

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.

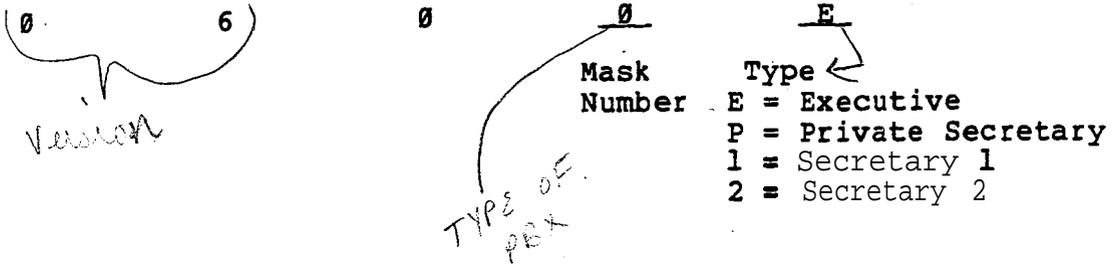
MASK 1 is used for SD-192, SD-232, or SD-192MX.

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:



PROGRAMMING

Before programming, fill out the database tables shown on the next several pages or the tables in the regular SET-30 documentation.

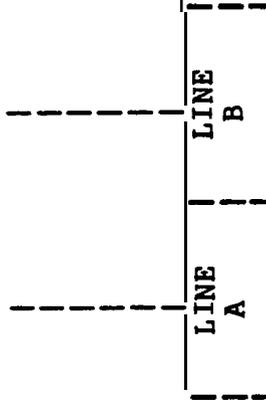
Separate sets of tables are provided for Multiplexer (MUX) Groups (one or two secretaries and many executives) and Executive/Private Secretary combinations.

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



CROSSCONNECTIONS

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

EXECUTIVE INSTRUMENT

LINE A	100	RING ARRANGEMENT	DIRECT FORWARD TO	EXT:
LINE B	200			EXT:

EXECUTIVE (Stand-Alone)

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

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

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

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

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

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

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 |
| COM = NO LINE A1
| 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.

<u>Section</u>	<u>Description</u>
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
I TO

Enter _____ and--STORE

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

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

Speed Dial Indexes
Index being programmed

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 telephone 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
A

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

Number programmed so far

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

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.

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 |
| _____ |

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 |  
| 1-6, 70-99   |
```

Enter index to be displayed

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 0H)
0-9,*,#	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
K0	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	Chain a speed dial location *
L70 to 99	
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.

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)

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	w		w		+ 2
PBX features	w		w		+ 3
	w		w		+ 4
	w		w		+ 5
	w		w		+ 6
	w		w		+ 7
	w		w		+ 8
	w		w		+ 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.

<u>GL</u>	<u>ND</u>	<u>58</u>	<u>KO</u>	<u>P</u>	<u>H</u>
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_K0PH	GLND_K0PH	GLND_K0PH
I 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 0)	GFNUNDRPOH (O NOT 0)	GFNUNDRPOH (O NOT 0)
DIRECT FORWARD (DEACTIVATE)	GFNUND,POH (O NOT 0)	GFNUND,POH (O NOT 0)	GFNUND,POH (O NOT 0)

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) |
| I 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.

PROGRAMMABLE FEATURE BUTTONS (continued)

```
|-----|
| 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 (continued)

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.

PROGRAMMABLE FEATURE BUTTONS (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.

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

Enter _____

Feature Number	Feature 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.

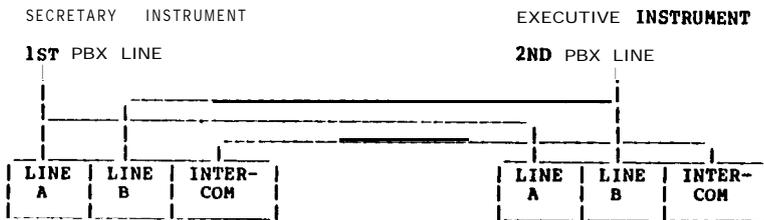
Answer Phrase is JANE DOE.

Extension will ring at Secretary.

Direct Forward Destination is Ext. 211.

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

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CROSSCONNECTIONS				PROGRAMMING						
PBX LINE <u>111</u>	PAIR 2, PINS 3 & 6	PAIR 3, PINS 2 & 7	PBX LINE <u>222</u>	SECRETARY INSTRUMENT						
TO	OF EACH INSTRUMENT	OF SECRETARY SET	TO	=====						
PAIR 1, PINS 4 & 5	TO LOCAL POWER	To	PAIR 4, PINS 1 & 8	EXT 1	<u>111</u>	ANSWER PHRASE	DIR TUB	RING HERE	1= YES	1
OF SECRETARY SET		PAIR 3, PINS 2 & 7	OF SECRETARY SET	EXT 2	<u>222</u>		TO BLD	2= NO		
AND ALSO TO	NOTE: CONNECTING	OF EXECUTIVE SET	AND ALSO TO	LINE A				3= DELAY		
PAIR 1, PINS 4 & 5	ONE INSTRUMENT TO		PAIR 4, PINS 1 & 8	LINE B	<u>111</u>					DIRECT FORWARD TO
OF EXECUTIVE SET*	LOCAL POWER AND	<u>200</u>	OF EXECUTIVE SET*		<u>222</u>					EXT: <u>119</u>
	CROSSCONNECTING									EXT: <u>419</u>
	PAIRS 2 ON BOTH			EXECUTIVE INSTRUMENT						
	INSTRUMENTS IS			LINE A	<u>111</u>			RING ARRANGEMENT		DIRECT FORWARD TO
	SUFFICIENT.			LINE B	<u>222</u>					EXT: HA
										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.

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.

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CROSSCONNECTIONS				PROGRAMMING			
PBX LINE	PAIR 2, PINS 3 & 6	PAIR 3, PINS 2 & 7	PBX LINE	SECRETARY INSTRUMENT			
To	OF EACH INSTRUMENT	TO SECRETARY SET	TO	=====			
PAIR 1, PINS 4 & 5	TO LOCAL POWER	TO	PAIR 4, PINS 1 & 8	EXT 1	ANSWER PHRASE	RING HERE	
OF SECRETARY SET	NOTE: CONNECTING	PAIR 3, PINS 2 & 7	OF SECRETARY SET	EXT 2	NA	1= YES	
AND ALSO TO	ONE INSTRUMENT TO	OF EXECUTIVE SET	AND ALSO TO	LINE A		2= NO	
PAIR 1, PINS 4 & 5	LOCAL POWER AND	PAIR 4, PINS 1 & 8	OF EXECUTIVE SET*	LINE B		3= DELAY	NA
OF EXECUTIVE SET*	CROSSCONNECTING						DIRECT EXT:
	PAIRS 2 ON BOTH						FORWARD I----
	INSTRUMENTS IS						TO : NA
	SUFFICIENT.						
				EXECUTIVE INSTRUMENT			
				LINE A		RING	DIRECT
				LINE B		ARRANGE-	FORWARD
						MENT	TO
							EXT: NA
							EXT:

* 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 ROTH INSTRUMENTS, SECOND PBX LINE TO SECRETARY ONLY, THIRD PBX LINE TO EXECUTIVE ONLY)

Exercise #3

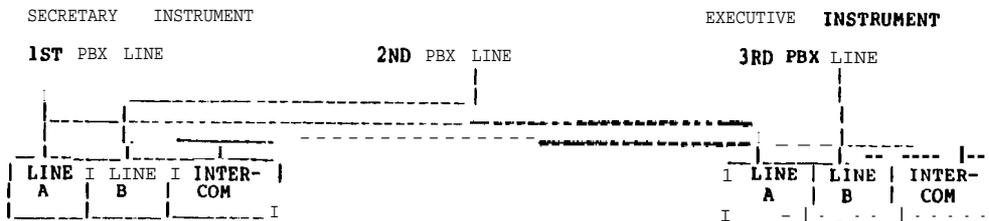
The following Executive/Private Secretary combination will be used.

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.

23 The executive's ring arrangement is delayed duplicate ringing.



CROSSCONNECTIONS				PROGRAMMING			
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	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	SECRETARY INSTRUMENT			
NOTE: CONNECTING ONE INSTRUMENT TO LOCAL POWER AND CROSSCONNECTING PAIRS 2 ON BOTH INSTRUMENTS IS SUFFICIENT.				EXT 1	ANSWER PHRASE	RING HERE	
				EXT 2	PHRASE	1= YES 2= NO 3= DELAY	NA
				LINE A			DIRECT FORWARD TO
				LINE B			EXT:
				EXECUTIVE INSTRUMENT			
				LINE A		RING ARRANGEMENT	DIRECT FORWARD TO
				LINE B			EXT: NA

SECRETARY

Press STORE, FEATURE +, 0, # 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 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)

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 ? |  
| A = 1, B = 2   |  
| _____ |
```

Enter _____ and STORE

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

```
| COM = YES      LINE A |  
| 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 |  
| OR HEADSET = 2    |  
| _____ |
```

Enter _____ and STORE

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

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

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

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

| ANSWER PHRASE? | I

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~~ u e d)

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

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?
| I 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
| I TO
|
```

Enter _____ and STORE

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

Enter _____ and STORE

To display DIRECT FORWARD, perform the following procedure:

Press DISPLAY and DIRECT FORWARD buttons in sequence

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

Enter _____ and STORE

Line being displayed

|
V

```
|
| AFWD TO 1400
|
```

↑
Station to which chosen line is forwarded

EXECUTIVE (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)?	Select number from table below, enter number and STORE. If just STORE is pressed, it defaults to arrangement 1.
------------------------------------	--

<u>Selection</u>	<u>Description</u>
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 ?
A-1, B-2

Enter _____ and STORE

Station to which chosen
line is forwarded
V

i AEWD TO 1400
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:

<u>EXTENSION</u>	<u>ANSWER PHRASE</u>	<u>RING AT SECRETARY #</u>
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:

<u>EXTENSION</u>	<u>DIRECT FORWARD DESTINATION</u>
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 programmed:

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

MUX GROUP NUMBER _____

SECRETARY 1

MULTIPLER 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 _____ (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.							

-37-

MUXGROUP NUMBER _____ (continued)

SECRETARY 2

MULTIPLEXER I 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.							

MUX GROUP NUMBER _____
 EXECUTIVE STATIONS

EXTENSION NUMBERS	MULTIPLEXER CONNECTIONS				If Single-line Phone Use This Column	RING ARRANGEMENT	FORWARD TO (Private Lines Only)
	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			
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	CARD		
LINE B	PAIR	PAIR	PAIR	PAIR	PAIR		
LINE A			" "	" "			
LINE B	PAIR	PAIR	PAIR	PAIR	PAIR		
LINE A	CARD	CARD	CARD				
LINE B	PAIR	PAIR	PAIR	PAIR			
LINE A			CARD	CARD	CARD		
LINE B	PAIR	PAIR	PAIR	PAIR	PAIR		
LINE A			CARD				
LINE B	PAIR	PAIR	PAIR	PAIR	PAIR		
LINE A			CARD	CARD			
LINE B	PAIR	PAIR	PAIR	PAIR	PAIR		
LINE A			CARD				
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 +, 0, # 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?
YES = 1, NO = 2

Enter _____ and STORE

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?
YES = 1, NO = 2

Enter _____ and STORE

EXTENSION FOR
LINE 1:

Enter _____ and STORE

EXTENSION FOR
LINE 2:

Enter _____ and STORE

EXTENSION FOR
LINE 32:

Enter _____ and STORE

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 ? |
| (01 to 32)   |
|-----|
```

Enter _____ and STORE

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 |
| OR HEADSET    = 2 |
|-----|
```

E n t e r and STORE

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)
|

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

| **2 BACK, UP, DN?** |
| **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.

| 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 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**.

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.

SECRETARY 1 (continued)

| 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? |  
| X00              |  
|                   |
```

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
| I 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 SECT = 1.EXEC = 2	Enter 1 and STORE
-------------------------------------	-------------------

SECRETARY 1, 2 or PRIVATE = 3	Enter 2 and STORE
------------------------------------	-------------------

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 ?
| (01 to 32)
|
```

Enter _____ and STORE

Intercom wired
Yes or No Lined requested
 ↓ ↓
 V V

```
| 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
| OR HEADSET = 2
|
```

ENTER _____ and STORE

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.

| 2 BACK, UP, DN?
| 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

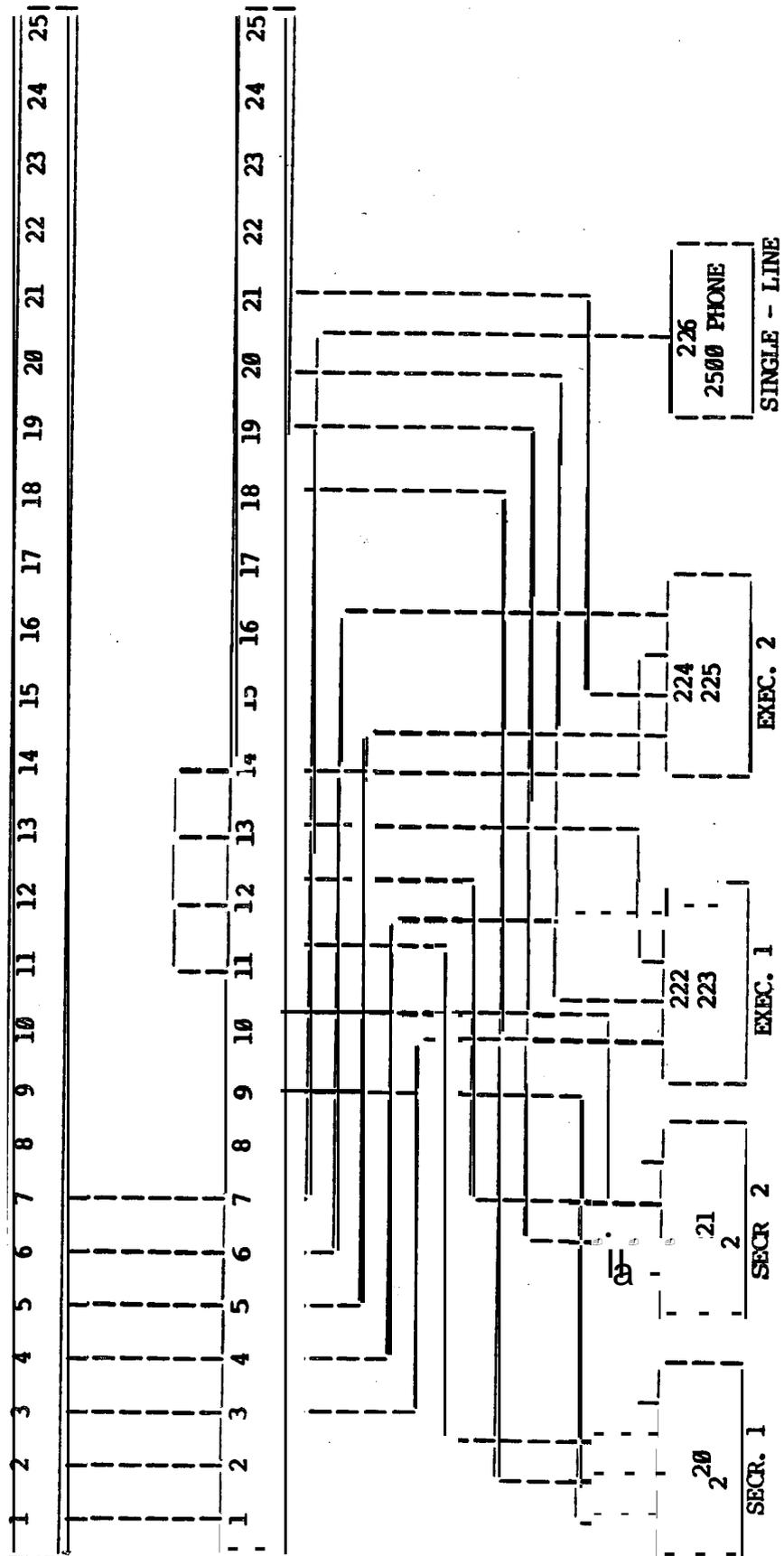
```
| 5FWD to 1400
```

Station to which chosen line is forwarded

To program Executive Stations 1 and 2 go back to the procedures on page 27.

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

PBX EXTENSIONS



SET - 30
INSTALLATION MANUAL

TA-S30-1
Nov. 1, 1984

SET-30 INSTALLATION AND PROGRAMMING

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 overview 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
Hold	Non-polarity Sensitive
	Hard hold on all lines
Frequency 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)

MULTIPLXER

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.	
I - I 4 I	Power buffer Card PN-X5051-A1.04	For up to 25 SET-30Es Provides fused power conn.	
i 5'	Local Power Adapter 24 Vdc 0:25A PN-X5051-A101	Power supply for one SET-30	I -
I 6	Card Cage Assembly PN-X5051-A105	Holds up to 13 multiplexer I assemblies. Requires power supply.	
-			

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.

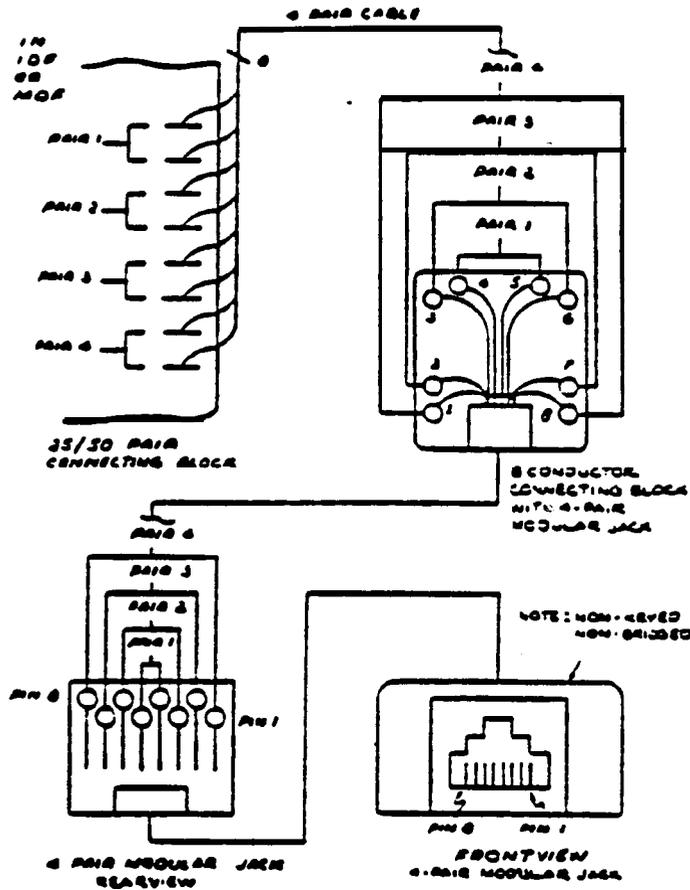
Power to the cage for the multiplexer and buffer cards is **-48V** and ground from a separate power supply.

'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)



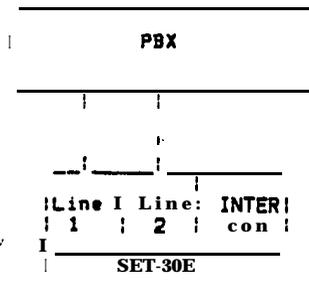
Four Pair Station Wiring

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 1st PBX line. Connected to PBX station circuit and crossconnected to first pair -(pins **4&5**) of secretary station.

Second pair (pins **3&6**) Power (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 2nd PRX line (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 & R for 1st PBX line. Connected to PBX station circuit and crossconnected to first pair (pins **4&5**) of executive station.

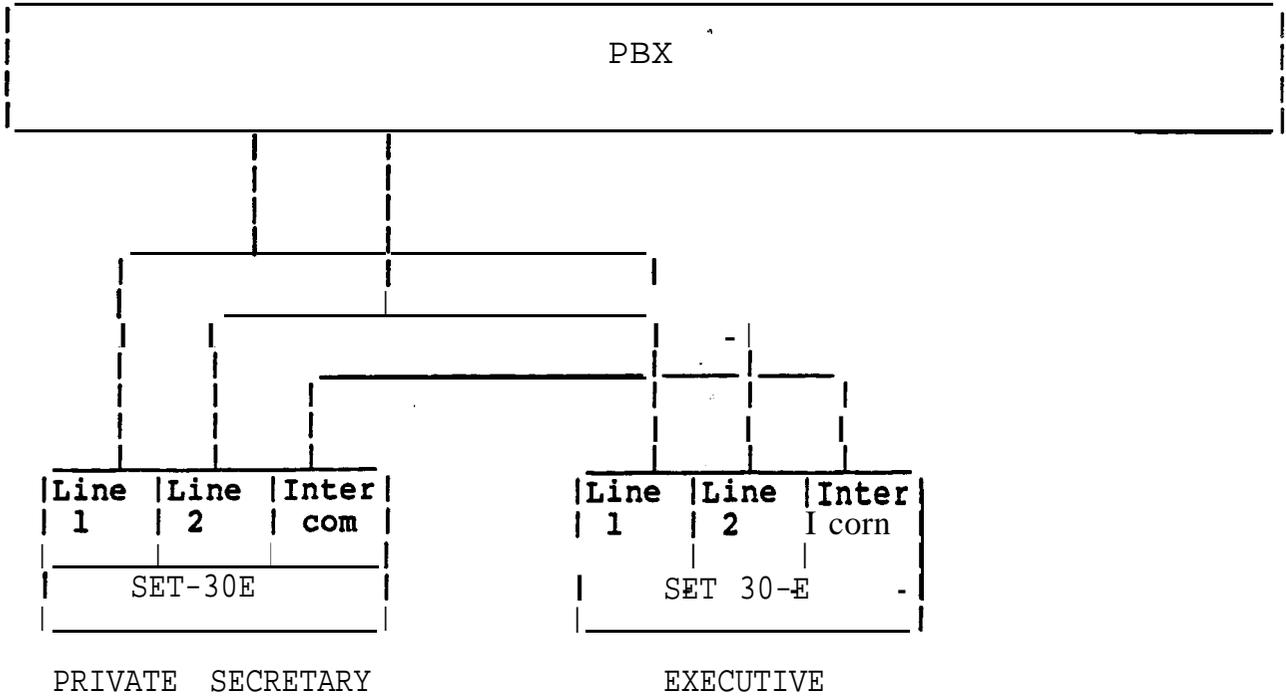
Second pair (pins **3&6**) Power (local or from buffer)

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

Fourth pair (pins **1&8**) T & R for 2nd PBX line (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



MULTIPLEXER 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. (Conventional instruments merely forwarded to a secretary are connected 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 particular line on the EXECUTIVE instrument where it is to appear (pair 1 or 4 of the 4-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.

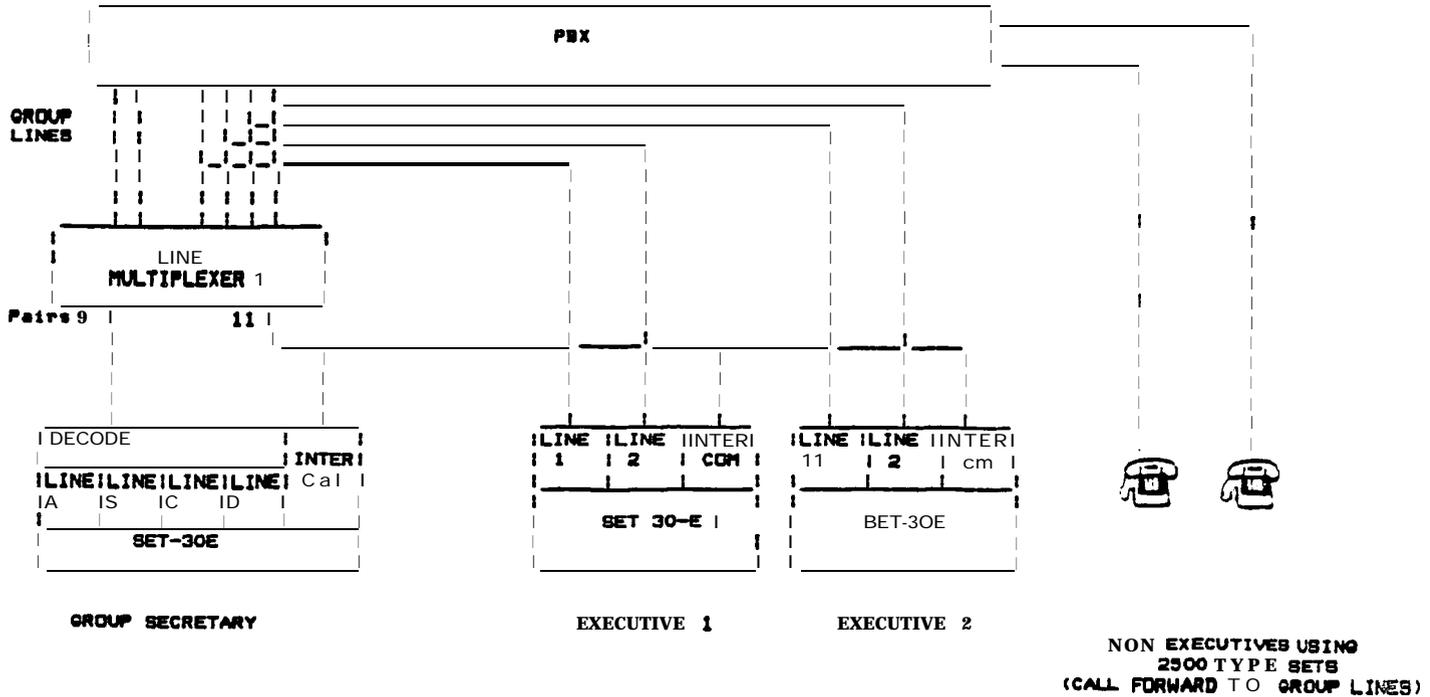
The T&R pair (pair 1 on the **4-pair** modular connector) of SECRETARY I is wired to pair 9 of one of the multiplexer cards in the multiplexer group.

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 multiplexer cards in the multiplexer group.

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

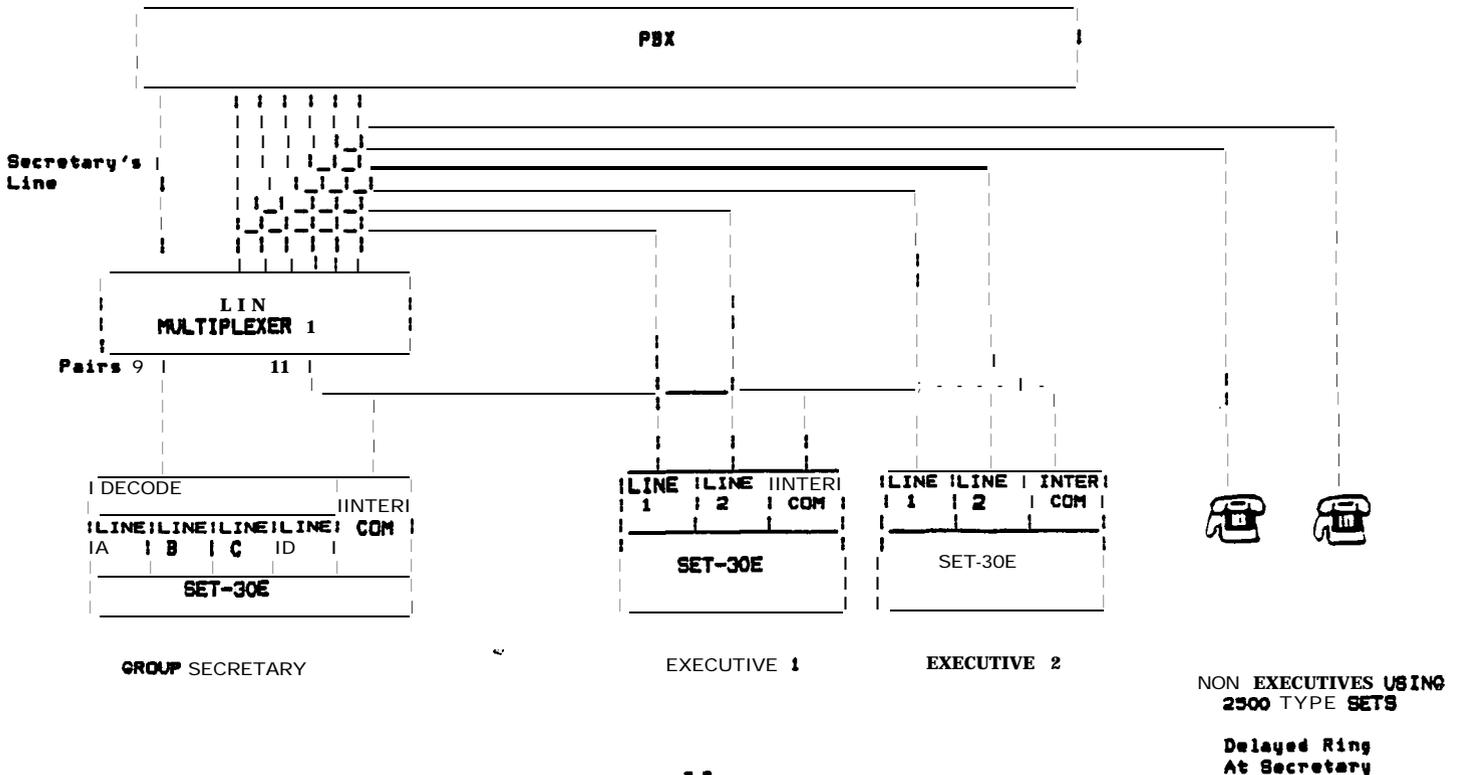
Configuration Example SET-30E

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.



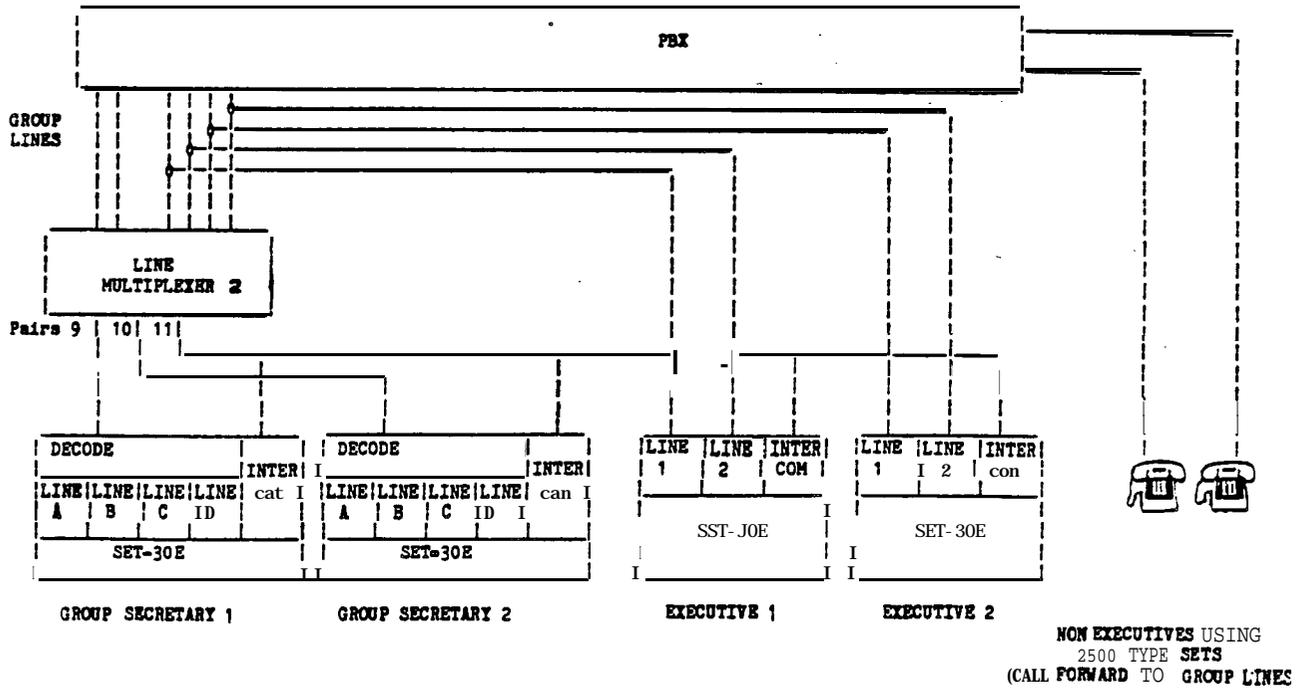
Configuration Example SET-30E

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



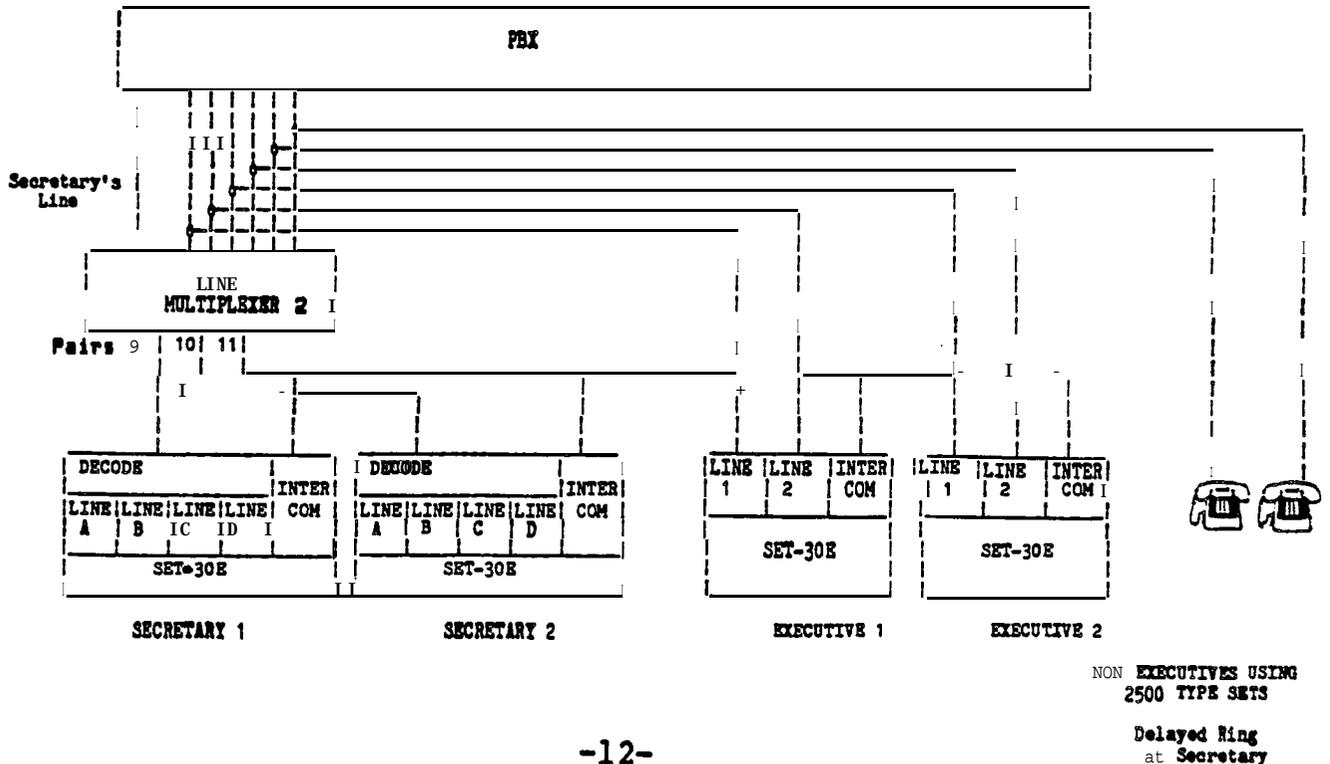
Configuration Example SET-30E

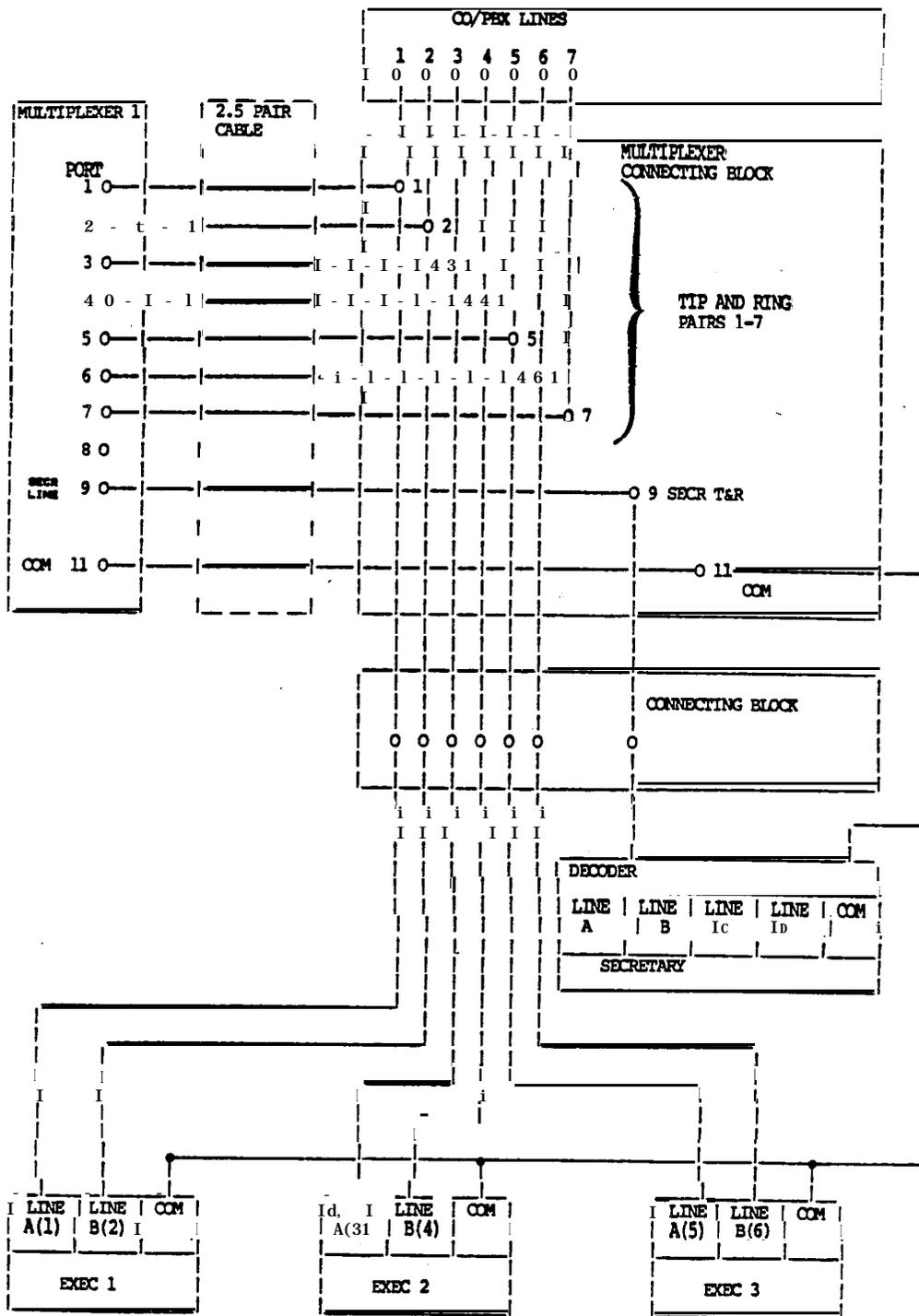
Two group Secretaries serving Two executives with Two Common Lines and Dedicated Intercom, and Serving Non-Executives as a Message Center with Group Lines to which they can forward their calls.



Configuration Example SET-30E

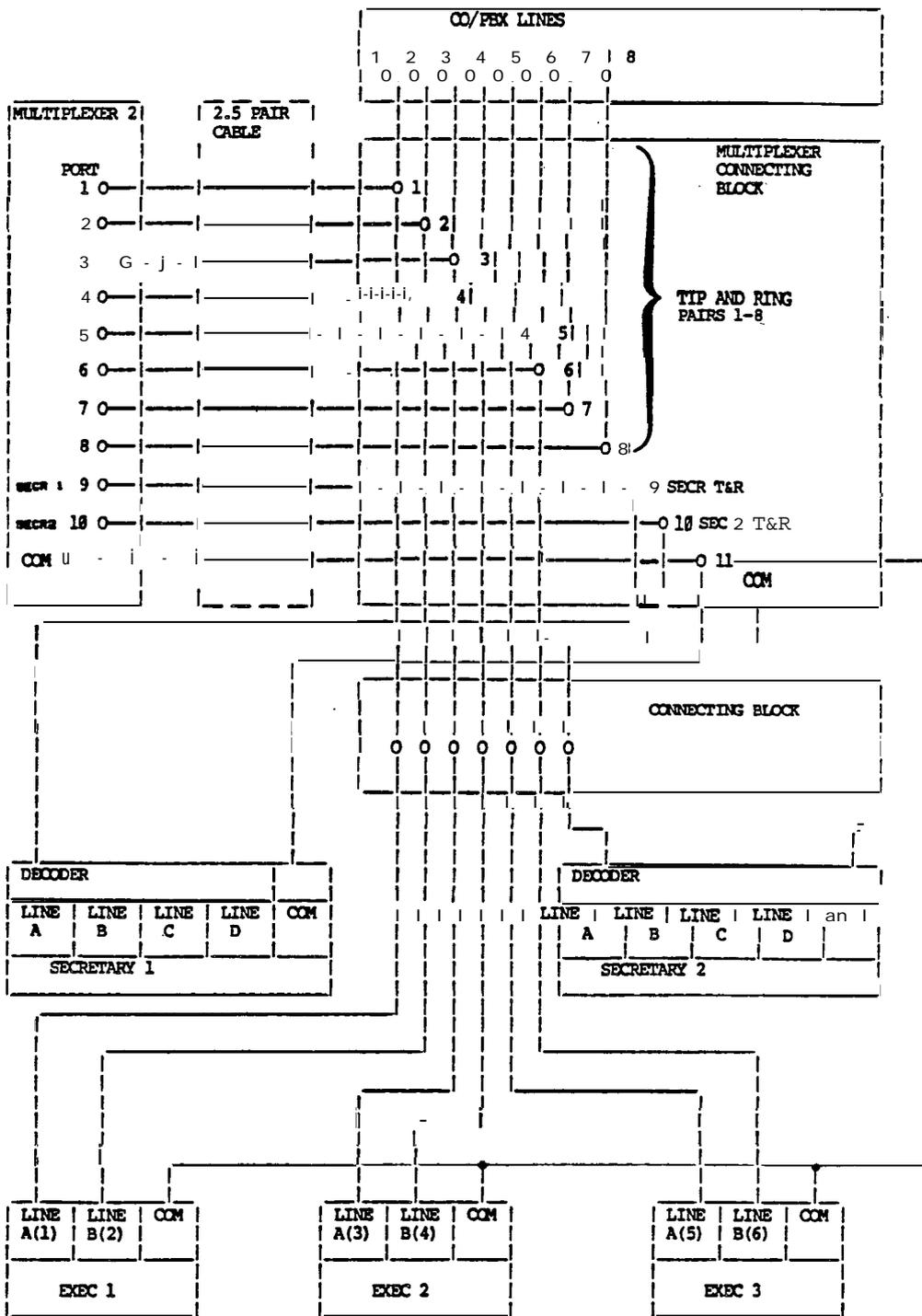
Two secretaries serving Two Executives with Two Common Lines and Dedicated Intercom, and Two Non-Executives with Delayed Ring.





Typical Multiplexer 1 Configuration

Secr. line should always be line 1 on Multiplexer



Typical Multiplexer 2 Configuration

MULTIPLEXER I OR II PIN OUT

<u>FUNCTION</u>	<u>IN/OUT</u>	<u>PAIR</u>	<u>PINS</u>	<u>COMMENT</u>
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

<u>PAIR</u>	<u>PINS</u>	<u>FUNCTION</u>
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 .

SYSTEM INITIALIZATION

After the programming of all instruments, **to** ensure proper system initialization prior to operation, unplug the 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.