

./TITLE LP15
 /LINE PRINTER SYSTEM EXECISER MODULE,
 /REV, DATE -- 3/17/71 -- (1)

./EBREL

00000 R 600016 A
 00001 R 000000 A
 00002 R 000000 A
 00003 R 000000 A
 00004 R 000072 R
 00005 R 000032 R
 00006 R 142061 A
 00007 R 650340 A
 00010 R 000100 A
 00011 R A

UQDSW 600016
 0
 0
 0
 ,DSA LPTSER
 ,DSA LPTINT
 ,SIXBT "LP15C "

100 /MASK FOR CHAIN MODE
 ,BLOCK 7

00020 R 000000 A
 00021 R 000000 A
 00022 R 000000 A
 00023 R A

./SYSERR 0
 ERWC 0
 ERCODE 0
 ,BLOCK 7

./INITIATION ROUTINE, ENTERED FROM MONITOR,

00032 R 000000 A
 00033 R 707764 A
 00034 R 707702 A
 00035 R 200032 R
 00036 R 040072 R
 00037 R 440602 R
 00040 R 600560 R
 00041 R 777777 A
 00042 R 040602 R
 00043 R 706621 A
 00044 R 706641 A
 00045 R 141316 R
 00046 R 141317 R
 00047 R 140020 R
 00050 R 140021 R
 00051 R 777770 A
 00052 R 041327 R
 00053 R 100551 R
 00054 R 100300 R
 00055 R 100551 R
 00056 R 100322 R
 00057 R 100551 R
 00060 R 100524 R
 00061 R 100551 R
 00062 R 100466 R
 00063 R 100551 R
 00064 R 100405 R
 00065 R 100551 R
 00066 R 100412 R
 00067 R 441327 R
 00070 R 600053 R

./LPTINT 0
 EBA
 EEM
 LAC LPTINT
 DAC LPTSER
 ISZ SWITCH
 JMP OUTEX
 LAW -1
 DAC SWITCH
 CLF
 CLE
 DZM APIFLG#
 DZM BRKFLG#
 DZM SYSERR
 DZM ERWC
 LAW -TSTRUN
 DAC RUNLEN#
 LPTIN1 JMS PRTRFF
 JMS LFWD
 JMS PRTRFF
 JMS RTWD
 JMS PRTRFF
 JMS BUFSNG
 JMS PRTRFF
 JMS PRTRQI
 JMS PRTRFF
 JMS IOPPRT
 JMS PRTRFF
 JMS PLSPRT
 ISZ RUNLEN
 JMP LPTIN1

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00071 R 600111 R

JMP TERMIN
,EJECT

```

/SERVICE ENTRANCE FROM THE MONITOR,
00072 R 000000 A LPTSER 0 /SERVICE ENTRANCE,
00073 R 707764 A EBA
00074 R 707702 A EEM
00075 R 100161 R JMS FLAG
00076 R 620077 R JMP* EXIT

/
EXIT 0 /ROUTINE FOR EXIT TO THE MONITOR,
00100 R 201316 R LAC APIFLG
00101 R 741200 A SNA
00102 R 600107 R JMP ,+5
00103 R 141316 R DZM APIFLG
00104 R 201315 R LAC ACSAVE#
00105 R 703344 A DBR
00106 R 620072 R JMP* LPTSER
00107 R 750000 A CLA
00110 R 600105 R JMP ,=3

/
TERMIN LAC SYSERR /TERMINATE ROUTINE,
00112 R 741200 A SNA
00113 R 140021 R DZM ERWC
00114 R 777774 A LAW =4
00115 R 040020 R DAC SYSERR
00116 R 141317 R DZM BRKFLG
00117 R 100077 R JMS EXIT
00120 R 740040 A HLT

/
MONITOR EXIT ROUTINE - EXPECTS FLAG DRIVEN RETURN,
/
MONEXT 0
00121 R 000000 A
00122 R 141317 R DZM BRKFLG
00123 R 100077 R JMS EXIT
00124 R 620121 R JMP* MONEXT

/
BREAK EXIT TO THE MONITOR,
/
BRKEXT 0
00125 R 000000 A
00126 R 200020 R LAC SYSERR
00127 R 740200 A SZA
00130 R 600134 R JMP ,+4
00131 R 140021 R DZM ERWC
00132 R 777773 A LAW =5
00133 R 741000 A SKP
00134 R 777776 A LAW =2
00135 R 040020 R DAC SYSERR
00136 R 777777 A LAW =1
00137 R 041317 R DAC BRKFLG
00140 R 100077 R JMS EXIT
00141 R 620125 R JMP* BRKEXT
,EJECT

```

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/HOLD SUBROUTINE, HOLD ON OPTION SWITCH SET,
00142 R 000000 A HOLD 0
00143 R 750004 A LAS
00144 R 500010 R AND UODSW+10
00145 R 741200 A SNA
00146 R 620142 R JMP* HOLD
00147 R 100125 R JMS BRKEXT
00150 R 600143 R JMP ,=5

/PRINT EXIT ROUTINE,
00151 R 000000 A PRT 0
00152 R 201335 R LAC (BUF=1
00153 R 060567 R DAC* SYSCA
00154 R 100142 R JMS HOLD
00155 R 706541 A LPC
00156 R 706544 A PIE
00157 R 100121 R JMS MONEXT
00160 R 620151 R JMP* PRT

/FLAG CHECK ROUTINE USED ON RETURN FROM MONITOR,
/
00161 R 000000 A FLAG 0
00162 R 041315 R DAC ACSAVE
00163 R 201336 R LAC (400000
00164 R 705501 A SPI
00165 R 600203 R JMP APIOFF
00166 R 777777 A LAW =1
00167 R 041316 R DAC APIFLG
00170 R 706501 A LSF
00171 R 600274 R JMP ER1+1

/
FLAG1
00172 R 706561 A PID
00173 R 141317 R DZM BRKFLG
00174 R 750000 A CLA
00175 R 706542 A LSE
00176 R 706621 A CLF
00177 R 706641 A CLE
00200 R 741100 A SPA
00201 R 100220 R JMS ER2
00202 R 620161 R JMP* FLAG

/
APIOFF
00203 R 706501 A LSF
00204 R 741000 A SKP
00205 R 600172 R JMP FLAG1
00206 R 201317 R LAC BRKFLG
00207 R 741200 A SNA
00210 R 600216 R JMP ,+6
00211 R 200020 R LAC SYSERR
00212 R 740200 A SZA
00213 R 600216 R JMP ,+3
00214 R 141317 R DZM BRKFLG
00215 R 620161 R JMP* FLAG
00216 R 750001 A CLC
00217 R 620072 R JMP* LPTSER
,EJECT

```

/ERROR ROUTINES,
/ERROR 2, FLAG ERROR FROM PRINTER CONTROL,

```

00220 R 000000 A
00221 R 041321 R
00222 R 201337 R
00223 R 100233 R
00224 R 201321 R
00225 R 100257 R
00226 R 200603 R
00227 R 100257 R
00230 R 100264 R
00231 R 140602 R
00232 R 600111 R

```

/RESET ERROR PUT AWAY ROUTINE,

```

00233 R 000000 A
00234 R 041326 R
00235 R 200020 R
00236 R 741200 A
00237 R 600243 R
00240 R 541340 R
00241 R 600251 R
00242 R 740040 A

```

```

00243 R 201326 R
00244 R 040022 R
00245 R 201341 R
00246 R 041324 R
00247 R 141325 R
00250 R 620233 R
00251 R 777776 A
00252 R 040020 R
00253 R 777777 A
00254 R 041317 R
00255 R 100077 R
00256 R 600243 R

```

/PUTAWAY ROUTINE FOR ERROR PRAMETERS,

```

00257 R 000000 A
00260 R 061324 R
00261 R 441324 R
00262 R 441325 R
00263 R 620257 R

```

/END PUT AWAY ROUTINE

```

00264 R 000000 A
00265 R 201325 R
00266 R 740001 A
00267 R 040021 R
00270 R 777777 A
00271 R 040020 R
00272 R 620264 R

```

.EJECT

/ERROR 1 - ERROR ROUTINE FOR API ERROR,

```

/ER1 0
00273 R 000000 A      LAC      (1
00274 R 201342 R      JMS      RESPUT
00275 R 100233 R      JMS      ENDPUT
00276 R 100264 R      JMP      TERMIN
00277 R 600111 R

```

/LEFT WEDGE ROUTINE,

```

/LFWD 0
00300 R 000000 A      JMS      BUFCLR
00301 R 100350 R      LAC      (1)
00302 R 201342 R      DAC      BUF
00303 R 040603 R      LAC      (BUF+205
00304 R 201343 R      DAC      BUFPTR#
00305 R 041320 R

```

```

/LFWD,1 JMS      PRT
00306 R 100151 R      LAC      LF
00307 R 200572 R      DAC*     BUFPTR
00310 R 061320 R      LAC      BUFPTR
00311 R 201320 R      TAD      (-1)
00312 R 341340 R      DAC      BUFPTR
00313 R 041320 R      CMA
00314 R 740001 A      TAD      (1)
00315 R 341342 R      TAD      (BUF+1
00316 R 341344 R      SZA
00317 R 740200 A      JMP      LFWD,1
00320 R 600306 R      JMP*     LFWD
00321 R 620300 R

```

/RIGHT WEDGE PRINT ROUTINE,

```

/RTWD 0
00322 R 000000 A      JMS      BUFCLR
00323 R 100350 R      LAC      (1)
00324 R 201342 R      DAC      BUF
00325 R 040603 R      LAC      (BUF+2)
00326 R 201345 R      DAC      BUFPTR
00327 R 041320 R      LAW      -204
00330 R 777574 A      DAC      TEMP
00331 R 041330 R

```

```

/RTWD,1 JMS      PRT
00332 R 100151 R      LAC      SPC
00333 R 200573 R      DAC*     BUFPTR
00334 R 061320 R      ISZ      BUFPTR
00335 R 441320 R      ISZ      TEMP
00336 R 441330 R      JMP      RTWD,1
00337 R 600332 R      JMP*     RTWD
00340 R 620322 R      .EJECT

```

```

00341 R 000000 A   PAGPRT 0
00342 R 777704 A       LAW    =74
00343 R 041330 R       DAC    TEMP
00344 R 100151 R       JMS    PRT
00345 R 441330 R       ISZ    TEMP
00346 R 600344 R       JMP    =2
00347 R 620341 R       JMP*   PAGPRT

```

/CLEAR BUFFER TO A SINGLE CHARACTER,

```

00350 R 000000 A   BUFCLR 0
00351 R 201345 R       LAC    (BUF+2
00352 R 041330 R       DAC    TEMP#
00353 R 777574 A       LAW    =204
00354 R 041331 R       DAC    TEMP1#
00355 R 200570 R       LAC    CHAR
00356 R 061330 R       DAC*   TEMP
00357 R 441330 R       ISZ    TEMP
00360 R 441331 R       ISZ    TEMP1
00361 R 600356 R       JMP    =3
00362 R 200572 R       LAC    LF
00363 R 061330 R       DAC*   TEMP
00364 R 620350 R       JMP*   BUFCLR

```

```

00365 R 000000 A   BUFESP 0
00366 R 201345 R       LAC    (BUF+2
00367 R 041330 R       DAC    TEMP
00370 R 777746 A       LAW    =32
00371 R 041331 R       DAC    TEMP1
00372 R 200574 R       LAC    ESP1
00373 R 061330 R       DAC*   TEMP
00374 R 441330 R       ISZ    TEMP
00375 R 200575 R       LAC    ESP2
00376 R 061330 R       DAC*   TEMP
00377 R 441330 R       ISZ    TEMP
00400 R 441331 R       ISZ    TEMP1
00401 R 600372 R       JMP    =7
00402 R 200576 R       LAC    IOPSLF
00403 R 061330 R       DAC*   TEMP
00404 R 620365 R       JMP*   BUFESP

```

.EJECT

/IOPS MODE PRINT -- PRINT EES AND SPACES,

00405 R 000000 A
 00406 R 140603 R
 00407 R 100365 R
 00410 R 100341 R
 00411 R 620405 R

IOPPRT 0
 DZM BUF
 JMS BUFESP
 JMS PAGPRT
 JMP* IOPPRT

/EXCLAMATION POINT FOLLOWED BY PLUS SIGN PRINT,
 /THIS PATTERN PRODUCES HIGH SPEED PRINT,

00412 R 000000 A
 00413 R 201342 R
 00414 R 040603 R
 00415 R 100420 R
 00416 R 100341 R
 00417 R 620412 R

PLSPRT 0
 LAC (1)
 DAC BUF
 JMS BUFPLS
 JMS PAGPRT
 JMP* PLSPRT

/CLEAR BUFFER FOR EXCLAMATION AND PLUS PRINT,

00420 R 000000 A
 00421 R 201345 R
 00422 R 041330 R
 00423 R 777773 A
 00424 R 041332 R
 00425 R 200601 R
 00426 R 041334 R
 00427 R 777750 A
 00430 R 041331 R
 00431 R 201334 R
 00432 R 061330 R
 00433 R 441330 R
 00434 R 441331 R
 00435 R 600432 R
 00436 R 201334 R
 00437 R 341346 R
 00440 R 041334 R
 00441 R 441332 R
 00442 R 600427 R
 00443 R 200572 R
 00444 R 061330 R
 00445 R 620420 R

BUFPLS 0
 LAC (BUF+2
 DAC TEMP
 LAW -5
 DAC TEMP2#
 LAC EXCLM
 DAC TEMP4#
 BUFPL1 LAW -30
 DAC TEMP1
 LAC TEMP4
 BUFPL4 DAC* TEMP
 ISZ TEMP
 ISZ TEMP1
 JMP BUFPL4
 LAC TEMP4
 TAD (12)
 DAC TEMP4
 ISZ TEMP2
 JMP BUFPL1
 LAC LF
 DAC* TEMP
 JMP* BUFPLS
 .EJECT

/PRINT ROTATING PATTERN...

```

00446 R 000000 A   BUFROT 0
00447 R 777773 A   LAW      =5
00450 R 041330 R   DAC      TEMP
00451 R 201345 R   LAC      (BUF+2
00452 R 041331 R   DAC      TEMP1
00453 R 777700 A   LAW      =100
00454 R 041332 R   DAC      TEMP2#
00455 R 200573 R   LAC      SPC
00456 R 061331 R   DAC*     TEMP1
00457 R 341342 R   TAD      (1)
00460 R 441331 R   ISZ      TEMP1
00461 R 441332 R   ISZ      TEMP2
00462 R 600456 R   JMP      ,=4
00463 R 441330 R   ISZ      TEMP
00464 R 600453 R   JMP      ,=11
00465 R 620446 R   JMP*     BUFROT
    
```

/ACTUAL PRINT ROTATING PATTERN ROUTINE,

```

00466 R 000000 A   PRTRT 0
00467 R 100446 R   JMS      BUFROT
00470 R 201347 R   LAC      (BUF
00471 R 041332 R   DAC      TEMP2
00472 R 777574 A   LAW      =204
00473 R 041331 R   DAC      TEMP1
00474 R 201335 R   LAC      (BUF-1
00475 R 041320 R   DAC      BUFPTR
00476 R 201350 R   LAC      (BUF+206
00477 R 041322 R   DAC      LFPTR#
00500 R 221322 R   PRTRT1 LAC*   LFPTR
00501 R 041323 R   DAC      LFSAV#
00502 R 200572 R   LAC      LF
00503 R 061322 R   DAC*     LFPTR
00504 R 201342 R   LAC      (1)
00505 R 061332 R   DAC*     TEMP2
00506 R 201320 R   LAC      BUFPTR
00507 R 060567 R   DAC*     SYSCA
00510 R 100142 R   JMS      HOLD
00511 R 706541 A   LPC
00512 R 706544 A   PIE
00513 R 100121 R   JMS      MONEXT
00514 R 201323 R   LAC      LFSAV
00515 R 061322 R   DAC*     LFPTR
00516 R 441322 R   ISZ      LFPTR
00517 R 441320 R   ISZ      BUFPTR
00520 R 441332 R   ISZ      TEMP2
00521 R 441331 R   ISZ      TEMP1
00522 R 600500 R   JMP      PRTRT1
00523 R 620466 R   JMP*     PRTRT
    ,EJECT
    
```

/PRINT SINGLE LINES OF ALL THE SAME CHARACTERS,

00524	R	000000	A	BUFSNG	0	
00525	R	201342	R		LAC	(1)
00526	R	040603	R		DAC	BUF
00527	R	777700	A		LAW	=100
00530	R	041330	R		DAC	TEMP
00531	R	200573	R		LAC	SPC
00532	R	041333	R		DAC	TEMP3#
00533	R	201345	R	BUFSN1	LAC	(BUF+2
00534	R	041331	R		DAC	TEMP1
00535	R	777574	A		LAW	=204
00536	R	041332	R		DAC	TEMP2
00537	R	201333	R		LAC	TEMP3
00540	R	061331	R		DAC*	TEMP1
00541	R	441331	R		ISZ	TEMP1
00542	R	441332	R		ISZ	TEMP2
00543	R	600540	R		JMP	,=3
00544	R	100151	R		JMS	PRT
00545	R	441333	R		ISZ	TEMP3
00546	R	441330	R		ISZ	TEMP
00547	R	600533	R		JMP	BUFSN1
00550	R	620524	R		JMP*	BUFSNG

00551	R	000000	A	PRTFF	0	
00552	R	200571	R		LAC	FF
00553	R	040605	R		DAC	BUF+2
00554	R	201342	R		LAC	(1)
00555	R	040603	R		DAC	BUF
00556	R	100151	R		JMS	PRT
00557	R	620551	R		JMP*	PRTFF

00560	R	777700	A	OUTEX	LAW	=100
00561	R	040602	R		DAC	SWITCH
00562	R	777771	A		LAW	=7
00563	R	040020	R		DAC	SYSERR
00564	R	100077	R		JMS	EXIT
00565	R	740040	A		HLT	
					.EJECT	

/CONSTANTS,,

```

00566 R 000034 A   SYSWC   34
00567 R 000035 A   SYSCA   35
00570 R 000315 A   CHAR    315
00571 R 000214 A   FF      214
00572 R 000212 A   LF      212
00573 R 000240 A   SPC     240
00574 R 424100 A   ESP1   424100
00575 R 402212 A   ESP2   402212
00576 R 050000 A   IOPSLF 50000
00577 R 000000 A           0
00600 R 000253 A   PLUS   253
00601 R 000241 A   EXCLM  241
00602 R 777777 A   SWITCH 777777
           000010 A   TSTRUN=10

```

/M CHARACTER,

/LINE FEED CHARACTER,
/SPACE CHARACTER,

```

00603 R 000001 A   BUF     1
00604 R 000000 A           0
00605 R           A           ,BLOCK 510

```

```

706621 A   CLF=706621
706641 A   CLE=706641
706541 A   LPC=706541
706542 A   LSE=706542
706501 A   LSF=706501
706544 A   PIE=706544
706561 A   PID=706561
707764 A   EBA=707764
707702 A   EEM=707702

```

```

/CLEAR DONE FLAG,
/CLEAR STATUS AND ERROR FLAG,
/PRINT ONE LINE,
/READ STATUS,
/SKIP IF DONE OR ERROR FLAG SET,
/ENABLE INTERRUPT SYSTEM,
/DISABLE INTERRUPT SYSTEM,

```

,END UODSW

```

01335 R 000602 R #L
01336 R 400000 A #L
01337 R 000002 A #L
01340 R 777777 A #L
01341 R 000023 R #L
01342 R 000001 A #L
01343 R 001010 R #L
01344 R 000604 R #L
01345 R 000605 R #L
01346 R 000012 A #L
01347 R 000603 R #L
01350 R 001011 R #L

```

SIZE=01357

NO ERROR LINES

