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Distribution Engineering

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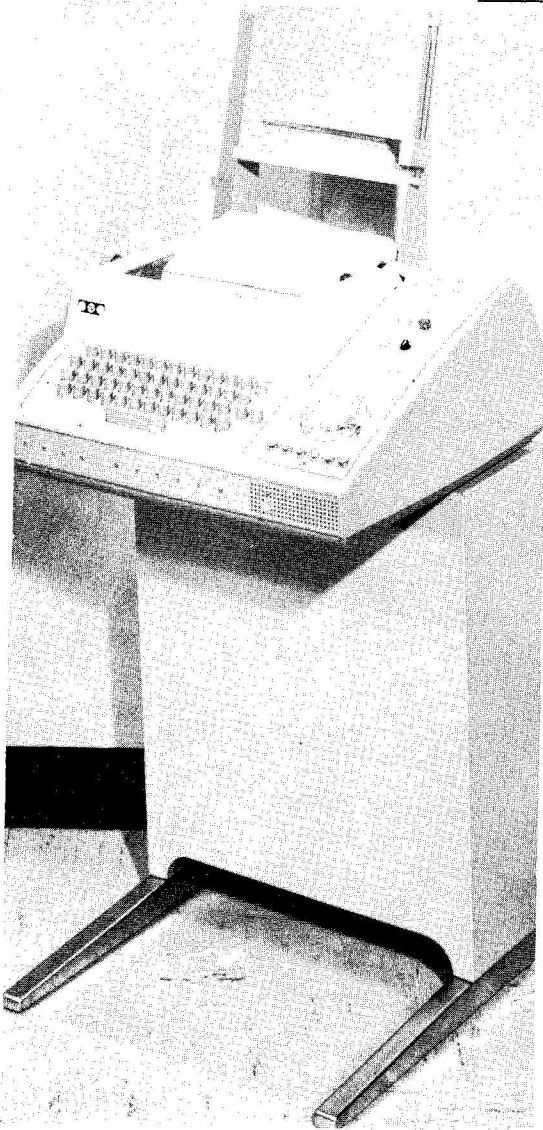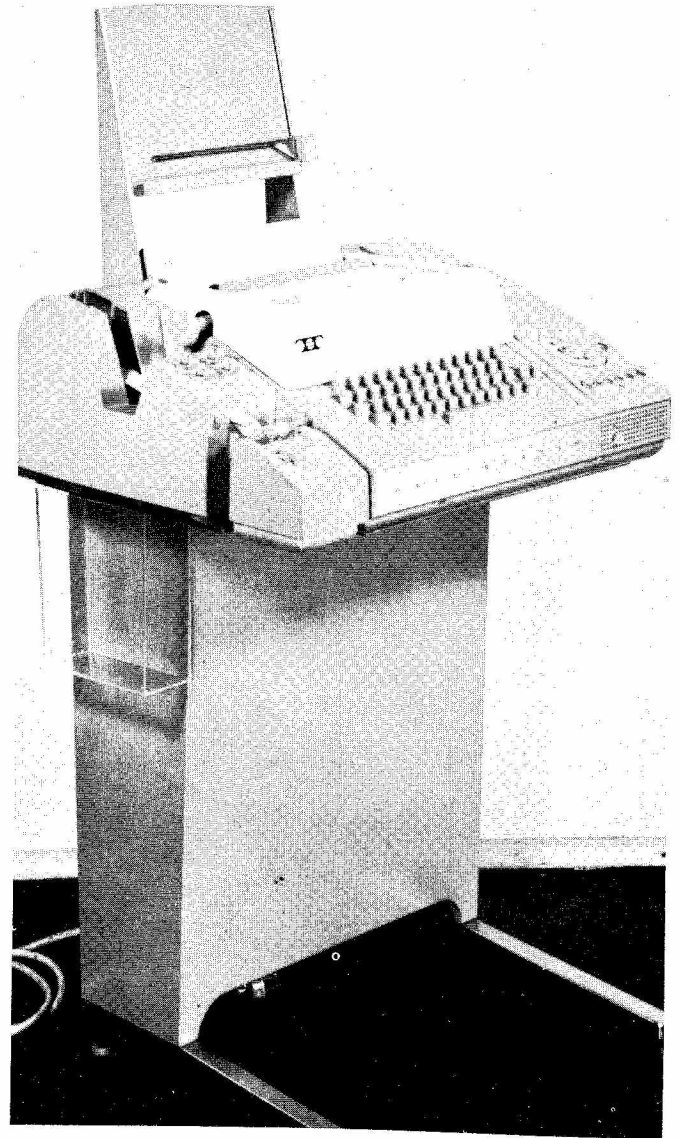Section 26
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33 TYPE TELETYPEWRITER SETS

33KSR

33ASR

GENERAL DESCRIPTION: The model 33 teletypewriter set receives and transmits 8 level, 11 unit code in a sequential start - stop arrangement. Operation is at a speed of 100 words per minute (110 Bauds).

The 33 type equipment has been coded as complete sets with a dash suffix after the code which specifies the dial equipment as follows:

- 1 = Rotary Dial
- 2 = Touch tone dial
- 3 = Touch tone card dialer
- 4 = D.C. card dialer
- 5 = Set is supplied without dial and bezel

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The following pages contain descriptions of the major components of which
a 33 type set is composed.

KEYBOARD (33KSR & 33ASR)

The Model 33 keyboard is similar in appearance to a four row typewriter
keyboard. Letters and numerals are on separate keys and there are no
fractions on the keyboard. It is equipped with a contact mechanism at
the extreme right which sets up the code combinations for conversion to
start - stop signals by the distributor. A "Shift" key is provided to
transmit the printing characters in upper case and a "Control" key is
provided to transmit the control functions. The associated Shift or
Control key must be held down while the key is depressed.

The parity keyboard is the same as the standard eight level data inter-
change code keyboard except the "ALT MODE" key has been changed to "ESC".
A contact mechanism has been mounted on the left hand side of the key-
board for even parity generation. This mechanism adds a pulse whenever
the number of marking pulses in a code combination is odd, therefore, it
can be used as an error detection feature.

PRINTER ASSEMBLY (33RO, 33KSR & 33 ASR)

The Model 33 printer utilizes a typewheel to provide up to one original
and one carbon copy on friction and sprocket feed paper. Paper 8 1/2
inches wide and up to 5 inches in diameter (roll) can be accepted. Ver-
tical positioning of 6 lines per inch, single or double line feed, and
horizontal positioning for 72 character lines are provided.

The printer is provided with a function box with 15 slots, which have
been assigned as follows: Position 1 Line Feed, Position 2 Carriage
Return, Position 3 Space, Position 5 Print Suppression, Position 6 Print
Suppression for Control, Position 7 Bell, Position 12 E.O.T., Position 13
Line Feed, Position 14 Form Out, Position 15 Ans-Back Function (WRU). In
addition to the functions provided by the function box and shown on the
keytop arrangement, the printer is provided with a margin bell which operates
on the fourth character from end of line, print suppression on space,
space suppression after the 72nd character so that the 73rd character
partially or wholly overprints the 72nd, RU actuation on Control"F", WRU
actuation on Control"E" and form on Control"L".
Print and space suppression on line feed, carriage return, shift, control,
bell and break are provided.

An answer-back mechanism which operates in conjunction with the distributor
is activated by operation of "here-is" key or receipt of control "WRU".
The drum of the mechanism may be coded to provide a 20 character sequence,
9 & 10 character sequences, or three 6 character sequences.

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MOTOR (33RO, 33KSR & 33ASR)

This is a synchronous, capacitor start, motor designed for operation at
3600 rpm. It operates on 115 VAC ±10%, 60 cps, single phase and 2 amperes.
The motor provides an output of 0.033 horsepower.

CALL CONTROL UNIT (33RO, 33KSR & 33ASR)

This unit provides facilities for initiating, accepting, controlling and
completing calls. It is mounted under a bezel at the right side of the
cover.

Mounted at the front of the unit is a speaker and volume control for
monitoring the progress of calls. Immediately above and behind the speaker
is a row of six illuminating push buttons designated Originate, Clear,
Answer, Test, Local, and Buzzer Release. The first three are the momentary
type while the last three are locking type.

A dial is mounted on the call control unit for a 33KSR or a 33ASR behind
the row of push buttons. Above the dial is furnished an Out of Service key
and an Out of Service Switch for 33RO, 33KSR & 33ASR while a Break Release
lamp & Push button and a Reset lamp are provided for the 33KSR & 33ASR only.

In addition, the Call Control Unit contains a Motor Control Relay, a 500
milliampere selector magnet driver, a 48 volt rectifier, power line fuses,
a ringer mechanism to signal an incoming call and a transistorized speaker -
amplifier to drive the speaker. At the rear of the unit are six female
receptacles for interconnection of units and a nine point terminal board.
Provided with the set is a three prong AC power cord.

TAPE PUNCH (33ASR)

The punch, located on the left side of the machine, is controlled by "on"
and "off" pushbuttons which provide mechanical linkage between it and the
typing unit. A "REL" pushbutton releases the feed guide mechanism so that
tape can be easily removed. A "BSP" pushbutton backspaces the tape one
combination of code holes. The punch may not be used for preparing tape
blind because of the mechanical linkage and the use of the common distributor
by both the tape reader and the typing unit. Prepared tape is fully per-
forated and a detachable chad bin is provided. The bin is suspended from
the stand on the left side. A separate cover is provided which is also used
as a tape holder.

TAPE READER (33ASR)

This reader is magnet driven and pulsed under control of the common
distributor. The output is in parallel and is sent to the common
distributor. A three position "off-on-freewheel" switch is provided
for control of the reader. A separate cover is provided.

COVER (33RO, 33KSR & 33ASR)

A plastic cover, which encloses all of the previously mentioned material,
contains a lid for easy replenishing of paper and ribbon and a window
through which copy may be viewed. The window contains a cutting edge for
tearing the paper. A paper roll is held on a spindle which sets in de-
pressions at the rear of the cover. Dimensions of the cover are 18 1/2"
deep, 3 3/8" high, and 18 5/8" wide for 33RO & 33KSR. The 33ASR is 23"
wide due to the punch and reader assemblies.

STAND (33RO, 33KSR & 33ASR)

The sheet metal stand supports the Printer at the correct operating level
and also acts as the housing for the Data Set. A removable rear panel
provides access to the enclosure and to the power pack for the tape reader.
The chrome feet of the stand are equipped with leveling screws. Dimensions
of the stand are 8" x 18" at the top, 6 1/2" x 18" at the bottom, and 24 5/8"
high.

COPY HOLDER (33KSR & 33ASR)

The copyholder is mounted on the rear of the cover.

The Cover, Stand and Copyholder are provided in Light Olive Gray Alkyd Enamel
Color (Finish 702) as standard. Any other finish required must be specified
by description.

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33 KEYBOARD SENDING & RECEIVING TELETYPEWRITER SETS

33 TTY SET	FRICTION FEED	SPROCKET FEED	STANDARD KEYBOARD	PARITY KEYBOARD	MOTOR	CALL CONTROL UNIT	COVER & STAND	COPYHOLDER	DIAL				NOTES
									ROTARY	TOUCH-TONE MANUAL	TOUCH-TONE CARD	D.C. CARD	
A-X3-5	X			X									
D-X3-5		X		X	X	X	X	X					1,2
A-1	X		X										
D-1		X	X		X	X	X	X	X				1
A-2	X		X										
D-2		X	X		X	X	X	X		X			1
A-3	X		X										
D-3		X	X		X	X	X	X			X		1
A-4	X		X										
D-4		X	X		X	X	X	X				X	1
A-5	X		X										
D-5		X	X		X	X	X	X					1,2

NOTE 1: See General Section for description of each component.

NOTE 2: Set is supplied without Dial and bezel.

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33 RECEIVING ONLY
TELETYPEWRITER SET

33B TELETYPEWRITER SET

This set contains a friction feed printer, motor, call control unit, cover, and stand as described under General Description. The set is not equipped with a dial or keyboard.

33E TELETYPEWRITER SET

This is the same as the 33B Teletypewriter Set except is is arranged for sprocket feed and form out.

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33 AUTOMATIC SENDING & RECEIVING TELETYPEWRITER SET

33 TTY SET	FRICTION FEED	SPROCKET FEED	STANDARD KEYBOARD	PARITY KEYBOARD	MOTOR	CALL CONTROL UNIT	TAPE PUNCH	TAPE READER	COVER & STAND	COPYHOLDER	DIAL — ROTARY	DIAL — TOUCH-TONE MANUAL	DIAL — TOUCH-TONE CARD	DIAL — D. C. CARD	NOTES
C-X3-5	X			X	X	X	X	X	X	X					
F-X3-5		X		X	X	X	X	X	X	X					1,2
C-1	X		X		X	X	X	X	X	X	X				
F-1		X	X		X	X	X	X	X	X	X				1
C-2	X		X		X	X	X	X	X	X		X			
F-2		X	X		X	X	X	X	X	X		X			1
C-3	X		X		X	X	X	X	X	X			X		
F-3		X	X		X	X	X	X	X	X			X		1
C-4	X		X		X	X	X	X	X	X				X	
F-4		X	X		X	X	X	X	X	X				X	1
C-5	X		X		X	X	X	X	X	X					
F-5		X	X		X	X	X	X	X	X					1,2

NOTE 1: See General Section for description of each component.

NOTE 2: Set is supplied without dial and bezel.

MODIFICATION KITS
33 TYPE SETS

TP182044	Elapsed Time Indicator
TP182269	Prevents Double Tripping of Keyboard, Reader & Ans-back
TP182487	Installing DC Card Dial - Less Dial
TP182488	Installing Touch-Tone Card Dial - Less Dial
TP182489	Installing Touch-Tone Dial - Less Dial
TP182490	Installing DC Rotary Dial - Less Dial
TP182496	Installing DC Rotary Dial - With Dial
TP182497	Installing Touch-Tone Dial - With Dial
TP182498	Installing Touch-Tone Card Dial - With Dial
TP182499	Installing DC Card Dial - With Dial
TP182128	Convert 8 Level Printer For Automatic Reader Control
TP183138	Provide Improved Reader Mounting Parts
TP194914	Provide a Directory Holder
TP195259EW	Provide Mounting Facilities for a Paper Winder

END OF SECTION