

2309	38780	MNZ		JALL DONE IF OVERFLOW DID NOT OCCUR
2310	38800	JMP	OVERR>	JIT DID, GIVE THE APPROPRIATE MESSAGE
2311	38820	PAGE		

2312	38840	SUBTTL	FLOATING POINT INPUT ROUTINE	
2313	38860		JALTERS ALL REGISTERS	
2314	38880		JTHE NUMBER IS LEFT IN FAC	
2315	38900		JAT ENTRY, (AL) POINTS TO THE FIRST CHARACTER IN A TEXT BUFFER.	
2316	38920		JTHE FIRST CHARACTER IS ALSO IN A. WE PACK THE DIGITS INTO THE FAC	
2317	38940		JAS AN INTEGER AND KEEP TRACK OF WHERE THE DECIMAL POINT IS.	
2318	38960		JC IS 377 IF WE HAVE NOT SEEN A DECIMAL POINT, 0 IF WE HAVE.	
2319	38980		JB IS THE NUMBER OF DIGITS AFTER THE DECIMAL POINT.	
2320	39000		JAT THE END, B AND THE EXPONENT (IN E) ARE USED TO DETERMINE HOW MANY	
2321	39020		JTIMES WE MULTIPLY OR DIVIDE BY TEN TO GET THE CORRECT NUMBER.	
2322	39040	FINI		
2323	39060	IFN	STRING,<	
2324	39080		JIF WE ARE CALLED BY VAL, THE SIGNS MAY NOT BE CRUNCHED	
2325	39100	CPI	"="	JSEE IF NUMBER IS NEGATIVE
2326	39120	PUSH	PSW	JSAVE SIGN
2327	39140	JZ	FINI	JIGNORE MINUS SIGN
2328	39160	CPI	"+"	JIGNORE A LEADING SIGN
2329	39180	JZ	FINI>	
2330	39200	DCX	H	JSET CHARACTER POINTER BACK ONE
2331	39220	FINI		
2332	39240	IFN	LENGTH=2,<	
2333	39260	CALL	ZERO	JCLEAR FAC
2334	39280	MOV	B,A	JCLEAR FLAGSI B=DECIMAL PLACE COUNT
2335	39300	MOV	D,A	J0=SIGN OF EXPONENT
2336	39320	MOV	E,A	JE=EXPONENT
2337	39340	MOV	C,A	JC="," FLAG
2338	39360		JHERE TO GET THE NEXT DIGIT OF THE NUMBER, A DECIMAL POINT OR AN "E"	
2339	39380	FINI	CHRGET	JGET A CHARACTER
2340	39400	JC	FINDIG	JDO WE HAVE A DIGIT?
2341	39420	CPI	","	JTEST FOR DECIMAL POINT
2342	39440	JZ	FINDP	
2343	39460	CPI	"E"	JCHECK FOR BEGINNING OF EXPONENT
2344	39480	JAZ	FINE	JNONE OF THE ABOVE" SO END OF NUMBER
2345	39500			
2346	39520		JHERE TO CHECK FOR THE SIGN OF THE EXPONENT	
2347	39540	CHRGET		JCHECK FOR ITS SIGN
2348	39560	IFN	STRING,<	

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2365 001574* 001000 000345 39500      PUSH      M      ;SAVE TEXT POINTER
2366 001575* 001000 000041 39600      LXI       M,FINEC ;PUT FINEC ON STACK SO WE CAN JUMP
2367 001576* 000000 001621* 39620      XTHL>      ; TO IT IN LESS BYTES
2368 001577* 000000 001571* 39640      DCR       D      ;SET SIGN OF EXPONENT FLAG
2369 001600* 001000 000343 39660      CPI       MINUTK ;NEGATIVE EXPONENTS
2370 001601* 001000 000025
2371 001602* 001000 000376
2372 001603* 000000 000000*
2373
2374 39680      IFE      STRING,<
2375 39700      JZ       FINEC>
2376 001604* 001000 000310 39720      IFN      STRING,<
2377 001605* 001000 000376 39740      RZ       ;
2378 001606* 000000 000555 39760      CPI       "=="
2379 001607* 001000 000310 39780      RZ>
2380 001610* 001000 000024 39800      INR       D      ;NO, RESET FLAG
2381 39820      IFN      STRING,<
2382 001611* 001000 000376 39840      CPI       "=="
2383 001612* 000000 000553
2384 001613* 001000 000310 39860      RZ>
2385 001614* 001000 000376 39880      CPI       PLUSTK ;IGNORE "+"
2386 001615* 000000 000000*
2387
2388 39900      IFE      STRING,<
2389 39920      JZ       FINEC>
2390 001616* 001000 000310 39940      IFN      STRING,<
2391 001617* 001000 000361 39960      RZ       ;
2392 001620* 001000 000553 39980      POP       PSW> ;GET FINEC OFF STACK
2393
2394 001621* 001000 000327 40000      DCR       ;CHECK IF LAST CHARACTER WAS A DIGIT
2395 001622* 001000 000332 40020      HERE>     ;WHERE TO GET THE NEXT DIGIT OF THE EXPONENT
2396 001623* 000000 001712* 40040      FINEC:  CHRGET  ;GET NEXT CHARACTER
2397 001624* 000000 001576* 40060      JC        FINEDG ;IS IT A DIGIT?
2398 001625* 001000 000024 40080      INR       D      ;NO, EXPONENT ALL IN
2399 001626* 001000 000302 40100      JNZ       FINE ;SET ITS SIGN
2400 001627* 000000 001641*
2401 001630* 000000 001025*
2402 001631* 001000 000257 40120      XRA       A
2403 001632* 001000 000223 40140      SUB       E
2404 001633* 001000 000137 40160      MOV       E,A
2405 001634* 001000 000014 40180      C        ;MAKE SURE C IS NOT 377
2406
2407 40200      ;WHERE TO CHECK IF WE HAVE SEEN 2 DECIMAL POINTS AND SET THE DECIMAL
2408 001635* 001000 000014 40220      ; POINT FLAG
2409 001636* 001000 000512 40240      FINEP:  INR       C
2410 001637* 000000 001535* 40260      JZ        FINEC ;DECIMAL POINTS!! == SET FLAG
2411 001640* 000000 001627* ;CONTINUE SCANNING CHARACTERS
2412
2413 40280
2414 40300      ;WHERE TO MULTIPLY OR DIVIDE BY 10 THE CURRENT NUMBER OF TIMES,
2415 001641* 001000 000345 40320      ;WE HAVE ALREADY READ IN ALL THE DIGITS,
2416 001642* 001000 000173 40340      FINE1:  PUSH      M      ;SAVE POINTER FOR LATER
2417 001643* 001000 000220 40360      MOV       A,E ;EXPONENT*EXPONENT== OF DECIMAL PLACES
2418
2419      SUB       B
2420
2421
2422
2423
2424
2425
2426
2427
2428
2429
2430
2431
2432
2433
2434
2435
2436 001663* 001000 000321 40540      IFE      STRING,<
2437 001664* 001000 000361 40560      POP       M> ;GET CHARACTER POINTER
2438 001665* 001000 000314 40580      IFN      STRING,<
2439 001666* 000000 001175* 40600      POP       PSW> ;GET SIGN
2440 001667* 000000 001661* 40620      POP       D ;NEGATE IF NECESSARY
2441 001670* 001000 000353 40640      CZ       NEG
2442 001671* 001000 000311 40660      XCHG> ;GET CHARACTER POINTER IN (HL)
2443 40680      RET> ;ALL DONE
2444 40700      IFE      LENGTH=2,<
2445 40720      XCHG ;
2446 40740      LXI       B,377*SCODE ;SAVE THE TEXT POINTER IN (DE)
2447 40760      MOV       M,C ;CLEAR FLAG!! B=DECIMAL PLACE COUNT
2448 40780      MOV       L,C ;C="," FLAG
2449 40800      CALL      CONISS ;ZERO (HL)
2450 40820      XCHG ;ZERO FAC, SET VALTYP TO "INTEGER"
2451 40840      ;WHERE TO CHECK FOR A DIGIT, A DECIMAL POINT, "E" OR "D"
2452 40860      FINE1:  CHRGET  ;GET THE TEXT POINTER BACK IN (HL)
2453 40880      JC        FINE2 ;GET THE NEXT CHARACTER OF THE NUMBER
2454 40900      CPI       "E" ;WE HAVE A DIGIT
2455 40920      JZ       FINEP> ;CHECK FOR A DECIMAL POINT
2456 40940      CPI       "E" ;WE HAVE ONE, I GUESS
2457 40960      JZ       FINEX ;CHECK FOR A SINGLE PRECISION EXPONENT
2458 40980      CPI       "D" ;WE HAVE A DOUBLE PRECISION EXPONENT
2459 41000      JNZ      FINE ;CHECK FOR A DOUBLE PRECISION EXPONENT
2460 41020      DKA      A ;WE DON'T HAVE ONE, THE NUMBER IS FINISHED
2461 41040      FINEX:  CALL      FINEFC ;DOUBLE PRECISION NUMBER == TURN OFF ZERO FLAG
2462 41060      PUSH      ;FORCE THE FAC TO BE SNG OR DBL
2463 41080      LXI       M,FINEC ;SAVE THE TEXT POINTER
2464 41100      XTHL> ;GET ADDRESS TO JUMP TO, THIS IS TO SAVE BYTES
2465 41120      ;PUT IT ON STACK AND GET TEXT POINTER
2466 41140      ;WHERE TO CHECK FOR THE SIGN OF THE EXPONENT
2467 41160      CHRGET  ;GET THE FIRST CHARACTER OF THE EXPONENT
2468 41180      DCR       D ;SET SIGN OF EXPONENT TO MINUS
2469 41200      CPI       MINUTK ;CHECK IF THE EXPONENT IS NEGATIVE
2470 41220      RZ       ;IT IS
2471 41240      CPI       "==" ;THIS IS IN CASE WE ARE CALLED BY VAL

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2418 001643* 001000 000220 40380      SUB       B
2419 001644* 001000 000364 40400      FINE2:  CP        FINMUL ;MULTIPLY BY TEN IF EXPONENT IS POSITIVE
2420 001645* 000000 001072* 40420      JP        FINES ;DIVIDE BY TEN IF EXPONENT IS NEGATIVE
2421 001646* 000000 001637* 40440      JP        FINES
2422 001647* 001000 000362 40460      POP       PSW>
2423 001648* 000000 001666* 40480      POP       PSW>
2424 001649* 001000 000365 40500      PUSH      PSW> ;SAVE EXPONENT
2425 001650* 001000 000315 40520      CALL      DIV10 ;DIVIDE NUMBER BY TEN
2426 001651* 000000 000637* 40540      CALL      DIV10
2427 001652* 000000 001645* 40560      POP       PSW>
2428 001653* 001000 000315 40580      CALL      DIV10
2429 001654* 000000 000637* 40600      POP       PSW>
2430 001655* 001000 000315 40620      CALL      DIV10
2431 001656* 000000 001644* 40640      POP       PSW>
2432 001657* 000000 001644* 40660      CALL      DIV10
2433 001658* 000000 001644* 40680      POP       PSW>
2434 001659* 000000 001644* 40700      CALL      DIV10
2435 001660* 000000 001644* 40720      POP       PSW>
2436 001661* 000000 001644* 40740      CALL      DIV10
2437 001662* 000000 001644* 40760      POP       PSW>
2438 001663* 000000 001644* 40780      CALL      DIV10
2439 001664* 000000 001644* 40800      POP       PSW>
2440 001665* 000000 001644* 40820      CALL      DIV10
2441 001666* 000000 001644* 40840      POP       PSW>
2442 001667* 000000 001644* 40860      CALL      DIV10
2443 001668* 000000 001644* 40880      POP       PSW>
2444 001669* 000000 001644* 40900      CALL      DIV10
2445 001670* 000000 001644* 40920      POP       PSW>
2446 001671* 000000 001644* 40940      CALL      DIV10
2447 001672* 000000 001644* 40960      POP       PSW>
2448 001673* 000000 001644* 40980      CALL      DIV10
2449 001674* 000000 001644* 41000      POP       PSW>
2450 001675* 000000 001644* 41020      CALL      DIV10
2451 001676* 000000 001644* 41040      POP       PSW>
2452 001677* 000000 001644* 41060      CALL      DIV10
2453 001678* 000000 001644* 41080      POP       PSW>
2454 001679* 000000 001644* 41100      CALL      DIV10
2455 001680* 000000 001644* 41120      POP       PSW>
2456 001681* 000000 001644* 41140      CALL      DIV10
2457 001682* 000000 001644* 41160      POP       PSW>
2458 001683* 000000 001644* 41180      CALL      DIV10
2459 001684* 000000 001644* 41200      POP       PSW>
2460 001685* 000000 001644* 41220      CALL      DIV10
2461 001686* 000000 001644* 41240      POP       PSW>
2462 001687* 000000 001644* 41260      CALL      DIV10
2463 001688* 000000 001644* 41280      POP       PSW>
2464 001689* 000000 001644* 41300      CALL      DIV10
2465 001690* 000000 001644* 41320      POP       PSW>
2466 001691* 000000 001644* 41340      CALL      DIV10
2467 001692* 000000 001644* 41360      POP       PSW>
2468 001693* 000000 001644* 41380      CALL      DIV10
2469 001694* 000000 001644* 41400      POP       PSW>
2470 001695* 000000 001644* 41420      CALL      DIV10
2471 001696* 000000 001644* 41440      POP       PSW>
2472 001697* 000000 001644* 41460      CALL      DIV10
2473 001698* 000000 001644* 41480      POP       PSW>
2474 001699* 000000 001644* 41500      CALL      DIV10
2475 001700* 000000 001644* 41520      POP       PSW>
2476 001701* 000000 001644* 41540      CALL      DIV10
2477 001702* 000000 001644* 41560      POP       PSW>
2478 001703* 000000 001644* 41580      CALL      DIV10
2479 001704* 000000 001644* 41600      POP       PSW>
2480 001705* 000000 001644* 41620      CALL      DIV10
2481 001706* 000000 001644* 41640      POP       PSW>
2482 001707* 000000 001644* 41660      CALL      DIV10
2483 001708* 000000 001644* 41680      POP       PSW>
2484 001709* 000000 001644* 41700      CALL      DIV10
2485 001710* 000000 001644* 41720      POP       PSW>
2486 001711* 000000 001644* 41740      CALL      DIV10
2487 001712* 000000 001644* 41760      POP       PSW>
2488 001713* 000000 001644* 41780      CALL      DIV10
2489 001714* 000000 001644* 41800      POP       PSW>
2490 001715* 000000 001644* 41820      CALL      DIV10
2491 001716* 000000 001644* 41840      POP       PSW>
2492 001717* 000000 001644* 41860      CALL      DIV10
2493 001718* 000000 001644* 41880      POP       PSW>
2494 001719* 000000 001644* 41900      CALL      DIV10
2495 001720* 000000 001644* 41920      POP       PSW>
2496 001721* 000000 001644* 41940      CALL      DIV10
2497 001722* 000000 001644* 41960      POP       PSW>
2498 001723* 000000 001644* 41980      CALL      DIV10
2499 001724* 000000 001644* 42000      POP       PSW>
2500 001725* 000000 001644* 42020      CALL      DIV10
2501 001726* 000000 001644* 42040      POP       PSW>
2502 001727* 000000 001644* 42060      CALL      DIV10
2503 001728* 000000 001644* 42080      POP       PSW>
2504 001729* 000000 001644* 42100      CALL      DIV10
2505 001730* 000000 001644* 42120      POP       PSW>
2506 001731* 000000 001644* 42140      CALL      DIV10
2507 001732* 000000 001644* 42160      POP       PSW>
2508 001733* 000000 001644* 42180      CALL      DIV10
2509 001734* 000000 001644* 42200      POP       PSW>
2510 001735* 000000 001644* 42220      CALL      DIV10
2511 001736* 000000 001644* 42240      POP       PSW>
2512 001737* 000000 001644* 42260      CALL      DIV10
2513 001738* 000000 001644* 42280      POP       PSW>
2514 001739* 000000 001644* 42300      CALL      DIV10
2515 001740* 000000 001644* 42320      POP       PSW>
2516 001741* 000000 001644* 42340      CALL      DIV10
2517 001742* 000000 001644* 42360      POP       PSW>
2518 001743* 000000 001644* 42380      CALL      DIV10
2519 001744* 000000 001644* 42400      POP       PSW>
2520 001745* 000000 001644* 42420      CALL      DIV10
2521 001746* 000000 001644* 42440      POP       PSW>
2522 001747* 000000 001644* 42460      CALL      DIV10
2523 001748* 000000 001644* 42480      POP       PSW>
2524 001749* 000000 001644* 42500      CALL      DIV10
2525 001750* 000000 001644* 42520      POP       PSW>
2526 001751* 000000 001644* 42540      CALL      DIV10
2527 001752* 000000 001644* 42560      POP       PSW>
2528 001753* 000000 001644* 42580      CALL      DIV10
2529 001754* 000000 001644* 42600      POP       PSW>
2530 001755* 000000 001644* 42620      CALL      DIV10
2531 001756* 000000 001644* 42640      POP       PSW>
2532 001757* 000000 001644* 42660      CALL      DIV10
2533 001758* 000000 001644* 42680      POP       PSW>
2534 001759* 000000 001644* 42700      CALL      DIV10
2535 001760* 000000 001644* 42720      POP       PSW>
2536 001761* 000000 001644* 42740      CALL      DIV10
2537 001762* 000000 001644* 42760      POP       PSW>
2538 001763* 000000 001644* 42780      CALL      DIV10
2539 001764* 000000 001644* 42800      POP       PSW>
2540 001765* 000000 001644* 42820      CALL      DIV10
2541 001766* 000000 001644* 42840      POP       PSW>
2542 001767* 000000 001644* 42860      CALL      DIV10
2543 001768* 000000 001644* 42880      POP       PSW>
2544 001769* 000000 001644* 42900      CALL      DIV10
2545 001770* 000000 001644* 42920      POP       PSW>
2546 001771* 000000 001644* 42940      CALL      DIV10
2547 001772* 000000 001644* 42960      POP       PSW>
2548 001773* 000000 001644* 42980      CALL      DIV10
2549 001774* 000000 001644* 43000      POP       PSW>
2550 001775* 000000 001644* 43020      CALL      DIV10
2551 001776* 000000 001644* 43040      POP       PSW>
2552 001777* 000000 001644* 43060      CALL      DIV10
2553 001778* 000000 001644* 43080      POP       PSW>
2554 001779* 000000 001644* 43100      CALL      DIV10
2555 001780* 000000 001644* 43120      POP       PSW>
2556 001781* 000000 001644* 43140      CALL      DIV10
2557 001782* 000000 001644* 43160      POP       PSW>
2558 001783* 000000 001644* 43180      CALL      DIV10
2559 001784* 000000 001644* 43200      POP       PSW>
2560 001785* 000000 001644* 43220      CALL      DIV10
2561 001786* 000000 001644* 43240      POP       PSW>
2562 001787* 000000 001644* 43260      CALL      DIV10
2563 001788* 000000 001644* 43280      POP       PSW>
2564 001789* 000000 001644* 43300      CALL      DIV10
2565 001790* 000000 001644* 43320      POP       PSW>
2566 001791* 000000 001644* 43340      CALL      DIV10
2567 001792* 000000 001644* 43360      POP       PSW>
2568 001793* 000000 001644* 43380      CALL      DIV10
2569 001794* 000000 001644* 43400      POP       PSW>
2570 001795* 000000 001644* 43420      CALL      DIV10
2571 001796* 000000 001644* 43440      POP       PSW>
2572 001797* 000000 001644* 43460      CALL      DIV10
2573 001798* 000000 001644* 43480      POP       PSW>
2574 001799* 000000 001644* 43500      CALL      DIV10
2575 001800* 000000 001644* 43520      POP       PSW>
2576 001801* 000000 001644* 43540      CALL      DIV10
2577 001802* 000000 001644* 43560      POP       PSW>
2578 001803* 000000 001644* 43580      CALL      DIV10
2579 001804* 000000 001644* 43600      POP       PSW>
2580 001805* 000000 001644* 43620      CALL      DIV10
2581 001806* 000000 001644* 43640      POP       PSW>
2582 001807* 000000 001644* 43660      CALL      DIV10
2583 001808* 000000 001644* 43680      POP       PSW>
2584 001809* 000000 001644* 43700      CALL      DIV10
2585 001810* 000000 001644* 43720      POP       PSW>
2586 001811* 000000 001644* 43740      CALL      DIV10
2587 001812* 000000 001644* 43760      POP       PSW>
2588 001813* 000000 001644* 43780      CALL      DIV10
2589 001814* 000000 001644* 43800      POP       PSW>
2590 001815* 000000 001644* 43820      CALL      DIV10
2591 001816* 000000 001644* 43840      POP       PSW>
2592 001817* 000000 001644* 43860      CALL      DIV10
2593 001818* 000000 001644* 43880      POP       PSW>
2594 001819* 000000 001644* 43900      CALL      DIV10
2595 001820* 000000 001644* 43920      POP       PSW>
2596 001821* 000000 001644* 43940      CALL      DIV10
2597 001822* 000000 001644* 43960      POP       PSW>
2598 001823* 000000 001644* 43980      CALL      DIV10
2599 001824* 000000 001644* 44000      POP       PSW>
2600 001825* 000000 001644* 44020      CALL      DIV10
2601 001826* 000000 001644* 44040      POP       PSW>
2602 001827* 000000 001644* 44060      CALL      DIV10
2603 001828* 000000 001644* 44080      POP       PSW>
2604 001829* 000000 001644* 44100      CALL      DIV10
2605 001830* 000000 001644* 44120      POP       PSW>
2606 001831* 000000 001644* 44140      CALL      DIV10
2607 001832* 000000 001644* 44160      POP       PSW>
2608 001833* 000000 001644* 44180      CALL      DIV10
2609 001834* 000000 001644* 44200      POP       PSW>
2610 001835* 000000 001644* 44220      CALL      DIV10
2611 001836* 000000 001644* 44240      POP       PSW>
2612 001837* 000000 001644* 44260      CALL      DIV10
2613 001838* 000000 001644* 44280      POP       PSW>
2614 001839* 000000 001644* 44300      CALL      DIV10
2615 001840* 000000 001644* 44320      POP       PSW>
2616 001841* 000000 001644* 44340      CALL      DIV10
2617 001842* 000000 001644* 44360      POP       PSW>
2618 001843* 000000 001644* 44380      CALL      DIV10
2619 001844* 000000 001644* 44400      POP       PSW>
2620 001845* 000000 001644* 44420      CALL      DIV10
2621 001846* 000000 001644* 44440      POP       PSW>
2622 001847* 000000 001644* 44460      CALL      DIV10
2623 001848* 000000 001644* 44480      POP       PSW>
2624 001849* 000000 001644* 44500      CALL      DIV10
2625 001850* 000000 001644* 44520      POP       PSW>
2626 001851* 000000 001644* 44540      CALL      DIV10
2627 001852* 000000 001644* 44560      POP       PSW>
2628 001853* 000000 001644* 44580      CALL      DIV10
2629 001854* 000000 001644* 44600      POP       PSW>
2630 001855* 000000 001644* 44620      CALL      DIV10
2631 001856* 000000 001644* 44640      POP       PSW>
2632 001857* 000000 001644* 44660      CALL      DIV10
2633 001858* 000000 001644* 44680      POP       PSW>
2634 001859* 000000 001644* 44700      CALL      DIV10
2635 001860* 000000 001644* 44720      POP       PSW>
2636 001861* 000000 001644* 44740      CALL      DIV10
2637 001862* 000000 001644* 44760      POP       PSW>
2638 001863* 000000 001644* 44780      CALL      DIV10
2639 001864* 000000 001644* 44800      POP       PSW>
2640 001865* 000000 001644* 44820      CALL      DIV10
2641 001866* 000000 001644* 44840      POP       PSW>
2642 001867* 000000 001644* 44860      CALL      DIV10
2643 001868* 00000
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2471          41200      RZ
2472          41280      INR D          ;EXPONENT IS STILL POSITIVE, RESET FLAG
2473          41300      CPI PLUSTK    ;IGNORE A LEADING PLUS SIGN
2474          41320      CPI "++
2475          41340      RZ
2476          41360      DCX H
2477          41400
2478          41420      POP PSW
2479          41440      JHERE TO GET THE NEXT DIGIT OF THE EXPONENT
2480          41460      FINEC: CMGET
2481          41480      JC FINEODG
2482          41500      INR D
2483          41520      JNZ FINE
2484          41540      XRA A
2485          41560      SUB E
2486          41580      MOV E,A
2487          41600      JHERE TO FINISH UP THE NUMBER
2488          41620      FINE1: LDA VALTYP
2489          41640      CPI 2
2490          41660      JNZ FINEF
2491          41680      JHERE TO FINISH UP AN INTEGER
2492          41700      POP PSW
2493          41720      XCHG
2494          41740      C2 INEG
2495          41760      XCHG
2496          41780      RET
2497          41800      JHERE TO FINISH UP A FLOATING POINT NUMBER
2498          41820      PUSH H
2499          41840      MOV A,E
2500          41860      SUB B
2501          41880      JHERE TO MULTIPLY OR DIVIDE BY TEN THE CORRECT NUMBER OF TIMES
2502          41900      FINEF2: CP FINMUL
2503          41920      CM FINDIV
2504          41940      JNZ FINEF2
2505          41960      JHERE TO PUT THE CORRECT SIGN ON THE NUMBER
2506          41980      POP D
2507          42000      POP PSW
2508          42020      C2 NEG
2509          42040      XCHG
2510          42060      LDA VALTYP
2511          42080      CPI 4
2512          42100      RNZ
2513          42120      PUSH H
2514          42140      LLI H,POPHRT
2515          42160      PUSH H
2516          42180      CALL CONIS2
2517          42200      RET
2518          42220
2519          42240
2520          42260      JHERE TO CHECK IF WE HAVE SEEN 2 DECIMAL POINTS AND SET THE DECIMAL
2521          42280      F1: POINT FLAG
2522          42300      FINDP: INR C
2523          42320      ;SET THE FLAG

```

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2524          42320      JNZ FINEF
2525          42340      CALL FINFR
2526          42360      JMP FINEC
2527          42380
2528          42400
2529          42420
2530          42440
2531          42460      FINFR: PUSH H
2532          42480      PUSH D
2533          42500      PUSH B
2534          42520      PUSH PSW
2535          42540      C2 FRCNG
2536          42560      POP PSW
2537          42580      POP B
2538          42600      POP D
2539          42620      POP H
2540          42640      POP H
2541          42660      RET
2542
2543          42700
2544          42720
2545          001672' 001000 000310
2546          001673' 001000 000365
2547          42760
2548          001674' 001000 000315
2549          001675' 000000 001100'
2550          001676' 000000 001666'
2551          42800
2552          42820      IFE LENGTH=2,<
2553          42840      LDA VALTYP
2554          42860      CPI 4
2555          42880      PUSH PSW
2556          42900      C2 MUL10
2557          42920      POP PSW
2558          42940      CNZ DMUL10
2559          42960      POP PSW
2560          42980      DCRART: DCX A
2561          43000      RET
2562          43020      IFE LENGTH=2,<
2563          43040      FINDIV: PUSH PSW
2564          43060      LDA VALTYP
2565          43080      CPI 4
2566          43100      PUSH PSW
2567          43120      C2 DIV10
2568          43140      POP PSW
2569          43160      CNZ DDIV10
2570          43180      POP PSW
2571          43200      INR A
2572          43220      RET
2573
2574          43280
2575          43300
2576          001702' 43320      FINDIG:

```

This subroutine multiplies by 10. It is used by FINPONT.

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2577      001702' 001000 000325      43540 IFN LENGTH=2,<
2578      001703' 001000 000127      43540 PUSH D
2579      001704' 001000 000170      43580 MOV D,A
2580      001705' 001000 000211      43400 MOV A,B
2581      001706' 001000 000217      43420 ADC C
2582      001707' 001000 000305      43440 MOV B,A
2583      001708' 001000 000345      43460 PUSH B
2584      001709' 001000 000385      43480 PUSH H
2585      001710' 001000 000325      43500 PUSH D
2586      001711' 001000 000315      43520 CALL MUL10
2587      001712' 000000 001100'      43540 PUP PSW
2588      001713' 000000 001675'      43560 SUI "0"
2589      001714' 000000 000361      43580 IFN EXTENC,<
2590      001715' 000000 000326      43600 CALL PUSHF
2591      001716' 000000 000606      43620 CALL FLOAT
2592      001717' 000000 000606      43640 CALL FADD>
2593      001718' 000000 000606      43660 IFN EXTENC,<
2594      001719' 000000 000606      43700 CALL FINLOG>
2595      001720' 001000 000515      43720 PUP H
2596      001721' 001000 000515      43740 PUP B
2597      001722' 001000 000515      43760 PUP D
2598      001723' 001000 000515      43780 JMP FINC>
2599      001724' 001000 000515      43800 IFN LENGTH=2,<
2600      001725' 001000 000515      43820 PUSH D
2601      001726' 001000 000515      43840 MOV A,B
2602      001727' 001000 000515      43860 ADC C
2603      001728' 001000 000515      43880 MOV B,A
2604      001729' 001000 000515      43900 PUSH B
2605      001730' 001000 000515      43920 PUSH H
2606      001731' 001000 000515      43940 MOV A,M
2607      001732' 001000 000515      43960 SUI "0"
2608      001733' 001000 000515      43980 PUSH PSW
2609      001734' 001000 000515      44000 LDI VALTYP
2610      001735' 001000 000515      44020 CPI 4
2611      001736' 001000 000515      44040 JNC FINDGV
2612      001737' 001000 000515      44060 JHERE TO PACK THE NEXT
2613      001738' 001000 000515      44080 LALO FACLO
2614      001739' 001000 000515      44100 LDI 0,"D3277+SCODE
2615      001740' 001000 000515      44120 COMPAR
2616      001741' 001000 000515      44140 JNC FINDG2
2617      001742' 001000 000515      44160 MOV D,H
2618      001743' 001000 000515      44180 MOV E,L
2619      001744' 001000 000515      44200 DAD H
2620      001745' 001000 000515      44220 DAD H
2621      001746' 001000 000515      44240 DAD 0
2622      001747' 001000 000515      44260 DAD 0
2623      001748' 001000 000515      44280 DAD 0
2624      001749' 001000 000515      44300 DAD 0
2625      001750' 001000 000515      44320 DAD 0
2626      001751' 001000 000515      44340 DAD 0
2627      001752' 001000 000515      44360 DAD 0
2628      001753' 001000 000515      44380 DAD 0
2629      001754' 001000 000515      44400 DAD 0
2630      001755' 001000 000515      44420 DAD 0
2631      001756' 001000 000515      44440 DAD 0
2632      001757' 001000 000515      44460 DAD 0
2633      001758' 001000 000515      44480 DAD 0
2634      001759' 001000 000515      44500 DAD 0
2635      001760' 001000 000515      44520 DAD 0
2636      001761' 001000 000515      44540 DAD 0
2637      001762' 001000 000515      44560 DAD 0
2638      001763' 001000 000515      44580 DAD 0
2639      001764' 001000 000515      44600 DAD 0
2640      001765' 001000 000515      44620 DAD 0
2641      001766' 001000 000515      44640 DAD 0
2642      001767' 001000 000515      44660 DAD 0
2643      001768' 001000 000515      44680 DAD 0
2644      001769' 001000 000515      44700 DAD 0
2645      001770' 001000 000515      44720 DAD 0
2646      001771' 001000 000515      44740 DAD 0
2647      001772' 001000 000515      44760 DAD 0
2648      001773' 001000 000515      44780 DAD 0
2649      001774' 001000 000515      44800 DAD 0
2650      001775' 001000 000515      44820 DAD 0
2651      001776' 001000 000515      44840 DAD 0
2652      001777' 001000 000515      44860 DAD 0
2653      001778' 001000 000515      44880 DAD 0
2654      001779' 001000 000515      44900 DAD 0
2655      001780' 001000 000515      44920 DAD 0
2656      001781' 001000 000515      44940 DAD 0
2657      001782' 001000 000515      44960 DAD 0
2658      001783' 001000 000515      44980 DAD 0
2659      001784' 001000 000515      45000 DAD 0
2660      001785' 001000 000515      45020 DAD 0
2661      001786' 001000 000515      45040 DAD 0
2662      001787' 001000 000515      45060 DAD 0
2663      001788' 001000 000515      45080 DAD 0
2664      001789' 001000 000515      45100 DAD 0
2665      001790' 001000 000515      45120 DAD 0
2666      001791' 001000 000515      45140 DAD 0
2667      001792' 001000 000515      45160 DAD 0
2668      001793' 001000 000515      45180 DAD 0
2669      001794' 001000 000515      45200 DAD 0
2670      001795' 001000 000515      45220 DAD 0
2671      001796' 001000 000515      45240 DAD 0
2672      001797' 001000 000515      45260 DAD 0
2673      001798' 001000 000515      45280 DAD 0
2674      001799' 001000 000515      45300 DAD 0
2675      001800' 001000 000515      45320 DAD 0
2676      001801' 001000 000515      45340 DAD 0
2677      001802' 001000 000515      45360 DAD 0
2678      001803' 001000 000515      45380 DAD 0
2679      001804' 001000 000515      45400 DAD 0
2680      001805' 001000 000515      45420 DAD 0
2681      001806' 001000 000515      45440 DAD 0
2682      001807' 001000 000515      45460 DAD 0

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2630      44260 DAD H
2631      44280 PUP PSW
2632      44300 MOV C,A
2633      44320 DAD B
2634      44340 MOV A,H
2635      44360 ORA A
2636      44380 JN FINDG1
2637      44400 SHLD FACLO
2638      44420 PUP H
2639      44440 PUP B
2640      44460 PUP D
2641      44480 JMP FINC
2642      44500 JHERE TO HANDLE 32768, 32769
2643      44520 MOV A,C
2644      44540 PUSH PSW
2645      44560 JHERE TO CONVERT THE INTEGER DIGITS TO SINGLE PRECISION DIGITS
2646      44580 CALL CONSI
2647      44600 XRA A
2648      44620 JHERE TO DECIDE IF WE HAVE A SINGLE OR DOUBLE PRECISION NUMBER
2649      44640 JNZ FINDG2
2650      44660 MOVK1 224,164,044,000
2651      44680 CALL FCOPM
2652      44700 JP FINDG3
2653      44720 PUP PSW
2654      44740 CALL FINLOG
2655      44760 JMP FINDE
2656      44780 JHERE TO CONVERT A 7 DIGIT SINGLE PRECISION NUMBER TO DOUBLE PRECISION
2657      44800 CALL CONDS
2658      44820 JHERE TO PACK IN THE NEXT DIGIT OF A DOUBLE PRECISION NUMBER
2659      44840 CALL DRUL10
2660      44860 CALL VMOVAF
2661      44880 PUP PSW
2662      44900 CALL FLOAT
2663      44920 CALL CONDS
2664      44940 CALL DADD
2665      44960 CALL FINDE>
2666      45000 IFN EXTENC,<
2667      45020 JROUTINE FOR FIN, LOG
2668      45040 FINLOG: CALL PUSHF
2669      45060 CALL PUSHF
2670      45080 CALL FLOAT
2671      45100 CALL FADD>
2672      45120 IFN LENGTH=2,<
2673      45140 PUP PSW
2674      45160 JMP FADD>
2675      45180 IFN LENGTH=2,<
2676      45200 PUP PSW
2677      45220 JMP FADD>
2678      45240 IFN LENGTH=2,<
2679      45260 PUP PSW
2680      45280 JMP FADD>
2681      45300 IFN LENGTH=2,<
2682      45320 PUP PSW
2683      45340 JMP FADD>
2684      45360 IFN LENGTH=2,<
2685      45380 PUP PSW
2686      45400 JMP FADD>
2687      45420 IFN LENGTH=2,<
2688      45440 PUP PSW
2689      45460 JMP FADD>
2690      45480 IFN LENGTH=2,<
2691      45500 PUP PSW
2692      45520 JMP FADD>
2693      45540 IFN LENGTH=2,<
2694      45560 PUP PSW
2695      45580 JMP FADD>
2696      45600 IFN LENGTH=2,<
2697      45620 PUP PSW
2698      45640 JMP FADD>
2699      45660 IFN LENGTH=2,<
2700      45680 PUP PSW
2701      45700 JMP FADD>
2702      45720 IFN LENGTH=2,<
2703      45740 PUP PSW
2704      45760 JMP FADD>
2705      45780 IFN LENGTH=2,<
2706      45800 PUP PSW
2707      45820 JMP FADD>
2708      45840 IFN LENGTH=2,<
2709      45860 PUP PSW
2710      45880 JMP FADD>
2711      45900 IFN LENGTH=2,<
2712      45920 PUP PSW
2713      45940 JMP FADD>
2714      45960 IFN LENGTH=2,<
2715      45980 PUP PSW
2716      46000 JMP FADD>
2717      46020 IFN LENGTH=2,<
2718      46040 PUP PSW
2719      46060 JMP FADD>
2720      46080 IFN LENGTH=2,<
2721      46100 PUP PSW
2722      46120 JMP FADD>
2723      46140 IFN LENGTH=2,<
2724      46160 PUP PSW
2725      46180 JMP FADD>
2726      46200 IFN LENGTH=2,<
2727      46220 PUP PSW
2728      46240 JMP FADD>
2729      46260 IFN LENGTH=2,<
2730      46280 PUP PSW
2731      46300 JMP FADD>
2732      46320 IFN LENGTH=2,<
2733      46340 PUP PSW
2734      46360 JMP FADD>
2735      46380 IFN LENGTH=2,<
2736      46400 PUP PSW
2737      46420 JMP FADD>
2738      46440 IFN LENGTH=2,<
2739      46460 PUP PSW
2740      46480 JMP FADD>
2741      46500 IFN LENGTH=2,<
2742      46520 PUP PSW
2743      46540 JMP FADD>
2744      46560 IFN LENGTH=2,<
2745      46580 PUP PSW
2746      46600 JMP FADD>
2747      46620 IFN LENGTH=2,<
2748      46640 PUP PSW
2749      46660 JMP FADD>
2750      46680 IFN LENGTH=2,<
2751      46700 PUP PSW
2752      46720 JMP FADD>
2753      46740 IFN LENGTH=2,<
2754      46760 PUP PSW
2755      46780 JMP FADD>
2756      46800 IFN LENGTH=2,<
2757      46820 PUP PSW
2758      46840 JMP FADD>
2759      46860 IFN LENGTH=2,<
2760      46880 PUP PSW
2761      46900 JMP FADD>
2762      46920 IFN LENGTH=2,<
2763      46940 PUP PSW
2764      46960 JMP FADD>
2765      46980 IFN LENGTH=2,<
2766      47000 PUP PSW
2767      47020 JMP FADD>
2768      47040 IFN LENGTH=2,<
2769      47060 PUP PSW
2770      47080 JMP FADD>
2771      47100 IFN LENGTH=2,<
2772      47120 PUP PSW
2773      47140 JMP FADD>
2774      47160 IFN LENGTH=2,<
2775      47180 PUP PSW
2776      47200 JMP FADD>
2777      47220 IFN LENGTH=2,<
2778      47240 PUP PSW
2779      47260 JMP FADD>
2780      47280 IFN LENGTH=2,<
2781      47300 PUP PSW
2782      47320 JMP FADD>
2783      47340 IFN LENGTH=2,<
2784      47360 PUP PSW
2785      47380 JMP FADD>
2786      47400 IFN LENGTH=2,<
2787      47420 PUP PSW
2788      47440 JMP FADD>
2789      47460 IFN LENGTH=2,<
2790      47480 PUP PSW
2791      47500 JMP FADD>
2792      47520 IFN LENGTH=2,<
2793      47540 PUP PSW
2794      47560 JMP FADD>
2795      47580 IFN LENGTH=2,<
2796      47600 PUP PSW
2797      47620 JMP FADD>
2798      47640 IFN LENGTH=2,<
2799      47660 PUP PSW
2800      47680 JMP FADD>
2801      47700 IFN LENGTH=2,<
2802      47720 PUP PSW
2803      47740 JMP FADD>
2804      47760 IFN LENGTH=2,<
2805      47780 PUP PSW
2806      47800 JMP FADD>
2807      47820 IFN LENGTH=2,<
2808      47840 PUP PSW
2809      47860 JMP FADD>
2810      47880 IFN LENGTH=2,<
2811      47900 PUP PSW
2812      47920 JMP FADD>
2813      47940 IFN LENGTH=2,<
2814      47960 PUP PSW
2815      47980 JMP FADD>
2816      48000 IFN LENGTH=2,<
2817      48020 PUP PSW
2818      48040 JMP FADD>
2819      48060 IFN LENGTH=2,<
2820      48080 PUP PSW
2821      48100 JMP FADD>
2822      48120 IFN LENGTH=2,<
2823      48140 PUP PSW
2824      48160 JMP FADD>
2825      48180 IFN LENGTH=2,<
2826      48200 PUP PSW
2827      48220 JMP FADD>
2828      48240 IFN LENGTH=2,<
2829      48260 PUP PSW
2830      48280 JMP FADD>
2831      48300 IFN LENGTH=2,<
2832      48320 PUP PSW
2833      48340 JMP FADD>
2834      48360 IFN LENGTH=2,<
2835      48380 PUP PSW
2836      48400 JMP FADD>
2837      48420 IFN LENGTH=2,<
2838      48440 PUP PSW
2839      48460 JMP FADD>
2840      48480 IFN LENGTH=2,<
2841      48500 PUP PSW
2842      48520 JMP FADD>
2843      48540 IFN LENGTH=2,<
2844      48560 PUP PSW
2845      48580 JMP FADD>
2846      48600 IFN LENGTH=2,<
2847      48620 PUP PSW
2848      48640 JMP FADD>
2849      48660 IFN LENGTH=2,<
2850      48680 PUP PSW
2851      48700 JMP FADD>
2852      48720 IFN LENGTH=2,<
2853      48740 PUP PSW
2854      48760 JMP FADD>
2855      48780 IFN LENGTH=2,<
2856      48800 PUP PSW
2857      48820 JMP FADD>
2858      48840 IFN LENGTH=2,<
2859      48860 PUP PSW
2860      48880 JMP FADD>
2861      48900 IFN LENGTH=2,<
2862      48920 PUP PSW
2863      48940 JMP FADD>
2864      48960 IFN LENGTH=2,<
2865      48980 PUP PSW
2866      49000 JMP FADD>
2867      49020 IFN LENGTH=2,<
2868      49040 PUP PSW
2869      49060 JMP FADD>
2870      49080 IFN LENGTH=2,<
2871      49100 PUP PSW
2872      49120 JMP FADD>
2873      49140 IFN LENGTH=2,<
2874      49160 PUP PSW
2875      49180 JMP FADD>
2876      49200 IFN LENGTH=2,<
2877      49220 PUP PSW
2878      49240 JMP FADD>
2879      49260 IFN LENGTH=2,<
2880      49280 PUP PSW
2881      49300 JMP FADD>
2882      49320 IFN LENGTH=2,<
2883      49340 PUP PSW
2884      49360 JMP FADD>
2885      49380 IFN LENGTH=2,<
2886      49400 PUP PSW
2887      49420 JMP FADD>
2888      49440 IFN LENGTH=2,<
2889      49460 PUP PSW
2890      49480 JMP FADD>
2891      49500 IFN LENGTH=2,<
2892      49520 PUP PSW
2893      49540 JMP FADD>
2894      49560 IFN LENGTH=2,<
2895      49580 PUP PSW
2896      49600 JMP FADD>
2897      49620 IFN LENGTH=2,<
2898      49640 PUP PSW
2899      49660 JMP FADD>
2900      49680 IFN LENGTH=2,<
2901      49700 PUP PSW
2902      49720 JMP FADD>
2903      49740 IFN LENGTH=2,<
2904      49760 PUP PSW
2905      49780 JMP FADD>
2906      49800 IFN LENGTH=2,<
2907      49820 PUP PSW
2908      49840 JMP FADD>
2909      49860 IFN LENGTH=2,<
2910      49880 PUP PSW
2911      49900 JMP FADD>
2912      49920 IFN LENGTH=2,<
2913      49940 PUP PSW
2914      49960 JMP FADD>
2915      49980 IFN LENGTH=2,<
2916      50000 PUP PSW
2917      50020 JMP FADD>
2918      50040 IFN LENGTH=2,<
2919      50060 PUP PSW
2920      50080 JMP FADD>
2921      50100 IFN LENGTH=2,<
2922      50120 PUP PSW
2923      50140 JMP FADD>
2924      50160 IFN LENGTH=2,<
2925      50180 PUP PSW
2926      50200 JMP FADD>
2927      50220 IFN LENGTH=2,<
2928      50240 PUP PSW
2929      50260 JMP FADD>
2930      50280 IFN LENGTH=2,<
2931      50300 PUP PSW
2932      50320 JMP FADD>
2933      50340 IFN LENGTH=2,<
2934      50360 PUP PSW
2935      50380 JMP FADD>
2936      50400 IFN LENGTH=2,<
2937      50420 PUP PSW
2938      50440 JMP FADD>
2939      50460 IFN LENGTH=2,<
2940      50480 PUP PSW
2941      50500 JMP FADD>
2942      50520 IFN LENGTH=2,<
2943      50540 PUP PSW
2944      50560 JMP FADD>
2945      50580 IFN LENGTH=2,<
2946      50600 PUP PSW
2947      50620 JMP FADD>
2948      50640 IFN LENGTH=2,<
2949      50660 PUP PSW
2950      50680 JMP FADD>
2951      50700 IFN LENGTH=2,<
2952      50720 PUP PSW
2953      50740 JMP FADD>
2954      50760 IFN LENGTH=2,<
2955      50780 PUP PSW
2956      50800 JMP FADD>
2957      50820 IFN LENGTH=2,<
2958      50840 PUP PSW
2959      50860 JMP FADD>
2960      50880 IFN LENGTH=2,<
2961      50900 PUP PSW
2962      50920 JMP FADD>
2963      50940 IFN LENGTH=2,<
2964      50960 PUP PSW
2965      50980 JMP FADD>
2966      51000 IFN LENGTH=2,<
2967      51020 PUP PSW
2968      51040 JMP FADD>
2969      51060 IFN LENGTH=2,<
2970      51080 PUP PSW
2971      51100 JMP FADD>
2972      51120 IFN LENGTH=2,<
2973      51140 PUP PSW
2974      51160 JMP FADD>
2975      51180 IFN LENGTH=2,<
2976      51200 PUP PSW
2977      51220 JMP FADD>
2978      51240 IFN LENGTH=2,<
2979      51260 PUP PSW
2980      51280 JMP FADD>
2981      51300 IFN LENGTH=2,<
2982      51320 PUP PSW
2983      51340 JMP FADD>
2984      51360 IFN LENGTH=2,<
2985      51380 PUP PSW
2986      51400 JMP FADD>
2987      51420 IFN LENGTH=2,<
2988      51440 PUP PSW
2989      51460 JMP FADD>
2990      51480 IFN LENGTH=2,<
2991      51500 PUP PSW
2992      51520 JMP FADD>
2993      51540 IFN LENGTH=2,<
2994      51560 PUP PSW
2995      51580 JMP FADD>
2996      51600 IFN LENGTH=2,<
2997      51620 PUP PSW
2998      51640 JMP FADD>
2999      51660 IFN LENGTH=2,<
3000      51680 PUP PSW
3001      51700 JMP FADD>
3002      51720 IFN LENGTH=2,<
3003      51740 PUP PSW
3004      51760 JMP FADD>
3005      51780 IFN LENGTH=2,<
3006      51800 PUP PSW
3007      51820 JMP FADD>
3008      51840 IFN LENGTH=2,<
3009      51860 PUP PSW
3010      51880 JMP FADD>
3011      51900 IFN LENGTH=2,<
3012      51920 PUP PSW
3013      51940 JMP FADD>
3014      51960 IFN LENGTH=2,<
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3016      52000 JMP FADD>
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3018      52040 PUP PSW
3019      52060 JMP FADD>
3020      52080 IFN LENGTH=2,<
3021      52100 PUP PSW
3022      52120 JMP FADD>
3023      52140 IFN LENGTH=2,<
3024      52160 PUP PSW
3025      52180 JMP FADD>
3026      52200 IFN LENGTH=2,<
3027      52220 PUP PSW
3028      52240 JMP FADD>
3029      52260 IFN LENGTH=2,<
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3031      52300 JMP FADD>
3032      52320 IFN LENGTH=2,<
3033      52340 PUP PSW
3034      52360 JMP FADD>
3035      52380 IFN LENGTH=2,<
3036      52400 PUP PSW
3037      52420 JMP FADD>
3038      52440 IFN LENGTH=2,<
3039      52460 PUP PSW
3040      52480 JMP FADD>
3041      52500 IFN LENGTH=2,<
3042      52520 PUP PSW
3043      52540 JMP FADD>
3044      52560 IFN LENGTH=2,<
3045      52580 PUP PSW
3046      52600 JMP FADD>
3047      52620 IFN LENGTH=2,<
3048      52640 PUP PSW
3049      52660 JMP FADD>
3050      52680 IFN LENGTH=2,<
3051      52700 PUP PSW
3052      52720 JMP FADD>
3053      52740 IFN LENGTH=2,<
3054      52760 PUP PSW
3055      52780 JMP FADD>
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3058      52840 JMP FADD>
3059      52860 IFN LENGTH=2,<
3060      52880 PUP PSW
3061      52900 JMP FADD>
3062      52920 IFN LENGTH=2,<
3063      52940 PUP PSW
3064      52960 JMP FADD>
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3066      53000 PUP PSW
3067      53020 JMP FADD>
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3069      53060 PUP PSW
3070      53080 JMP FADD>
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3072      53120 PUP PSW
3073      53140 JMP FADD>
3074      53160 IFN LENGTH=2,<
3075      53180 PUP PSW
3076      53200 JMP FADD>
3077      53220 IFN LENGTH=2,<
3078      53240 PUP PSW
3079      53260 JMP FADD>
3080      53280 IFN LENGTH=2,<
3081
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