FEATURE DOCUMENT

COIN LINE ACTIVITY MONITORING FEATURE

2-WIRE NO. 1 AND NO. 1A ELECTRONIC SWITCHING SYSTEMS

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NOTICE

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FEATURE DEFINITION AND DESCRIPTION

1. DEFINITION

1.01 The ***coin line activity monitoring (CLAM)*** feature provides a periodic printout of directory numbers for selected coin lines that have not originated traffic within a telephone company specified time interval.

2. DESCRIPTION

INTRODUCTION

2.01 Coin station usage data is one input used in determining the operational status of a coin station. Telephone companies need to know the time periods of no activity each day or the days of no activity during each week since this data is indicative of a possible out-of-service coin station.

USER PERSPECTIVE

2.02 The coin line activity monitoring feature provides the capability of monitoring selected coin lines on a 6-, 12-, or 24-hour basis. Additional flexibility in scheduling is provided in 1E5/1AE5 generic programs with the TC-TIME TTY input message. Any or all coin lines with directory numbers within selected thousand blocks can be monitored simultaneously. Each thousand block selected can accommodate a maximum of 1000 lines. A maximum of 15 thousand blocks (15,000 lines) can be monitored simultaneously. Although coin and noncoin lines can be mixed within the same thousand block, coin lines should be concentrated in a minimum quantity of thousand blocks to minimize use of memory space.

2.03 At the end of the time period selected for monitoring, a list of directory numbers is printed via teletypewriter (TTY). TTY output message CN03 is used to list the coin lines that have not originated traffic during the specified monitoring interval. If a TTY channel is not selected by the telephone company, the generic program designates the lowest-numbered channel available and restricts channel usage for CN03 to one channel at a time.

2.04 Recent change message RC:NOGRAC is used to select the thousand blocks to be monitored. Recent change message RC:CLAM is used to assign specific coin lines (within the selected thousand blocks) to particular monitoring intervals. The time of printout for each interval is established via TTY input message CLAM-INT. Only the time of day (hour and quarter hour) for printout at the end of the 24-hour interval is specified in the CLAM-INT input message (paragraph 2.14). If the 6- or 12-hour interval is selected, the ESS adds 6 or 12 hours to the 24-hour printout time as necessary to provide printouts at the desired interval.

2.05 Recent change message RC:CLAM is also used to change the monitoring interval for a coin line or to terminate monitoring of a coin line. Only one interval (6-, 12-, or 24-hour) should be specified for a given coin line.

SYSTEM IMPLEMENTATION

2.06 A coin line is identified via the CLAM feature as having no originations during a selected interval of time if the line has not received dial tone.

2.07 When a monitored coin line originates, the line equipment number (LEN) translation identifies the binary directory number of the coin station composed of the number group number (NGN) and index (Fig. 1). The NGN identifies a particular thousand group. When the LEN translation identifies the line as a coin line, the translation program uses the contents of the master head table +29 as a selector to point to the number group number-to-rate center (NGN-TO-RAC) translator (Fig. 2). The number group number (NGN) portion of the binary directory number is used as an index to locate the NGN-TO-RAC translation word associated with a particular thousand group. If the coin line monitoring index (CMIDX) item for that number group number is greater than zero but not greater than set card CMNGS, parameter O6CMTP points to the coin monitoring table (CMTP) in call store. The size of the table is equal to 44 words times the value of set card CMNGS. Item CMIDX is used as the index to locate a block of 44 words in the table associated with a particular number group number (thousand group). The index portion of the binary directory number (related to digits D5, D6, and D7 of the coin line directory number) is used in the form 100D6 + 10D7 + D8 with each zero treated as a 10. Then, 111 is subtracted to obtain a code which represents the directory number. For example, if dialed digits D5, D6, and D7 are 1, 2, and 0, respectively, the conversion is (100X1) + (10X2) + 10 equals 130.

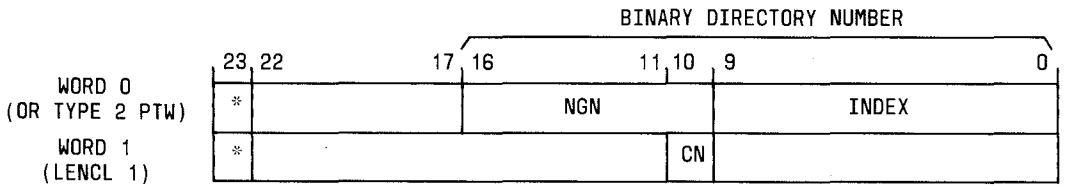
Subtracting 111, the result is code 019 representing dialed digits 120. The location (word number and bit position) for code 019 in the associated 44-word CLAM block in the CMTP table (Fig. 2) is obtained by dividing code 019 by 23 (the usable word length). The whole number portion of the quotient is the word number, and the remainder is the bit position. The bit is set to zero to indicate coin line origination.

2.08 At the end of each selected time interval (6- and/or 12- and/or 24-hour), a CN03 output message is printed via TTY. A directory number represented by a bit position set to zero in a CMTP call store table (originated coin line) will not appear on a CN03 printout.

2.09 At print time, the translation program uses the content of master head table annex +31 to point to the CLAM mask block head table (Fig. 3). Item CMIDX in each NGN-TO-RAC translator word is interrogated by the translation program, and each nonzero CMIDX item is used in the formulation of an index used to locate four words in the CLAM mask block head table. Three of the four words are associated with monitoring intervals (6-, 12-, and 24-hour). The fourth word is reserved for future use. The translation program uses each nonzero word in the CLAM mask block head table to point to a CLAM mask block table (in program store) associated with a particular monitoring interval. CLAM mask blocks are not built for CLAM mask block translator words equal to zero. Each mask block represents a thousand block and contains the same number of bit positions as the CMTP call store table for the same thousand block. If a coin line in a thousand block has been selected for monitoring (via RC:CLAM), the corresponding bit position in the CLAM mask block table is set to one. At print time, the first nonzero CMIDX index points to its associated four words in the CLAM mask block head table. If the first of the four words (the 6-hour schedule word) is nonzero, it points to the CLAM mask block table for the 6-hour interval. Continuing at print time, the CMTP call store table for the number group is compared with the CLAM mask block table for the 6-hour interval. Corresponding positions in the CMTP call store table and the CLAM mask block table in program store undergo a logical "and" process, as shown in Table B, to determine if the associated directory number should be printed.

2.10 After printout (if any) for the 6-hour interval has been completed, the CLAM mask block table for the 12-hour interval is processed if the corresponding word in the CLAM mask block head table is nonzero and if print time is occurring at the end of the 12- or 24-hour interval. Similarly, after printout for the 12-hour interval has been completed, the CLAM mask block table for the 24-hour interval is processed. Since only one monitoring interval is valid for a given coin line, only one of the three CLAM mask block tables is used to indicate monitoring for that line. The V-CLAM input message is used to verify that only valid assignments have been made.

2.11 At print time, the ESS processes through each CLAM mask block table one at a time. When the logical "and" operation indicates a nonoriginated-selected coin line, digits D5, D6, and D7 of the associated directory number are stored



* BIT 23 DOES NOT EXIST IN TRANSLATION WORDS FOR NO. 1 ESS. IT IS EQUAL TO 0 IN THE NO. 1A ESS.

NGN - NUMBER GROUP NUMBER
CN - COIN LINE INDICATOR. CN = 1 IF ORIGINATING MAJOR INDICATES COIN LINE.

Fig. 1—LEN Auxiliary Block

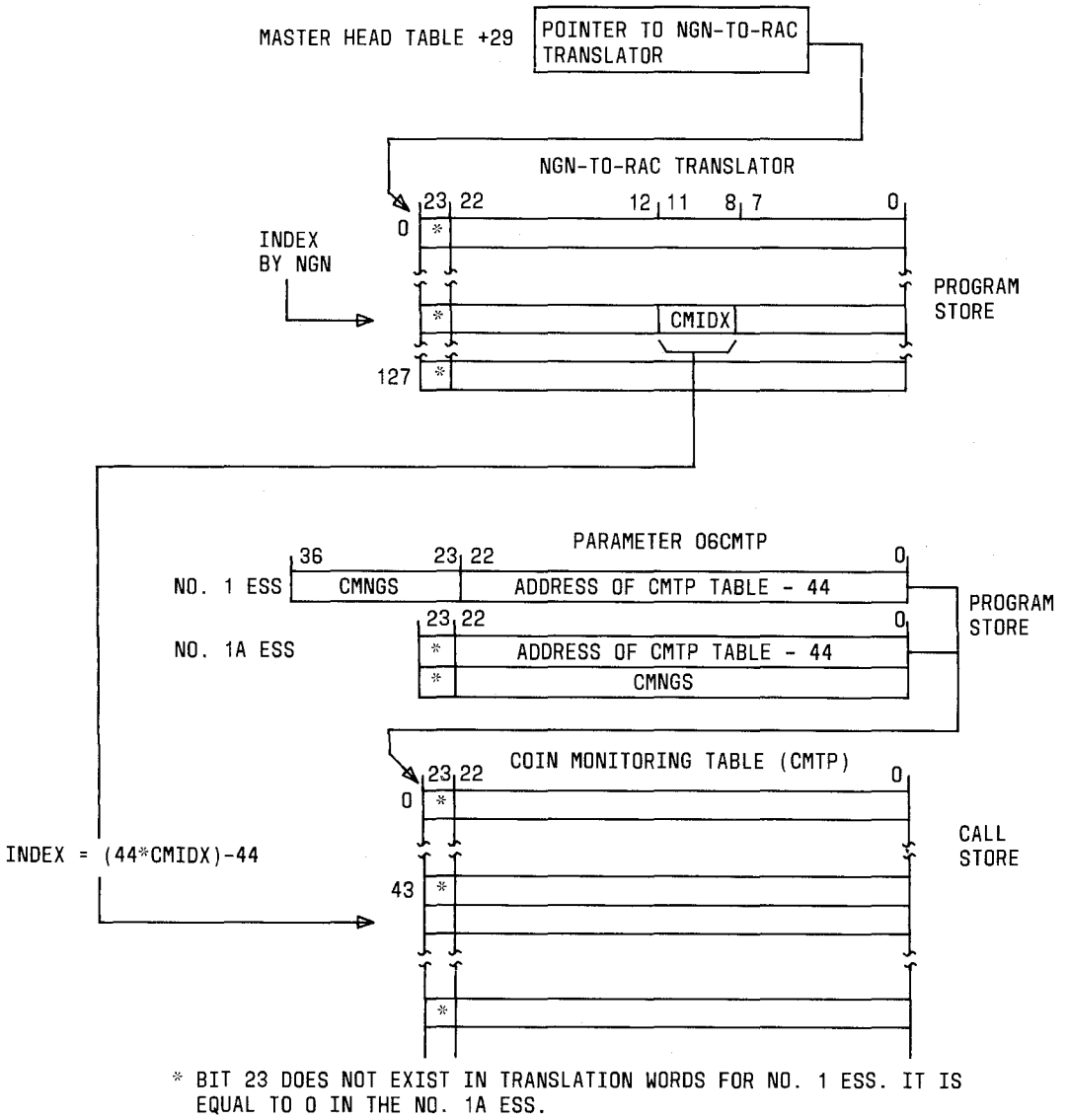


Fig. 2—Marking Coin Line Activity

in the print buffer. If the coin line has originated, the associated directory number is not printed, the call store bit is reinitialized (reset to "1"), and processing of the remaining bit positions in that word will continue until the end of the word is reached. At this time, printing of directory numbers can start for coin lines that have not originated. Then, the remainder of the words are processed, and printing occurs as required. After processing is completed for a number group, the next nonzero CMIDX is used to initiate processing for its corresponding number group. Processing continues until all nonzero CMIDX indexes have been used. Printing ends with finish message "FINISH CLM" followed by a number representing the quantity of coin directory numbers that were printed in that CN03 message. Then, the ESS continues monitoring coin line originations until the next print time occurs.

2.12 Up to 15 indexes can be specified via the RC:NOGRAC recent change message to permit monitoring of coin lines in selected number groups (up to 15 number groups). To conserve

memory space, the CMIDX indexes should be assigned sequentially starting with one.

2.13 Each CLAM mask block table has a "1" in every bit position that corresponds to a coin directory number that is to be monitored at the time interval assigned to that mask block table. Moreover, the CLAM mask block table identifies only those directory numbers in a number group that are both coin lines and have coin line monitoring assignments. The same position should not be set in more than one mask block table for the same number group. (That is, a coin telephone line should be monitored at only one interval at a time.) Setting the same position in more than one mask block for a given number group yields erroneous results.

2.14 TTY input message CLAM-INT is used to set the variable quarter-hour timetable, which causes entries for scheduled printing of CLAM output message CN03. Details of input and output messages are found in the ESS input and output message manuals. [See references B(1) through B(4) in Part 23.] Any quarter hour during the 24-hour day (00:00 to 23:45) can be selected for the 24-hour printout. See Fig. 4. A time entry of 2400 is used to make the CLAM feature inactive. Thus, all CLAM timing is made inactive, and the call store tables are zeroed. (All lines appear to have originated.) All CN03 printing in progress terminates after the print buffer is cleared, after which no CN03 printouts occur until a valid CLAM-INT message is reentered.

2.15 When a valid CLAM-INT message is entered, all call store tables are zeroed to nullify any undesired data which may exist. Therefore, all print times must be passed once in order to update (initialize) the CMTP table with current data consistent with the CLAM mask block table. When the first print time arrives after a valid CLAM-INT message is entered, ESS will find that all lines appear to have originated. Therefore, ESS will not print but instead will initialize the call store table to reflect the lines which are to be monitored for a particular interval. If the first print time encountered is for a 6-hour interval, then initialization takes place rather than printing at that time so that the next 6-hour print will correctly reflect a 6-hour monitoring period. Likewise, initialization occurs for lines (if any) monitored at the 12-hour interval when print time for the 12-hour interval is encountered. The same applies for initialization of lines (if any) monitored at the 24-hour interval.

2.16 Although the TTY channel printing the CN03 output message can be assigned (or changed) via input message TTY-MLTCHAN (No. 1 ESS) or RTE: CHAN a; CHAN b! (No. 1A ESS), the number of channels used at any given time is limited to one by the generic program. If a channel is not selected by the telephone company, the generic program designates the lowest-numbered channel available for use.

3. FEATURE FLOW DIAGRAM

3.01 Feature flow diagrams giving the functional operation of the CLAM feature are provided in Fig. 5 and Fig. 6.

4. INTERACTIONS

4.01 Not applicable.

ATTRIBUTES

5. STATION/SYSTEM

5.01 The coin line activity monitoring feature is provided on a per-central-office basis.

6. LIMITATIONS

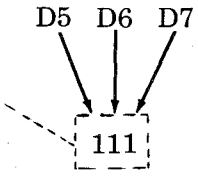
6.01 A maximum of 15 thousand groups (15,000 lines) can be monitored simultaneously, but only 4000 directory numbers can be printed for a given monitoring interval (6-, 12-, or 24-hour). This quantity of directory numbers was chosen as more than adequate since the quantity of directory numbers printed for an interval is not expected to exceed 200 or 300. If this much printing occurs normally, the feature is not being used wisely. (The purpose of the feature is to find only those lines which normally originate traffic but are not doing so presently because of possible malfunction.)

7. RESTRICTION CAPABILITY

7.01 Not applicable.

TABLE A

LAYOUT OF BITS IN THE CLAM MASK BLOCK TABLE CORRESPONDING TO DIRECTORY NUMBERS (D5, D6, D7)



BIT POSITION	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
WORD 0	133	132	131	120	129	128	127	126	125	124	123	122	121	110	119	118	117	116	115	114	113	112	111
WORD 1	156	155	154	153	152	151	140	149	148	147	146	145	144	143	142	141	130	139	138	137	136	135	134
WORD 2	179	178	177	176	175	174	173	172	171	160	169	168	167	166	165	164	163	162	161	150	159	158	157
WORD 3	102	101	190	199	198	197	196	195	194	193	192	191	180	189	188	187	186	185	184	183	182	181	170
WORD 4	225	224	223	222	221	210	219	218	217	216	215	214	213	212	211	100	109	108	107	106	105	104	103
WORD 5	248	247	246	245	244	243	242	241	230	239	238	237	236	235	234	233	232	231	220	229	228	227	226
WORD 6	271	260	269	268	267	266	265	264	263	262	261	250	259	258	257	256	255	254	253	252	251	240	249
WORD 7	294	293	292	291	280	289	288	287	286	285	284	283	282	281	270	279	278	277	276	275	274	273	272
WORD 8	317	316	315	314	313	312	311	200	209	208	207	206	205	204	203	202	201	290	299	298	297	296	295
WORD 9	330	339	338	337	336	335	334	333	332	331	320	329	328	327	326	325	324	323	322	321	310	319	318
WORD 10	363	362	361	350	359	358	357	356	355	354	353	352	351	340	349	348	347	346	345	344	343	342	341
WORD 11	386	385	384	383	382	381	370	379	378	377	376	375	374	373	372	371	360	369	368	367	366	365	364
WORD 12	309	308	307	306	305	304	303	302	301	390	399	398	397	396	395	394	393	392	391	380	389	388	387
WORD 13	432	431	420	429	428	427	426	425	424	423	422	421	410	419	418	417	416	415	414	413	412	411	300
WORD 14	455	454	453	452	451	440	449	448	447	446	445	444	443	442	441	430	439	438	437	436	435	434	433
WORD 15	478	477	476	475	474	473	472	471	460	469	468	467	466	465	464	463	462	461	450	459	458	457	456
WORD 16	401	490	499	498	497	496	495	494	493	492	491	480	489	488	487	486	485	484	483	482	481	470	479
WORD 17	524	523	522	521	510	519	518	517	516	515	514	513	512	511	400	409	408	407	406	405	404	403	402
WORD 18	547	546	545	544	543	542	541	530	539	538	537	536	535	534	533	532	531	520	529	528	527	526	525
WORD 19	560	569	568	567	566	565	564	563	562	561	550	559	558	557	556	555	554	553	552	551	540	549	548
WORD 20	593	592	591	580	589	588	587	586	585	584	583	582	581	570	579	578	577	576	575	574	573	572	571
WORD 21	616	615	614	613	612	611	500	509	508	507	506	505	504	503	502	501	590	599	598	597	596	595	594
WORD 22	639	638	637	636	635	634	633	632	631	620	629	628	627	626	625	624	623	622	621	610	619	618	617
WORD 23	662	661	650	659	658	657	656	655	654	653	652	651	640	649	648	647	646	645	644	643	642	641	630
WORD 24	685	684	683	682	681	670	679	678	677	676	675	674	673	672	671	660	669	668	667	666	665	664	663
WORD 25	608	067	606	605	604	603	602	601	690	699	698	697	696	695	694	693	692	691	680	689	688	687	686
WORD 26	731	720	729	728	727	726	725	724	723	722	721	710	719	718	717	716	715	714	713	712	711	600	609
WORD 27	754	753	752	751	740	749	748	747	746	745	744	743	742	741	730	739	738	737	736	735	734	733	732
WORD 28	777	776	775	774	773	772	771	760	769	768	767	766	765	764	763	762	761	750	759	758	757	756	755
WORD 29	790	799	798	797	796	795	794	793	792	791	780	789	788	787	786	785	784	783	782	781	770	779	778
WORD 30	823	822	821	810	819	818	817	816	815	814	813	812	811	700	709	708	707	706	705	704	703	702	701
WORD 31	846	845	844	843	842	841	830	839	838	837	836	835	834	833	832	831	820	829	828	827	826	825	824
WORD 32	869	868	867	866	865	864	863	862	861	850	859	858	857	856	855	854	853	852	851	840	849	848	847
WORD 33	892	891	880	889	888	887	886	885	884	883	882	881	870	879	878	877	876	875	874	873	872	871	860
WORD 34	915	914	913	912	911	800	809	808	807	806	805	804	803	802	801	890	899	898	897	896	895	894	893
WORD 35	938	937	936	935	934	933	932	931	920	929	928	927	926	925	924	923	922	921	910	919	918	917	916
WORD 36	961	950	959	958	957	956	955	954	953	952	951	940	949	948	947	946	945	944	943	942	941	930	939
WORD 37	984	983	982	981	970	979	978	977	976	975	974	973	972	971	960	969	968	967	966	965	964	963	962
WORD 38	907	906	905	904	903	902	901	990	999	998	997	996	995	994	993	992	991	980	989	988	987	986	985
WORD 39	020	029	028	027	026	025	024	023	022	021	010	019	018	017	016	015	014	013	012	011	900	909	908
WORD 40	053	052	051	040	049	048	047	046	045	044	043	042	041	030	039	038	037	036	035	034	033	032	031
WORD 41	076	075	074	073	072	071	060	069	068	067	066	065	064	063	062	061	050	059	058	057	056	055	054
WORD 42	099	098	097	096	095	094	093	092	091	080	089	088	087	086	085	084	083	082	081	070	079	078	077
WORD 43	← BITS 22 – 11 ARE UNUSED IN WORD 43 →												000	009	008	007	006	005	004	003	002	001	090

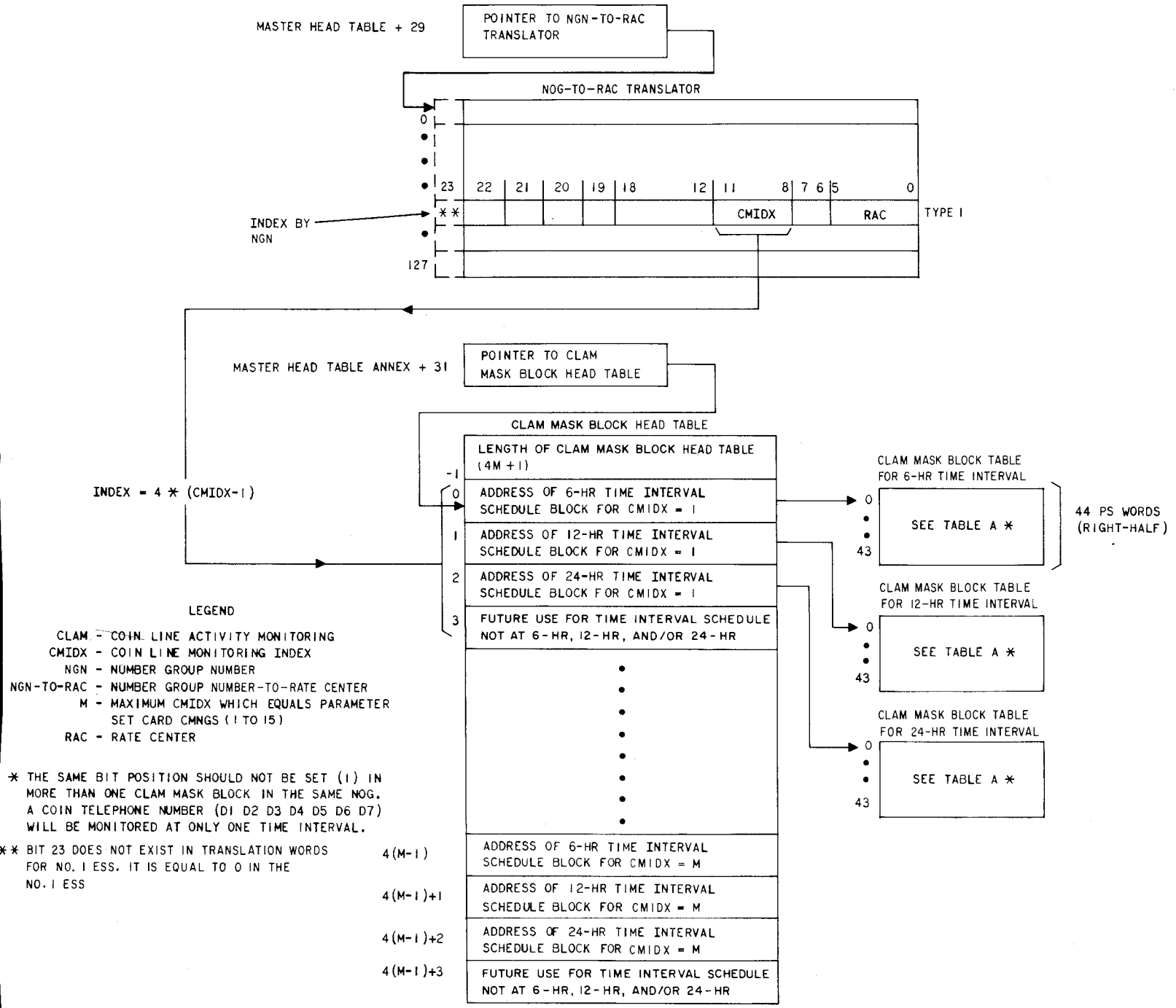


Fig. 3—CLAM Mask Block Translator (Table A Included)

TABLE B

LOGICAL "AND" PROCESS TO DETERMINE PRINT DECISION

CALL STORE	TRANSLATIONS	HISTORY OF LINE STATUS	LOGICAL "AND"	PRINT DN DECISION
0	0	Originated and not selected	0	NO
0	1	Originated and selected	0	NO
1	1	Not originated and not selected	0	NO
1	1	Not originated and selected	1	YES

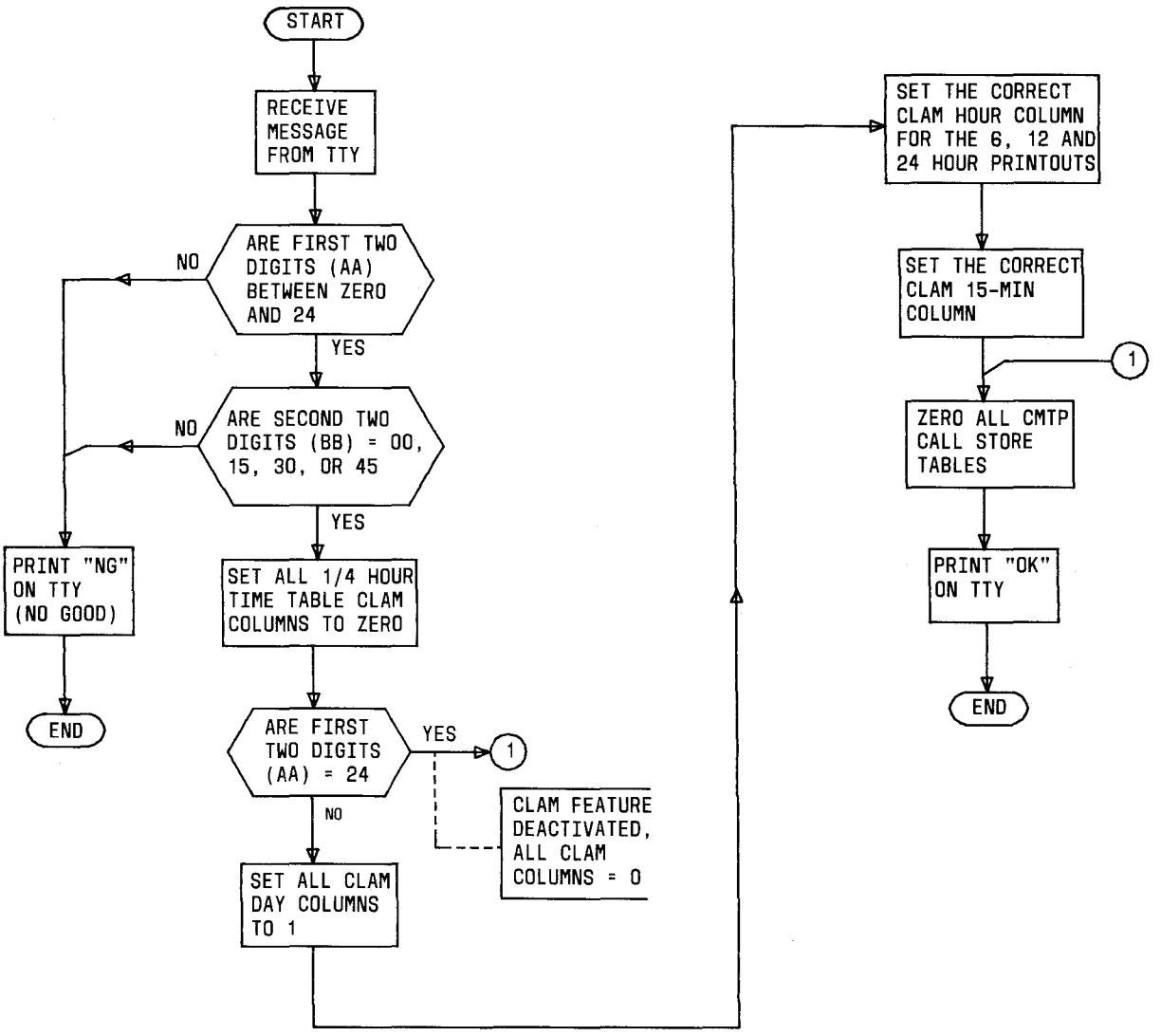


Fig. 4—Setting Printout Time Via Input Message CLAM-INT

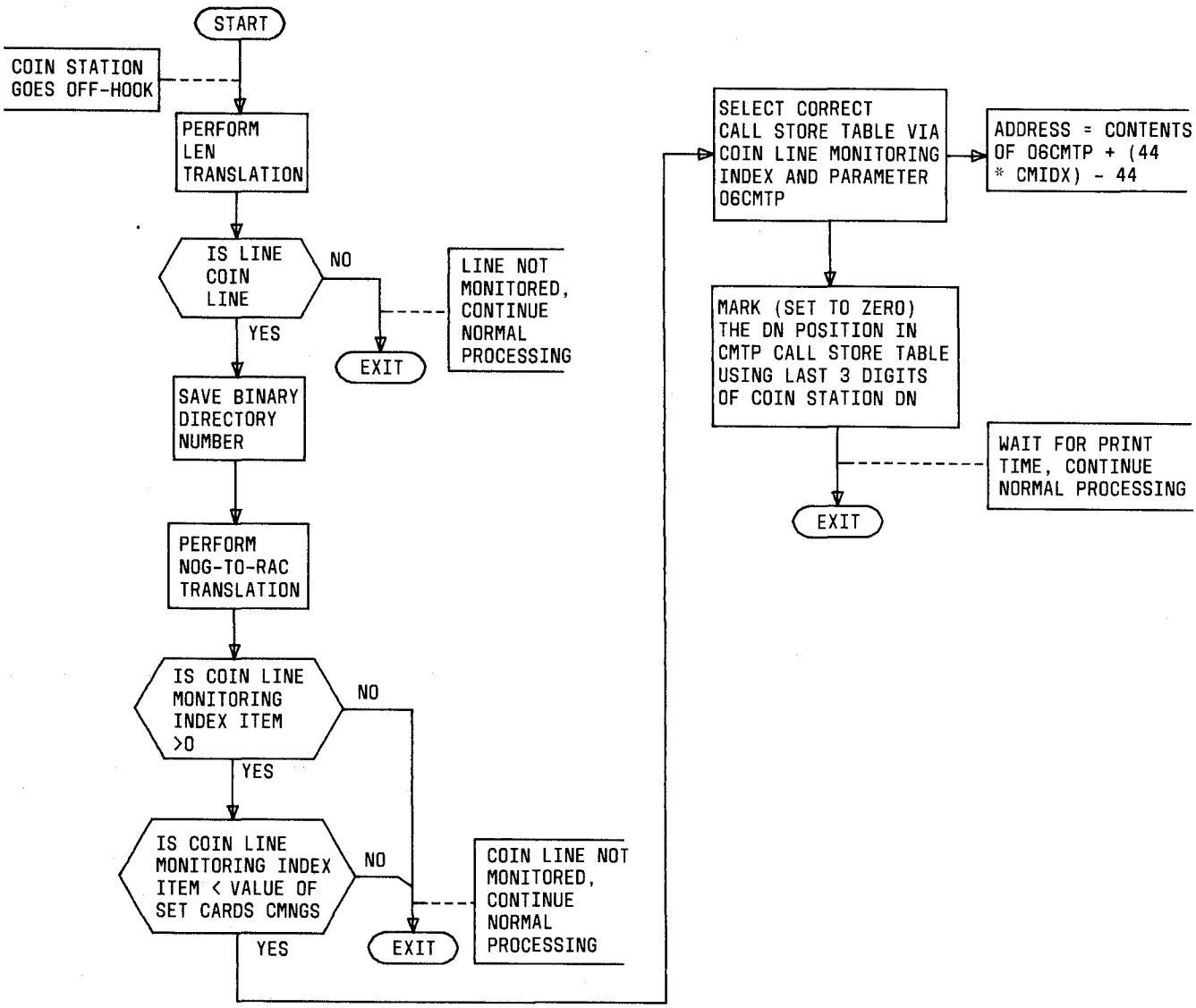


Fig. 5—Marking Originated Coin Lines—Feature Flow Diagram

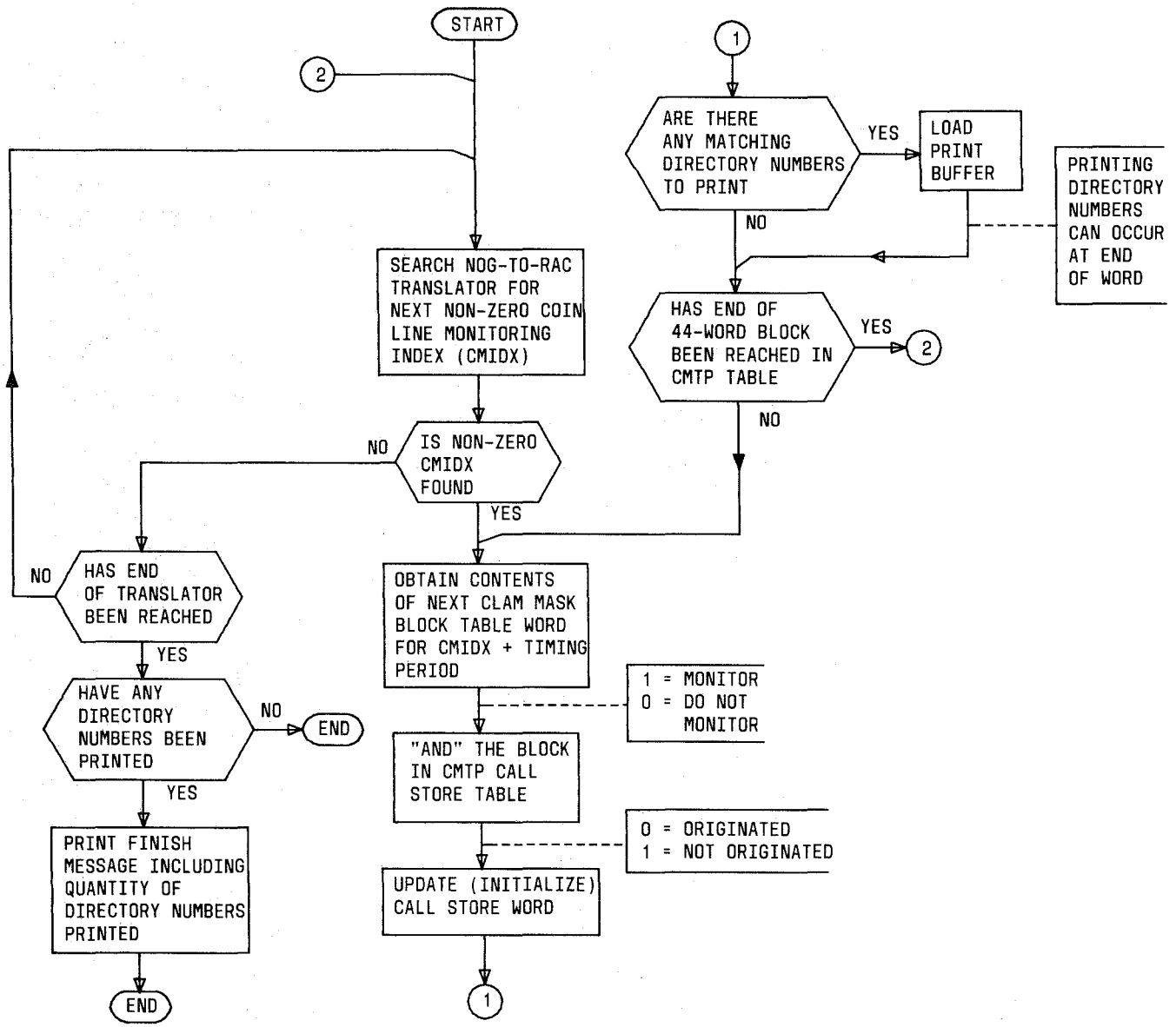


Fig. 6—Printing List of Directory Numbers for Coin Lines Which Have Not Originated During Specified Interval—Feature Flow Diagram

8. COST DATA

MEMORY—NO. 1 ESS

A. Fixed

8.01 The following memory is required whether or not the feature is used:

- ***Generic Program Base (program store):*** 400 words
- ***Parameter (program store):*** 4 words (1 new word for parameter O6CMTP and 3 words for updating time activity words in E4PAUL)
- ***Translation (program store):*** 1 word in the master head table annex to point to a CLAM mask block head table
- ***Call Store:*** 10 words for CLAM work table.

B. Conditional

8.02 The following memory is required only when the feature is activated:

- ***Translation (program store):*** 1 word (first word) in CLAM mask block head table.

C. Variable

8.03 The following memory is required on a number group number (thousand block) basis:

- ***Translation (program store):*** 4 words in the CLAM mask block head table for each thousand block monitored and 44 words for each CLAM mask block table required (1 CLAM mask block table required for each monitoring interval selected) for each thousand block selected.

Note: No CLAM mask block table is built for an interval for a number group number if no lines in that thousand block are being monitored at that interval.

- ***Call Store:*** 44 words for each thousand block monitored.

MEMORY—NO. 1A ESS

A. Fixed

8.04 The following memory is required whether or not the feature is used:

- ***Generic Program Store (program store, file store):*** 500 words
- ***Parameter (unduplicated call store, file store):*** 5 words (2 new words for parameter O6CMTP and 3 words for updating time activity words in E4PAUL)
- ***Translation (unduplicated call store, file store):*** 1 word in the master head table annex to point to a CLAM mask block head table
- ***Call Store (duplicated call store):*** 10 words for CLAM work table.

B. Conditional

8.05 The following memory is required only when the feature is activated:

- ***Translation (unduplicated call store, file store):*** 1 word (first word) in CLAM mask block head table.

C. Variable

8.06 The following memory is required on a number group number (thousand block) basis:

- ***Translation (unduplicated call store, file store):*** 4 words in the CLAM mask block head table for each thousand block monitored and 44 words for each CLAM mask block table required (one CLAM mask block table required for each monitoring interval selected) for each thousand block selected.

Note: No CLAM mask block table is built for an interval for a number group number if no lines in that thousand block are being monitored at that interval.

- ***Call Store (duplicated call store):*** 44 words for each thousand block monitored.

REAL TIME

8.07 If no originations occur on at least one monitored coin line during the monitored interval, 50 and 100 additional processor cycles for No. 1 ESS and No. 1A ESS, respectively, are required at print time to initiate the scheduled TTY printout of output message CN03.

8.08 The cycle time for No. 1 ESS is 5.5 usec. The cycle time for No. 1A ESS is 0.7 usec.

INCORPORATION INTO SYSTEM

9. PLANNING

9.01 Telephone companies that plan to install the CLAM feature should plan to assign future coin lines for which monitoring is desired to a dedicated number group to minimize the CLAM translator memory space occupied. More important is the sequential assignment (starting with the number 1) of coin line monitoring indexes (CMIDX) to number group numbers. Each index number skipped results in reserved but unused memory space. Also, the size of the number assigned to parameter set card CMNGS should be large enough (not less than the number of number group numbers assigned but no larger than 15) to provide anticipated growth requirements for the engineered period.

10. HARDWARE ENGINEERING

10.01 Not applicable.

11. SOFTWARE ENGINEERING

11.01 New parameter set card CMNGS is required to specify call store requirements for the CLAM feature. When the feature is implemented, the value of set card CMNGS will determine the quantity (1 to 15) of number group numbers to be monitored. The value of set card CMNGS determines the size of the CMTP call store table. See Fig. 2.

12. COMPATIBILITY

12.01 Not applicable.

13. OFFICE DATA

TRANSLATIONS

A. Translation Layouts

13.01 Translation changes required to implement the CLAM feature include a change in the number group number-to-rate center (NGN-TO-RAC) translator and creation of the CLAM mask block head table and associated CLAM mask block table. Layouts of the NGN-TO-RAC translator, the CLAM mask block head table, and CLAM mask block table are shown in Fig. 3.

B. Recent Change (RC) Messages

13.02 The RC message formats affected by the CLAM feature are as follows:

RC MESSAGE	FUNCTION
RC:CLAM	This message assigns directory numbers to be monitored at one of three specific monitoring intervals. See reference A(3) or A(6) in Part 23.
RC:NOGRAC	This message assigns a coin line monitoring index number to a number group using keyword CMIDX. See reference A(1) or A(4) in Part 23.

C. Uniform Service Order Codes (USOC)

13.03 Not applicable.

PARAMETERS

13.04 New parameter O6CMTP, the coin monitoring table pointer, is required for the implementation of the CLAM feature. This word points to the CMTP table in call store when the value of set card CMNGS is nonzero. Set card CMNGS gives the maximum of thousand blocks to be monitored for coin line activity. A CLAM block in the CMTP table for a number group number consists of 44 call store words (44 times 23 bits/word = 1012 positions) and provides activity status bit positions for 1000 directory numbers (000 through 999). See Fig. 2.

14. GROWTH/RETROFIT PROCEDURES

14.01 The procedure to add the CLAM feature to a central office is shown in Fig. 7.

15. TESTING

15.01 TTY input and output messages, found in input and output message manuals, can be used to verify assignment of number groups numbers, directory numbers, and monitoring periods. [See references B(1) through B(4) in Part 23.] These messages are:

- V-CLAM input message is used to verify a directory number assignment. System response should be a TR45 output message which should be checked against ESS form 1409.

15.02 A test call should be placed from a monitored coin station to determine via the CN03 teletypewriter output message that the directory number of the monitored line does or does not appear on the scheduled printout.

ADMINISTRATION

16. MEASUREMENTS

16.01 No traffic or plant measurements are required for the CLAM feature.

17. RECORD KEEPING

17.01 The ESS Translation Form, found in the ESS Translation Guide, required for the CLAM feature is as follows.

- ESS 1409—CLAM Mask Index Record: This form provides for entering the CLAM index, monitoring interval, office code, thousands digit, and the last three digits of the coin directory number.

18. CHARGING

18.01 Not applicable.

AVAILABILITY

19. NEW INSTALLATIONS

19.01 The CLAM feature is available with 1E3 and later generic programs for No. 1 ESS. The CLAM feature is available with 1AE4 and later generic programs for No. 1A ESS.

20. GROWTH/RETROFIT

20.01 Not applicable.

SUPPLEMENTARY INFORMATION

21. GLOSSARY

NGN — Number Group Number: An arrangement for associating equipment numbers with main-station codes. The number group number identifies a series of 1000 directory numbers within a thousand group assigned to a specific office code.

22. REASONS FOR REISSUE

22.01 Not applicable.

23. REFERENCES

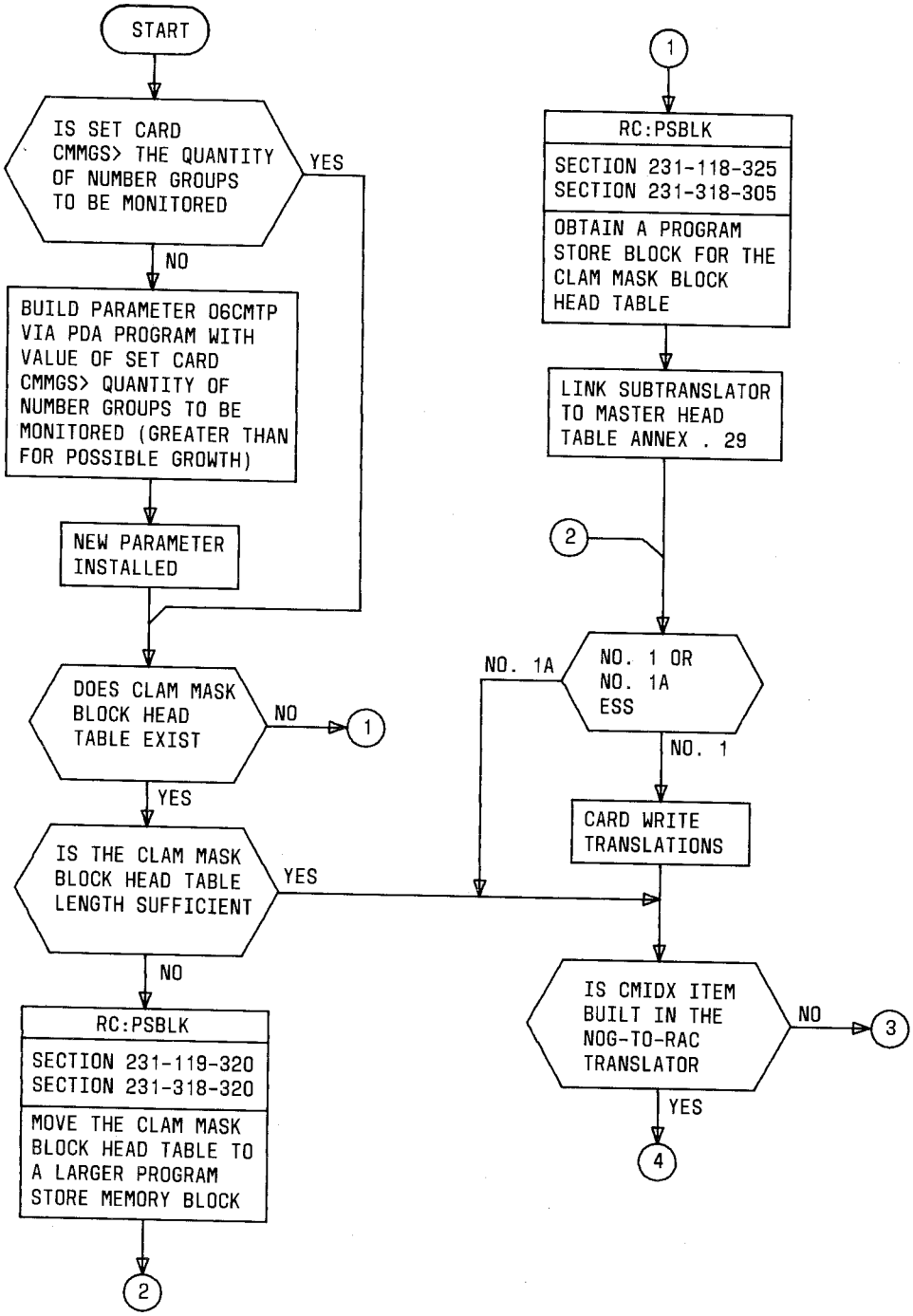
23.01 The following documentation contains information pertaining to or affected by the CLAM feature.

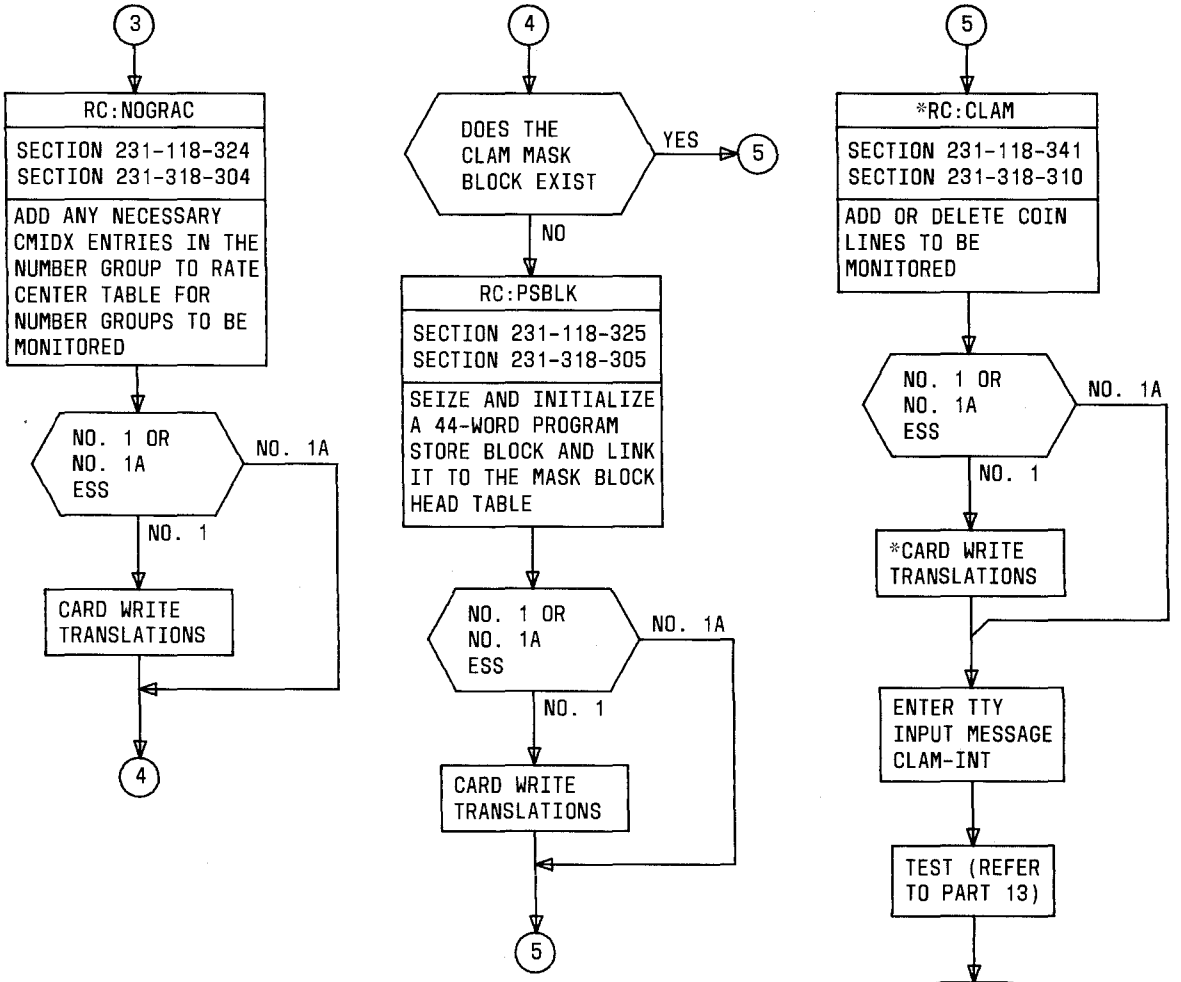
A. Bell System Practices

(1) Section 231-118-324—Rate and Route Translation Recent Change Procedures for NOCNOG, DNHT, NOGRAC, RATPAT, DIGTRN, TOLDIG, CCOL, RI, CHRGX, DITABS, TNDM, IDDD, and TDXD (CTX-6 through 1E5 Generic Programs)—2-Wire No. 1 Electronic Switching System

(2) Section 231-118-325—RC Procedures for PSWD, GENT, PSBLK, and SUBTRAN (CTX-6 through 1E5 Generic Programs)—2-Wire No. 1 Electronic Switching System

(3) Section 231-118-341—Coin Line Activity Monitoring Recent Change Procedures (CTX-8


START
IS SET CARD CMMGS> THE QUANTITY OF NUMBER GROUPS TO BE MONITORED
YES
NO
BUILD PARAMETER 06CMTP VIA PDA PROGRAM WITH VALUE OF SET CARD CMMGS> QUANTITY OF NUMBER GROUPS TO BE MONITORED (GREATER THAN FOR POSSIBLE GROWTH)
NEW PARAMETER INSTALLED
DOES CLAM MASK BLOCK HEAD TABLE EXIST
NO
1
YES
IS THE CLAM MASK BLOCK HEAD TABLE LENGTH SUFFICIENT
YES
NO
RC:PSBLK
SECTION 231-119-320
SECTION 231-318-320
MOVE THE CLAM MASK BLOCK HEAD TABLE TO A LARGER PROGRAM STORE MEMORY BLOCK
2
1
RC:PSBLK
SECTION 231-118-325
SECTION 231-318-305
OBTAIN A PROGRAM STORE BLOCK FOR THE CLAM MASK BLOCK HEAD TABLE
LINK SUBTRANSLATOR TO MASTER HEAD TABLE ANNEX . 29
2
NO. 1A
NO. 1 OR NO. 1A ESS
NO. 1
CARD WRITE TRANSLATIONS
IS CMIDX ITEM BUILT IN THE NOG-TO-RAC TRANSLATOR
NO
3
YES
4



*RC:CLAM IS RECENT CHANGE HUNTED: THE MESSAGE IS EFFECTIVE IMMEDIATELY (PRIOR TO CARD WRITE).

Fig. 7—Procedure for Adding or Changing the Coin Line Activity Monitoring Feature

and Later Generic Programs)—2-Wire No. 1 Electronic Switching System

(4) Section 231-318-304—Rate and Route Translation Recent Change Procedures for NOCNOG, DNHT, NOGRAC, RATPAT, DIGTRAN, TOLDIG, CCOL, RI, CHRGX, DITABS, TNDM, IDDD, and TDXD (Through 1AE5 Generic Programs)—2-Wire No. 1A Electronic Switching System

(5) Section 231-318-305—RC Procedures for PSWD, PSBLK, SUBTRAN, and GENT (Through 1AE5 Generic Programs)—2-Wire No. 1A Electronic Switching System

(6) Section 231-318-310—RC Procedures for ANIDL, CAMA, CEG, CPD, JUNCT, MSN, NMTGC, PLM, ROTL, SIMFAC, TMBCGA, and CLAM (Through 1AE5 Generic Programs)—2-Wire No. 1A Electronic Switching System

(7) Section 231-318-320—Procedures for Adding or Deleting Head Tables, Data Tables, Subtranslators, Auxiliary Blocks, and Unit Type Translators (Through 1AE5 Generic Programs)—2-Wire No. 1A Electronic Switching System (When Published)

(8) Section 231-119-320—Procedures for Building Head Tables, Data Tables, Subtranslators, and Unit Type Translators (CTX-6 through CTX-8 Issue 3 Generic Programs) 2-Wire No. 1 Electronic Switching System.

B. Teletypewriter Input and Output Manuals

(1) Input Message Manual IM-1A001—2-Wire No. 1 Electronic Switching System

(2) Output Message Manual OM-1A001—2-Wire No. 1 Electronic Switching System

(3) Input Message Manual IM-6A001—2-Wire No. 1A Electronic Switching System

(4) Output Message Manual OM-6A001—2-Wire No. 1A Electronic Switching System.

C. Other Documentation

(1) Translation Guide TG-1A, 2-Wire No. 1 and No. 1A Electronic Switching Systems

(2) Parameter Guide PG-1, 2-Wire No. 1 Electronic Switching System

(3) Translation Output Configurations PA-591003, No. 1 Electronic Switching System

(4) Office Parameter Specification PA-591001, No. 1 Electronic Switching System

(5) Translation Output Configurations PA-6A002, No. 1A Electronic Switching System

(6) Office Parameter Specification PA-6A001, No. 1A Electronic Switching System.