SET - 30
PROGRAMMING MANUAL

SD-192/SD-192MX AND SD-232

TA-S30-2B

Nov. 1, 1984

PROGRAMMING

SET-38 is programmed from the Key pad in conjunction with the feature buttons.

General

The STORE button is used at the end of each procedure or during a procedure to store the programmed information in the instrument's memory.

Pressing the STORE button in response to a particular prompt will leave the programmed information in tact. If nothing was programmed, it will remain blank. It is, therefore, used to skip prompts, which require no response during a change procedure.

The BACK button is used to erase the last character entered. Pressing the button several times will erase several entries.

The HANG UP button is used to terminate a procedure that was entered by mistake or requires to be terminated for other reasons. If the HANG UP button is pressed during a programming procedure which is not finished, the program will default to . what was originally programmed (if anything).

The DISPLAY button will display information concerning another feature button when that feature button is also pressed after pressing the DISPLAY button.

The first item to be programmed on each SET-30 will be a mask.

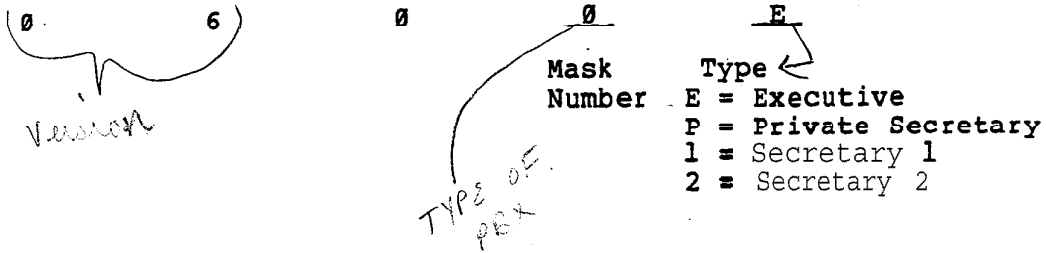MASK 0 is used for SATURN II or SATURN III.
MASK 1 is used for SD-192, SD-232, or SD-192MX.
MASK 2 is used for SD-80

If after programming the mask is reprogrammed, the programmed data will be lost (it will revert to standard data base).

To display the mask press the DISPLAY button twice. (This will also indicate what type of set after programming.)

Part of the display will be a number as shown below:

Ø . 6   Ø   Ø   E

Version   _TYPE of PBX_   **Mask Number**   **Type**
              E = Executive
              P = Private Secretary
              1 = Secretary **1**
              2 = Secretary 2

PROGRAMMING

Before programming, fill out the database tables shown on the next several pages or the tables in the regular SET-30 documentation.
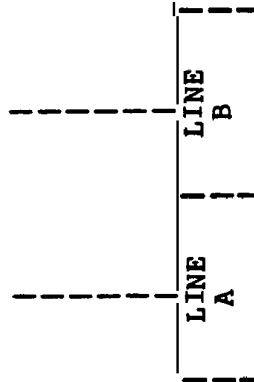
Separate sets of tables are provided for Multiplexer **(MUX)** Groups (one or two secretaries and many executives) and Executive/Private Secretary combinations.

For stand-alone executive phones, use the portion of the Executive/Private Secretary table which is applicable.

EXECUTIVE STAND ALONE TABLE

EXECUTIVE INSTRUMENT

1st PBX Line
2nd PBX Line

LINE A	LINE B

EXECUTIVE INSTRUMENT

	RING ARRANGE-MENT	DIRECT FORWARD TO	EXT:
LINE A	100		EXT:
LINE B	200		

CROSSCONNECTIONS

PBX LINE 100 TO PAIR 1, PINS 4 & 5 TO LOCAL POWER	PAIR 2, PINS 3 & 6 PAIR 3, (Not Used)	PBX LINE 200 TO PAIR 4, PINS 1 & 8

<u>EXECUTIVE   (Stand-Alone)</u>

Press STORE, FEATURE **+,** 0, **#** buttons in sequence.   (Disregard INVALID display between buttons.).

```
| SELECT MASK (0 — 9)|                    Enter_____and  STORE
|_____|
```

```
| SELECT  MODEL      |                    Enter      2 and STORE
| SECT = 1, EXEC = 2 |
|_____|
```

Press STORE and COM (3rd ivory button in bottom row) in sequence

```
| EXTENSION FOR      |                    Enter_____and  STORE
| LINE A:            |
|_____|
```

```
| EXTENSION FOR      |               (Normally  not  used)  Enter  STORE
| LINE B:            |
```

To display the programmed lines , perform the following procedure:

Press DISPLAY and COM (3rd ivory button in bottom row) in sequence

```
| WHICH LINE ?       |
| A = 1, B = 2       |                    Enter_____and  STORE
```

Not applicable at
EXECUTIVE Station   Line requested (A or B)
     | |
     | |
     V   V
```
| COM = NO      LINE A|
| X1400              |
|__A__-_____|
```
     |
     |
Extension number of requested line (XNONE if none is assigned)

RING ARRANGEMENT AND DIRECT FORWARD DESTINATIONS **(STAND-ALONE EXECUTIV**

Press STORE and DIRECT FORWARD buttons in sequence

```
_____
| RING ARRANGEMENT    |
| (1-7) ?             |
|_____|
```

Ring arrangement need not be entered.
Press STORE
If no ring arrangement is programmed, it automatically defaults to arrangement 1.

Section	Description
1	Duplicate ringing. Rings both secretary's and executive's phones.
2	Delayed duplicate ringing. Rings of executive's phone. After two rings, the call also rings at the secretary's phone.
3	Executive answers. Rings only at executive's phone.
4	Full **call** screening. Rings only at secretary's phone.
5	Overflow call screening. Rings first call at executive's phone. Subsequent calls will ring at the secretary's phone as long as the executive's phone is busy.
	Primary line call screening. Line A designated as primary line, and rings at the secretary's phone. Line B designated as secondary line, and rings at executive's phone when idle. If line B is busy, calls ring at secretary's phone.
7	Secondary line call screening. Same as 6 but A and B are reversed.

```
_____
| FORWARD LINE A      |
| TO                  |
|_____|
```

Enter _____and STORE

```
_____
| FORWARD LINE B      |
| TO                  |
|_____|
```

Enter _____and--STORE

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To display Ring Arrangement and Direct Forward Destination perform the following procedures:

Press DISPLAY and DIRECT FORWARD buttons in sequence

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
| WHICH LINE ?     |
| A = 1, B = 2     |
|_____|
```
                                    -Enter _____and STORE

                station to which chosen
                line is forwarded

                        |
                        V

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
I AFWD to 1400     |
| 1 DUPLICATE RING |
|_____A_____|
```

                    |
Ring Arrangement used

SPEED DIAL

Press STORE and SPEED DIAL buttons in sequence

```
| WHICH LOCATION  |
| 1-6, 70-99      |
I_____I
         ^
```

Speed Dial Indexes
Index being programmed
   |
   |

Enter _____ but do not press
STORE unless you want to skip
the next step (just change name,
not telephone number).

```
_____
| 1 ENTER NUMBER        |
|                       |
|_____|
```
  56 digits maximum
  (only last 12 will
  be displayed in
  bottom row as entered

If the instrument is to merely
outdial digits, enter the tele-
phone number and STORE (preceded
by the PBX trunk group access code
for the trunk group to be used,
unless the instrument is connected
directly to CO trunks).

If additional commands are
required (see Table page **11),**
perform the procedure in the
dotted lines between the digits
where an additional command is
required. Several commands may
be programmed in succession.

- -

Press SPEED DIAL button

```
_____
| 1 ENTER (ALPHA)       |
|   9                   |
I_____|
  A
  |
```
Number programmed so far

Press tone pad Key which
corresponds to the alpha
character desired.

Note: Each numbered Key except 0 and 1 has three letters (0 Key
       has two letters and a dash). In order to select one of the
       three, another entry is necessary.

```
_____
| USE: P=1, R=2, S=3 |
|                    |
I_____I
```

Press Key pad number which
corresponds to the desired
letter shown on left, but do
not press STORE button.

Display shows the result of
pressing the **7(PRS)** key in
the previous step

Continue the procedure until the command sequence is finished.

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Press the SPEED DIAL button each time a change from numbers to alpha characters or vice versa is required.

When the entire string of numbers and alpha characters is finished, press the STORE button..

- -

```
| 1 ENTER NAME       |
|                    |
|_____|
```

'Press tone pad Key which corresponds to the first letter or number of name

(Key 1 is used for space). If no name is desired, press STORE.

Note: Each numbered Key except 0 and 1 has three letters (0 Key has two letters and a dash). In order to select one of the three, another entry is necessary.

```
| USE:  A=1, B=2, C=3 |
|                     |
|_____| I
```

Press Key pad **number** which corresponds to the desired letter shown on left, but **do not** press STORE button unless name is finished. If a number was selected in the previous step, press Key 4.

Display shows the result of **pressing** the 2 (ABC) key in the previous step.

```
|                    |
| ANSWER PHRASE?     |
| C                  |
|_____|
```

Enter next letter on tone **pad**

Display shows the result of pressing the 3 key in the previous step to select the third letter of the three choices.

```
|                    |
| USE: 1=Q, 2=Z, 3=- |
|_____|
```

Select desired character

Display shows the result of pressing the 8 (QZ-) key in the previous step

Continue the procedure until the name is finished (12 characters including spaces maximum), then press the STORE button.

To display SPEED DIAL numbers perform the following procedure:

Press DISPLAY and SPEED DIAL buttons in sequence

```
| WHICH LOCATION  |        Enter index'to be displayed
| 1-6, 70-99      |
```

```
Index       Name
  .           .
  V           V
| 1     SIEMENS   |
| 99948100        |
```

Number dialed   (trunk group access code and address)

Note: The display will show only the last **12** digits. If
        more than 12 digits are used, press the **BACK** button
        to view the remaining numbers.

To display the first four letters of the names for the first
six speed call indexes **(1-6),** perform the following procedure:

Press SPEED DIAL button

```
| 1 SIEM   2      3      |
| 4        5      6      |
```

This Table Is Used For Programming SPEED DIAL And Access to PBX **FEATURES**

SUMMARY OF FEATURE SEQUENCE CODES

The following codes as used in feature + or speed dial sequences

OH	On hook (OH **not** ØH)
Ø-9,*,#	DTMF tones
A	Any tone detect
B	Busy tone detect
C	Control tone detect
D	Dial tone detect
E	Insert the extension number of the active line
F	Timed Hookflash/Connect
GI	Get an idle line and connect
GL	Get a line -- now active or idle
GR	Get ringing line and connect
G1 or 2	Get line 1 or 2
H	Hang-up
J	Jam display with blanks
KØ	Allows user entry of digits, and proceeds after total digits equal the number of digits in LINE **A's** extension number. An underline cursor will be displayed.
K1 to 9	Allows user entry of 1 to 9 digits. A underline cursor will be displayed.
L1 to 6 L70 to 99	Chain a speed dial location *
NA	Terminate if no tone.
NB	Terminate if no busy tone.
NC	Terminate if no control tone.
ND	Terminate if no dial tone.
NI	Terminate if selected line not idle.
NR	Terminate if selected line not ringing.
Nu	Terminate if selected line not in use
P	Pause
S	Stored name remains until hang-up.
U	Display an underline cursor after name.
W	Wait for call back ringing.
X	Ignore automatic dial tone detection.*
	Display **"-"** for clarity.*
GF	Get line **(s)** to be forwarded.
R	**Outdial** forwarding destination(s) as programmed.

* Normally used in SPEED DIAL storage only, do not use
  in feature sequence.

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LOUDNESS and TONE of RING

Press Volume   or Volume   button. Instrument will ring.

To increase loudness, press the VOLUME   button.
To decrease loudness, press the VOLUME   'button.
To change the tone , press tone pad buttons 1 through 9 until
desired tone is received.

CLOCK AND DATE

Press STORE and DISPLAY buttons in sequence

```
 _____
|  SELECT MODE    :
| AM=1, PM=2, HR=3 |
|_____|
```
Enter _____ and STORE

```
 _____
|                |
| ENTER HOUR     |
|_____|
```
Enter _____ and STORE
(24-hour time if 3 was chosen in
last step)

```
 _____
| ENTER MINUTES  |
|                |
|_____ _|
```
Enter _____ and STORE

```
 _____
| ENTER MONTH    |
|                |
|_____|
```
Enter _____ and STORE
(Numeral)

```
 _____
| ENTER DAY      |
|                |
```
Enter _____ and STORE

```
 _____
| ENTER YEAR     |
|                |
|_____|
```
Enter _____ and STORE
(2 digits)

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PROGRAMMABLE **FEATURE** BUTTONS

Fourteen PBX features may be programed to be accessed by a single button or a combination of two buttons.

Conference Call .... Conference Button
Call Park .... Call Park Button.
Pick Up .... Pick Up Button
Direct Forward - **Activate**......**Direct** Forward Button
Direct Forward - Deactivate....Direct Forward Button


```
                        FEATURE + button + 1
Any nine                  "         "     + 2
PBX features              "         "     + 3
                          "         "     + 4
                          "         "     + 5
                          "         "     + 6
                          "         "     + 7
                          "         "     + 8
                          "         "     + 9
```

Note: Even the CONF, PARK, and PICKUP buttons listed above may be programmed with a different feature, but the label would have to be changed.

The table two pages ahead is used to program a string of commands for SET-30 to perform.

Example of a command string for Call Forwarding.

GL	ND	58 .	KO	P	H
Get a Line	Terminate if no Dial Tone	PBX Access Code for the call Forwarding Feature (Dial it)	Allow user to -dial digits equal to number in user's station number	Pause	Hang UP

In order to save time it is recommended that the table on the next page be used for this purpose.   It shows the command string for the most commonly used features.

PROGRAMMABLE FEATURE BUTTONS **(continued)**

Copy the command string except for the access code. Use the access code of the particular PBX with which the SET-30 is to be used.

The existing command string can also be displayed first and then copied with the new access code.

FEATURE ACCESS SEQUENCE CODES

FEATURE OR KEY AND FEATURE NAME.	SEQUENCE CODES		
	MASK 0 SATURN II/III	MASK 1 SD192/192MX	MASK 2 SD80
FWN NO ANS	GLND,KBPH	GLND,KBPH	NOT ASSIGNED
FWB BUSY	**GLND__KØPH**	**GLND__KØPH**	**GLND__KØPH**
FWC CANCEL	GLND,PH	GLND,PH	GLND,PH
IND SPEED (THRU SWITCH)	**GLND__US**	NOT ASSIGNED	NOT ASSIGNED
GRP SPEED (THRU SWITCH)	**GLND__US**	**GLND__US**	NOT ASSIGNED
HLD PBX (SWITCH HOLD)	**NUF__US**	**NUF__S**	**NUF__S**
TRANSFER-TRF/RECALL	NUFUS	NUFUS	NUFUS
CONFERENCE	NUFKBS	NUFKBS	NUFKBS
CALL PARK	**NUF__K1S**	**NUF__K1S**	**NUF__K1S**
GROUP PICK UP	**GLND__S**	**GLND__S**	**GLND__S**
DIRECT FORWARD (ACTIVATE).	GFNUNDRPOH (O_NOT Ø)	GFNUNDRPOH (O_NOT Ø)	GFNUNDRPOH (O NOT Ø)
DIRECT FORWARD (DEACTIVATE)	GFNUND,POH (O_NOT Ø)	GFNUND,POH (O_NOT Ø)	GFNUND,POH (O NOT Ø)

In order for the end user not to accidentally reprogram the command string, a security Key (code) has to be entered to program the features.

The SET-30 remains in the feature programming mode until timeout or until the HANG UP button is pressed. The security key is:

STORE
FEATURE +
0
STATUS

'Disregard INVALID display between buttons.

PROGRAMMABLE FEATURE BUTTONS (continued)

Enter security key = STORE, FEATURE +, 0, STATUS

Note: **The** direct **forward** feature **is unique and will be explained separately.**

Press STORE and FEATURE button.

If the FEATURE+ button was pressed, a feature number is also selected.
If the **CONF,** PARK, or PICKUP was pressed, skip the next step.

```
 _____
| SELECT PBX      |
|  FEATURE  (1-9) |
 _____
```

Enter _____ (Do not press STORE)

Feature number (if used)

```
 _____
|                 |
| 1 ENTER NUMBER  |
|_____ |
```

Request a string of commands
(See table on preceding page).
If the string of commands starts
with numbers, enter the numbers.

If the string of commands starts
with alpha characters, press the
SPEED DIAL button and the next
display shown will appear.

Press the SPEED DIAL button each
time the command string changes
from numbers to alpha characters
or visa versa.

```
 _____
|                 |
| 1 ENTER (ALPHA) |
|_____ |
```

Press tone pad key which corresponds to
the alpha character desired.

Note: Each number key except 0 and 1 has three letters (0 key has two
      letters and a dash). In order to select one of the three, another
      entry is necessary.

```
 _____
|                 |
| USE: G=1, H=2, I=3 |
|_____ |
```

Press key pad number which corresponds
to the desired letter shown on left, but
do not press STORE button.

Display above shows the
result of pressing the 4
(GHI) key in the previous step.

PROGRAMMABLE FEATURE BUTTONS (continued)

```
 _____
|                     |
| 1 ENTER (ALPHA)     |
| G                   |
|_____|
```

Press key pad number which corresponds
to the next alpha character desired.
(If the next **character** is a number, press
the SPEED DIAL button first, then enter
the number.

Display above shows the
result of pressing the 1
key in the previous step.

```
 _____
|                     |
| USE: J-1, K=2, L=3  |
|_____|
```

Press key pad number which corresponds to
the desired letter shown on left, but do
not press STORE button.

Display above shows the
result of pressing the
5 (JKL) key in the previous step.

```
 _____
|                     |
| 1 ENTER (ALPHA)     |
| GL                  |
|_____|
```

Display above shows the
result of pressing the 3
key in the previous step.

Note: The command up to this point is "Get a Line, now active of idle".

Continue the procedure until the command sequence is finished, then press
the STORE button.

```
 _____
|                     |
| ENTER NAME          |
|_____|
```

Press tone pad key which corresponds to
the first letter of number of the name
(key 1 is pressed twice for space)

Note: Each numbered key except **0** and 1 has three letters (0 key has
        two letters and a dash). In order to select one of the three,
        another entry is necessary.

        If the number 1 was selected to be used a number or a space,'the
        display will be different.

```
|_____|
|                        |
| USE:  1=A, 2=B, 3=C    |
|_____|
```

Display shows the result
of pressing the 2 (ABC)
key in the previous step

Press key pad **number** which corresponds
to the desired letter shown on left,
but do not **press STORE** button unless
name is finished.
If a number was selected in the previous
step, press key 4.

```
|_____|
|                        |
| ENTER NAME             |
| C                      |
|_____|
```

Display shows the result
of pressing the 3 key in
the previous step to
select the third letter
of the three choices.

Enter next letter on tone pad

```
|_____|
|                        |
| USE:  1=Q, 2=Z, 3=-    |
|_____|
```

Display shows the result
of pressing the 8 **(QZ-)**
key in the previous step

Select desired character

Continue the procedure until the same is finished (12 characters **including**
spaces and dashes maximum), then press the STORE button.

For the DIRECT FORWARD feature, two command strings have to be programmed,
one to activate the **feature** and one to deactivate the feature,.although
the same button is used.

After entering the feature programming security key (code), perform the
following steps:

PROGRAMMABLE FEATURE **BUTTONS** (continued1

Direct Forward Activate

Press STORE, FEATURE **+,** and ***** buttons in sequence.

* **ENTER NUMBER**

Using the same procedure described on previous **pages,** enter the command string and press STORE.

* ENTER NAME

Using the same procedure **described on** previous pages, enter the feature name and press STORE.

To display the feature, press the DISPLAY, FEATURE **+,** and * buttons in sequence.

Direct Forward Deactivate

Press STORE, FEATURE **+,** and # buttons in sequence.

ENTER NUMBER

Using the same procedure described above, enter the command string and press STORE.

ENTER NAME

Using the same procedure described above, enter the feature name and press STORE. .

To display the feature, press the DISPLAY, FEATURE **+,** and # buttons in sequence.

<u>PROGRAMMABLE FEATURE **BUTTONS**</u> (continued)

Note: When the FEATURE + button is pressed, the first three letters of the feature name are displayed for features 1 through 6. In order for the user to recognize the feature, the first three letters should clearly show the entire feature. 'When using the feature, the entire name is displayed.

Examples of Feature names:

FWN ➡ NO ANSWER
FWB ➡ BUSY
FwC ➡ CANCEL
UN1 ➡ ZONE ONE

To display the feature , perform the following procedure:

Press **DISPLAY** and feature button

If the FEATURE + button was pressed, a feature number is also selected. If one of the other buttons was pressed, skip the next step.

```
 _____
|                |        Enter _____
| SELECT PBX     |
| FEATURE (1-9), |                .
|_____|
```

```
 Feature      Feature
 Number       Name
    |            :
    |            :
    V            V
```

```
 _____
|                |
| 4 UNA ➡ ZONE ONE
| GLND*1         |
|_____|
```

```
      |
 COMMAND  STRING
```

SET-30 PROGRAMMING

This exercise contains four different SET-30 configurations.

Complete the database tables in the back of this booklet for each of the configurations.

The database tables also contain some wiring information for easy identification of each station.

After completion of the database tables , program each of the configurations.

_____

RINGING ARRANGEMENT

Selection   Description

    1   Duplicate ringing. Rings both secretary's and executive's
                 phones.

    2   Delayed duplicate ringing. Rings at executive's phone.
                 After two rings, the call also rings at the secretary's
                 phone.

    3   Executive   answers. Rings only at executive's phone.

    4   Full call screening. Rings only at secretary's phone.

    5   Overflow call screening. Rings first call at executive's
                 phone. Subsequent calls will ring at the secretary's phone
                 as long as the executive's phone is busy.

    6   Primary line call screening. Line A designate as primary
                 line, and rings at the secretary's phone. Line B designated
                 as secondary line, and rings at executive's phone when idle.
                 If line B is busy, calls ring at secretary's phone.

    7   Secondary line call screening. Same as 6, but A and B are
                 reversed.

EXECUTIVE SECRETARY COMBINATION (THE SAME TWO PBX LINES ON BOTH INSTRUMENTS)

Exercise #1

The following Executive/Private Secretary combination will be used.

Extension 1300 will appear on Line A of both instruments.
Answer Phrase is Siemens.
Extension will ring at Secretary.
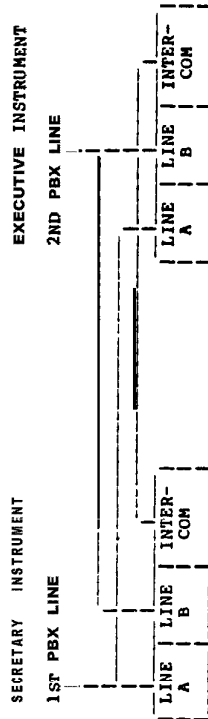Direct Forward Destination is Ext. 200.

Extension 1301 will appear on Line B of both instruments.
Answer Phrase is JANE DOE.
Extension will ring at Secretary.
Direct Forward Destination is Ext. 211.

The executive's ring arrangement is full screening of calls.

SECRETARY INSTRUMENT

1ST PBX LINE

LINE A	LINE B	INTER-COM

EXECUTIVE INSTRUMENT

2ND PBX LINE

LINE A	LINE B	INTER-COM

CROSSCONNECTIONS

PBX LINE /// TO PAIR 1, PINS 4 6 5 OF SECRETARY SET AND ALSO TO PAIR 1, PINS 4 & 5 OF EXECUTIVE SET*

PAIR 2, PINS 3 & 6 OF EACH INSTRUMENT TO LOCAL POWER

NOTE: CONNECTING ONE INSTRUMENT TO LOCAL POWER AND CROSSCONNECTING PAIRS 2 ON BOTH INSTRUMENTS IS SUFFICIENT.

PAIR 3, PINS 2 & 7 OF SECRETARY SET TO PAIR 3, PINS 2 & 7 OF EXECUTIVE SET

PBX LINE 222 TO PAIR 4, PINS 1 & 8 OF SECRETARY SET AND ALSO TO PAIR 4, PINS 1 & 8 OF EXECUTIVE SET*

PROGRAMMING

SECRETARY INSTRUMENT	ANSWER PHRASE		RING HERE 1= YES 2= NO 3= DELAY
EXT 1	///	DIR TNK	1
EXT 2	222	TO BLO	1

		DIRECT FORWARD TO	EXT: //9
LINE A	///		
LINE B	222		EXT: 2/9

EXECUTIVE INSTRUMENT		RING ARRANGE-MENT	DIRECT FORWARD TO
LINE A	///		EXT: HA
LINE B	222		EXT: NA

* IF CONNECTED AS SHOWN, THE SAME LINES WILL APPEAR ON THE SAME LINE BUTTONS ON BOTH INSTRUMENTS.
PAIRS 1 & 4 MAY BE REVERSED To HAVE DIFFERENT LINES ON THE FIRST LINE
BUTTON OF EACH OF THE TWO INSTRUMENTS AND (IF USED) AGAIN ON THE SECOND
LINE BUTTON OF EACH OF THE TWO INSTRUMENTS.

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EXECUTIVE SECRETARY COMBINATION
(ONE PBX LINE ON BOTH INSTRUMENTS, ANOTHER PBX LINE ON EXECUTIVE INSTRUMENT ONLY)

Exercise #2

The following Executive/Private Secretary combination will be used.

Extension 1300 will appear on Line A of both instruments.
Answer Phrase is Siemens.
Extension will ring at Secretary.
Direct Forward Destination is Ext. 200.

Extension 1301 will appear on Line B of the executive's instrument only.
(Direct Forward Destination is Ext. 211.

The executive's ring arrangement is duplicate ringing.

SECRETARY INSTRUMENT

1ST PBX LINE

| LINE | LINE | INTER- |
| A | B | COM |

EXECUTIVE INSTRUMENT

2ND PBX LINE

| LINE | LINE | INTER- |
| A | B | COM |

CROSSCONNECTIONS

PBX LINE TO PAIR 1, PINS 4 ↳ 5 OF SECRETARY SET AND ALSO TO PAIR 1, PINS 4 ↳ 5 OF EXECUTIVE SET*	PAIR 2, PINS 3 ↳ 6 OF EACH INSTRUMENT TO LOCAL POWER NOTE: CONNECTING ONE INSTRUMENT TO LOCAL POWER AND CROSSCONNECTING PAIRS 2 ON BOTH INSTRUMENTS IS SUFFICIENT.	PAIR 3, PINS 2 ↳ 7 OF SECRETARY SET TO PAIR 3, PINS 2 ↳ 7 OF EXECUTIVE SET	PBX LINE TO PAIR 4, PINS 1 ↳ 8 OF EXECUTIVE SET*

PROGRAMMING

SECRETARY INSTRUMENT

EXT 1		ANSWER PHRASE	NA
EXT 2			NA

	RING HERE 1= YES 2= NO 3= DELAY		DIRECT EXT:
LINE A			FORWARD TO
LINE B			I = NA

EXECUTIVE INSTRUMENT

	RING ARRANGE- MENT	DIRECT FORWARD TO	EXT: NA
LINE A			EXT:
LINE B			

---

* IF CONNECTED AS SHOWN, THE SAME LINES WILL APPEAR ON THE SAME LINE BUTTONS ON BOTH INSTRUMENTS.
PAIRS 1 ↳ 4 MAY BE REVERSED TO HAVE DIFFERENT LINES ON THE FIRST LINE BUTTON OF EACH OF THE TWO INSTRUMENTS AND (IF USED) AGAIN ON THE SECOND LINE BUTTON OF EACH OF THE TWO INSTRUMENTS.

EXECUTIVE SECRETARY COMBINATION (ONE PBX LINE ON BOTH INSTRUMENTS, SECOND PBX LINE TO SECRETARY ONLY,

THIRD PBX LINE TO EXECUTIVE ONLY

Exercise #3

The following Executive/Private Secretary combination will be used.
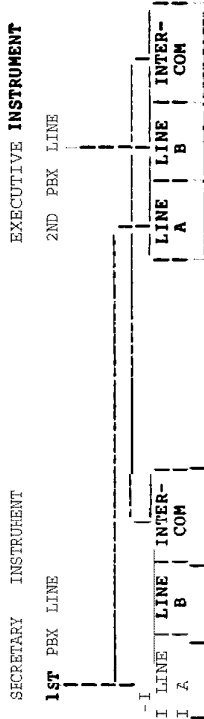
Extension 1300 will appear on Line A of both instruments.
Answer Phrase is Siemens.
Extension Will ring at Secretary.
Direct Forward Destination is Ext. 200.

Extension 1301 will appear on Line B of the Secretary's instrument only.
Direct Forward Destination is Ext. 211.

Extension 1302 will appear on Line B of the executive's instrument only.
Direct Forward Destination is Ext 1220.

The executive's ring arrangement is delayed duplicate ringing.

SECRETARY INSTRUMENT

1ST PBX LINE   2ND PBX LINE

| LINE | LINE | INTER- |
| A | B | COM |

EXECUTIVE INSTRUMENT

3RD PBX LINE

| LINE | LINE | INTER- |
| A | B | COM |

CROSSCONNECTIONS

PBX	L	I	N	E	PAIR 2, PINS 3 & 6,	PAIR 3, PINS 2 & 6	7,	PBX LINE
TO	PAIR 1, PINS 4 & 5	OF EACH INSTRUMENT	OF SECRETARY SET	TO	PAIR 4, PINS 1 & 8
OF SECRETARY SET	TO LOCAL POWER			PAIR 3, PINS 2 & 7,	OF EXECUTIVE SET
AND ALSO TO	NOTE: CONNECTING			OF EXECUTIVE SET	
PAIR 1 PINS 4 & 5	ONE INSTRUMENT To				
OF EXECUTIVE SET	LOCAL POWER AND				
	CROSSCONNECTING				
	PAIRS 2 ON BOTH				
	INSTRUMENTS IS				
	SUFFICIENT.				

PROGRAMMING

SECRETARY INSTRUMENT

			ANSWER		RING HERE
EXT 1			PHRASE		1= YES
EXT 2			NA		2= NO
LINE A					3= DELAY
LINE B					NA

EXECUTIVE INSTRUMENT

					DIRECT EXT:
LINE A					FORWARD
LINE B					TO EXT:

| RING ARRANGE- MENT | | DIRECT FORWARD TO | EXT: NA |
| | | | EXT: NA |

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SECRETARY

Press STORE, FEATURE +, 0, # buttons in sequence. (Disregard INVALID display between buttons.)

```
_____
|                      |
| SELECT MASK ( 0-9)   |
|_____I
```
Enter _____ and STORE

```
_____
|                      |
| SELECT MODEL         |
| SECT-1, EXEC-2       |
|_____|
```
Enter   1   and STORE

```
_____
|                      |
| SECRETARY 1, 2 OR   I
| PRIVATE=3            |
|_____|
```
Enter   3   and STORE

Press STORE and COM (3rd ivory button in bottom row) in sequence

```
_____
|                      |
| WIRED FOR INTERCOM?  |
| YES=1, NO=2          |
|_____|
```
Enter _____ and STORE

```
_____
|                      |
| EXTENSION FOR        |
| LINE X1:             |
|_____|
```
Enter _____ and STORE
(Executive's first extension number)

```
_____
|                      |
| EXTENSION FOR        |
| LINE X2:             |
|_____|
```
Enter _____ and STORE
(Executive's second extension number)
Note : Enter # and STORE if only one
extension is used or if the executive's
second extension is private.

```
_____
|                      |
| EXTENSION FOR        |
| LINE A:              |
|_____|
```
Enter _____ and STORE
(Secretary's first extension number)

```
_____
|                      |
| EXTENSION FOR        |
| LINE B:              |
|_____|
```
Enter _____ and STORE
(Secretary's secondary extension number)

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PRIVATE SECRETARY (continued

To display the programmed lines , perform the following procedure:

Press DISPLAY and COM (3rd ivory button in bottom row) in sequence

```
|
I WHICH LINE ?                    |          Enter _____ and  STORE
| A = 1, B = 2                    |
```

```
  INTERCOM   wired
    YES  or  NO            Line requested (A or B)
       |
       |                          |
       V                          V
```

```
| COM = YES          LINE A |
I X1400                     |
```

```
         |
Extension  number  of  requested  line  (XNONE  if  none  is  assigned)
```

HEADSET IN **PLACE OF HANDSET**

Press STORE and HANGUP buttons in sequence

```
|
| SELECT HANDSET = 1           |          Enter _____ and  STORE
| OR HEADSET = 2               |
|_____|
```

PRIVATE **SECRETARY** (continued)

ANSWER PHRASE (Programmed at Secretary Stations only)

Press the STORE and STATUS buttons in sequence

EXECUTIVE'S LINE NUMBER
   (1st display shows highest)

   V

If the extension does not ring here, enter BACK, and next extension will be displayed.

```
| 2 BACK, UP, DN?       |
I x01                   |
```

If the extension rings here, press the VOLUME   button.

Last two digits of
EXECUTIVE'S LINE NUMBER

Note: Pressing the VOLUME   button removes the extension from this secretary station

```
|                      I
| ANSWER PHRASE?       |
|_____|
```

Press tone pad key which corresponds to the first letter or number of the answer phrase (key 1 is pressed twice for space).

Note : Each numbered key except 0 and 1 has three letters (0 key has two letters and a dash). In order to select one of the three, another entry is necessary. If the number 1 was selected to be used as a number or a space, the display will be different.

```
|                      |
| USE: 1=A, 2=B, 3-C   |
|_____|
```

Display shows the result of pressing the 2 (ABC) key in the previous step

Press key pad **number** which corresponds to the desired letter shown on left, but do not press STORE button unless phrase is finished.
If a number **was** selected in the **pre-** vious step, press key 4.

```
|                      |
| ANSWER PHRASE?       |
I c                    |
|_____|
```

Enter next letter on tone pad

Display shows the result of pressing the 3 key in the previous step to select the third letter of the three choices.

```
 _____
|                      |
| USE:  1=Q, 2=Z, 3=-  |
|_____|
```
Select desired character

PRIVATE SECRETARY (continued)

Display shows the result of
pressing the 8 (QZ-) key in
the previous step.

Continue the procedure until the phrase is finished (12 characters
including spaces maximum), then press the STORE button.

```
 _____
|                      |
| RING HERE?           |
| YES-1, NO=2, DELAY=3 |
|_____|
```
E n t e r _____ and STORE

Note : Delayed is used if the call goes to a conventional instrument (2500)
         first and rings the secretary if not answered within a given time,.

```
 _____
|                      |
| 1 BACK, UP, DN?      |
| x00                  |
|_____|
```

Next lower executive extension is displayed.
Repeat the procedure above for this extension.

DIRECTED **FORWARD**

Press STORE and DIRECT FORWARD buttons in sequence

```
 _____
|                                |
| FORWARD LINE A                 |          Enter _____ and STORE
I TO                             |
 _____
```

```
 _____
|                                |
| FORWARD LINE B                 |          Enter _____ and STORE
I TO                             |
 _____
```

To display DIRECT FORWARD, perform the following procedure:

Press DISPLAY and DIRECT FORWARD buttons in sequence

```
 _____
|                                |
| WHICH LINE?                    |          Enter _____ and STORE
| A=1, B=2                       |
 _____
```

Line being displayed
  |
  V

```
 _____
|                                |
| AFWD TO 1400                   |
| _____|
          ^
          |
     Station to which chosen line is forwarded
```

EXECUTIVE (with SECRETARY)

Press STORE, FEATURE+, 0, ♯ buttons in sequence. (Disregard INVALID display between buttons.)

```
 _____
|                      |
| SELECT MASK (0-9)    |                Enter` _____ and STORE
|_____ __|
```

```
 _____
|                      |
| SELECT MODEL         |                Enter   2    and STORE
| SECT-1, EXEC=2       |
|_____|
```

Press STORE and COM (3rd ivory button in bottom row) in sequence

```
 _____
|                      |
| EXTENSION FOR        |                Enter _____ and STORE
| LINE A:              |
|_____|
```

```
 _____
|                      |
| EXTENSION FOR        |                Enter _____ and STORE
| LINE B:              |
|_____|
```

Note : If an extension is a private line, enter ♯ for extension number.

To display the programmed lines , perform the following procedure:

Press DISPLAY and COM (3rd ivory button in bottom row) in sequence

```
 _____
|                      |
| WHICH LINE ?         |                Enter _____ and STORE
| A = 1, B = 2         |
|_____|
```

```
Not applicable at
EXECUTIVE   Station      Line requested (A or B)
    |                        |
    V                        V
```

```
 _____
| COM = NO      LINE A |
| X1400                |
|-_____|
     ^
     |
```

Extension number of requested line (XNONE if none is assigned)

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EXECUT.IVE (with SECRETARY) (continued)

RING ARRANGEMENT AND DIRECT FORWARD DESTINATIONS

Unplug the line cord of the Secretary set associated with this station and plug it back in.

Press STORE and DIRECT FORWARD buttons in sequence

```
|                                  |
| RING ARRANGEMENT                 |
| (1-7)?                           |
I_____|
```

Select number from table below, enter number and STORE. If just STORE is pressed, it defaults to arrangement 1.

Selection	Description
1	Duplicate ringing. Rings both secretary's and executive's phones.
2	Delayed duplicate ringing. Rings at executive's phone. After two rings, the call also rings at the secretary's phone.
3	Executive answers. Rings only at executive's phone.
4	Full call screening. Rings only at secretary's phone.
5	Overflow call screening. Rings first call at executive's phone. Subsequent calls will ring at the secretary's phone as long as the executive's phone is busy.
6	Primary line call screening. Line A designate as primary line, and rings at the secretary's phone. Line B designated as secondary line, and rings at executive's phone when idle. If line B is busy, calls ring at secretary's phone.
7	Secondary line call screening. Same as 6, but A and B are reversed.

```
|  .                               |
| FORWARD LINE A                   |
| TO                               |
|_____|
```

Enter _____ and STORE

(Used only for private EXECUTIVE lines which are not answered by secretary. For lines answered by secretary, enter STORE only.)

```
|                                  |
| FORWARD LINE B                   |
| TO                               |
```

Enter _____ and STORE

To display Ring Arrangement and Direct Forward Destination perform the following procedures:

. **Press** DISPLAY and DIRECT FORWARD buttons in sequence

EXECUTIVE (with SECRETARY) (continued)

```
|—————————————————————————|
| WHICH LINE ?            |        Enter _____ and STORE
| A-1, B-2               |
|—————————————————————————|
```

```
                 Station  to  which  chosen
              |       line  is  forwarded
              V
```

```
|—————————————————————————|
i AEWD TO 1400            i
| 1 DUPLICATE RING        |
|—————————————————————————|
        ^
        |
Ring  Arrangement  used
```

EXERCISE #4

The following **PBX** stations will be used in a Multiplexer 2 configuration (two secretaries and several executives).

Station extension numbers 1320 through 1326 (already programmed in the PBX data base as tone phones).

The station numbers will be distributed as shown below:

```
Ext 1320 to Secretary 1
Ext 1321 to Secretary 2
Ext 1322 to Executive 1, Line A
Ext 1323 to Executive 1, Line B
Ext 1324 to Executive 2, Line A
Ext 1325 to Executive 2, Line B
Ext 1326 to single-line (2500 type) phone
```

The Answer Phrases and secretary destinations (ring) will be as shown below:

EXTENSION	ANSWER PHRASE	RING AT SECRETARY #
1320	SIEMENS	1
1321	TRAINING	2
1322	SALES	1
1323	JANE	1
1324	DIR TNG	2
1325	JOHN	2
1326	WAREHOUSE	1

The Direct Forward destinations will be as shown below:

EXTENSION	DIRECT FORWARD DESTINATION
1320	ALL LINES TO 1220
1321	
1322	
1323	
1324	
1325	
1326	

All stations will use handsets.

Ring Arrangement for the Executive Stations will be "Full Call Screening".

The following Speed Dial numbers will be programmed:

        INDEX   **DESTINATION**

        0   Telephone Network Address: 994-7541
                            Using trunk group **0,** access code 81

        1   Internal extension number 1220

The following features will be programed:

Direct Forward **Activate,** access code 48
Direct Forward Deactivate,   access code 46
Call Forward - No Answer, Key pad button **1,** access code 42
Feature   name: **FWN** NO ANS
Call Forward - Busy, Key pad button 2, access code 41
Feature   name: FWB BUSY
Call   Forward - Cancel, Key pad button 3, access code 46
Feature   name: **FWC** CANCEL
Call Park, PARK button, access code   72
Feature   name: **CALL PARK**

MUX GROUP NUMBER _____

PBX CONNECTIONS TO MULTIPLEXER

PBX	MUX CARD NO.	PAIR NO.
	1	1
	1	2
	1	3
	1	4
	1	5
	1	6
	1	7
	1	8
	2	1
	2	2
	2	3
	2	4
	2	5
	2	6
	2	7
	2	8

PBX	MUX CARD NO.	PAIR NO.
	3	1
	3	2
	3	3
	3	4
	3	5
	3	6
	3	7
	3	8
	4	1
	4	2
	4	3
	4	4
	4	5
	4	6
	4	7
	4	8

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MUX GROUP NUMBER _____

SECRETARY 1

MULTIPLEXER PORT CONNECTIONS	MASK NO.	INTERCOM YES/NO	EXTENSION NUMBERS	ANSWER PHRASE	RING HERE YES/NO	FORWARD TO	HEADSET OR HANDSET
Pair 1 (pins 4 & 5) of SET-30 to pair 9 of any MUX card in the group.							
Pair 2 (pins 3 & 6) of SET-30 to ____ MUX Card ____ Pair ____							
Pair 3 (pins 2 & 7) of SET-30 to pair 11 of any MUX card in the group.							
Pair 4 (pins 1 & 8) of SET-30 are not connected.							

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MUX GROUP NUMBER _____ (continued)

SECRETARY 1

MULTIPLEXER PORT CONNECTIONS	MASK NO.	INTERCOM YES/NO	EXTENSION NUMBERS	ANSWER PHRASE	RING HERE YES/NO	FORWARD TO	HEADSET OR HANDSET
Pair 1 (pins 4 & 5) of SET-30 to pair 9 of any MUX card in the group.							
Pair 2 (pins 3 & 6) of SET-30 to MUX Card _____ Pair _____							
Pair 3 (pins 2 & 7) of SET-30 to pair 11 of any MUX card in the group.							
Pair 4 (pins 1 & 8) of SET-30 are not connected.							

MUX GROUP NUMBER _____

SECRETARY 2

MULTIPLEXER PORT CONNECTIONS	MASK NO.	INTERCOM YES/NO	EXTENSION NUMBERS	ANSWER PHRASE	RING HERE YES/NO	FORWARD TO	HEADSET OR HANDSET
Pair 1 (pins 4 & 5) of SET-30 to pair 10 of any MUX card in the group.							
Pair 2 (pins 3 & 6) of SET-30 to _____ MUX Card _____ Pair _____							
Pair 3 (pins 2 & 7) of SET-30 to pair 11 of any MUX card in the group.							
Pair 4 (pins 1 & 8) of SET-30 are not connected.							

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SECRETARY 2

MULTIPLEXER PORT CONNECTIONS	MASK NO.	INTERCOM YES/NO	EXTENSION NUMBERS	ANSWER PHRASE	RING HERE YES/NO	FORWARD TO	HEADSET OR HANDSET
Pair 1 (pins 4 & 5) of SET-30 to pair 10 of any MUX card in the group.							
Pair 2 (pins 3 & 6) of SET-30 to MUX Card _____ Pair _____							
Pair 3 (pins 2 & 7) of SET-30 to pair 11 of any MUX card in the group.							
Pair 4 (pins 1 & 8) of SET-30 are not connected.							

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MUX GROUP NUMBER _____
EXECUTIVE STATIONS

MULTIPLEXER CONNECTIONS

EXTENSION NUMBERS	PAIR1 PINS 4 & 5 of SET-30	PAIR2 PINS 3 & 6 of 30	PAIR3 PINS 2 & 7 of SET-30	PAIR4 PINS 1 & 8 of SET-30	If single-line Phone Use This Column	RING ARRANGE-MENT	FORWARD TO (Private Lines Only)
If single-line enter number & skip next block							
LINE A	CARD ___	CARD ___	CARD ___	CARD ___	CARD ___		
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
LINE A	CARD ___	CARD ___	CARD ___	CARD ___	CARD ___		
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
/LINE A		CARD ___	CARD ___				
LINE B	PAIR ___ PAIR	PAIR ___	PAIR ___	PAIR ___			
LINE A							
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
LINE A	CARD ___	CARD ___	CARD ___	CARD ___	CARD ___		
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___			
LINE A	CARD ___	CARD ___	CARD ___	CARD ___	CARD ___		
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
LINE A		CARD ___	CARD ___	CARD ___			
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
LINE A	PAIR ___						
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		
LINE A						CARD ___	
LINE B	PAIR ___	PAIR ___	PAIR ___	PAIR ___	PAIR ___		

SECRETARY 1 (First SECRETARY of two or only SECRETARY with several EXECUTIV'

Note: Secretary 1 has T & R connected **to** pair 9 of the multiplexer.

Press STORE, FEATURE **+, Ø, ‡** buttons in sequence.   (Disregard INVALID display between buttons.)

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|    SELECT MASK (0-9)       |          Enter _____and STORE
|                           |
|_____|
```

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|    SELECT  MODEL          |
|    SECT = 1, EXEC =2      |          Enter  1    and STORE
|_____|
```

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|    SECRETARY 1,2 or      |
|    PRIVATE = 3           |          Enter  1    and STORE
|_____|
```

Press STORE and COM (5th ivory button in bottom row) in sequence

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   WIRED FOR INTERCOM?    |          Enter _____and STORE
|   YES = 1, NO = 2        |
|_____|
```

If answer is yes (1) secretary has 4 line buttons and 1 intercom button.
If answer is no (2) secretary has 5 line buttons and no intercom button.

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   AUTO ANSWER COM?       |          Enter _____and STORE
|   YES = 1, NO =2         |
|_____|
```

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   EXTENSION FOR'         |          Enter _____and STORE
|   LINE 1:                |
|_____|
```

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   EXTENSION  FOR         |          Enter _____and STORE
|   LINE 2:                |
|_____|
        |              |
        |              |
        |              |
        |              |
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   EXTENSION  FOR         |          Enter _____and STORE
|   LINE 32:               |
|_____|
```

SECRETARY 1 (continued)

If fewer than 32 lines **are** programmed, press HANG UP button after last line has been programmed and stored.

To display and programmed lines, perform the following procedure:

Press DISPLAY and COM (5th ivory button in bottom row) in sequence

```
 _____
|   WHICH LINE ?        |          Enter _____ and STORE
|   (01 to 32)          |
|_____|
```

Intercom wired
  Yes or No   Line requested

```
 _____
|  COM=YES      LINE 8  |
|  X1400                |
|_____|
```

Extension number of requested line (XNONE if none is assigned)

HEADSET IN PLACE OF HANDSET

Press STORE and HANGUP buttons in sequence

```
 _____
|  SELECT HANDSET = 1   |          E n t e r and STORE
|  OR HEADSET = 2       |
|_____|
```

SECRETARY 1 (continued)

ANSWER **PHRASE** (Programmed at **Secretary Stations** only)

Press the **STORE** and STATUS buttons in **sequence**

EXECUTIVE'S LINE
NUMBER (1st display
| shows highest)

```
| 2 BACK, UP, DN?  |
| X01              |
|_____|
```

Last two digits of
EXECUTIVE'S LINE
NUMBER

```
|                  |
|    ANSWER  PHRASE?  |
|_____|
```

Note: Each numbered. key except **0** and 1 has three letters (0 key has
        two letters and a dash).   In order to select one of the three,
        another entry is necessary.   If the number 1 **was** selected to
        be used as **a** number or a space, the display will be different.

```
|                  |
| USE: 1=A, 2=B, 3=C  |
|_____|
```

Display shows the result of
pressing the 2 (ABC) key in
the previous step.

```
| ANSWER PHRASE?   |
|   C              |
|_____|
```

Display shows the result of pressing the
3 **key** in the previous step to select the
third letter of the three choices.

SECRETARY 1 (continued)

```
|                  |
| USE: 1=Q, 2=Z, 3= •  |
|_____|
```

If the'extension does not
ring here, enter BACK, and
next extension will be
displayed.

If the extension rings here,
press the VOLUME   button.

Note: Pressing the VOLUME
button removes the
extension from this
secretary station.

Press tone pad key which
corresponds to the first
letter **or** number of the
answer **phrase (Key** 1 is
pressed twice for space).

Press key pad number which
corresponds to the desired
letter shown on left, but
do not press STORE button
unless phrase is finished.
If a number was selected in
the previous step, press
key 4.

Enter next letter on tone
pad

Select desired character

Display shows the result of pressing the
8 **(QZ-)** key in the previous step

Continue the procedure until the phrase is finished (12 characters including spaces maximum), then press the STORE button.

```
 _____
| RING HERE? YES-1       |
| NO=2, DELAYED=3        |
|_____|
```

Enter _____and STORE

Note: Delayed is used if the call goes to a conventional instrument (2500) first and rings the secretary if not answered within a given time.

```
 _____
| 1 BACK, UP, DN?        |
| XOO                    |
|_____|
```

Next lower executive extension is displayed.
Repeat the procedure above for this extension.

..

SECRETARY 1 (continued)

DIRECT FORWARD

Press STORE and DIRECT FORWARD buttons **in sequence**

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   FORWARD ALL           |
|   LINES TO              |
|_____|
```

If all lines are' to be
forwarded to the same
station,
ENTER_____and STORE

If lines **are forwarded** to
different   destinations,
Enter STORE

Display when just STORE
was entered in last step

         V

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
|   FORWARD LINE 1     |
|    TO               |
|_____|
```

ENTER_____and STORE

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
| FORWARD  LINE 2      |
| To                  |
|_____|
```

ENTER_____and STORE

Repeat with every line to be forwarded.

Enter STORE to skip lines.

To display DIRECT FORWARD, perform the following procedure

Press DISPLAY and DIRECT FORWARD button in sequence   ....

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
| WHICH LINE ?        |
|    01 to 32         |
|_____|
```

ENTER_____and STORE

Line being displayed

     V

```
|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|
| SFWD to 1400        |
|_____|
```

           |
Station to which chosen line is forwarded

SECRETARY 2 (Second SECRETARY of two with several EXECUTIVES)

Note: Secretary **2** has **T&R** connected to pair **10** of the multiplexer.

In order to program Secretary **2,** Secretary 1 **line** extension assignments have to be programmed first.

Also, the intercom and power connections to the **multiplexer** at both secretary stations have to be complete.

Press STORE, FEATURE **+, 0, #** buttons in sequence.   (Disregard INVALID display between buttons.)

```
|                             |
| SELECT MASK (0 - 9)         |          Enter _____ and  STORE
|                             |
```

```
|                             |
|  SELECT  MODEL              |          Enter  1    and  STORE
|  SECT = 1.EXEC = 2.         |
|                             |
```

```
|                             |
|  SECRETARY 1, 2 or          |          Enter  2    and  STORE
|  PRIVATE = 3                |
|                             |
```

Unplug Secretary **1,** instrument' and plug it back in. This transfers programmed extension numbers from Secretary 1 data base to Secretary 2 data bases. To assure proper transfer, display at least one extension at Secretary 2.

Press **DISPLAY** and **COM** (5th ivory button in bottom row) in sequence

```
| WHICH LINE ?            |        Enter _____and STORE
|  (01 to 32)             |
|_____|
```

```
Intercom  wired
  Yes or No           Lined  requested
     .                     :
     V                     V
```

```
I COM ≈ YES          LINE 8 |
| X1400                     |
|_____|
     ^
     |
Extension  number  of  requested  line  (XNONE  **if**  none  is  assigned)
```


HEADSET IN PLACE OF HANDSET

Press STORE and HANGUP buttons in sequence

```
| SELECT HANDSET ≈ 1      |       ENTER _____and STORE
| OR HEADSET ≈ 2          |
|_____|
```

ANSWER PHRASE (Programmed at Secretary Stations only)

Press the STORE and STATUS buttons in sequence

EXECUTIVE'S LINE
NUMBER (1st display
  | shows highest)
  |
  |

If the extension does not ring here, enter BACK, and next extension will be displayed.

```
I 2 BACK, UP, DN?          |
I   X01  .                 |
|_____ __|
```

If the extension rings here, press the VOLUME button.

Note: Pressing the VOLUME button removes the extension from this secretary station.

    |
Last two digits of
EXECUTIVE'S LINE
NUMBER

```
|_____|
| ANSWER PHRASE?          .|
|_____|
```

Press tone pad key which corresponds to the first letter or number of the answer phrase (key 1 is pressed twice for space).

Note: Each numbered key except **0** and 1 has three letters (0 key has two letters and a dash). In order to select one of the three, another entry is necessary. If the number 1 was selected to be used as a number or a **space,** the display will be different.

```
|_____|
| USE: 1=A, 2=B, 3=C       |
|_____|
```

Press key pad number which **corres-** ponds to the desired letter shown on left, but do **not** press STORE button unless phrase is finished. If a number was selected in the previous step, press Key 4.

Display shows the result of pressing the 2 (ABC) key in the previous step

```
| I ANSWER PHRASE?        |
| I  c                    |
```

Enter next letter on tone pad

Display shows the result of pressing
the 3 key in the previous step to select
the third letter of the three choices.

```
|                        |
| i USE: 1=Q, 2=Z, 3= -  |
|                        |
```

Select desired character

Display shows the result of pressing
the 8 (QZ-) key in the previous step

Continue the procedure until the phrase is finished (12 characters including
spaces maximum), then press the STORE button.

```
| RING HERE? YES-1        |
| NO=2, DELAYED-3         |
```

Enter _____ and STORE

Note: Delayed is used if the call goes to a conventional instrument (2500)
        first and rings the secretary. if not answered within a given time.

```
| 1 BACK. UP, DN?         |
| XOO                     |
```

Next lower executive extension is displayed.
Repeat the procedure above for this extension.

DIRECT FORWARD

press STORE and DIRECT FORWARD buttons in sequence

```
| FORWARD ALL         |
| LINES               |
|         To          |
```

If- all lines are to be forwarded to the same station,

Enter.-and STORE

If lines are forwarded to different destinations, Enter STORE

Display when just STORE
was entered in last step

```
| FORWARD LINE 1      |
| TO                  |
```

ENTER _____ and STORE

```
| FORWARD LINE 2      |
|    To               |
```

ENTER _____ and STORE

Repeat with every line to be forwarded

Enter STORE to skip lines.

To display DIRECT FORWARD, perform the following procedure

Press DISPLAY and DIRECT FORWARD buttons in sequence

```
| WHICH LINE ?        |
|   01 to 32          |
```

ENTER _____ and STORE

Line being displayed

```
| 5FWD to 1400        |
```

Station to which chosen line is forwarded

SET-30 MULTIPLEXER CONNECTIONS (SD-192/SD-192MX AND SD-232)

PBX EXTENSIONS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

226
2500 PHONE

SINGLE – LINE

224
225

EXEC. 2

222
223

EXEC. 1

21
2

SECR 2

2 20
2

SECR. 1
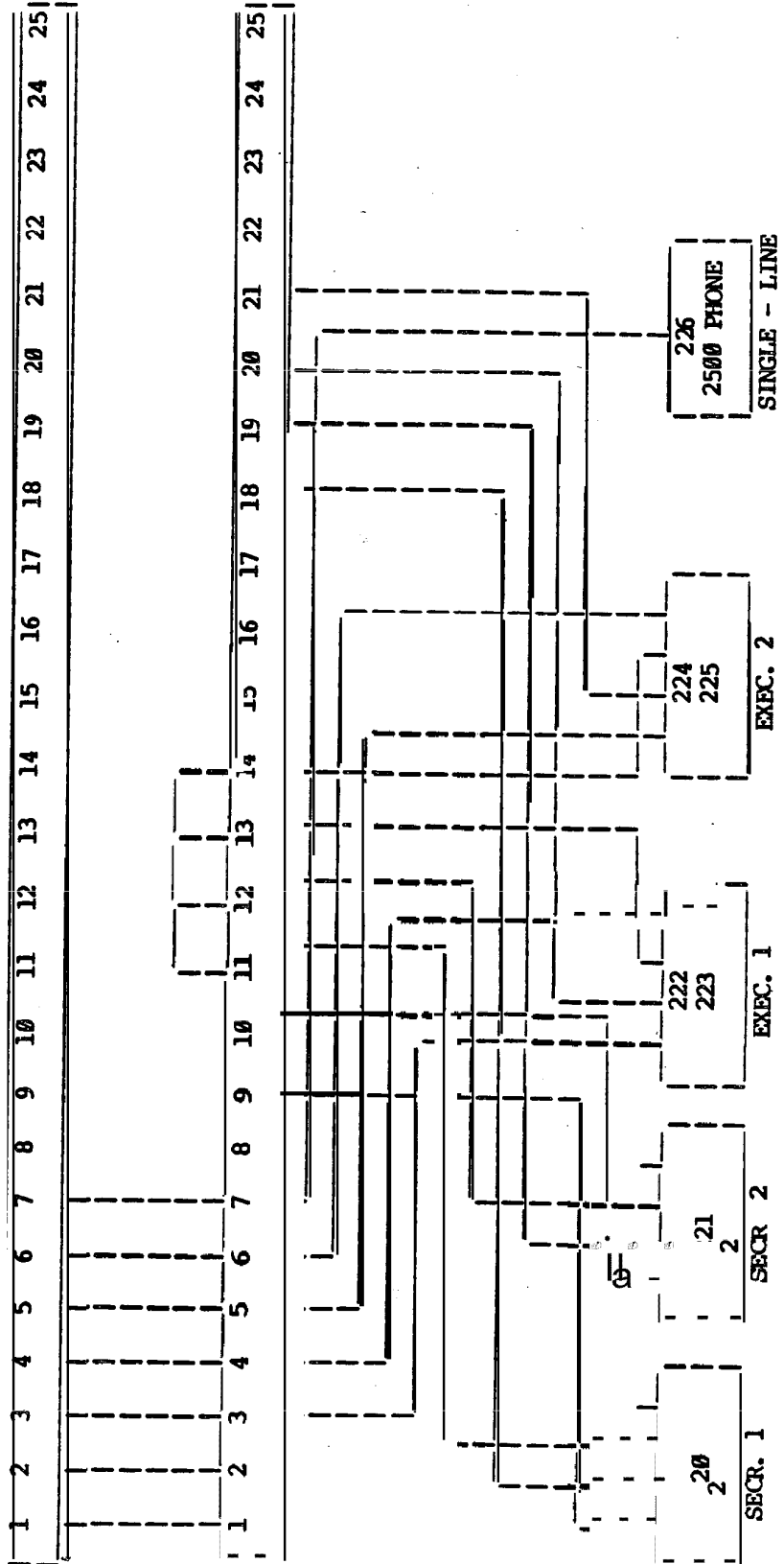
SET - 30

INSTALLATION MANUAL

TA-S30-1
Nov. 1, 1984

<u>SET-30 **INSTALLATION AND** PROGRAMMING</u>

The following **information is** a **synopsis of** the installation and programming procedures outlined in the SET-30 Documentation Package.

It is intended to provide the craftsperson with a quick over-view of the steps- which have to be taken to install and program a SET-30.

For more detailed information, refer to the Documentation Package.

SET-30

SPECIFICATIONS

AUTOCOM

Number of Loops	2 + Intercom
PBX Loop Resistance	1200 Ohm maximum
Loop Type	Loop Start
Power Loop Resistance	120 Ohm maximum
Power Loop Distance	2200 FT @ 24 GA
Voltage	24 to 56 VDC
	Non-polarity Sensitive
Hold	Hard hold on all lines
Frequence Response	300 - **3,400** Hz
Tones	**Standard** 12 DTMF
Keys	**34**
Display	32 5x7 matrix, alphanumeric character, LCD technology
Speakerphones	Integral - Half Duplex
Handset	Standard K-type with modular connection
Data Retention	6 Years without power
FCC Specification	**Meets** or exceed parts:
	15 subpart **J** - Class A **(EMI)**
	68 (network connection)

MULTIPLEXER

PBX Loop Type	Loop Start
PBX Lines	8 (32 with 4 multiplexers)
Secretary Stations	1 (2 on Multiplex II version)
Power Connection	42-56 VDC, 200 MA plus 200 MA per phone maximum
	Polarity sensitive

All specifications and prices are subject to change without notice.

PARTS LIST AND ORDER FORM

Note: These items are supplied **by** Siemens

ITEM	NOMENCLATURE	DESCRIPTION	QUANTITY
1	**SET-30E** PN-X5051-A100	Programmable SET-30 Telephone **(Exec.** See **1, 2, or Private)**	
2	Multiplexer 1 PN-X5051-A1.02	Single Secretary Multiplexer w/8 power **conn.**	
3	Multiplexer PN-X5051-A103 2	Dual Secretary Multiplexer **w/8** power **conn.**	
4	Power buffer Card PN-X5051-A1.04	For up to 25 **SET-30Es** Provides fused power **conn.**	
5'	Local Power Adapter **24 Vdc 0:25A** PN-X5051-A101	Power supply for one SET-30	
6	Card Cage Assembly PN-X5051-A105	Holds up to 13 multiplexer assemblies. Requires power **supply.**	

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GENERAL INFORMATION

SET-30 can be programmed to operate in any of the **configurations** shown below:

1. 2 dedicated line buttons stand-alone EXECUTIVE station.

2. 2 dedicated line buttons plus intercom button EXECUTIVE station (with private or group secretary).

3. 2 dedicated line buttons plus **intercom** button PRIVATE SECRETARY station, (serving one EXECUTIVE station).

4. 4 nondedicated line buttons plus intercom 'button' GROUP SECRETARY station, serving **up** to 32 EXECUTIVE stations or nonexecutive stations (2500) phones).

5. 5 non-dedicated line buttons (without intercom) GROUP SECRETARY station serving up to 32 EXECUTIVE stations or nonexecutive stations (2500 phones).

> The first or only secretary station of this type is programmed as SECRETARY 1. If a second secretary **station** is used, it is programmed as SECRETARY 2.

Stand-Alone EXECUTIVE stations are connected to the PBX only.

One EXECUTIVE, one SECRETARY combinations are connected to the PBX only with an intercom line between the two stations.

If one SECRETARY station screens calls for more than one EXECUTIVE station a Multiplexer I card is required.

If two SECRETARY stations (both) screen calls for EXECUTIVE stations, a Multiplexer II card is required.

Each Multiplexer group may use up to four 8-port multiplexer cards (of the **same** type).

SET-30 is powered locally, using an AC to DC converter, or connected to a multiplexer card, or connected to a power buffer card.

Each power buffer card supplies power for 25 instruments, individually fused at 400 ma @ 48V.

A 16-slot card cage is used to house' multiplexer and power buffer cards.

Multiplexer cards for the same group are placed in adjacent slots.

Each multiplexer group is separated by an "empty" slot.

If power buffer cards are used, they may be placed in any **unoccupied** slot, including the "empty" slot between multiplexer groups.

Power to the cage for the multiplexer and buffer cards is **-48V** and ground from a separate power supply.

'Total **=** 200 ma @ 48V X (number of multiplexer cards **+** number of multiplexer and buffer ports used)

Each multiplexer of buffer card is connected'via a **25-pair cable** to the MDF (female **amphenol** connector at **cage** end),

WIRING AND CABLING

SET-30 uses 4-pair wiring (using **RJ-45** connector)
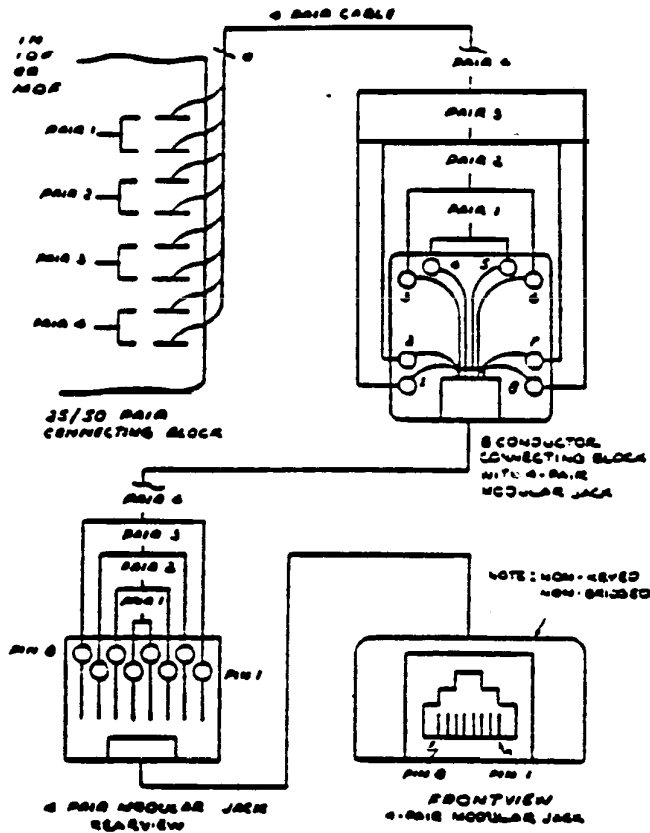
Four Pair Station Wiring

Stand-Alone EXECUTIVE St-

First pair (pin **4&5)** T & R for **1st PBX line**. Connected to PBX station circuit.
Second pair (pins **3&6) Power** (local or from buffer)
Third pair (pins **2&7) Not** used
Fourth pair (pins **1&8)** T & R for **2nd PRX line.** Connected to PBX station circuit. Second line **would** normally not be used in this configuration.

Configuration Example SET-306

Stand-alone Executive
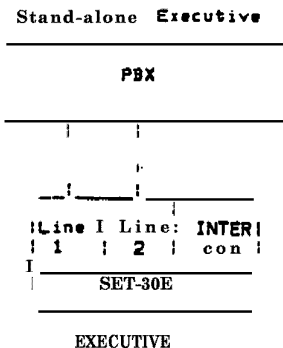
EXECUTIVE

ONE EXECUTIVE/SECRETARY COMBINATION

Executive Station

First pair (pins **4&5**)   T & R for <u>1st PBX line</u>. Connected to PBX station circuit and crossconnected to first pair -(pins **4&5**) of secretary station.

Second pair (pins **3&6**)   <u>Power</u> (local or from buffer)

Third pair (pins **2&7**)   **Intercom** crossconnected to third **pair (pins 2&7)** of secretary **station.**

Fourth pair (pins **1&8**)   T & R **for <u>2nd PRX line</u>** (optional). Connected to PBX station circuit. Crossconnected to **fourth** pair (pins **1&8**) of secretary station, unless it is a private line.

Note: In the configuration above, if both PBX station circuits are crossconnected between the executive station and secretary station as shown, the first extension number will appear on the first button of both instruments, and the second extension number on the second button of both instruments.

To have the extension numbers on one of the two instruments reversed, pair 1 at that station is crossconnected to pair. 4 of the other station, and pair 4 at that station is crossconnected to pair **1** of the other station.

Private Secretary

First pair (pins **4&5**)   T 6 R for <u>1st PBX line</u> Connected to PBX station circuit and crossconneeted to first pair (pins **4&5**) of executive station.

Second pair (pins **3&6**)   <u>Power</u> (local or from buffer)

Third pair (pins **2&7**)   **Intercom** crossconnected to third pair (pins **2&7**) of executive station.

Fourth pair (pins **1&8**)   T & R for <u>2nd PBX line</u> (optional). Connected to PBX station circuit. Crossconnected to fourth pair (pins **1&8**) of executive station, unless it is a private line.

Configuration Example SET-30E

One Private Secretary Serving One Executive with Two Common
Lines and Dedicated Intercom

```
 _____
|                                                                  |
|                              PBX                                 |
|                                                       _____|
|_____|
        |         |
        |         |
    _____
   |                                   |
   |         _____          |
   |        |        |       |         |
   |        |        |   _____
   |        |        |  |                       |
   |        |        |  |        __  |          |
   |        |        |  |       |    |   ___    |
   |        |        |  |       |    |  |   |   |
   |        |        |  |       |    |  |   |   |
 _____  _____
| Line  | Line  | Inter | | Line  | Line  | Inter  |
| 1     | 2     | com   | | 1     | 2     | I corn |
|_____|_____|_____| |_____|_____|_____|
|      SET-30E          | |      SET 30-E          |
|_____| |_____|

    PRIVATE  SECRETARY              EXECUTIVE
```
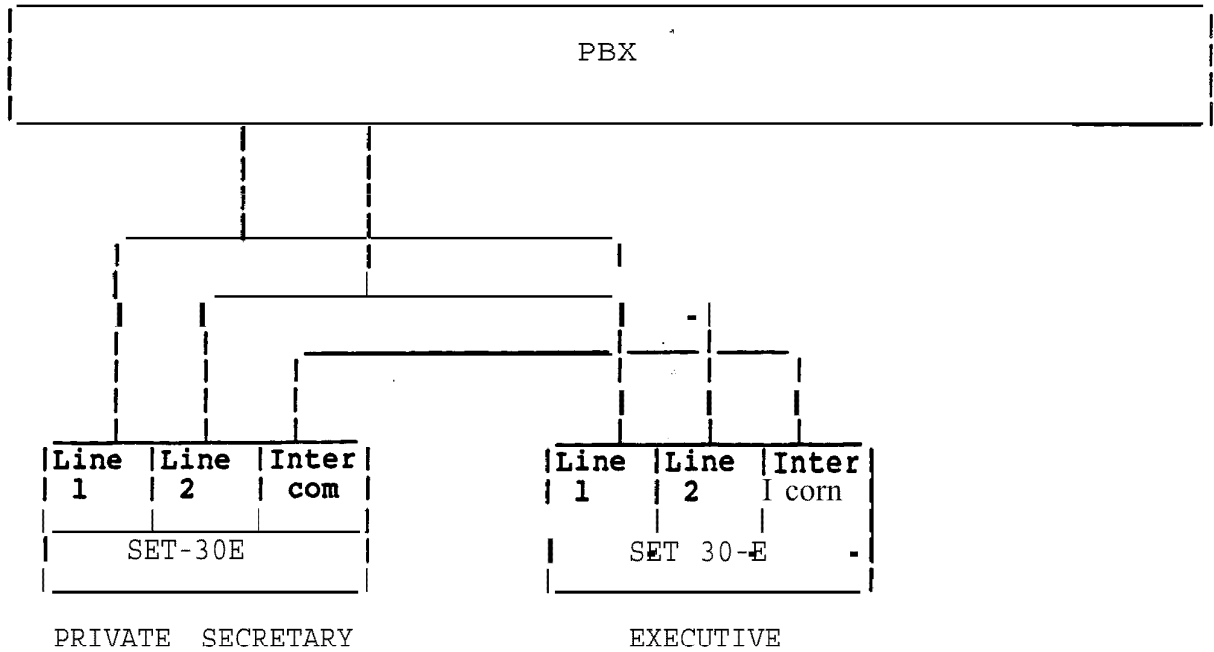
<u>MULTIPLEXER</u> I OR II WIRING

Note: Different multiplexer cards are used for single and dual
        secretary applications.

Each PBX station circuit to appear at a SECRETARY station and
an EXECuTIVE station is wired to a line pair on the multiplexer
and the particular line on the **EXECUTIVE instrument** where it is
to appear (pair 1 or 4 of the **4-pair** modular connector).

Each PBX station circuit to appear at a SECRETARY station and a
conventional telephone (2500 set) is also wired to a line pair
on the multiplexer and the line of the instrument. (Conven-
tional instruments merely forwarded to a secretary are con-
nected to the PBX only).

A PBX station circuit appearing at a SECRETARY station only is
wired to a line pair on the multiplexer only.

A PBX station circuit appearing at an EXECUTIVE station only
(never to be answered by a secretary) is wired to the par-
ticular line on the EXECUTIVE instrument where it is to appear
(pair 1 or 4 of the cl-pair modular connector).

The INTERCOM pairs of all instruments are wired in parallel and
in addition to pair 11 of one of the multiplexer cards in the
multiplexer group.

The T&R pair (pair 1 on the **4-pair** modular connector) of
SECRETARY **I** is wired to pair **9** of one of the multiplexer cards
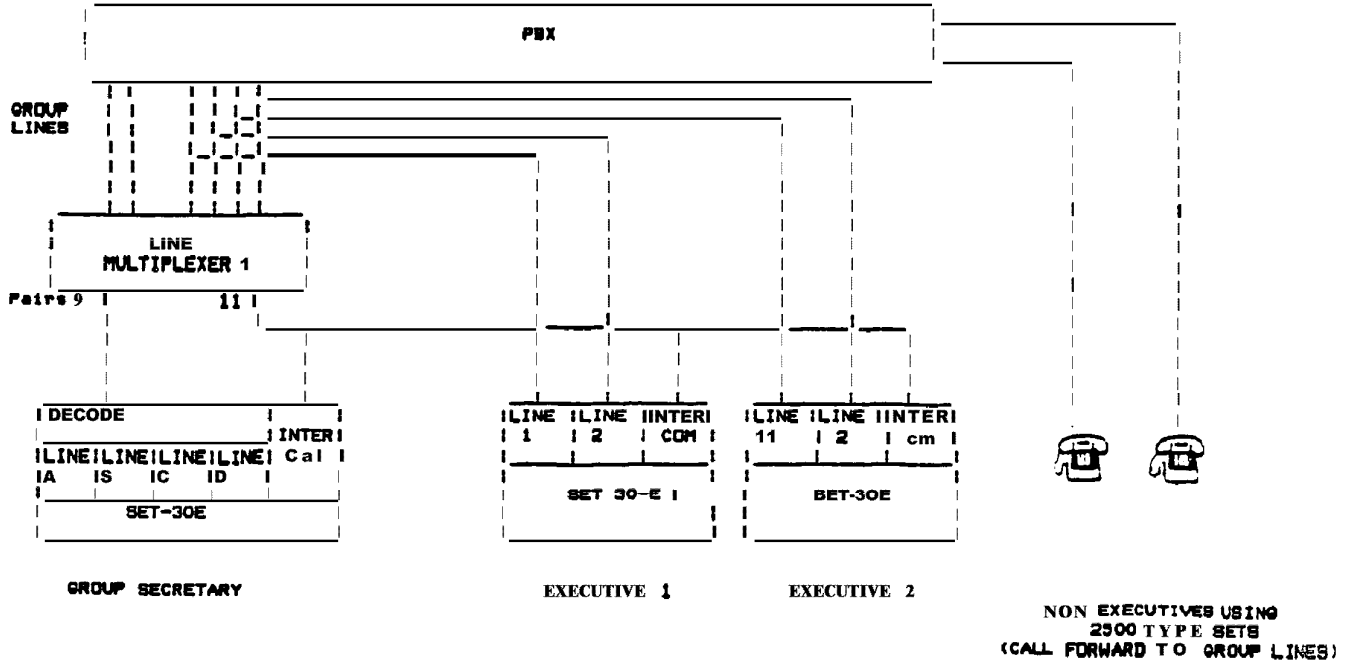in 'the multiplexer group.

The T&R pair (pair 1 on the **4-pair** modular connector) of
SECRETARY II (if used) is wired to pair 10 of one of the multi-
plexer cards in the multiplexer group.

Power for each instrument (pair 2 of the 4-pair modular connec-
tor) may be obtained locally, from the multiplexer card, or a
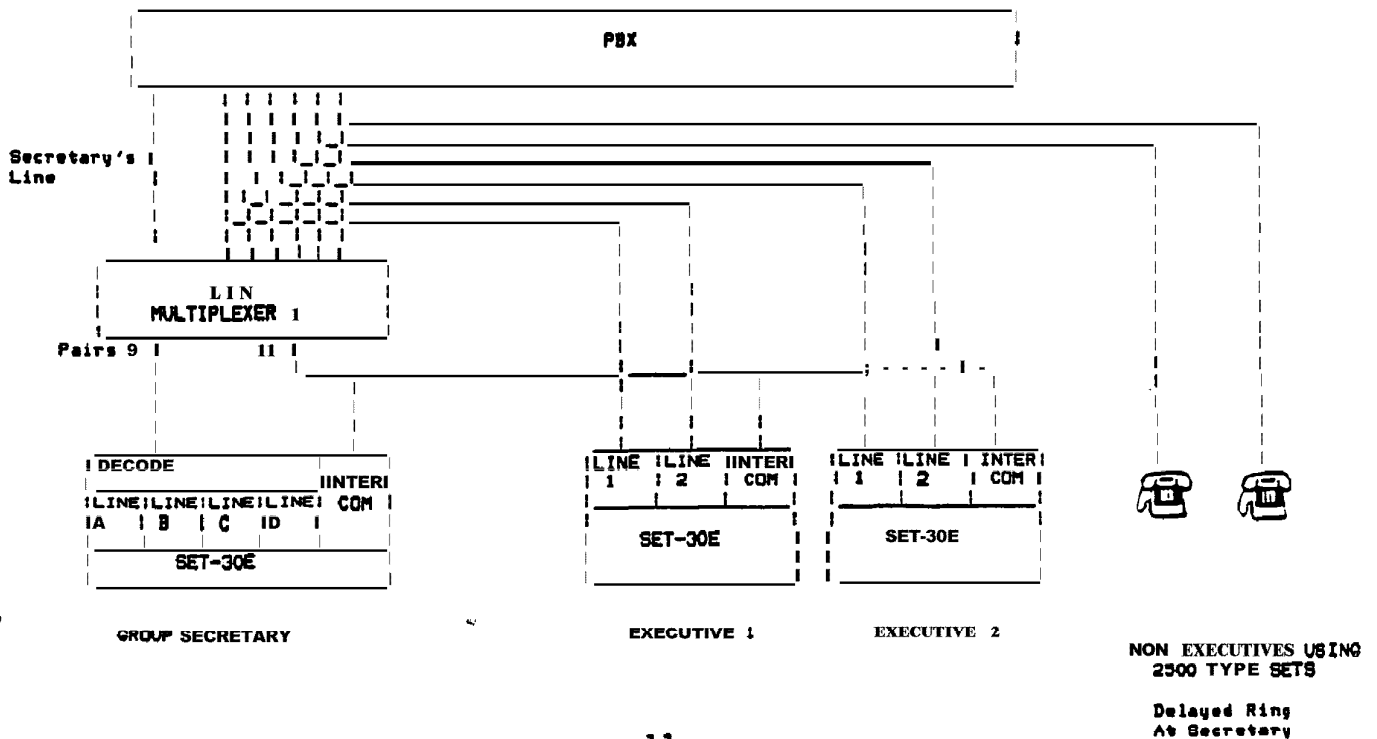power buffer card.

Configuration Example SET-30E

One group Secretary Serving Two Executives with Two Common Lines and Dedicated Intercom, and Serving Non-Executives as a Message Center with Group Lines to which they can forward their calls.

```
┌──────────────────────────────── PBX ─────────────────────────────────┐
│                                                                       │

GROUP
LINES

        ┌─────────────────────┐
        │       LINE           │
        │   MULTIPLEXER 1      │
        └─────────────────────┘
Pairs 9 │           11 │

┌────────────────────────┐   ┌────────────────────────┐   ┌────────────────────────┐
│ DECODE          │ INTER │   │LINE │LINE │INTER│      │LINE │LINE │INTER│
│LINE│LINE│LINE│LINE│ Cal │   │ 1   │ 2   │ COM │      │ 11  │ 2   │ cm  │
│ A  │ S  │ C  │ D  │     │   │                  │      │                  │
│        SET-30E         │   │      SET 30-E    │      │      BET-30E     │
└────────────────────────┘   └────────────────────────┘   └────────────────────────┘

GROUP SECRETARY              EXECUTIVE 1              EXECUTIVE 2
```

NON EXECUTIVES USING
2500 TYPE SETS
(CALL FORWARD TO GROUP LINES)

Configuration Example SET-30E

One group Secretary Serving Two Executives with Two Common Lines and Dedicated Intercom, and Two Non-Executives with Delayed Ring.

```
┌──────────────────────────────── PBX ─────────────────────────────────┐
│                                                                       │

Secretary's
Line

        ┌─────────────────────┐
        │       LIN            │
        │   MULTIPLEXER 1      │
        └─────────────────────┘
Pairs 9 │           11 │

┌────────────────────────┐   ┌────────────────────────┐   ┌────────────────────────┐
│ DECODE        │INTER│       │LINE │LINE │INTER│      │LINE │LINE │ INTER │
│LINE│LINE│LINE│LINE│ COM │   │ 1   │ 2   │ COM │      │ 1   │ 2   │ COM   │
│ A  │ B  │ C  │ D  │     │   │                  │      │                    │
│        SET-30E         │   │      SET-30E     │      │      SET-30E       │
└────────────────────────┘   └────────────────────────┘   └────────────────────────┘

GROUP SECRETARY              EXECUTIVE 1              EXECUTIVE 2
```

NON EXECUTIVES USING
2500 TYPE SETS

Delayed Ring
At Secretary

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Configuration Example SET-30E

Two group Secretaries serving Two executives with Two **Common** Lines and Dedicated Intercom, and Serving Non-Executives as a Message Center with Group Lines to which they can forward their calls.
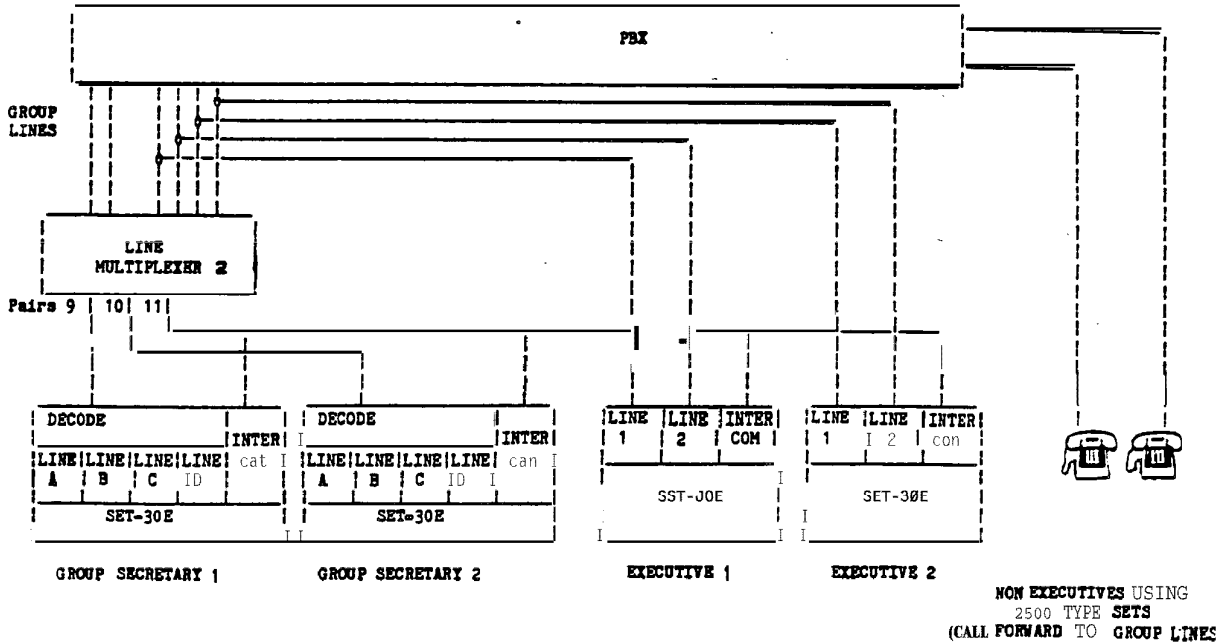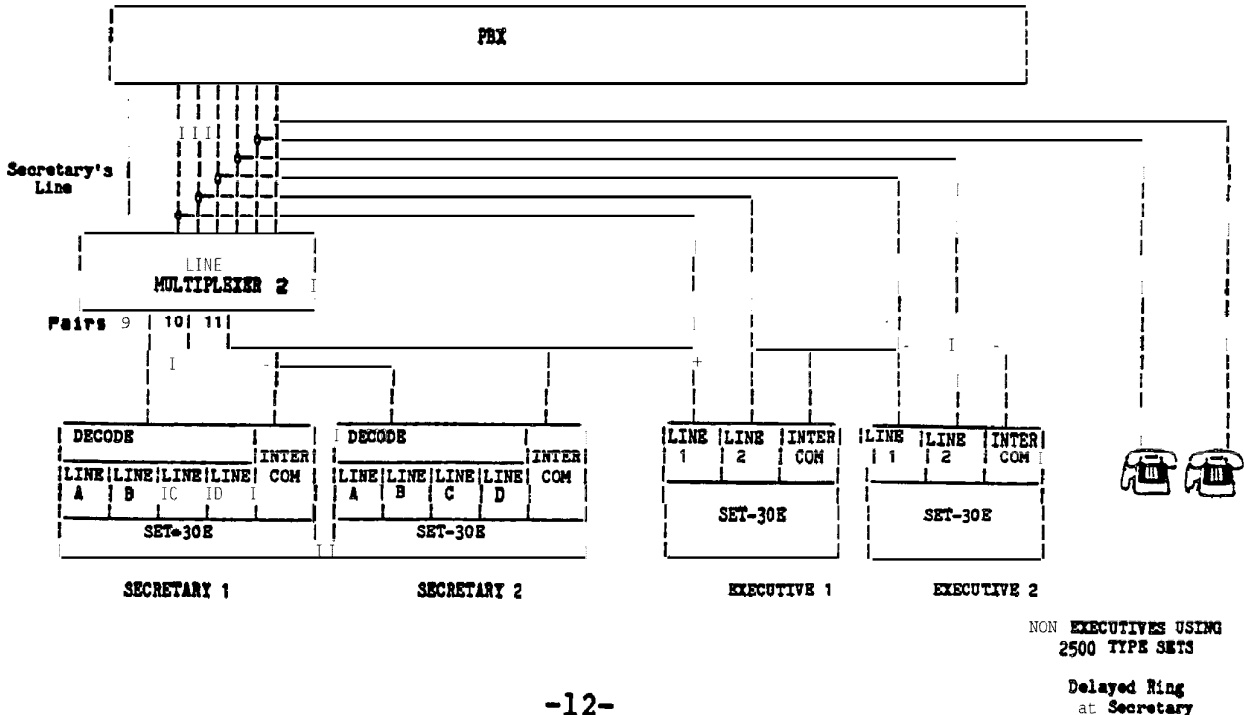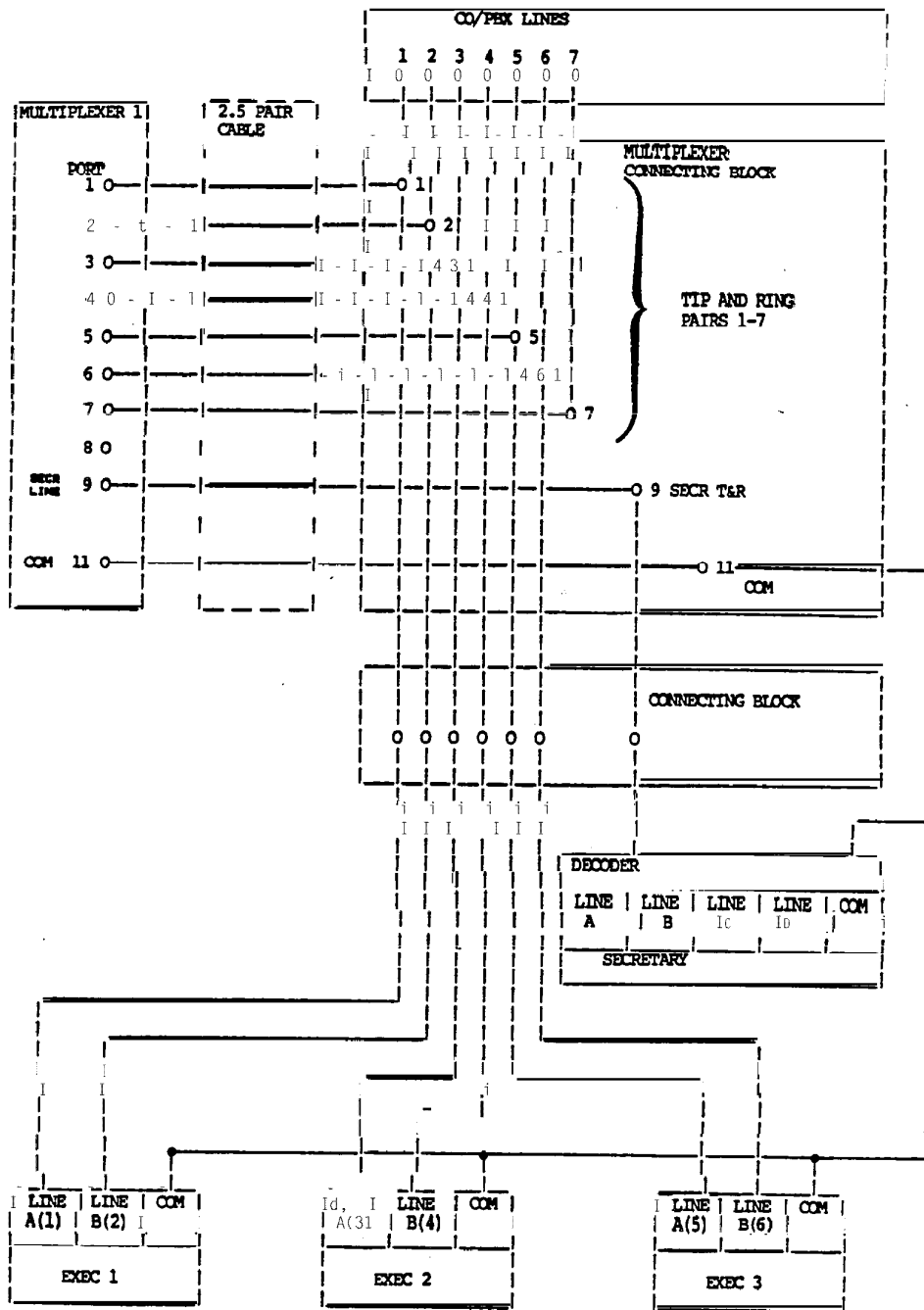


```
                              PBX

GROUP
LINES
              LINE
           MULTIPLEXER 2

Pairs 9 | 10| 11|

  DECODE        |INTER|     DECODE        |INTER|    |LINE |LINE |INTER|   |LINE |LINE |INTER|
               |      | cat I            |      | can I | 1   | 2   | COM |   | 1   | I 2 | con |
 |LINE|LINE|LINE|LINE| ID I  |LINE|LINE|LINE|LINE| ID I  |                 |                   |
 | A  | B  | C  |    |       | A  | B  | C  |    |         SST-JOE          |     SET-30E       |
        SET-30E              SET-30E

 GROUP SECRETARY 1       GROUP SECRETARY 2         EXECUTIVE 1          EXECUTIVE 2
```

NON EXECUTIVES USING
2500 TYPE SETS
(CALL FORWARD TO GROUP LINES
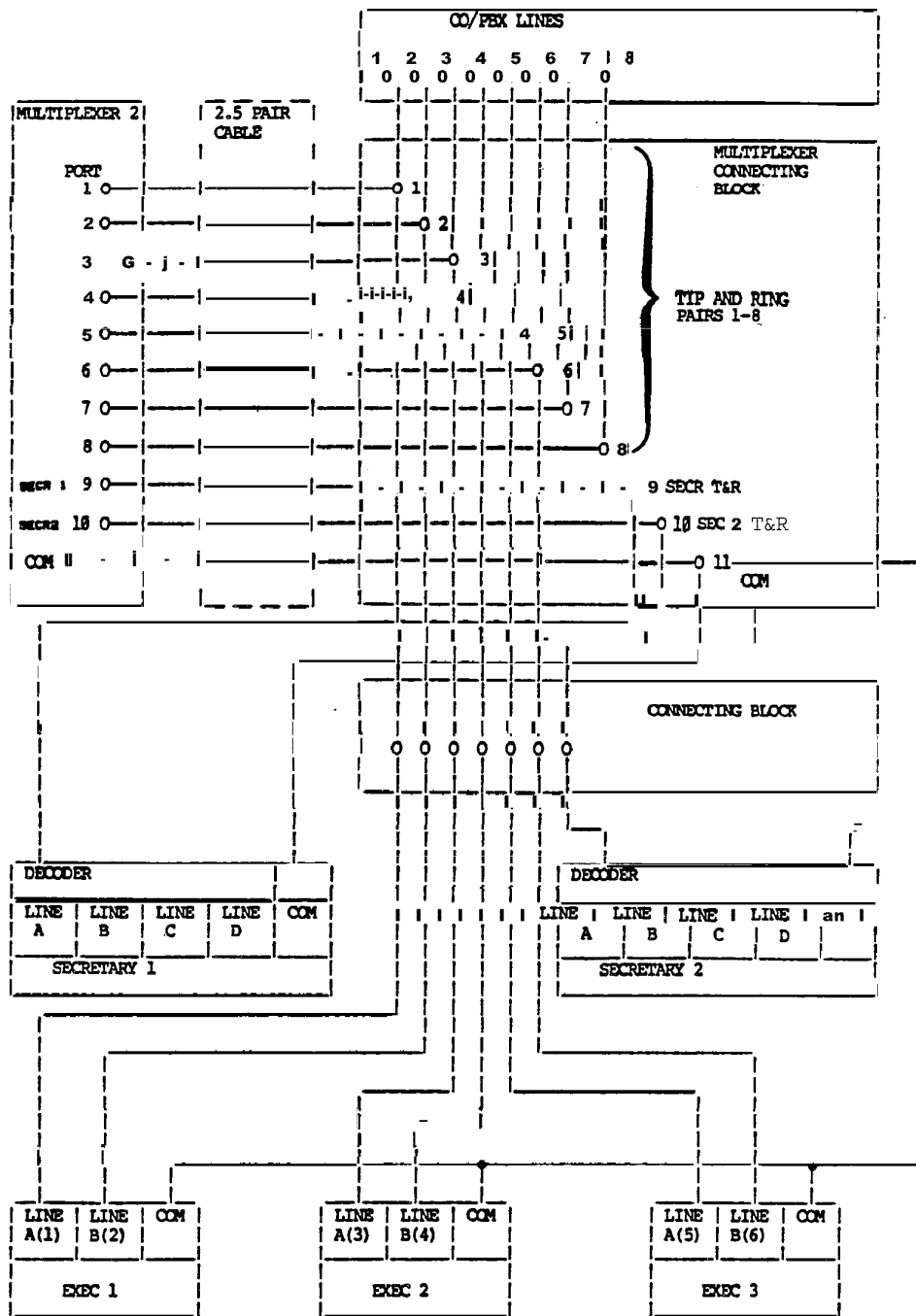
Configuration Example SET-30E

Two secretaries serving Two Executives with Two Common Lines and Dedicated Intercom, and Two Non-Executives with Delayed Ring.


```
                              PBX

Secretary's
  Line
              LINE
           MULTIPLEXER 2 I

Pairs 9 | 10| 11|

  DECODE        |INTER|     DECODE        |INTER|    |LINE |LINE |INTER|   |LINE |LINE |INTER|
               | COM |                   | COM |    | 1   | 2   | COM |   | I 1 | 2   | COM I
 |LINE|LINE|LINE|LINE|      |LINE|LINE|LINE|LINE|    |                 |   |                   |
 | A  | B  | IC | ID |      | A  | B  | C  | D  |    |     SET-30E      |   |     SET-30E       |
        SET-30E              SET-30E

 SECRETARY 1             SECRETARY 2               EXECUTIVE 1          EXECUTIVE 2
```

NON EXECUTIVES USING
2500 TYPE SETS

Delayed Ring
at Secretary

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Typical Multiplexer 1 Configuration

Secr. line should address the line 1 on Multiplexer

Typical Multiplexer **2** Configuration

MULTIPLEXER I OR II PIN OUT

FUNCTION	IN/OUT	PAIR	PINS	COMMENT
Line 1	In	1	1,26	Polarity Insensitive
Line 2	In	2	2,27	Polarity Insensitive
Line 3	In	3	3,28	Polarity Insensitive
Line 4	In	4	4,29	Polarity Insensitive
Line 5	In	5	5,30	Polarity Insensitive
Line 6	In	6	6,31	Polarity Insensitive
Line 7	In	7	7,32	Polarity Insensitive
Line 8	In	8	8,33	Polarity Insensitive
Secretary 1	out	9	9,34	Polarity Insensitive
Secretary 2(Mux 2 only)	out	10	10,35	Polarity Insensitive
Intercom	In/Out	11	11,36	Polarity Insensitive
Not Used		12	12,37	# not used
Not Used		13	13,38	# not used
Not Used		14	14,34	# not used
Not Used		15	15,40	# not used
Not Used		16	16,41	# not used
Not Used		17	17,42	# not used
Power 1	Out	18	18,43	*Polarity Insensitive
Power 2	Out	19	19,44	*Polarity Insensitive
Power 3	Out	20	20,45	*Polarity Insensitive
Power 4	Out	21	21,46	*polarity Insensitive
Power 5	Out	22	22,47	*Polarity Insensitive
Power 6	Out	23	23,48	*Polarity Insensitive
Power 7	Out	24	24,49	*Polarity Insensitive
Power 8	Out	25	25,50	*Polarity Insensitive

Power Buffer Card Connections

PAIR	PINS	FUNCTION
1	1,26	Power
2	2,27	Power
3	3,28	Power
4	4,29	Power
5	5,30	Power
6	6,31	Power
7	7,32	Power
8	8,33	Power
9	9,34	Power
10	10,35	Power
11	11,36	Power
12	12,37	Power
13	13,38	Power
14	14,39	Power
15	15,40	Power
16	16,41	Power
17	17,42	Power
18	18,43	Power
19	19,44	Power
20	20,45	Power
21	21,46	Power
22	22,47	Power
23	23,48	Power
24	24,49	Power
25	25,50	Power

INSTALLING KEY STRIPS

Key strips for each type of SET-36 are included with the **User's** Guide. Select the correct strip for the programmed SET-30. Type the extension(s) programmed for a Private Secretary or **EXEC** on the strip (Secretary 1 or 2 use the pre-typed strips). Remove the hand-set from the instrument and insert the strip into the slot at the lower right corner of the bottom hand-set well ₀

SYSTEM INITIALIZATION

After the programming of all instruments, **to** ensure proper system initialization prior to operation, unplugthe Secretary instruments, except Secretary **2,** and then plug them back in. This ensures that each Secretary data base **is** transmitted and stored in the appropriate EXEC telephone, thereby allowing proper intercom link between telephones.