the tape punch

This facility will enable the distant terminal to switch your tape punch ON (by transmission of CCCC) and to switch it OFF (by transmission of FFFF). The remote control will over-ride any local setting of the punch, therefore the distant operator can ensure that you will obtain a tape copy of a particular message.

remote control of the tape reader

If this facility is provided on your TX 20 Teleprinter, a distant terminal is able (by transmission of SSSS) to switch your tape reader ON. A message tape previously placed in the reader will be transmitted to the distant terminal.

renewing stationery and ink ribbons

PAPER

When the paper roll is nearly depleted an alarm operates to indicate PAPER OUT :

- the teleprinter is automatically placed «out-of-service» whether operating in LOCAL or to LINE. The LINE connection is terminated,
- the teleprinter will print PAPER OUT on the page copy,
- the audible alarm operates,
- the RESET ALARM and RESTORE SERVICE lamps will glow.

The audible alarm may be silenced by pressing the RESET ALARM key on the Operation Panel. The lamps continue to glow and all teleprinter operations are inhibited until firstly the paper roll is replaced and then the RESTORE SERVICE switch is pressed.

DO NOT SWITCH OFF THE POWER WHILE CHANGING THE PAPER ROLL.

The teleprinter paper roll cannot be replaced during a message as removal of the paper roll will place the teleprinter «out-of-service» and clear the connection. If a distant terminal calls during the «out-of-service» period the audible alarm may again be silenced.

Warning

A teleprinter using multiple-copy rolls should not be left unattended for long periods.

There is a difference in length between the inner and outer sheets of multiple-copy rolls and special care must be taken to prevent faults caused by the paper from the outer sheets forming a loop.

Excessive looping allows the sheets to depart from their relative positions in the roll and may cause the edge of the paper to foul the paper guides in the teleprinter. It is therefore necessary to readjust the paper roll at intervals to guard against paper-feed faults.

TAPE

When the tape supply is nearing depletion a «Tape Low» warning is given and 600 characters later the tape punch is automatically switched off.

In Local Operation

When «Tape Low» occurs :

- the keyboard is blocked,
- the KEYBOARD lamp glows,
- the PUNCH ON/OFF lamp flashes.

The keyboard is unblocked by pressing the UNBLOCK KEYBOARD switch on the Operation Control Panel. Tape punching may then continue until another 600 characters have been punched when the «Tape Out» alarm will operate.

When «Tape Out» occurs :

- . TAPE OUT is printed on the local page copy,
- . the punch is switched OFF,
- . the audible and visual alarms operate.

In Line Operation

When «Tape Low» occurs, the PUNCH ON/OFF lamp flashes to warn that the tape supply is nearly exhausted. Tape punching may continue for another 600 characters then the «Tape Out» alarm will operate.

When «Tape Out» occurs :

- . the punch is switched off,
- . the PUNCH ON/OFF lamp is extinguished,
- . the audible and visual alarms operate.

Transmission or reception may continue without tape copy.

The audible alarm may be silenced by operation of the RESET ALARM switch. The RESET ALARM lamp will continue to glow.

Any attempt to re-connect the tape punch before the tape roll is replaced will re-operate the audible alarm.

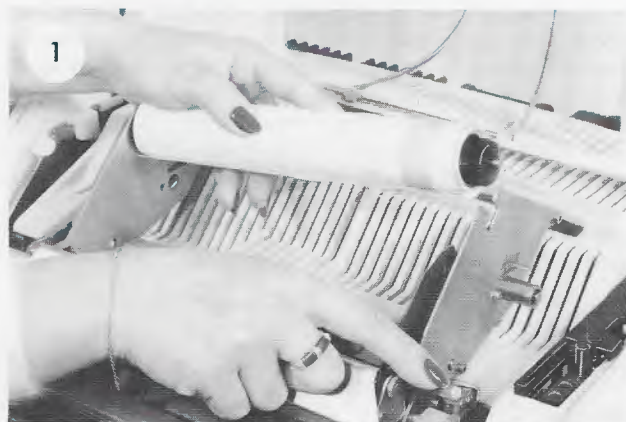
RIBBONS

Before replacing the ink ribbon, turn the power OFF by means, of the POWER ON/OFF switch (See page 4).

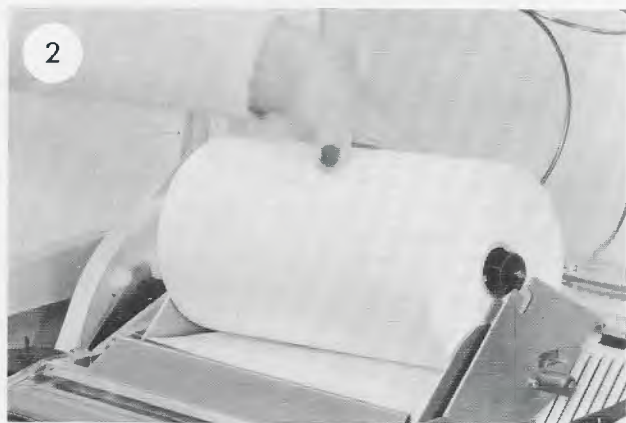
Ribbons used on the TX 20 Teleprinter must be of high quality woven fabric and be wound on Underwood type ribbon spools. The ribbon must be 13 mm wide, 13 m long and have an eyelet at each end fixed a minimum distance of 150 mm from the ribbon end. Do not use any other type of ribbon spool.

Note . . . When you have finished do not forget to turn the teleprinter power ON. The green POWER ON indicator on the Operation Panel will glow.

replacing the paper roll

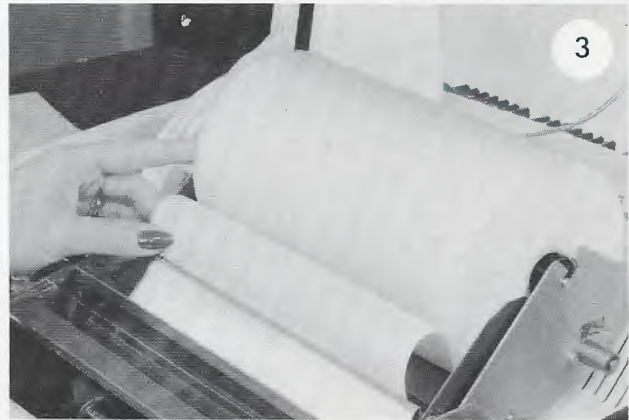


- 1** Lift the lid of the cover.
Swing the lever of the paper holder towards the front of the teleprinter and remove the used roll. Take the spindle from the old roll and insert it in the new paper roll.

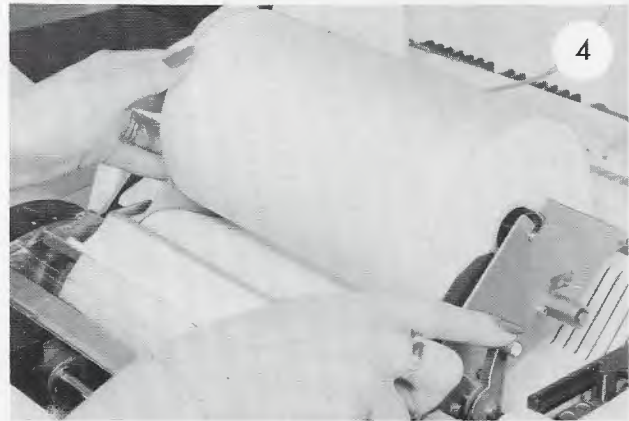


- 2** Put the assembly on the support, the paper must unroll from the bottom towards the front of the machine.

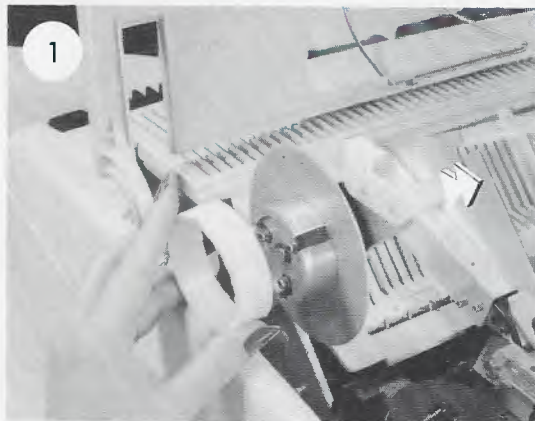
- 3 Insert the paper over the spring-loaded bar behind the platen then under the paper cutter.



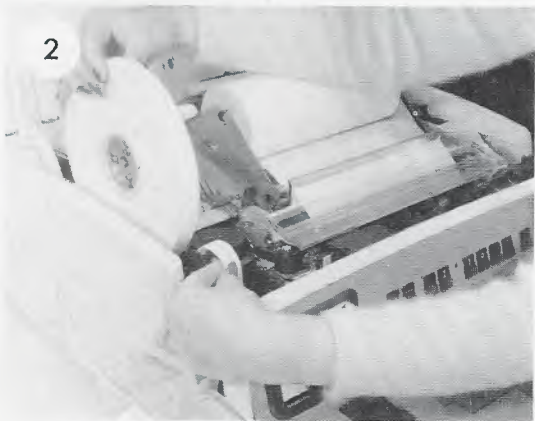
- 4 Stretch the paper and make the edges of the paper run parallel to the edges of the roll. Swing the lever of the paper holder towards the back of the machine. Tear the paper off along the paper cutter. Operate the UNLOCK switch to return the teleprinter to operation. Press the LOCAL switch. When the LOCAL indicator lamp glows, carry out a test from the keyboard to ensure the paper feeds correctly.



replacing the paper tape

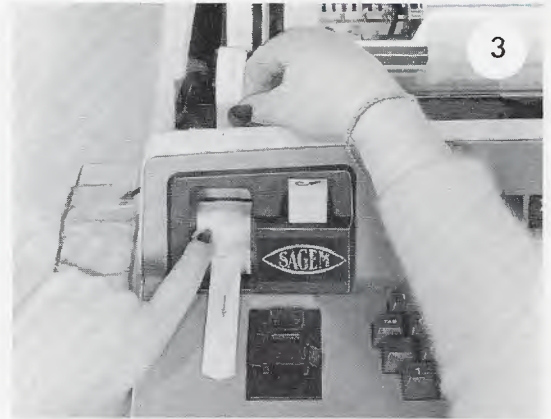


- 1** Lift the lid of the cover.
Pull the tape support upwards to its stop. Remove the used roll.



- 2** Install the new roll in such a way that the tape unrolls from the top towards the front of the machine. Let the tape pass under the tape tension lever. Return the tape support to the original position.

- 3 Free the tape holder of the punch by pressing the associated lever.
Feed the tape until it comes out of the tape holder.



- 4 Press the tape holder until it locks. A click will be heard.

Press the PUNCH RUN-OUT key to ensure that the tape feeds freely from the punch.



replacing the ink ribbon



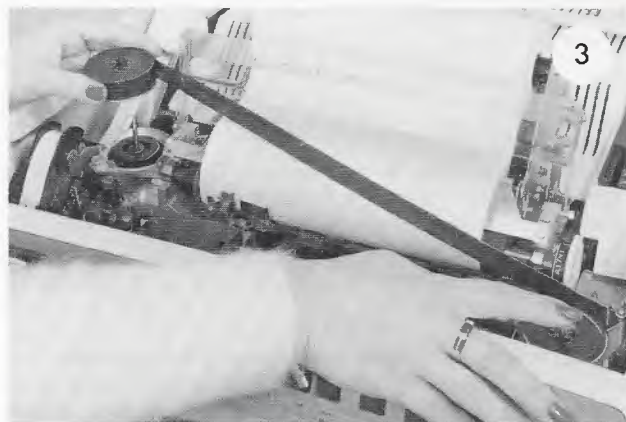
Switch the Teleprinter POWER ON/OFF switch (see page 4) to «OFF».

- 1 Lift the lid of the cover.
Lift the paper cutter and spool locks.



- 2 Remove the spools and the used ribbon.

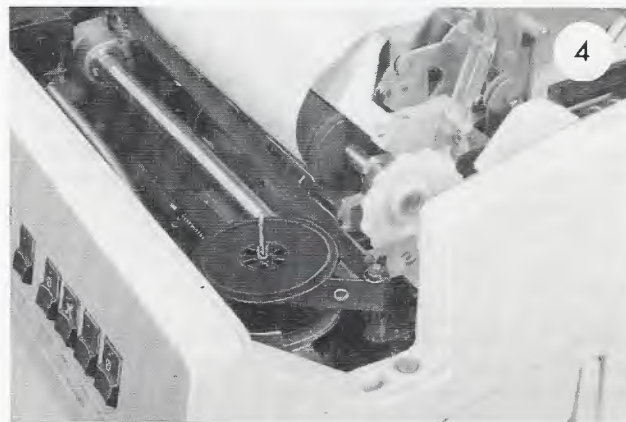
- 3 Hold the spools with the new ribbon in position (See sketch on the underside of the lid for details on path).



- 4 Place firstly the right hand spool then secondly the left hand spool on their respective supports.
DO THIS IN THE CORRECT ORDER.

Locate the ribbon in the ribbon guides with the eyelet positioned as indicated in this photograph. Replace the paper cutter.

Restore the Teleprinter POWER switch to «ON». The green power indicator lamp will glow.



optional extras

The following additional attachments and facilities are available as optional extras.

Pedestal Mounting

A pedestal is available for mounting the TX 20 Teleprinter as an alternative to table mounting. The pedestal is attractive in appearance and incorporates a footrest for the operator.

Extended Alarms

Within the same premises an extended alarm can be provided that will operate in synchronization with the audible alarms in the TX 20 Teleprinter. The extended alarm will also indicate when an incoming call is in progress on the machine.

Abbreviated Calling (Telex Only)

This optional facility, when fitted, allows you to call any one of ten Telex subscribers' numbers by depressing the LINE switch and the appropriate letter key. Refer to the Telex manual for operational details.

Page winder

Should a continuous page record of all teleprinter messages be required, a page winder can be fitted to take up the record copy paper as it is fed from the teleprinter.

Sprocket Feed

When accurate indexing is required between the printed copy on machines operating together, sprocket feed operation is adopted. The sprocket feed attachment provides a platen having a number of pins around the circumference at each end. These pins engage with holes perforated along each edge of a special sprocket punched form. This type of paper feed is essential to ensure accurate alignment on each ply of multiple forms, on teleprinters operating together in the preparation of order forms etc. where characters are inserted by the teleprinter in spaces or blocks marked out on a pre-printed form. Sprocket feed stationery for single copy use may be in roll form or pack form. Multiple copy sprocket feed stationery must be pack form.