SDS 9139B/9139C
I/O Typewriter (IBM Selectric Type 908)
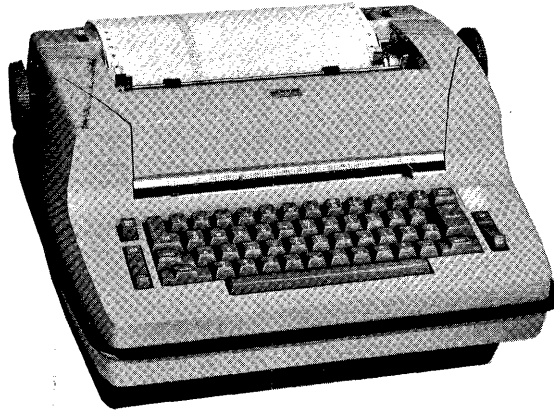
Figure 1. SDS 9139 I/O Typewriter

Table 1. SDS 9139 Characteristics

Item	Specifications	
	AC	DC
Power Requirements	115 vac ±10%, 60 cps, 1 amp, supplied by 910/ 920 Computer moldstrip or Paper Tape Cart convenience outlet	+50 vdc, 0.7 amps; + 8 vdc, 0.2 amps supplied by Coupler
Recommended Service	115 vac, 2 amps	
Service Receptacle	Hubbell type 5262 FE polarized or equivalent, when not using Computer or Paper Tape Cart provisions	Location J44 of 9134/7/8 Coupler
Power Cable	8 ft long, standard	5 ft long for 9139B, 25 ft long for 9139C
Operating Temperature	5-35°C (40-95°F)	
Operating Humidity	20-95%	
Heat Dissipation	400 BTU per hour	
Weight 9139B (11-inch carriage) 9139C (15-inch carriage)	25 lbs 35 lbs	
Floor and Access Area	Included in Computer Console planning	

INSTALLATION PROCEDURE

(1) If not already present, install 9134/7/8 Coupler, designated chassis T, as described in Installation Data Sheet 900662.

(2) Install Cable Plug Module P30 in receptacle J44T Coupler chassis T.

(3) When a second I/O Typewriter is used, install Cable Plug Module P30 from Typewriter #2 in receptacle J44T of Coupler chassis T #2.

TYPEWRITER CHECKOUT
INTERDEPARTMENTAL MEMO
E-6-512

SDS 900951A   October 1963

INTERDEPARTMENTAL MEMO

TO: Harley Dennis   DATE: 4 October 1963
                                                          E-6-512

FROM: Jim Buell

SUBJECT: Typewriter Checkout

The IBM typewriter which Manufacturing presently supplies to Final Test
requires several adjustments.   These adjustments can be accomplished
before the unit is connected to the computer.

Attached is a set of adjustment procedures which should be conducted on the
typewriter prior to final checkout of the typewriter with the coupler and the
computer.   Ben Garcia took part in setting up these procedures and is fami-
liar with all of the adjustments.

The following test equipment is required:

a.   Dual Trace Oscilloscope

b.   Two Eico power supplies - Model 1020, 0.5 amp

c.   Miscellaneous hand tools

The power supplies provide +8 v. (Pin 45-P30) and -25 v. (Pin 46-P30) to
the typewriter.

After the adjustments have been made, the unit should be attached to the
computer and exercised by the diagnostic routines which you are now using.

Type-Out

1.   Space - backspace routine

2.   Entire character set routine

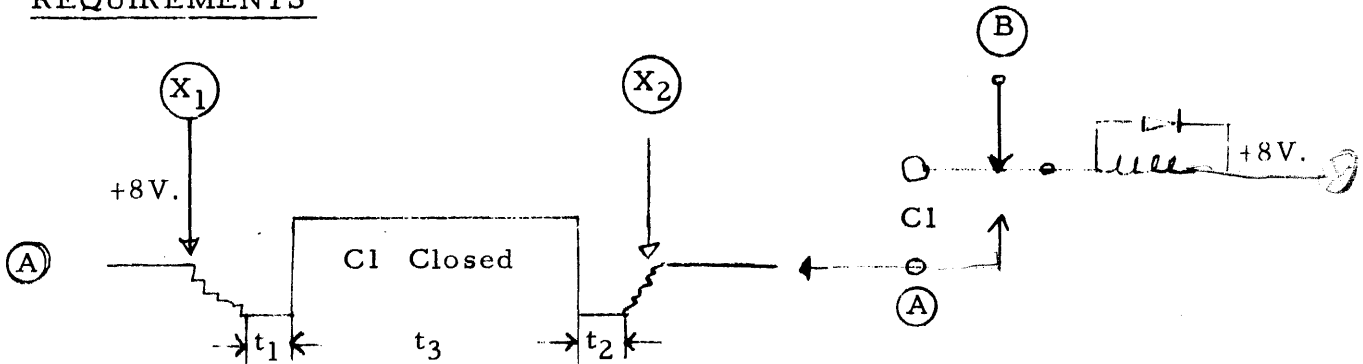Type-In

1.   Four-character echo routine

JB/z

CC: Beck, Mitchell, Neill, Garcia, File,Wallace

TYPEWRITER ADJUSTMENTS

1. **C1 - Cam and contacts**

REQUIREMENTS

a. t_1 - At least 2ms but not more than 5ms

b. t_2 - At least 2ms but not more than 5ms

c. t_3 - At least 30ms but not more than 35ms.
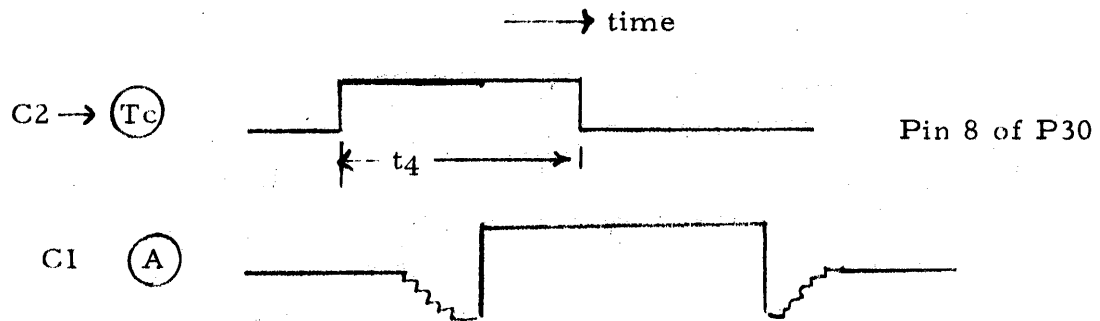
ADJUSTMENTS

a. Position C1 contact assembly as near to cams as possible.

b. Type the character "7" and adjust C1 cam (white) such that C1 pulse is centered between points X_1 and X_2.

c. Next, adjust C1 contacts to provide requirements of t_1, t_2, t_3.

Note:

a) It may be necessary to adjust the character contacts to achieve proper timing.

b) Trigger scope at B (trigger negative).

2.   C2 - Cam and contacts

REQUIREMENTS

C2 → (Tc)   Pin 8 of P30

C1 (A)

a. t_4 - At least 15ms but not more than 20 ms

b.   Fall of (Tc)   5ms after   the rise of C1.
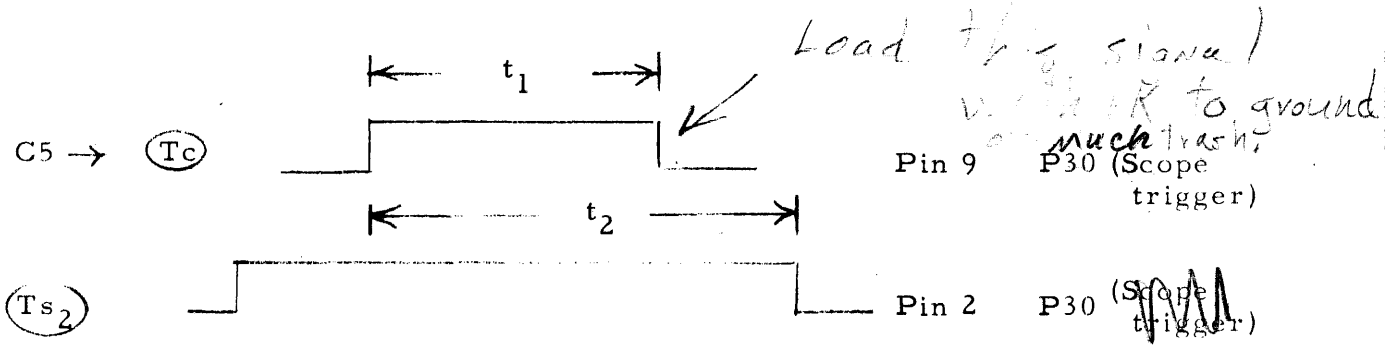
ADJUSTMENTS

Position the C2 cam (blue) and form the contacts to achieve the above requirements.

(Type "7"s)

(Trigger scope at (B) negative)

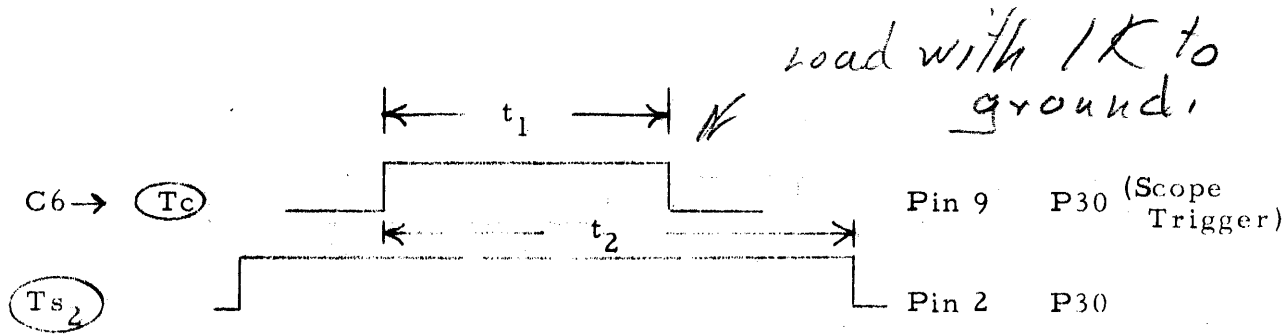3.   C5 - Space, Back Space, Tab Interlocks

REQUIREMENTS

C5 → (Tc)   Pin 9   P30 (Scope trigger)

(Ts₂)   Pin 2   P30 (Scope trigger)

Load the signal with ... R to ground much trash?

a. t_1 - At least 25 ms but not more than 35 ms

b. t_2 - At least 35 ms but not more than 50 ms

c. C5 breaks before making

d. C5 N. O. gap at 0.035" - 0.040"

ADJUSTMENTS

Position switch C5 and form its contacts as required to achieve above requirements for each of the functions - Tab, Back Space, Space.

4.   C6   -   Carriage Return Interlock

<u>REQUIREMENTS</u>

load with 1K to ground.

```
                    |←———  t₁  ———→| //
                        _____
C6 →  (Tc)      _____|           |_____        Pin 9    P30  (Scope
                       |←——— t₂ ————————→|                        Trigger)
       (Ts)        ____|                 |
                  |                       |____      Pin 2    P30
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a. t_1 - At least 20 ms but not more than 40 ms

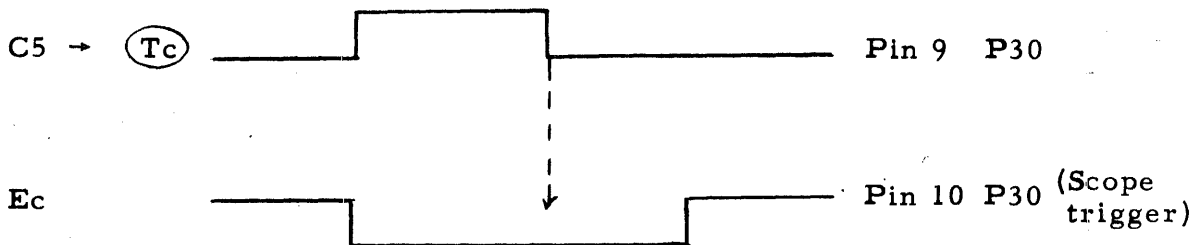b. t_2 - At least 35 ms but not more than 60 ms

<u>ADJUSTMENTS</u>

Position switch C6 and form its contacts as required to achieve above requirements for carriage return operation.

5. Tab Interlock

Requirements

1. With carriage return at extreme right, the tab interlock must close - Ec is high

2.

C5 → (Tc) ⎍ Pin 9   P30

Ec ⎍ Pin 10 P30 (Scope trigger)

While tabbing, at least four spaces, Ec must remain low at the time (Tc) falls.

Adjustments

1. Adjust tab interlock microswitch such that contacts (NC) are closed at right extreme.

2. Adjust microswitch such that contacts open before (Tc) falls - requirement 2 above.