

I. INTRODUCTION

Thanks to the rich software structure of the system, several parameters related to the operation of the DS200 exchange can be modified according to customer requirements. The modifications are done through program codes.

The system can be programmed in two ways. The first one is the programming through telephone of the system supervisor (by default the first extension of the system, extension 1110). A different extension can be assigned through programming by the system supervisor.

The second way is using a PC to program the system. All of the programs that can be entered through the system supervisor's telephone can be entered through a PC by using the DS200 System Administrator software (ADMIN200) program, a method, which is much easier than the program entrance through phone, thus it is recommended. In addition to that, some parameters that can be modified through the ADMIN200 program cannot be modified through programming with phone (eg. ring and tone cadence.) The details of this kind of parameters can be found in ADMIN200 guide.

ADMIN200 program is given with the system as a standard tool. The details about the setup and use of this program can be found its own guide.

The system cannot be programmed during normal operation mode. It should be switched to programming mode by the System Supervisor. Following all the modifications of parameters in programming mode, those modifications must be saved in the memory and then the programming mode should be exited. Unless the modifications with the parameters are saved, the parameters will have to be programmed again, in case of any power failure.

The structure of the program codes is standard. For all programs, there is a six-digit program code, followed by parameter codes. Details about those parameters have been included in the descriptions of the related programs. However, there is an important point about extension and line access codes that should be emphasized: In several programs, extension or line access codes must be entered as a parameter. One should be careful, during the entry of the extension or line numbers while programming, of the fact that the line numbers in the system are four digits by default but can be changed to any value up to 8 digits.

Additionally, the parameters of extensions or lines in groups can be modified through single program code entrance, thanks to the group programming feature, which has been designed for time saving for the programmer during the programming of extension or line parameters. It is directly apparent from the program code whether or not the group programming option exists. Codes of the programs with no group programming option begin with the prefix 800. Codes of the programs with group programming option begin with the prefix 801 and the group program codes begin with 802 prefix. That situation has been indicated in the form of program codes within each program description.

In the following pages of this guide, the program codes related to various modules of the DS200 system have been presented in the form of groups sorted with respect to program code order. The purpose is making it easy for the programmer to find the programs for the related module, as well as providing conceptual integrity.

It is recommended that all of the programs below should be read and all the codes to be entered during the programming should be determined prior to programming.

I.1. GENERAL DEFINITIONS

Explanations of the programs have been presented in a constant format in this guide.

Heading Line: Name of the program is stated.

Definition: Brief explanation of the program is stated. This section is omitted in some programs, since it has been included in the sections for necessary explanations and parameter definitions.

Program Codes: Some extension and line parameters can be programmed by two alternative ways. One of them is programming of a single line (extension or external line) and the other is programming of line group. Thus, parameters related to an extension or line can be programmed either one by one or in groups. In this section, both "Singular Program Code" and "Group Program Code" are stated.

Parameters: Parameters related to programs are stated with their definitions. Some of the parameters are "conditional" ones that are to be entered in connection with some previous parameters. Those conditional parameters are indicated in braces: { }

Cancellation: The codes that will cancel the given program are defined here. Please note that this section is used only when the related program has different activation and cancellation codes.

Default value: Factory default initial values of program parameters are stated here.

Notes: Additional constraints, warnings and information about the program are stated.

I.2. NUMBERING PLAN

DS200 has four-digit extension and line numbers starting from 1110 as factory default. The extension and line numbers can be modified through the Flexible Numbering facility of the system, in a range of minimum 1 and maximum 8 figures.

While programming, in case an extension or line number is needed, the final value of that number is used.

I.3. ABBREVIATIONS

In the table below, the meanings of the abbreviations used in this guide are given.

DP	Dial Pulse
DTMF	Dual Tone Multi Frequency
DISA	Direct Inward Subscriber Access
ACD	Automatic Call Distributor
ISDN	Integrated Services Digital Network
PRI	30 - channel ISDN line (Primary Rate Interface)
BRI	2 - channel ISDN line (Basic Rate Interface)
E&M	Ear & Mouth

II. PROGRAMMING MODE

Entering The Programming Mode:

8 7 7 7 7 7

In order to set the exchange into the programming mode, that code must be dialed on system supervisor phone. Otherwise, the exchange will not accept the dialed program codes and it will signal error tone to the programmer.

Notes

The phone through which the programming will be performed is the one with number 1110 that is connected to the first extension card in the first rack. This assignment can be changed by programming. Upon the system is set into the programming mode, if there is a Karel DSS200E module, which has been connected to the exchange, the "Pr" LED on the Busy Display Panel is lit.

Exiting The Programming Mode:

8 7 7 7 7 8

After the programming of the exchange has been completed and all of the modifications have been saved to the memory, the exchange must be exited from the programming mode. Unless that code is dialed, the system will remain in the programming mode permanently, since there is no time limitation for that mode.

Entering Program:

While entering the program, it's essentially important to enter parameters in correct length. Otherwise, the program may be ineffective, or the system may not work as desired at all, due to the erroneous entry.

Therefore, one should be careful about the length of parameters that have been indicated in the program definitions. As can be seen in definition sections, lengths of some parameters may be variable. If such parameters will be entered in a length that is shorter than the length indicated as the maximum number of digits, then they must be terminated with the "*" key. Because of that, the programming must be done with a DTMF phone. If the exchange has previously been programmed, the extension, whose phone the programming has been performed through, may not be authorized to use the key "*". In spite of this fact, the key "*" may be used while entering the programs. Internal dial tone is received upon proper completion of the programming; otherwise, error tone is received. In such a case, the related program code should be re-entered.

III. GENERAL EXCHANGE PROGRAMS

Saving Program Parameters Into Memory:

800000

Notes:

After programming has been completed, the program codes and all of the parameters must be definitely saved into the non-volatile memory. Otherwise, recent values of the program parameters will be lost in case of a blackout or any other power failure.

System Supervisor:

The system supervisor can be changed by the code below. The system supervisor sets the system into programming mode, enters programming codes, saves them, and then exits the programming mode.

800001 A

Parameters

A : The Extension access code

Default Value

A = 1110

Notes

The programming of the system can be done by the extension with the access code A only.

Initialization Of The System Tables:

The code below sets the various system parameter tables to their initial forms.

800002 P

Parameters

- P : 1 Resets Line Parameters and the parameters of Line Status and Signaling programs.
- : 2 Resets Parameters of Access Group and Access Group Line Matching programs.
- : 3 Cancels Remote Follow Me / Follow Me facilities activated by the extensions in Night Mode and PBX Groups defined for both Day and Night Modes.

- : 4 Resets Line Call Authority Levels of all extensions, Restricted Prefixes and Permitted Prefixes.
- : 8 Resets all system and user parameters, except the ones that belong to common and private pool numbers.
- : 9 Resets all system and user parameters and clears common and private pool numbers.

Notes

You can make use of that feature, if you want to program your exchange completely or partially.

In case of a failure, before using any of those codes, check whether the failure is persistent or not by reloading the system parameters by 744. (The code 744 can be dialed by the operator only.)

Automatic Night Mode:

The code below switches the system automatically between day and night modes at a pre-determined time, every day. In night mode, some parameters of the system can be set different from day mode and hence efficiency can be improved during night mode. The parameters, which can be set different for day mode and night mode are:

- a) Line access authority levels of extensions
- b) PBX groups of extensions
- c) Common pool access authority of extensions
- d) Follow me authority of extensions
- e) Follow me no answer for extensions
- f) Follow me for extensions
- g) Line access groups for extensions
- h) Executive-secretary groups for extensions
- i) Call pick up authority for extensions
- j) Line drop authority for extensions
- k) Call back authority for extensions
- l) Remote line access permission for extensions
- m) Busy extension signalling authority for extensions
- n) Access groups for lines
- o) Ringing extensions for lines
- p) PBX groups for lines

8 0 0 0 0 3 SSDD₁ SSDD₂

Parameters

HHMM_S : Automatic starting time of the Night Mode.

Format: Hour (00-23) Minute (00-59).

HHMM_E : Automatic Exiting time from the Night Mode.

Format: Hour (00-23) Minute (00-59).

Cancellation

800003* should be dialed.

Default Value

The program with code 800003 is not active.

Weekly Automatic Features:

It allows setting the Night Mode active all day long in any desired day of the week.

800004 S G N

Parameters

S : 0 Night feature

G : 0 Saturday

: 1 Sunday

: 2..6 Monday...Friday

N : 0 The night feature is not active throughout the day.

: 1 The night feature is active throughout the day.

Default Value

N = 0 for all days.

Notes

When the Automatic Night Mode Program is entered, the Weekly Night Mode program is not deactivated at midnight; instead, it remains active until the termination time of the Automatic Night Mode program.

External Music On Hold:

It allows an external music source connected to the system to be activated or deactivated, which the callers may listen to while they are on hold or parked.

800005 P

Parameters

P : 0 External music is not active.
 : 1 External music is active.

Default Value

P=0

Notes

You can let the lines you have put on hold listen to the music being broadcasted from an external music source like tape player or radio, which is connected to your exchange.

ACD Activation:

It activates or deactivates the ACD feature.

800006 P

Parameters

P : 0 ACD is not active
 : 1 ACD is active

Default Value

P = 0

Notes

In order to activate the ACD, there must be at least one EVM200 card in the exchange.

PBX Group Parameters:

800007 P R S T

Parameters

P : 0 When a line call request is not answered, call transfer to the PBX group does not take place.
 : 1 When a line call request is not answered, call transfer to the PBX group takes place.
 R : 0 When an internal call request is not answered, call transfer to the PBX group does not take place.
 : 1 When an internal call request is not answered, call transfer to the PBX group takes place.
 S : 0 If the call request is from the line and the extension is busy, call transfer to the PBX group does not take place.

- : 1 If the call request is from the line and the extension is busy, call transfer to the PBX group takes place.
- T : 0 When an extension calls another and if the called extension is busy, call transfer to the PBX group does not take place.
- : 1 When an extension calls another and if the called extension is busy, call transfer to the PBX group takes place.

Default Value

P=1, R=1, S=1, T=1.

Notes

All parameters defined by this program are valid for all groups defined by the Extension PBX Group program.

Ring Count For PBX Group Unanswered Calls:

That program defines the number of rings, after which a call request coming to a PBX group is transferred to the next extension if it is not answered.

800008 P

Parameters

P : 1..8 Ring count

Default Value

P=3.

Notes

The parameter defined by this program is valid for all groups defined by the Extension PBX Group program.

Auto-Dialer Attempt Count:

That program defines how many times a number will be called when the auto-dialer is activated.

800009 P

Parameters

P : 01..16 Ring Count

Default value

P=15.

Notes

The number defined by that program should not exceed any number prescribed by the authorities in any country in which the exchange is used.

Ring-Back Tone To Be Heard During Calls Through ACD Lines:

That program defines the structure of the ring cadence that will be heard during the ringing of the called extension upon dialing a valid extension number by someone calling through Auto Attendant line.

800010 P

Parameters

P : 1 The caller hears music.
: 0 The caller hears normal ring-back tone.

Default Value

P=0.

Notes

Considering the possibility of normal ring-back tone confused with the standard CO cadences, it will be useful to broadcast music instead of ring-back tone.

Line Connection After A Call:

That program defines whether an extension will directly receive a dial tone after a conversation is over.

800011 P

Parameters

P : 0 No dial tone connection.
: 1 Dial tone connection.

Default Value

P=1.

Notes

1. When P = 0, the extension will receive silence, instead of dial tone, upon termination of a call. In that case, s/he is supposed to hang up and then lift the handset again, in order to receive a dial tone.
2. That program is suitable especially for rural-type exchange applications.

Call Record Status:

That program defines the type of calls to be recorded.

800020 P

Parameters

P	:	0	No recording
	:	1	Only international outgoing calls are recorded.
	:	2	Only long distance and international outgoing calls are recorded.
	:	3	All outgoing calls on lines are recorded.
	:	4	Unanswered incoming calls and all outgoing line calls are recorded.
	:	5	All incoming and outgoing line calls are recorded.
	:	6	Only internal calls are recorded.
	:	7	All outgoing line calls and internal calls are recorded.
	:	8	All calls are recorded.

Default Value

P=3.

Notes

In call records, IC appears next to incoming calls and U appears next to unanswered calls.

Call Recording Device:

That program defines the call recording device as either a computer or a serial printer.

800021 P

Parameters

P	:	0	Call recording device is a computer.
	:	1	Call recording device is a serial printer.
	:	2	Records of transferred calls are logged separately.

Default Value

P = 0.

Notes

In order to work with printer, the parameter 1 should be used. Moreover, according to the printer type, the code 800022 0 is used for activating and 800022 1 is used for stopping the printer.

After 800021 2 has been entered, the code 800022 0 must be entered again and the printer must be set to on-line mode.

Serial Printer Status:

That program is used for setting the printer into on-line or off-line mode for call record print-outs.

800022 P

Parameters

P : 0 The printer is set to on-line mode - activated.
: 1 The printer is set to off-line mode - stopped.

Default Value

P = 1.

Serial Printer Language:

That program defines the language of the printout taken from the printer as either Turkish or English.

800023 P

Parameters

P : 0 The printout is in Turkish.
: 1 The printout is in English.

Default Value

P=0.

Equal Loads On Lines:

Allows assigning equal load on lines for each line access group when extensions use Automatic line access feature. Especially useful to have equalized call charges on all lines.

800024 P R

Parameters

P : 00 P parameter is valid for all line access groups.
: 01..31 P parameter is valid for specified line access group.
R : 0 Equal load on lines is not active. The system accesses the lowest numbered line.
: 1 Equal load on lines is active. The least recently used line is accessed.

Default Value

P=00 & R =0

Serial Printer Format:

Allows setting the number of lines for the call records printing.

8 0 0 0 2 5 P

Parameters

P : 0 Each call record is printed as two lines.
 : 1 Each call record is printed in one line.

Default Value

P=0

Call Wait Duration: (Waiting Time Of Call In Park)

That program defines the duration during which the parked calls will remain parked.

8 0 0 0 3 0 T

Parameters

T : 03 .. 18 x 10 waiting duration in park in seconds

Default Value

T = 06

Notes

When the waiting time is elapsed the call returns back to the parking extension.

Relay-On Duration:

That program defines the duration during which the relay systems, which can be used for door opener controlling purpose in the system, are active.

8 0 0 0 3 1 P T

Parameters

P : 0 First relay
 : 1 Second relay
 T : ((00..63) + 1) x 0.1 relay-on duration in seconds

Default Value

T=00

Limiting Call Durations For Incoming External Calls:

That program is used for limiting call durations for incoming line calls.

800032 P

Parameters

- P : 0 No call duration limit for incoming calls from line.
: 1 The time limit entered through the Outgoing Call Time-out program with the code 801103 is also valid for incoming line calls.

Default Value

P = 0.

Notes

- 1- When a call is transferred, the duration starts from the beginning for the next extension (provided that there is time limitation for that extension.)
- 2- 15 seconds before call termination, the extension receives short warning tone.

Duration For Automatic Hold:

That program enables an incoming call to be put on hold automatically, in case it is not answered within a period specified by that code.

800033 T

Parameters

- T : 01..99 A call that is not answered after T seconds is put on hold automatically.
: 00 Automatic hold is not active.

Default Value

T = 00.

Notes

- 1- An incoming line call is answered automatically after T seconds if the operator is busy and the external party hears music (If the Music On Hold has not been activated, the caller receives wait tone.) The automatic hold feature has not been activated by default at the beginning.
- 2- If the call on hold is not answered within 2.5 minutes, then the line is disconnected.
- 3- The external calls that are on hold are in the queue of the operator or the ringing extension.
- 4- If the wait message recording has been made on EVM200 by the system supervisor, the external caller first receives that message and then hears music or wait tone.

Tone Duration To Drop Lines:

With this program, the duration of the tone to be detected through the lines, when one of the parties hangs up his telephone in case of a line-line connection, is defined so that the lines can be dropped on time.

800034 T P R

Parameters

T	:	0	Tone detector is dedicated to the lines with 15 seconds intervals.
	:	1	Tone detector is dedicated to the lines with 100 msec intervals.
P	:	08..14	The duration to check the ON period of the tone.
R	:	5..8	The ON duration of the tone to be detected.

Default Value

T=0, P=11 & R=5

Notes

- 1- Example: The tone to be received from a line is assumed as 300 msec ON, 300 msec OFF, 300 msec ON, 300 msec OFF, 900 msec ON, 300 msec OFF then;

Total tone duration = 300 + 300 + 300 + 300 + 900 + 300 = 2400 msec=2.4 sec

Tone ON duration = 300 + 300 + 900 = 1500 msec=1.5 sec

If P=11 & R=6 is set, then the system tries to detect a tone ON duration of 6 sec, within 11 seconds total tone duration.

- 2- When this program is used, one of the tone detectors of the system remains dedicated to the lines used for line-line connection and this may affect the performance of the system during high traffic. Therefore, if the cadence of the tone is known, it is recommended to use 800087 coded program instead of this one.

Line Call Restricted Prefix Table:

It allows prefix definitions for different call levels in order to restrict line calls. Extensions cannot call, according to their line authority levels, the numbers starting with the prefixes defined for the corresponding levels.

800040 P T

Parameters

P	:	1	Extensions with the local line call authority cannot call the numbers starting with the defined prefix.
	:	2	Extensions with the long distance line call authority cannot call the numbers starting with the defined prefix.
	:	3	Extensions with the international line call authority cannot call the numbers starting with the defined prefix.
	:	4	Extensions whose authorities are for local line calls can call numbers starting with 0212 and 0216.

: 5, 6, 7, 8 General purpose levels

T : Prefix with at least 1 and at most 4 digits.

Default Value

For P = 1, T = 0

For P = 2, T = 00

For P = 4, T = 0

Notes

- 1- Through that program, 8 numbers can be entered for each P value. Error ton is received upon any further attempt afterwards.
- 2- If the number to be entered into the table consists of less than 4 digits, it should be terminated with "*". Besides, the program should also be terminated with "*" for each P and T value that has been entered.
- 3- Levels 5,6,7 and 8 can be established by entering desired numbers. In that case, desired extensions can be restricted to call numbers in desired regions by authorising through the program 801101.

Example 1: 00 has been restricted for region 2 as default. In that case, when 800040 2 0212* is entered, both 00 and 0212 become restricted from now on.

Example 2: By entering 800040 5 435*, 801101 1111 6 5, only the extension 1111 is restricted to call line numbers starting with 435. In that case, the extension 1111 can call all local, long distance and international numbers except the determined number.

Permitted Line Call Prefix Table:

By defining prefixes for different line call authority levels, it enables calling the numbers starting with that prefix.

8 0 0 0 4 1 P T

Parameters

- P : 1 Extensions with the local line call authority can call the numbers starting with the defined prefix.
- : 2 Extensions with the long distance line call authority can call the numbers starting with the defined prefix.
- : 3 Extensions with the international line call authority can call the numbers starting with the defined prefix.
- : 4, 5, 6, 7, 8 General purpose levels
- T : Prefix with at least 1 and at most 4 digits.

Default Value

For P = 4, T = 0212 and T = 0216

Notes

- 1- Through that program, 8 numbers can be entered for each P value. Error tone is received upon any further attempt afterwards.
- 2- If the number to be entered into the table consists of less than 4 digits, it should be terminated with "*". Besides, the program should also be terminated with "*" for each P and T value that has been entered.

Example 1: Extensions, with local line call authority, of an exchange that is in Asian side of Istanbul, cannot normally call any number following an area code. Hence, they cannot call the European side of Istanbul, either, since the area code is different. However, the extensions with local call authority can be enabled to call numbers starting with 0212 (The area code of the European section) through the program 800041 1 0212.

Example 2: 800041 1 051 *

 800041 1 03 *

In that case, an extension with local line call authority can call long distance numbers starting with 051 and 03.

Call Recording Type : (Defining The Local / STD / ISD Code For Call Recording)

That program allows modification of local (L), long distance (STD), international (ISD) codes, in order to define the types of calls that are to be listed during call recording.

8 0 0 0 4 2 P T

Parameters

- P : 1 Local line code
 : 2 Long distance line code
 : 3 International line code
- T : Number with at least 1 and at most 4 digits.

Default Value

The long distance code : 0

The international code : 00

Notes

- 1- Through that program, 8 numbers can be entered for each P value. Error tone is received upon any further attempt afterwards.
- 2- The local, long distance and international codes defined by that program should be entered into the corresponding fields of restricted prefixes table through the program with the code 800040, for the appropriate operation of the exchange.
- 3- If the number to be entered into the table consists of less than 4 digits, it should be terminated with "*". Besides, the program should also be terminated with "*" for each P and T value that has been entered.

Example : 800 042 3 09*

800 042 2 0*

In that case, the long distance code becomes 0 and the international code becomes 09.

Erasing Prefixes:

The prefixes defined by Line Call Restricted Prefix Table and Line Call Permitted Prefix Table or the L/STD/ISD codes can be erased through that program.

8 0 0 0 4 3 P T

Parameters

P : 1 Restricted prefix table (800040)
 : 2 Permitted prefix table (800041)
 : 3 The L/STD/ISD codes (800042)

T : Row number in the range 1...8

Notes

If the parameter P is entered as 3, in that case:

The local (L) code is erased for T=1.

The long distance (STD) code is erased for T=2.

The international (ISD) code is erased for T=3.

Example: Upon entering 800043 1 2, the prefixes in the 2nd line of the restricted prefix table are erased.

Forced Account Code User:

Thanks to that program, for cases when some telephone machines are used commonly, the persons using those telephones can be identified so that they can be separately restricted in senses of toll and call authorization.

8 0 0 0 5 0 K S P T

Parameters

K : 000..999 The code to be entered by the user for the feature with the code 797.

S : 0001..8191 The private password of the user

P : 001..999 The number of pulse prices that can be consumed by the user
 : 000 No pulse price limit

T : 0..7 The line authority level for the user (see 800 040)

Notes

- 1- The codes and passwords defined by this program can be given to desired extensions. Those extensions can make phone calls by using any phone within the authority level determined by the customer feature with the code 797 until their pulse prices are all used up.
- 2- Extensions that are to make calls using those codes can do that by using the lines allocated for the 31st PBX group.
- 3- A user cannot make any further phone call by using that code after having used up all pulse prices allocated for her/him. Only after re-entering a new pulse quantity, can that code be used again.
- 4- At the time when the number of pulse prices equals zero, if a call is going on, it is not interrupted. However, a user cannot make another call using that code.

Deleting Forced Account Code User:

A user account can be deleting from the table through this program.

800051 K

Parameters

K : 000..999 The code to be entered by the user for the feature with the code 797.

Deleting All Forced Account Code Users:

All of the forced account code user table is erased through this program.

800052

Forced Account Code User Status Query:

The Account information of a user can be sent to a serial printer or can be logged to DS_DATA.BIN file through this program.

800053 K

Parameters

K : 000..999 The code to be entered by the user for the feature with the code 797.

Query Of All Forced Account Users' States:

The Account information of all users can be sent to a serial printer or can be logged to DS_DATA.BIN file through this program.

800054

Account Code Use Permission:

All extensions which are not forced account code user are blocked to access lines with the Account Coded Call feature through this program. Only forced account code users can access lines by using Account Coded Call feature.

800055

Local Pager Connection:

Allows setting the port to which the PG100 Local Pager Base Unit is connected.

800061 P

Parameters

- P : 0 Connection is made to serial data (KTS) outputs on CPUKON card.
: 1 Connection is made to DB-9 type output on the CPU card.
: 2 All data except for the call records are sent to the DB-9 type output on the CPU card.

Default Value

P=0.

Notes

- 1- P can be set to 1, in order to reduce the excessive load on data line (KTS), especially if there are too many proprietary phone sets or DSS modules connected to that data line.
- 2- If P=2 is selected, all the data produced for monitoring purposes are sent to the DB-9 type output on the CPU card.

EEPROM Table Reset:

The EEPROM data of cards, on which EEPROM modifications have been made by the ADMIN200 program, can be set to their factory defaults through this program.

800080 P

Parameters

- P : Hardware type (3 digits)
: 001 Analog Extension card
: 002 Analog Line card
: 016 E&M card

- : 032 ISDN BRI (S0) Extension, Digital Extension and ISDN BRI (T0) Line cards
- : 064 R2 and ISDN PRI (S2) Line cards
- : 256 LB (Local Battery) Extension card

Notes

- 1- After the EEPROM tables of the cards have been reset through that program, the cards must be turned off and then back on, so the default parameters can be loaded to them. (See Card On/Off program).
- 2- Please do not attempt to modify any EEPROM content in the system without consulting your authorized technical service. Otherwise your system can get out of order.

Analog Extension Hook Flash Duration:

800081 P

Parameters

P : 001..999 Hook flash duration for analog extensions in milliseconds.

Default Value

P=600

Notes

The hook flash duration determined by this program can be adjusted according to the hook flash durations generated by the Flash keys of the phones that are connected to the system.

Signalization Parameters:

That program adjusts the signalization parameters of the E&M cards.

800082 P S T

Parameters

- P : Table row number (2 digits) (see the table below)
- S : Table column number (single digit) (see the table below)
- T : Value of the parameter (3 digits) (see the table below)

Default Value

Parameters for all lines have been presented in the table below:

Parameter	Row number in the memory	Column number in the memory	Range	Multiplier	Default
Call time	20	0	2 - 254	X 5 ms.	20

Wink time	20	1	2 - 254	X 5 ms.	40
Close time	21	0	2 - 254	X 5 ms.	40
Wait time	21	1	2 - 254	X 5 ms.	40
Wait Before Dialing time (for WS)	21	2	2 - 254	X 40 ms.	125
Open time	21	3	2 - 254	X 40 ms.	14
Signalization for the 1 st line	21	5	0 - 2	0 - WS 1 - DS 2 - IS	0
Signalization for the 2 nd line	21	6	0 - 2		
Signalization for the 3 rd line	21	7	0 - 2		
Signalization for the 4 th line	21	8	0 - 2		
Wait before dialing time (for IS and DS)	22	3	2 - 254	X 40 ms.	6

WS : Wink Start

IS: Immediate Start

DS: Delayed Start

The meanings of those parameters have been explained in DS200 Technical Reference Guide.

Notes

- 1- Following the programming of the E&M parameters, all of the E&M cards must be powered off and back on, in order to load those parameters to the non-volatile memory fields on the E&M cards.
- 2- Once that program has been entered to define the E&M parameters, all those parameters will be valid for all of the E&M cards in the exchange, which has been powered off and on.

Example: By 800082 21 5 001, the signalization type for the 1st line on the card is determined as Delayed Start.

Signalization Parameter Printout:

The printout of the Signalization Parameter table of the E&M cards can be obtained from a printer through this program. The active parameters can be checked by that means.

8 0 0 0 8 3

Tone Cadence Detection Activation:

Allows activating the tone cadence detection set by the "Tone Cadence To Drop Lines" program.

800086 02

When this code is entered the cadence is tried to be detected, otherwise no detection is made.

Tone Cadence To Drop Lines:

With this program, the cadence of the tone to be detected through the lines, when one of the parties hangs up his telephone in case of a line-line connection, is defined so that the lines can be dropped on time. The cadence definition is made for four different tone field. Also two different tones can be defined.

800087 P O1 F1 O2 F2 O3 F3 O4 F4

Parameters

- P : 6 Tone cadence definition 1
 : 7 Tone cadence definition 2
- O₁ : First ON duration of the tone / 20 msec.
 F₁ : First OFF duration of the tone / 20 msec.
 O₂ : Second ON duration of the tone / 20 msec.
 F₂ : Second OFF duration of the tone / 20 msec.
 O₃ : Third ON duration of the tone / 20 msec.
 F₃ : Third OFF duration of the tone / 20 msec.
 O₄ : Fourth ON duration of the tone / 20 msec.
 F₄ : Fourth OFF duration of the tone / 20 msec.

Default Value

O₁, F₁, O₂, F₂, O₃, F₃, F₄= 010 & O₄=030.

Notes

- 1- Example: If the cadence is 200 msec ON – 200 msec OFF / 200 msec ON– 200 msec OFF / 200 msec ON– 200 msec OFF / 600 ms ON – 200 msec OFF then the code must be entered as:
 800087 6 010 010 010 010 010 010 030 010
- 2- After entering this program, 800086 coded program must be entered to activate the tone detection.
- 3- If the cadence of the tone is not known in details then 800034 coded "Tone Duration To Drop The Lines" program can be used to define an average tone duration.

IV. EXTENSION PROGRAMS

Intrusion Authority Level:

This program defines authority levels determining whether a phone conversation can be intruded in, in case the called extension is busy.

801100 A P Singular program

802100 A₁ A₂ P Group program

Parameters

- A : The extension access code
A₁ : For group programming, the number of the first extension in the group
A₂ : For group programming, the number of the last extension in the group
P : 0..7 Authority level

Default Value

P = 0 for all extensions

Notes

- 1- Extensions can intrude in conversations of extensions with lower authority levels only.
- 2- Extensions with the intrusion authority level 5 or more can make use of the Busy Line Drop feature with the code 798.
- 3- If an extension with the intrusion authority level 7 calls another extension with the same authority level, then the telephone of the called extension rings even if s/he has activated Follow Me function.
- 4- When an extension that has activated Do Not Disturb feature is called by another extension with a higher intrusion authority level, the Do Not Disturb feature does not function.
- 5- When an extension calls another one with lower intrusion authority level, the telephone of the called extension rings with a different cadence.

Line Access Authority Level:

This program determine whether an extension will be granted with the call permission according to type of the calls. Since the program can be entered separately in night and day modes, the authority levels can be defined differently for night and day.

801101 A P {T} Singular program

802101 A₁ A₂ P {T} Group program

Parameters

A	:	The extension access code
A ₁	:	For group programming, the number of the first extension in the group
A ₂	:	For group programming, the number of the last extension in the group
P	:	0 Only intercom calls are permitted.
	:	1 Intercom, local and restricted common pool calls are permitted.
	:	2 Intercom, local, long distance and restricted common pool calls are permitted.
	:	3 Intercom, local, long distance, international and all common pool calls are permitted.
	:	4 Intercom and all common pool calls are permitted.
	:	5 Intercom, local and all common pool calls are permitted.
	:	6 Extension cannot call the numbers in the region specified with the line authority table.
T	:	4,5,6,7,8 The values that can be entered in order to determine the restricted or permitted numbers defined by the Line Call Restricted Prefix Table (800 040) and the Line Call Permitted Prefix Table (800 041). (That parameter can be entered only when the value of the parameter P is 6.)

Default Value

All extensions have 0 authority level.

Notes

- 1- Extensions with restricted common pool authority levels are permitted to call common pool numbers that are only within their authority levels.
- 2- The basic line call authority levels of the extensions are defined for the values of the parameter P in the range 1 to 5. Some additional permissions or restrictions can also be defined by setting P to 6. As an example, assume that the following programs are entered:

801 101 1113 2

801 101 1113 6 7

800 040 7 12*

800 041 7 0090 Information about the last two codes were presented in previous pages.

In that case, the extension 1113 can call long distance numbers and the numbers starting with 0090; however, s/he cannot call the ones starting with 12.

Extension Line Access Group :

This program defines extension groups in order to allocate determined lines to those groups.

```
801102 A G          Singular
program
802102 A1 A2 G      Group program
```

Parameters

A : The extension access code

A₁ : For group programming, the number of the first extension in the group

A₂ : For group programming, the number of the last extension in the group

G : 00..32 The group number.

: 00 Extension can access any line.

Default Value

01 for all extensions.

Notes

- 1- The extension group program operates in connection with the Line Matching program with the code 801202. The Line access group is valid for line access administration of any kind.
- 2- Extensions can access lines allocated to the access group defined here by the Line Access Group program only.

Outgoing Call Time-Out:

This program controls the duration for which an extension can talk during the outgoing line calls.

```
801103 A T          Singular program
802103 A1 A2 T      Group program
```

Parameters

A : The extension access code

A₁ : For group programming, the number of the first extension in the group

A₂ : For group programming, the number of the last extension in the group

T : Conversation duration in (002..250) x 10 seconds

: 000 : No duration limit for conversations

Default Value

T = 000 for all extensions.

Notes

- 1- While this program is active, whenever an extension with number A makes any line call, the conversation is automatically terminated at the end of period T.
- 2- The extension is warned by a short tone 15 seconds prior to termination of the conversation.

“* ”, “# ” Keys / Hook Flash Authority:

This program controls whether extensions use the keys “* ” / “# ” and make hook flash.

```
801104 A P T           Singular
program
```

```
802104 A1 A2 P T       Group program
```

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Extension cannot use “* ” / “# ” keys
 : 1 Extension can use “* ” / “# ” keys
- T : 0 Extension can make hook flash
 : 1 Extension cannot make hook flash

Default Value

P = 0, T = 0 for all extensions.

Notes

- 1- For cases when “* ” / “# ” keys have to be used to take advantage of various CO exchange features that the system is connected to, or if it is not desired that an extension transfers calls by her/his telephone's on/off switch then this program should be utilized.
- 2- This program does not affect usage of function keys of LT200 and FT200 feature telephone sets such as transfer, flash.
- 3- There are 19 MF receivers per rack in the system. Since one MF receiver per extension, whose P parameter has been set as 1, is allocated throughout the conversation, the number of extensions in the system with parameter P has been defined as 1 should be determined by considering that situation and traffic load in the overall system.
- 4- Usage of the parameter P affects only extensions with DTMF telephone set.

- 5- The DTMF channels allocated to the extensions whose P parameters has been set as 0 are disconnected by the system 20 seconds after those extensions dial last DTMF number. Those extensions cannot take advantage of various system features such as Intrusion, Busy Extension Signalling, Call Back, 20 seconds after they have dialed last DTMF number.

Voice Mail Leave/ Lock Authority:

This program sets permission status whether an extension can leave a voice mail message or lock messages left for her/him.

801105 A P T Singular
program

802105 A₁ A₂ P T Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Extension cannot leave message.
 : 1 Extension can leave message.
- T : 0 Extension cannot lock messages.
 : 1 Extension can lock messages.

Default Value

P = 1, T=0 for all extensions.

Hotel Room Access Permission:

This program sets the permission status for an extension to call hotel rooms.

801106 A P Singular program

802106 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Extension can call hotel rooms.
 : 1 Extension cannot call hotel rooms.

Default Value

P = 0 for all extensions.

Notes

- 1- The operator can call any hotel room and this cannot be modified.
- 2- The extensions with hotel room call permission can also take advantage of the Meet Me feature.

Call Pick Up Authority:

801107 A P T Singular
program

802107 A₁ A₂ P T Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 The extension can pick up a call by the feature 82 or 5.
 : 1 The extension cannot pick up a call by the feature 82 or 5.
- T : 0 Calls to the extension can be picked up by the feature 82 or 5.
 : 1 Calls to the extension cannot be picked up by the feature 82 or 5.

Default Value

P=0, T=0 for all extensions.

Follow Me Authority:

801108 A P Singular program

802108 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 The extension can forward calls that her/his telephone receives.
 : 1 The extension cannot forward calls that her/his telephone receives.

Default Value

P=0 for all extensions.

Call Back Authority:

```
801109 A P           Singular program
802109 A1 A2 P       Group program
```

Parameters

A : The extension access code

A₁ : For group programming, the number of the first extension in the group

A₂ : For group programming, the number of the last extension in the group

P : 0 The extension can use the Call Back feature with the code 81.

: 1 The extension cannot use the Call Back feature with the code 81.

Default Value

P=0 for all extensions.

Access Authority From DISA Line To An External Line:

```
801110 A P           Singular program
802110 A1 A2 P       Group program
```

Parameters

A : The extension access code

A₁ : For group programming, the number of the first extension in the group

A₂ : For group programming, the number of the last extension in the group

P : 0 When the extension enters in a DISA Line, s/he can access the external line and s/he can make calls within the limits of her/his authority.

: 1 When the extension enters in a DISA Line, s/he can access the external line, however, s/he can make calls only at the local external call authority level.

Default Value

P = 0 for all extensions.

Call Transfer Authority For Hot Line Users:

This program determines whether an extension, for whom Hot Line has been defined, can transfer calls.

801111 A P Singular program

802111 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 The extension cannot transfer calls.
: 1 The extension can transfer calls.

Default Value

P = 0 for all extensions.

Notes

An extension, for whom Hot Line has been defined, must also have the hook flash authority in order to transfer a call.

Automatic Password:

A password that belongs to an extension can be changed automatically as 9999 through this program.

801120 A Singular program

802120 A₁ A₂ Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group

Notes

If any extension in the system forgets her/his password, the password can be automatically changed to 9999 by this program.

Call Record-Exempt Extension:

This program discards calls of a certain extension from the call records. That feature is especially useful if the extension is connected to another system via an exchange-exchange connection, or if the external calls of the extension must remain confidential.

801121 A P Singular
program

802121 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Calls of the extension appear in call records.
- : 1 Calls of the extension does not appear in call records.

Default Value

P = 0 for all extensions.

Pager Code:

This program defines a permanent code for the extension's pager as an extension parameter. The extension can activate the pager after the definition of that code.

801122 A P

Parameters

- A : The extension access code
- P : 000 The extension does not have a pager
- : 001..999 The permanent code of the extension's pager.

Default Value

P = 000 for all extensions.

Notes

Since the permanent code of the extension's pager is an extension parameter, extensions whose physical address have changed can continue using their pagers.

The Language Of The System Messages:

801123 A P Singular program

802123 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group

- P : 0 The system messages are announced in the 1st language (Turkish).
 : 1 The system messages are announced in the 2nd language (optional).

Default Value

P = 0 for all extensions.

Guest-Personnel Selection:

This program defines an extension as either a hotel guest or hotel personnel.

801140 A P Singular program

802140 A1 A2 P Group program

Parameters

- A : The extension access code
 A₁ : For group programming, the number of the first extension in the group
 A₂ : For group programming, the number of the last extension in the group
 P : 0 The extension is defined as guest.
 : 1 The extension is defined as one of the personnel.

Default Value

P = 0 for all extensions.

Notes

That data is used during commissioning. The commissioning is based on the identity of the extension and differs according to it.

Hot Line:

This program enables an extension to do the following operations as soon as picking up the handset or following a 4-second delay, by defining a hot line:

- 1- Calling another extension
- 2- Accessing any idle line
- 3- Accessing a certain line

801141 A P T

Parameters

- A : The extension access code (except the operator)
 P : 1 + extension no / line no The value following 1 is number of the extension or the line that that will be called.

	:	9	Any idle line is accessed.
	:	0	The hot line is cancelled.
T	:	1	The hot line operates after a 4-second delay.
	:	0	The hot line operates as soon as the handset is lifted.

Default Value

P = 0 for all extensions.

Notes

- 1- The extensions, for whom a hot line is defined, are provided with the feature of calling another extension or an external number without dialing.
- 2- If the extension is a hotel guest, the delay becomes 15 seconds for T=1.
- 3- Hot line cannot be allocated to the operator or to the system supervisor.
- 4- If a delayed hot line has been allocated to an extension, then that extension can dial any code within 4-second delay period. However, if no such action takes place, then the hot line connection is done in that case.

Direct-Call Hot Line :

This program enables the extension to call one of the numbers stored in fields 997, 998 and 999 in the common pool memory, in case of an emergency.

8 0 1 1 4 1 A P

Parameters

A	:	The extension access code (except the operator)
P	:	3 The number in the field 997 of the common pool is directly called.
	:	4 The number in the field 998 of the common pool is directly called.
	:	5 The number in the field 999 of the common pool is directly called.
	:	0 Direct-call hot line is cancelled.

Default Value :

P = 0 for all extensions.

Notes

- 1- Direct-call hot line cannot be allocated to the operator or to the system supervisor.
- 2- For P=3,4,5, even if all lines are busy when the extension has lifted the handset, the system drops one of those lines and allocates it to the Direct-call hot line extension.

Hotel Room Definition:

An extension is defined as a hotel guest through this program. Such an extension cannot make use of the features given in the list in Notes section.

801142 A P Singular
program

802142 A₁ A₂ P Group program

Parameters

A : The extension access code
A₁ : For group programming, the number of the first extension in the group
A₂ : For group programming, the number of the last extension in the group
P : 0 Not hotel room
 : 1 Hotel room

Default Value:

P = 1 for all extensions.

Notes

- 1- An extension defined as hotel guest cannot make use of the following features:
 - a) Password definition, password update, locking telephone, calling from a locked telephone.
 - b) Making entries to the private pool, making calls from the common pool, making calls from the private pool, redialling the last number.
 - c) Auto-dial (Last number, Private Pool, Common Pool)
 - d) Call back
 - e) Intrusion
 - f) Selective call pick up, group call pick up.
 - g) Do not disturb
 - h) Background music
 - i) Parked call retrieve.
 - j) Follow me, remote follow me.
- 2- An extension who has been defined as hotel guest cannot be the target for features of Follow Me, Remote Follow Me. In other words, no call forwarding can be done to such an extension in any case.
- 3- An extension defined as hotel guest cannot be the part of any PBX group.
- 4- An emergency hot line with line access cannot be allocated to a hotel guest.
- 5- An extension defined as hotel guest can call all other extensions, including other hotel guests. However, that extension can be called only by the operator, another extension with hotel room call authority or another hotel room.

- 6- No hotel guests have the authority to use "*" / "/" / "#" keys by default. However, they are enabled to use their "*" / "/" / "#" keys by 801104 coded program.

Local Extension:

An extension defined as local extension can automatically activate some features without dialing by making assignments to number keys on her/his telephone, as well as s/he can make one-touch dialing.

```
801143 A P          Singular  
program
```

```
802143 A1 A2 P      Group program
```

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Not local extension
: 1 Local extension

Default Value

P = 0 for all extensions.

Notes

The extensions marked as local can make one-touch operations. The private pools of the related extension is used for this feature. The internal or external number in the memory field of the private pool, corresponding to the key pressed by the extension, is called or the requested service is fulfilled. No program can be assigned to the key "0".

If the entry to the private pool will be done through telephone of the extension, then this should be done before the extension is marked as local.

Warning:

- 1- Local extensions must not be allowed to use "*" / "/" / "#" keys, together with their hook switches to make hook flash.
- 2- An extension must not be defined as both local and hot line.
- 3- If the local extension telephone is a Karel proprietary telephone, the function keys are not used.

Extension PBX Group:

This program defines groups for extensions, in order to provide them with various features to take advantage of. The extensions can make use of the features listed below, when they are included in such groups called PBX group:

- 1- Extensions of the same PBX group can answer each other's ringing telephones by making use of the feature PBX Group Call Pick Up.
- 2- If A and B are in the same PBX group, when the extension A receives a call request while s/he is busy or the request has not yet been answered after the telephone rang three times, the call request is forwarded to the extension B.
- 3- Extensions in the same PBX group can activate the Parallel Extensions feature. Hence, when one of the extensions in the PBX group receives a call request, the telephones of the first four extensions in the group will ring simultaneously.

801160 A B

Parameters

- A : The access code of the extension to be included in the PBX group.
- B : The access code of the extension following the extension to be included in the PBX group.

Cancellation

801160 A A

Default Value

No extension PBX group has been defined.

Notes

- 1- According to the mode at which the program is entered, different PBX groups for night and day can be defined separately.
- 2- By entering that code more than once, extensions in desired number can be included in a PBX group. Here, it is essentially important that the entered extensions must form a chain. Therefore, the last member of the group must be forwarded to the first member. If that condition is not fulfilled, then that feature of the exchange may not fully satisfy customers and problems may occur.

Example : If extensions with numbers 1112, 1113 and 1114 are to be included in the same PBX group, the following programs should be entered:

801 160 1112 1113, 801160 1113 1114, 801 160 1114 1112

- 3- In order to discard an extension from the PBX group, the program 801 160 A A should be entered, where A is the extension access code, and the chain should be preserved. The previous and the next extensions in the group must be related with the code 801 160.

Example : Let us assume that the codes

801 160 1112 1113, 801 160 1113 1114, 801 160 1114 1115 and 801 160 1115 1112 have been entered for a PBX group. In that case, the following codes must be entered in order to discard 1114 from the PBX group:

801 160 1114 1114

801 160 1113 1115

- 4- In order to cancel all of a PBX group, each and every member of the group must be discarded separately one by one.

Uniform Call Distribution Among Extensions:

This program distributes incoming external call requests for an extension in a PBX group uniformly to the other members of the group.

801161 A P Singular
program

802161 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Incoming external call requests for the extension are not distributed uniformly within the PBX group and those requests always ring the telephone of the extension A.
- : 1 Incoming external call requests for the extension are distributed uniformly within the extension's PBX group.

Default Value

P = 0 for all extensions.

Notes

Example: Suppose that aaa, bbb, ccc and aaa constitute a PBX group. External call requests ring telephone of the extension aaa. In that case, if 801161 aaa 1 is entered, the first external call request rings at the extension aaa. If the call is answered, then the second request rings at the extension bbb. Whenever a call request is answered by an extension in the group, the ring turn passes to the next member of the group. Normal PBX operation is not affected by that feature.

Voice Mail Message Leave Authority:

This program determines, when an extension is called through ACD or DISA line, whether the caller will be granted with the permission to leave message for that extension.

801162 A P Singular program

802162 A₁ A₂ P Group program

Parameters

- A : The extension access code

- A₁ : For group programming, the number of the first extension in the group
 A₂ : For group programming, the number of the last extension in the group
 P : 0 Caller cannot leave message.
 : 1 Caller can leave message.

Default Value

P = 1 for all extensions.

Inaccessible Extension Through DISA / ACD Line:

801163 A P Singular program
 802163 A₁ A₂ P Group program

Parameters

- A : The extension access code
 A₁ : For group programming, the number of the first extension in the group
 A₂ : For group programming, the number of the last extension in the group
 P : 0 The extension can be called through DISA /Auto Attendant line.
 : 1 The extension cannot be called through DISA / Auto Attendant line.

Default Value

P = 0 for all extensions.

Line Drop Exempt Extension:

801164 A P Singular program
 802164 A₁ A₂ P Group program

Parameters

- A : The extension access code
 A₁ : For group programming, the number of the first extension in the group
 A₂ : For group programming, the number of the last extension in the group
 P : 0 During a line call, another extension can drop the line through the feature with code 798.
 : 1 During a line call, another extension cannot drop the line through the feature with code 798.

Default Value

P = 0 for all extensions.

Busy Extension Signalling Exempt Extension:

801165 A P Singular
program

802165 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 0 Other extensions can warn the extension through ear while s/he is busy.
 : 1 Other extensions cannot warn the extension through ear while s/he is busy.

Default Value

P = 0 for all extensions

Extended Secretary Group:

Thanks to this program, the extensions who have been defined as in the same extended secretary group can call each other directly, in case their telephones have been forwarded. The forwarding does not work for the calls among themselves. Three groups can be defined for that purpose.

801166 A P Singular
program

802166 A₁ A₂ P Group program

Parameters

- A : The extension access code
- A₁ : For group programming, the number of the first extension in the group
- A₂ : For group programming, the number of the last extension in the group
- P : 1, 2, 3 Extended secretary group number
 : 0 The extension does not belong to any group. Normal operation mode.

Default Value

P = 0 for all extensions.

V. LINE PROGRAMS

Line Status & Signalling:

This program determines activation or deactivation of a line for service, as well as the signalization that will take place over the line.

801200 D P T Singular
program

802200 D₁ D₂ P T Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 0 Out of service
 : 1 In service
- T : 0 DP (pulse) signalling is used.
 : 1 DTMF (tone) signalling is used.

Default Value

P = 1, T = 1 for all lines.

Notes

Example: Some features that will be applied to the line with number 1212 and the corresponding codes to be entered are presented below:

801200 1212 11 :To put the line into service as DTMF

801200 1212 10 :To put the line into service as DP

801200 1212 0 :To put the line out of service

It will be sufficient just to enter "00" as group number of the line, in order to activate the line only for the incoming calls. (See the Line Parameters program)

This program is also applicable for **PRI ISDN / R2**, **E&M** & **BRI ISDN** lines. (T parameter is not used for **PRI ISDN / R2** & **E&M** lines.)

Line Parameters:

This program assigns various parameter values for a line.

801201 D A P T Singular
program

802201 D₁ D₂ A P T Group
program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- A : The access code of the extension that will be rung by the line.
- P : 0 No access to the line by dialing 9, only selective line access
 : 1 The line can be accessed both by dialing 9 and by selective line access as well.
- T : 0 Line call authorities of extensions requesting line access are not checked.
 : 1 Line call authorities of extensions requesting line access are checked.

Default Value

A=1110, P=1, T=1 for all lines.

Notes

- 1- P=0 assignment is useful especially when line D is connected to an extension of another exchange in order to maintain an exchange-exchange connection.
- 2- T=0 assignment is useful especially when line D is connected to an extension of another exchange in order to maintain an exchange-exchange connection.
- 3- Different ringing extensions can be defined for line D in night and day modes. If the program code is entered in day mode, then ringing extension definition is valid only for daytime. On the other hand, if the program code is entered in night mode, then ringing extension definition will be valid only for nighttime.

Line Access Groups:

Extensions are assigned to line access groups through the Extension Line Access Group program. On the other hand, lines are assigned to the access groups through the Line Access Groups program. Therefore, extensions can access the lines, which are in the same access group with them.

801202 D G (GG...) * Singular
program

802202 D₁ D₂ G (GG...) * Group
program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- G : 01..32 Line access group number
- : 00 No line access

Default Value

G = 01 for all lines.

Notes

1- G=00,...,32

Following each line access group number entry, the system allows other access group number entries, instead of emitting internal dial tone. Hence, upon entering that program once, it is possible to assign one line to 32 access groups in a single programming session. If line D is to be assigned to less than 32 access groups, then the telephone should be hung up after the last access group number entry.

2- If 00 is assigned to G, then the system emits internal dial tone and does not allow access group number entries.

3- There are examples below that would clarify the topic:

Examples :

- 801 202 1337 00, then hang up. That marks line 1337 as inaccessible.

- 801 202 1336 01 02 03, then hang up. That assigns line 1336 to access groups 01,02 and 03.

- 802 202 1338 1341 02, then hang up. That assigns lines 1338, 1339, 1340 and 1341 to access group 02

Line PBX Group:

In case selectively accessed line is busy, this program allows automatic connection of an extension to the next available line in the group, by defining a line PBX group.

801203 D E

Parameters

- D : The access code of the line to be added on the PBX group.
- E : The access code of the line that will follow the line to be added on the PBX group.

Default Value

No line PBX group has been defined.

- 1- DTMF telephone set is required in order to dial extension numbers for making calls through DISA/ ACD line.
- 2- If no extension number is dialed within 15-second period during calls through DISA line, then the caller is transferred to the operator or to the ringing extension. If that transferred call is not answered within 6 ringing periods, then the line is automatically released.
- 3- A DISA-line caller
 - Can refresh special DISA dial tone by pressing "*" key, so that s/he can call another extension in case the called extension is busy or does not answer.
 - Can drop the line by pressing "# " key.
- 4- If an extension called through DISA line is busy or does not answer, the system gives another 15 seconds to the caller to call another extension. 9 such attempts can be done. If no connection has been established after the 9th try, the call is transferred to the operator or to the ringing extension. If, furthermore, that transferred call is not answered within 5 ringing periods, then the line is automatically released.
- 5- If the operator does not activate the ACD, then the ACD lines function as normal lines.
- 6- If a caller through ACD line does not dial an extension number while receiving special DISA tone, then s/he is transferred to the operator or to the ringing extension. If that transferred call is not answered within 6 ringing periods, then the line is automatically released.
- 7- If polarity reversal facility has not been set by CO in a line defined as DISA / ACD, even if caller hangs up during dialing step, then the call rings at the operator and the operator receives CO tone when s/he answers the call. However, if CO has set polarity changing property in that line, then, in that case, when the caller party hangs up, the polarity of the line will change and the exchange, which detects this, will drop that line. Hence, invalid call requests to the operator will be blocked.

Specific ACD Menus:

This program defines 4 specific menus among 16.

801205 D P R S T Singular
program

802205 D₁ D₂ P R S T Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 00..15 Day greeting menu
- R : 00..15 Night greeting menu
- S : 00..15 No answer menu

T : 00..15 Busy menu

Default Value

P= 00, R=13, S=14, T=15.

Notes

- 1- While the system is in the night mode, the night greeting menu will be active instead of the day greeting menu.
- 2- The remaining 12 menus can be used for other purposes.

DISA Parameters:

They determine the consequences of operations of a caller who calls through a line marked as DISA.

801206 D P T Singular
program

802206 D₁ D₂ P T Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 0 Error tone is received upon a dialing error.
 1 Line drops upon a dialing error.
- T : 0 Line is accessed by dialing the extension no + password.
 1 Line cannot be accessed by dialing the extension no + password.

Default Value

P = 0, T= 0 for all lines.

Line-Line Connection Time-Out:

This program provides duration control for line-line connections made through analog lines.

801207 D P Singular
program

802207 D₁ D₂ P Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 00..31 minutes + 30 seconds of conversation duration

Cancellation

801207 D *

Default Value

P = 03 for all lines.

Dialed Number Check / DISA – E&M Connection Time-Out:

801208 D P T Singular
program

802208 D₁ D₂ P T Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 0 Length of the dialed number is checked.
- : 1 Dialed number is transmitted to the line 4 seconds later, without being checked.
- T : 0 Conversation duration is limited to 3 minutes upon accessing E&M line from DISA line.
- : 1 No Conversation duration limit upon accessing E&M line from DISA line.

Default Value

P = 0, T = 0 for all lines.

Notes

- While P=0, if the dialed number:
 - Starts with 1, then the number is transmitted to the line after dialing at least 3 digits (emergency numbers),
 - Is 0, then the number is transmitted to the line after dialing at least 11 digits (long distance),
 - Is 2..9, then the number is transmitted to the line after dialing at least 7 digits (local).

2. As long as calls through E&M lines are concerned, when the caller dials "9" to access a line, one of the lines allocated to the extension group 31 is assigned to that person.

Line Pricing Information:

This program determines two different types of pulse prices on lines for extensions, provided that CO supports that feature.

801209 D P T Singular
program

802209 D₁ D₂ P T Group program

Parameters

- D : The line access code
D₁ : For group programming, number of the first line in the group.
D₂ : For group programming, number of the last line in the group.
P : 0 Pricing for guests
 : 1 Pricing for personnel
T : Unit price of at most 6 digits

Cancellation

801209 D *

Default Value

No price has been determined.

Notes

A serial printer can print costs (calculated over the unit price that has been determined) of calls, provided that CO metering pulse is active on lines. The unit pulse price must have been determined for that. That unit, T can be at most 999999.

For the details of guest and personnel information, please inspect the Guest-Personnel Selection program.

Transmit/Receive Voice Level:

This program adjusts voice level on a line.

801210 D P T Singular
program

802210 D₁ D₂ P T Group program

Parameters

D	:	The line access code
D ₁	:	For group programming, number of the first line in the group.
D ₂	:	For group programming, number of the last line in the group.
P	:	0 Low transmitting voice level
	:	1 High transmitting voice level
T	:	0 Low receiving voice level
	:	1 High receiving voice level

Default Value

P=0, T=0 for all lines.

Notes

- 1- Modification, which has been done is permanent.
- 2- All adjustments done through this program for a line are valid for all conversations on that line.

Dial Tone Check:

Allows determining if the dial tone is checked on the line or not when an extension accesses the line. Additionally, if the dial tone is received with a delay on the line, the delay can be set.

801212 D P T Singular
program

802212 D₁ D₂ P T Group program

Parameters

D	:	The line access code
D ₁	:	For group programming, number of the first line in the group.
D ₂	:	For group programming, number of the last line in the group.
P	:	0 Dial tone is not checked.
	:	1 Dial tone is checked.
T	:	0..15 The duration of delay to start sending the numbers to the line. The duration is calculated as (T+1) x 0.5 seconds.

Default Value

P=0, T=0 for all lines.

Notes

- 1- If P is set as "1", then one of the tone detection channels is dedicated to the line through out the call. Therefore, it is recommended not to enter P as "1" unless absolutely necessary.
- 2- If P is set as "0" then the numbers are sent to the line after the delay specified with parameter T. If P is set as "1" and if dial tone is received before the delay specified with the parameter T, the numbers are sent to the line immediately.

VI. PRI ISDN / R2 LINE PROGRAMS

Ringin Extension:

This program provides definition of different ringin extensions for every PRI ISDN and R2 DDI number. When a ringin extension has been defined, a direct number that can be used for outgoing calls from that extension has also been assigned as well.

8 0 0 3 0 0 Y N A

Parameters

- Y : Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
- N : Last 3 digits of the CO number for which a ringin extension will be defined.
- A : The ringin extension

Default Value

A = 1110 for all numbers.

Notes

- 1- An incoming call from CO rings at the extension defined according to the last 3 digits of the number.
- 2- The first slot numbers according to racks are as follows:
 - 1st rack first slot number = 00
 - 2nd rack first slot number = 16
 - 3rd rack first slot number = 32
 - 4th rack first slot number = 48
 - 5th rack first slot number = 64
 - 6th rack first slot number = 80
- 3- This program and the program 800 305 define direct numbers for extensions, as well as determining the ringin extension. Therefore, the extensions can be called directly by their own numbers and when they make an outgoing call, their numbers are transmitted to CO.

Example 1 : If numbers of PRI ISDN line are in the range 2670200 ... 2670399, then the permanent section is 2670 and the DDI digits are in the range 200...399 in that case. If the ringin extensions are defined as below,

DDI Number	Ringin Extension number
200	1120
201	1121
202	1122

399

1319

the extension 1122 rings when someone calls 2670202 from outside. Likewise, if the extension 1122 makes a line call, the system will transmit 2670202 as the caller number information.

Example 2 : Suppose that the PRI ISDN card is in slot 4 and 2651550 is one of the numbers. In that case, 800300 04 550 1245 should be entered in order to ring the extension 1245 when 2651550 is called.

Ringling Extension Deletion:

This program enables deletion of the ringing extensions that have been defined for PRI ISDN / R2 DDI numbers, as well as the direct access numbers that have been assigned to those extensions.

800301 Y N A

Parameters

- Y : Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
- N : Last 3 digits of the CO number for which the ringing extension will be deleted.
- A : The ringing extension

Notes

The first slot numbers according to racks are as follows:

1st rack first slot number = 00

2nd rack first slot number = 16

3rd rack first slot number = 32

4th rack first slot number = 48

5th rack first slot number = 64

6th rack first slot number = 80

ACD Menus:

This program enables definition of 4 specific menus among 16 to be used for PRI ISDN / R2 card.

800302 Y N P R S T

Parameters

Y	:	Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
N	:	Last 3 digits of the CO number
P	:	00..15 Day greeting menu
R	:	00..15 Night greeting menu
S	:	00..15 No answer menu
T	:	00..15 Busy menu

Default Value

P= 00, R=13, S=14, T=15.

Notes

- 1- The first slot numbers according to racks are as follows:
 - 1st rack first slot number = 00
 - 2nd rack first slot number = 16
 - 3rd rack first slot number = 32
 - 4th rack first slot number = 48
 - 5th rack first slot number = 64
 - 6th rack first slot number = 80
- 2- Since 1000 different numbers can be defined on a PRI ISDN line, 1000 different ACD scenarios can be realized.
- 3- While the system is in night mode, the night greeting menu is automatically used instead of the day greeting menu.
- 4- The remaining 12 menus can be used for other purposes.

DISA / ACD Line Selection:

This program enables an external caller to access extensions without assistance of the operator, by marking a PRI ISDN / R2 line as DISA / ACD.

The external caller through the DISA / ACD line receives a special DISA tone for 15 seconds. Number of an extension can be dialed within this period.

8 0 0 3 0 3 Y N P

Parameters

Y	:	Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
N	:	Last 3 digits of the CO number

- P : 0 The line is in normal service.
: 1 DISA is active on the line.
: 2 ACD is active on the line.

Default Value

P = 0 for all numbers.

Notes

- 1- If a line is enabled for direct inward access, then when an incoming call request is received through that line, the exchange automatically activates that line and emits a special dial tone. Then, the caller can access the extension by dialing her/his number.
- 2- The first slot numbers according to racks are as follows:
 - 1st rack first slot number = 00
 - 2nd rack first slot number = 16
 - 3rd rack first slot number = 32
 - 4th rack first slot number = 48
 - 5th rack first slot number = 64
 - 6th rack first slot number = 80
- 3- The external caller through a DISA line must use a DTMF telephone set in order to dial extension numbers.
- 4- If an external caller through the DISA line fails to dial an extension number while receiving the special DISA dial tone, then s/he is transferred to the operator or to the ringing extension. If that transferred call is not answered within 6 ringing periods, then the line is automatically released.
- 5- Someone calling through the DISA line can:
 - Refresh the special DISA dial tone by pressing "*" key. By this way, s/he can call another extension if the extension s/he has called is busy or not answering.
 - Drop the line by pressing "# " key.
6. If the extension called through the DISA line is busy or not answering, the system gives the caller party additional 15 seconds to call another extension. The caller party can make 9 such attempts to establish a call. However, if s/he has not yet established a call within 9 attempts, the call is transferred to the operator or to the ringing extension. If that transferred call is not answered within 5 ringing periods, then the line is automatically released.
7. More than one party can access the system simultaneously for the inward calls through a line marked as DISA / Auto Attendant.

DISA Parameters:

This program determines the consequences of operations realized by a party calling through a line marked as DISA.

800304 Y N P T

Parameters

- Y : Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
- N : Last 3 digits of the CO number
- P : 0 Error tone is received upon error in dialing.
: 1 Line is released upon error in dialing.
- T : 0 Line is accessed by dialing extension no + password.
: 1 No line access permission by dialing extension no + password.

Default Value

P = 0, T = 0 for all numbers.

Line Number Root:

This program determines the root number that belongs to a certain PRI ISDN / R2 card. (The remaining part of the number excluding the last three digits.)

800305 Y N

Parameters

- Y : Slot number in which PRI ISDN / R2 card has been installed. (2-digit, even number)
- N : The root section of CO number.

Default Value

No root number has been defined.

Notes

The first slot numbers according to racks are as follows:

1st rack first slot number = 00

2nd rack first slot number = 16

3rd rack first slot number = 32

4th rack first slot number = 48

5th rack first slot number = 64

6th rack first slot number = 80

Attention!

The programs listed below, which are valid for analog lines, are also valid for PRI ISDN / R2 lines.

801200 (Parameter T is not used)

801203

801210

800906

800903

800904

VII. BRI ISDN LINE PROGRAMS

Ringin Extension:

800350 D N A

Parameters

- D : The line access code
- N : The CO number which the ringing extension will be defined for (maximum 7 digits.)
- A : The ringing extension

Default Value

A = 1110 for all numbers.

Notes

A call request coming from CO rings at the extension that has been defined according to the number. If the number is shorter than 7 digits, then it should be terminated with "*". If, on the other hand, the number is longer than 7 digits, then the last 7 digits are used in this case.

Example: Let the number of the BRI ISDN line be 1358 and the extension numbers be in the range 2651100..2651199. In this case, 800350 1358 2651150 1245 should be entered in order to make the extension 1245 ring when 2651150 is called.

Ringin Extension Deletion:

800351 D N A

Parameters

- D : The line access code
- N : The CO number whose ringing extension will be deleted (maximum 7 digits.)

ACD Menus:

800352 D N P R S T

Parameters

- D : The line access code
- N : The CO number (maximum 7 digits)
- P : 00..15 Day greeting menu
- R : 00..15 Night greeting menu

S : 00..15 No answer menu
T : 00..15 Busy menu

Default Value

P= 00, R=13, S=14, T=15.

DISA / ACD Line Selection:

This program enables an external caller to access extensions without assistance of the operator, by marking a BRI ISDN line as DISA / ACD.

The external caller through the DISA / ACD line receives a special DISA tone for 15 seconds. Number of an extension can be dialed within this period.

8 0 0 3 5 3 D N P

Parameters

D : The line access code
N : The CO number (maximum 7 digits)
P : 0 The line is in normal service.
: 1 DISA is active on the line.
: 2 ACD is active on the line.

Default Value

P = 0 for all numbers.

Notes

- 1- If a line is enabled for direct inward access, then when an incoming call request is received through that line, the exchange automatically activates that line and emits a special dial tone. Then, the caller can access the extension by dialing her/his number.
- 2- The first slot numbers according to racks are as follows:
 - 1st rack first slot number = 00
 - 2nd rack first slot number = 16
 - 3rd rack first slot number = 32
 - 4th rack first slot number = 48
 - 5th rack first slot number = 64
 - 6th rack first slot number = 80
- 3- The external caller through a DISA line must use a DTMF telephone set in order to dial extension numbers.
- 4- If an external caller through the DISA line fails to dial an extension number while receiving the special DISA dial tone, then s/he is transferred to the operator or to the

ringing extension. If that transferred call is not answered within 6 ringing periods, then the line is automatically released.

5- Someone calling through the DISA line can:

- Refresh the special DISA dial tone by pressing "*" key. By this way, s/he can call another extension if the extension s/he has called is busy or not answering.
- Drop the line by pressing "# " key.

6. If the extension called through the DISA line is busy or not answering, the system gives the caller party additional 15 seconds to call another extension. The caller party can make 9 such attempts to establish a call. However, if s/he has not yet established a call within 9 attempts, the call is transferred to the operator or to the ringing extension. If that transferred call is not answered within 5 ringing periods, then the line is automatically released.

7. More than one party can access the system simultaneously for the inward calls through a line marked as DISA / Auto Attendant.

DISA Parameters:

They determine the consequences of operations of a caller who calls through a line marked as DISA.

8 0 0 3 5 4 D N P T

Parameters

- D : The line access code
- N : The CO number (maximum 7 digits)
- P : 0 Error tone is received upon error in dialing.
: 1 Line is released upon error in dialing.
- T : 0 Line is accessed by dialing extension no + password.
: 1 No line access permission by dialing extension no + password.

Default Value

P = 0, T = 0 for all lines.

Attention!

The programs listed below, which are valid for analog lines, are also valid for BRI ISDN lines.

801200 (Parameter T is not used)

801203

801210

800906

800903

800904

VIII. E&M LINE PROGRAMS

Call Properties:

In general, programs for E&M lines provides easy access to those lines by defining network access codes. The program below provides automatic access to the remote exchange for exchange-exchange connections. The network access code is transmitted to the remote exchange during that operation.

801400 D P S T Singular
program

802400 D₁ D₂ P S T Group
program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 02..15 Number of digits that should be dialed in order to access an extension on the exchange, which the connection has been established with. That number must include number of the digits for the network access code.
- S : 0 The network access code is not transmitted as the prefix for the number.
- : 1 The network access code is transmitted as the prefix for the number.
- T : The network access code of at most 4 digits.

Notes

If the parameter P is not defined correctly, problems with the calls to a remote exchange may occur.

Example : Suppose that extension numbers of the remote exchange are of 5 digits and start with 23. Let the extension numbers be in the form 23*** and number of the E&M line through which the connection has been established be 1158.

Upon entering 801 400 1158 5 1 23, 1158 can be easily accessed by dialing 23; moreover, 23 is automatically transmitted to the remote exchange, since S=1.

According to this, an extension just needs to dial the number of an extension of a remote exchange, in order to make a call.

Tone Reception / Transmission:

This program provides adjustments for tone transmission/reception operations of an E&M line. The tone transmission/reception operations increases the efficiency of E&M lines and provides users with tone hearing after dialing.

801401 D P T Singular
program

802401 D1 D2 P T Group program

Parameters

- D : The line access code
- D₁ : For group programming, number of the first line in the group.
- D₂ : For group programming, number of the last line in the group.
- P : 0 The E&M line does not check tones.
 : 1 The E&M line checks tones.
- T : 0 The E&M line does not transmit tones.
 : 1 The E&M line transmits tones.

Default Value

P = 0, T = 0 for all lines.

Notes

- 1- It is recommended that the E&M lines should be adjusted to receive tones, if a remote exchange is generating a tone after a connection has been established, and furthermore, if it supports DTMF signalling.
- 2- If the E&M line has been adjusted to check tones, then the numbers to be dialed must be DTMF; otherwise, the line cannot transmit the numbers to the remote exchange.
- 3- If the E&M line has been adjusted to check tones, then the parameter P of the program Call Properties does not have any effect. In other words, that parameter is not used if the remote exchange is transmitting tone after collecting numbers during tone reception.
- 4- If the E&M line has been adjusted to check tones, then, as soon as a tone is received from the remote exchange, speech channel that belongs to the E&M line is automatically connected to the user.
- 5- If the remote exchange is capable of checking tones after a connection has been established, then it is recommended that the E&M lines should be adjusted to transmit tones.

Attention!

The programs listed below, which are valid for analog lines, are also valid for E&M lines.

801200 (Parameter T is not used)

801203

801210

800906

800903

800904

801207

801208

IX. EVM200 AUTO ATTENDANT & VOICE MAIL PROGRAMS

EVM200, is an integrated Auto Attendant and Voice Mail module of Karel DS200 digital PBX. Before starting with the software structure of the module, it will be appropriate to explain some fundamental topics related to that module.

As an Auto Attendant module, EVM200 can be utilized for two different purposes:

- 1- Guiding external callers as an Automatic Call Distributor (ACD).
- 2- Presenting information to extensions about states of their telephones.

All authorized users can make use of EVM200, as a voice mail module, like an answering machine to leave messages or to listen to the messages left for them.

An EVM200 card has totally 8 channels: 4 for listening to the messages and 4 for leaving and/or recording messages.

The card has got some message boxes for its various different tasks :

- 1- 64 message boxes for informing users about their telephones. Those have been mentioned as **System Messages** in this guide. The message boxes that have been reserved for the system messages have been numbered in the range 000...063.
- 2- 64 message boxes for guiding external callers. Those have been mentioned as **ACD Messages** in this guide. The message boxes that have been reserved for the ACD messages have been numbered in the range 064...127.
- 3- 512 message boxes in order to enable users to leave messages for each other. Those have been mentioned as **Voice Mail Messages** in this guide. The message boxes that have been reserved for the Voice Mail messages have been numbered in the range 128...639.

By factory default, the first 17 ACD messages (064-080) on EVM200 is recorded for special purposes. However, any message can be used for any purpose. If all channels have been occupied when a message is about to be announced, then the caller hears music; if Music On Hold is not active, however, then wait tone is emitted. The message is announced whenever a channel is available. Message duration can be at most 40 seconds.

EVM is delivered to customers as the system messages have been recorded. Those messages can be modified or erased. The first 28 (000-027) messages are employed for informative purposes during the normal operation of the exchange. Other messages (028-063), on the other hand, are date-time messages announced at the beginning while listening to a message previously left. If all announcement channels have been occupied when a message is about to be announced, then music, if Music On Hold is not active, then wait tone is emitted. The message is announced whenever a channel is available.

At most 8 EVM200 cards can be installed in a DS200 system. The number of needed EVM200 cards may vary due to capacity and traffic load of the DS200.

The main idea behind increasing the number of EVM200 cards are extending the number of the channels in order to serve more call requests simultaneously, as well as providing more message boxes for voice mail messages. An example to clarify the topic is presented below:

Suppose that there are 4 EVM200 cards in the DS200 system. In that case, there are

- 4 x 4=16 channels for listening to messages,

- 4 x 4=16 channels for leaving or recording messages,
- 64 message boxes for the system messages,
- 64 message boxes for the ACD messages,
- 512 x 4=2048 message boxes for the voice mail messages in the system.

As can be seen in the example, increasing the number of cards in the system does not increase the number of the message boxes that can be used for the system and the ACD messages; because the same messages should be recorded on all the cards. Since it is possible to copy messages from one card to the other, there is no need to record on each card one by one separately.

It should be kept in mind that both the exchange and the EVM200 card must be simultaneously in programming mode in order to do programming operations on EVM200 card.

EVM200 Card Programming Mode:

This program enables EVM200 card to be put into/taken out of the programming mode.

800450 Y P

Parameters

- Y : EVM200 card slot number
- P : 0 Programming mode is not active.
: 1 Programming mode is active.

Notes

Prior to the operations (such as ACD/System message recording, erasing, copying) related to EVM200, the card must be put into the programming mode.

In order to put EVM200 into the programming mode, DS200 must also be in the programming mode. (877777)

While EVM200 is in programming mode, all program codes starting with 800 can be entered by the system supervisor only, whereas the codes starting with 7 can be entered both by the system supervisor and the operator.

ATTENTION!

It is recommended that the related parts of the guide should be read carefully and the requirements should be determined in detail before starting with programming EVM200.

Erasing All ACD Messages:

This program enables the erasure of all ACD messages when the maximum capacity has been reached.

7559 Y

Parameters

Y : EVM200 card slot number

Notes

- 1- This program is entered only through the operator or the system supervisor telephone, while the EVM card is in programming mode.
- 2- As the result, all ACD messages in the flash memory modules are erased. Silence is received during the operation and dial tone is received after the operation.
- 3- The ACD function should be deactivated prior to the entry of that program.

Erasing All System Messages:

This program enables erasure of all system messages in case there is a problem with them.

7558 Y

Parameters

Y : EVM200 card slot number

Notes

- 1- This program is entered only through the operator or the system supervisor telephone, while the card is in programming mode.
- 2- All messages in the system message flash memory module are erased. Silence is received during the operation and dial tone is received after the operation.

ACD And System Message Recording:

Coupling of ACD and system messages enable them to be placed in predefined message boxes.

7586 Y M + Message

Parameters

Y : EVM200 card slot number

M : 000..063 system messages box number, 064..127 ACD messages box number

Message : The message to be read in order to complete the program

Notes

- 1- The system and ACD messages are entered only through the operator or the system supervisor telephone while the system and EVM card is in programming mode, through this feature.
- 2- ACD feature must be deactivated prior to the message entry.

- 3- After the code has been dialed, short warning tone is awaited. Once the tone is received, the message is read. Messages related to time and day are used for informing the extension, for whom the message is left, about the time when the message was left.
- 4- If the entered message is already in the system, that message is automatically erased. While the previous message is being erased, wait tone is received or music is listened to, if that feature is active. The new message can be entered after that tone has stopped.
- 5- The telephone must be hung up in order to complete the message entry. It is strongly recommended that the keys " * " / " # " should not be used for terminating the message entry, since DTMF values of those keys are recorded as a part of the system message.
- 6- Considering the ACD message capacity, the entered messages should be as short and explanatory as possible. If the ACD message capacity is exceeded during a message entry, then the recording stops and the internal dial tone is heard again.
- 7- Each system message box has a predefined and fixed function. This fact should be considered during message entry.

There are examples below for the factory default messages.

The System Messages:

000, "Follow Me Active" Message : If the telephone has been forwarded to another extension through 85aaaa or 865aaaaAAAA, then this message is read to the extension when the handset is lifted.

001, "Permanent Absent Message Is On-line." Message : If Permanent Absent Message is active, then this message is announced when the handset is lifted. Please see the section Extension-Related Features, Permanent Message Feature (737) for the Permanent Absent Message.

002, "You Have Got Message." Message : If there is a message left for the extension, then this message is announced when the handset is lifted.

003, "Night Mode is Active." Message : When the system is in the night mode, if the operator telephone goes off-hook, then this message is announced.

004, "Auto-dialer is Active." Message : If the Auto-dialer is active, then this message is announced when the handset is lifted.

005, Reminder Message : If a reminder has previously been entered through 838, then this message is announced when the handset is lifted while the telephone is ringing at the warning time.

006, Unassigned Port Message : When an extension that does not exist in the system is attempted to be called or a non-existent line is attempted to be accessed, then this message is announced.

007, "All Lines are Busy." Message : This message is announced upon a line access attempt while all the lines are busy.

008, "This Line is Out of Service." Message : This message is announced upon a line access attempt that is out of service.

009, "No authority for Line Access." Message : This message is announced when an extension without line access authority attempts to access a line.

010, "Insufficient Authority for This Call" Message : This message is announced when an extension attempts to make a call beyond her/his authority (such as long distance, international, etc.).

011, "No Authority for Restricted Number" Message : This message is announced when a restricted number, which has been entered through the accessible number by the area code or prefix definition program, is dialed.

012, Operator Only Message : This message is announced when an operation code, which can be normally done by the operator only, is dialed by an extension.

013, System Supervisor Only Message : This message is announced when an operation code, which can be normally done by the Admin only, is dialed by an extension.

014, "No Authority for This Feature." Message : This message is announced when an extension dials a feature code which is beyond her/his authority.

015, "No Calls to Pick up" Message : This message is announced when a non-existent call is attempted to be picked up by 82+ extension no.

016, "System is out of Programming Mode" Message : This message is announced when a program is attempted to be entered while the system is not in the programming mode.

017, "All Lines are out of Service." Message : If the Admin lifts the handset while all the lines are out of service, then this message is announced.

018, Phone Locked Message : If the code (877777) for entering into the system programming mode is dialed even though the Admin telephone is locked, then this message is announced.

019, Erroneous Operation Message : This message is announced when an invalid operation code is dialed.

020, Wrong password Message : This message is announced if a wrong password is entered during password change (836), phone locking and unlocking.

021, "Auto-dialer is Busy." Message : If the Auto-dialer is attempted to be activated while all auto-dialer services of the system are busy (That means 103 extensions has simultaneously activated auto-dialer.), then this message is announced.

022, No password Message : This message is announced, if an operation requiring a password is attempted to be done, such as phone locking, authority and program entry locking.

023, "Room is Clean." Message : This message is announced when the status of a clean hotel room is inquired (731).

024, "Room is Being Cleaned." Message : This message is announced when the status of a hotel room which is being cleaned is inquired (731).

025, "Room is Dirty." Message : This message is announced when the status of a dirty hotel room is inquired (731).

026,027 : Reserved for future use.

The date-time messages consist of numbers and months and their lengths are limited. (0.5-1 second). The date-time messages are below:

028, "zero"

052, "January"

029, "one"

053, "February"

030, "two"	054, "March"	
031, "three"	055, "April"	
032, "four"	056, "May"	
033, "five"	057, "June"	038, "eleven" *
034, "six"	058, "July"	039, "twelve" *
035, "seven"	059, "August"	040, "thirteen" *
036, "eight"	060, "September"	041, "fourteen" *
037, "nine"	061, "October"	042, "fifteen" *
047, "ten"	062, "November"	043, "sixteen" *
048, "twenty"	063, "December"	044, "seventeen" *
049, "thirty"		045, "eighteen" *
050, "forty"		046, "nineteen" *
051, "fifty"		

* They are not used in Turkish message structure. Instead, they are used for recordings done in English or in other languages.

The ACD Messages:

064 – The Greeting Message: The system automatically answers an incoming call and announces that message.

Example : *"Welcome to our company. If you know the extension number please dial right now; or please wait for the operator."*

Call forwarding to specific sections is possible by making use of the grouping program of the PBX. For instance, if 112, 113, 114 are telephones of the accounting department; 123, 124, 125 are telephones of the sales department; 140, 141, 142 are telephones of the technical service department; then those three departments can be grouped by the program 805 and the greeting message may take such a form:

" Welcome to our company. Please dial 112 for the accounting, 123 for the sales, and 140 for the technical service departments; or please wait for the operator."

065 – Missing Digit Message: This message is announced when a dialed number is incomplete at any stage.

Example : *"You have dialed an incomplete number. Please try again. "* .

066 - Busy Message: If the called extension is busy, then this message is announced. After the message below has been announced, the caller can call back by dialing **5** or can leave message by dialing **6**.

Example : *"The extension you are calling is busy right now. You can dial 5 to call back, dial 6 to leave a message, call another extension or wait for the operator. "*

If the caller decides to call back after the announcement, then this can be done by dialing **5** during the silence following the announcement. Afterwards, the announcement related to the place of the caller in the queue is announced to her/him.

067 – No Answer Message: If the called extension does not answer within 20 seconds, then this message is announced.

Example : " *The extension you are calling is not answering. You can dial 6 to leave a message, call another extension or wait for the operator.* "

068 – Wrong Number Message: This message is announced when a dialed number is wrong at any stage.

Example : " *You have dialed a wrong number; please try again.* "

069 – Hold On Message: When a busy extension is called back, (by dialing 5, after listening to the Busy Message), this message is announced and then music is emitted to the caller if it has been activated, or the wait tone is emitted otherwise.

Example : " *Please hold on.* "

No number can be dialed during the announcement of that message. Music or the wait tone is emitted after the message.

The call is transferred to the extension, who has been called back by dialing 5, as soon as s/he becomes available.

070 – Inaccessible Extension Message: If an extension marked as inaccessible is called, then this message is announced.

Example : " *No direct connection is possible to the extension you are calling. Please wait for the operator or call another extension.* "

071 – Transfer to the Operator Message: After a call request has been answered by EVM, there is a limit, which has previously been determined through programming, for trials until a conversation is established. If that limit is exceeded, then that message is announced. The call is transferred to the operator, afterwards.

Example : " *Please hold on; you are being connected to the operator.* "

072 – Night Mode Greeting Message: While the system is in the night mode, this message is announced to answer incoming call requests. The request is transferred to the operator, afterwards.

Example : " *Our company is closed right now. Please dial 7 if you would like to leave a message.* "

073 –DISA Message: When a call request is received through a line on which DISA is active, first this message is announced, then a special dial tone is emitted.

Example : " *Please dial the extension if you know the number; or wait for the operator.* "

074 – Password Request Message: This message is announced when an extension attempts to listen to the messages left for her/him by dialing 8646 or 8645, and her/his password is requested, if there is one.

Example : " *Please enter your password.* "

075 – "Ringing" Message: If an extension, which is called through ACD, is busy during a call request and is called back, then this message is announced when s/he is available.

Example: " *Ringing.* "

076 – "The Operator is Busy." Message: If the operator is busy when the call request is transferred to the operator, then the caller receives music or the wait tone. However, the duration of those are 2.5 minutes. This message is announced, if the operator is still busy at the end of that period.

Example: " *The operator is busy. Please call again later.*"

079 – "The 1st Person in the Queue." Message: Announced if you are the first person to call back.

080 – "The 2nd Person in the Queue." Message: Announced if you are the second person to call back.

081 – "The 3rd Person in the Queue." Message: Announced if you are the third person to call back.

082 – "The 4th Person in the Queue." Message: Announced if you are the fourth person to call back.

The ACD message box numbers mentioned above are just factory defaults. Those messages are or similar ones can be erased and recorded to the boxes 064-095 upon wish.

If any one of those messages is not recorded, dial tone is emitted again for the cases that message should be announced; or some other operation is initiated according to the situation.

The other Messages : Other messages can be recorded to the boxes 081...127 for other purposes through the feature with the code 7586 Y M. Yet you may need to increase the flash memory capacity in order to record such additional messages.

Listening To The ACD And System Messages:

This program enables the recorded ACD or system messages to be listened to through the operator or the Admin telephone. That code can be used to check the messages in certain intervals.

7 5 8 5 Y M D

Parameters

- Y : EVM200 card slot number
- M : 000..063 box numbers of the system messages, 064..127 box numbers of the ACD messages
- D : Language selection for the system messages
- : 0 : 1st language (Turkish)
- : 1 : 2nd language (optional)

Notes

- 1- If there are no messages in the box with number M, then the dial tone is emitted.
- 2- If all the announcement channels of EVM are busy at the moment, then a caller receives music or the wait tone. The message is announced as soon as one of the channels is available.

Erasing The ACD And System Messages:

The ACD or the system messages that have previously been recorded can be erased by dialing through the operator or the system supervisor telephone only by this program, while EVM is in the programming mode.

The wait tone or music is heard during the erasing operation and the dial tone is received upon completion of the operation.

7557 Y M D

Parameters

- Y : EVM200 card slot number (2 digits)
- M : 000..063 box numbers of the system messages, 064..127 box numbers of the ACD messages
- D : Language selection for the system messages
- : 0 : 1st language (Turkish)
- : 1 : 2nd language (optional)

Notes

- 1- The wait tone or music is heard during the erasing operation and the dial tone is received upon completion of the operation.

In order to enter the programs 7586, 7557, 7558, 7561 and 7559, the ACD must be inactive (800450 0).

Copying Messages Among Cards:

A message that have been recorded on an EVM card can be copied to another EVM card through this program.

7560 Y₁ Y₂ O M₁ M₂

Parameters

- Y₁ : EVM200 card slot number (2 digits)
- Y₂ : The card slot number (2 digits) of the target EVM card
- M₁ : The message box number of the message to be copied (000..127)
- M₂ : The number of the message box on the target EVM card (000..127)

Notes

- 1- That operation can be done through the Admin or the operator telephone only, while the card is in the programming mode.
- 2- M1 should be equal to M2 under normal conditions.
- 3- If there is already a message in the target message box, then it is erased by the copied message from the source card.

Copying All ACD Messages Among Cards:

All ACD messages that exist on an EVM200 card can be copied to another EVM200 card through this program.

7560 Y1 Y2 2

Parameters

- Y₁ : EVM200 card slot number (2 digits)
Y₂ : The card slot number (2 digits) of the target EVM card

Notes

- 1- That operation can be done through the Admin or the operator telephone only, while the card is in the programming mode.
- 2- If there are already messages in the target message boxes, then they are erased by the copied messages from the source card.

IX.1. GENERAL PARAMETERS

Constant ACD Messages:

Some of the ACD messages utilized in the system are constant messages, which are announced at certain situations. They are to warn the caller party about the present condition. (For instance: "You have dialed an incomplete number.", "Invalid extension number.", etc.). Those messages are the same for every menu.

Since the constant messages are basically ACD messages, they are recorded into the ACD message boxes of range 064-127.

First the constant ACD messages should be recorded into the ACD message boxes and then it should be determined through the code below which box will be used for which constant message condition.

800451 P K M

Parameters

P : 00..05, 08..11 constant message number

K : 0 No message is announced. The parameter M is ignored.
 : 1 The message is protected and normal.
 : 2 The message is protected and special.
 : 3 The message is ignorable and normal.
 : 4 The message is ignorable and special.

M : 064..127 message box number

Default Value

For P = 00, M = 068
 For P = 01, M = 068
 For P = 02, M = 065
 For P = 03, M = 070
 For P = 04, M = 076
 For P = 05, M = 071
 For P = 08, M = 079
 For P = 09, M = 080
 For P = 10, M = 081
 For P = 11, M = 082

Notes

The conditions during which the constant ACD messages are announced are as follows:

0. Dialing a wrong number during an extension number entry.

Example: 'You have dialed a wrong number. Please try again.'

1. The busy extension that has been called back is then available and ringing.
Example: 'Ringing'
2. Dialing an incomplete number during extension number entry.
Example: 'You have dialed an incomplete number. Please try again.'
3. Dialing an inaccessible extension.
Example: 'There is no direct connection to the extension you have dialed. ...for the operator.'
4. If the operator fails to answer a transferred call request within a certain period.
Example: 'All our operators are busy right now. Please call again later...'. The line is dropped after this message.
5. Transfer of call request to the operator.
Example: 'Please hold on; You are being connected to the operator.'
8. When a busy extension is called back, to the first person in the queue:
Example: 'You are the first person in the queue.'
9. When a busy extension is called back, to the second person in the queue:
Example: 'You are the second person in the queue.'
10. When a busy extension is called back, to the third person in the queue:
Example: 'You are the third person in the queue.'
11. When a busy extension is called back, to the fourth person in the queue:
Example: 'You are the fourth person in the queue.'

Example: Suppose that the message "You have dialed an incomplete number. Please try again." Has been recorded into the ACD message box 064. In that case, when the program 800451 02 064 is entered, the ACD message 064 is announced to a caller if s/he dials an incomplete number.

(Caution: In this example, since the message box 064, which should normally contain the greeting message as the factory default, is used for the constant message 02, the greeting message should be recorded to some other message box, instead of the box 064 in that case.)

Total Penalty:

An external caller who has connected to the ACD sometimes may not access the extension s/he is calling due to some reasons (like busy, wrong number etc.). Some penalty points are assigned for such cases. If the caller faces more erroneous situations than that has been defined in the system (the total penalty), then s/he is transferred to the operator.

The penalty list:

1. Dialing an incomplete number = 1 penalty point
2. Dialing an invalid number = 2 penalty points
3. Dialing an inaccessible number = 1 penalty point
4. No answer from the called extension = 2 penalty points
5. The called extension is busy = 1 penalty point

800452 P

Parameters

P : 00..99 the total penalty value

Default Value

P = 04

Notes

Example: The factory default value of that parameter is 4. Hence, in case an external caller dials wrong numbers twice ($4/2=2$), the call request is transferred to the operator. If that value is entered as 8, then in case the caller dials wrong numbers for ($8/2=4$) 4 times, the call request is transferred to the operator.

Changing Language:

A choice can be done between two message boxes through this program, in order to determine the language that will be used for the menus. The language options are defined by the programmer during recordings of the ACD messages. The ACD message boxes (064..127) have been separated into two groups. The first group consists of the boxes in the range 064...095, and the second group in the range 096...127. The ACD messages that will be recorded into the second group in another language should follow the same order as for the first group.

800453 P

Parameters

P : 0 The first language (Turkish), message boxes 064..095
: 1 The second language (optional), message boxes 096..127

Default Value

P = 0.

Notes

The message boxes 064...127, which are reserved for the ACD messages, have been divided into two in order to provide recording in two languages. In that case, the recording in the first language should be done into the boxes 064-095, and the recording in the second language should be done into the boxes 096-127 by preserving the same order.

The opening language of the ACD, when it answers a call request, is determined through this parameter. P can take values 0 and 1. The opening language will be the one that has been used in boxes 064-095, if the value 0 has been entered. On the other hand, if the value is set to 1, then the opening language will be the one that has been used in boxes 096-127.

If a user chooses "change the language" from the menu, then the language switches for that specific session only, ie., if P=0, then it becomes 1 and vice versa.

Example: If both Turkish and English ACD options will be used in your company, and if the opening language of the ACD will be Turkish, then the messages in Turkish should be recorded into the boxes 064...095 and the messages in English should be recorded into the boxes 096...127.

The English equivalent of the message in box 064 should be recorded into the box 096,

The English equivalent of the message in box 065 should be recorded into the box 097,
:
The English equivalent of the message in box 095 should be recorded into the box 127.

Time-Out Durations:

This program determines the time-out durations for normal and special messages.

800454 S₁ S₂

Parameters

S₁ : 01..99 The normal time-out duration in seconds (for normal messages)
S₂ : 01..99 The special time-out duration in seconds (for special messages)

Default Value

S₁ = 8, S₂ = 4

Notes

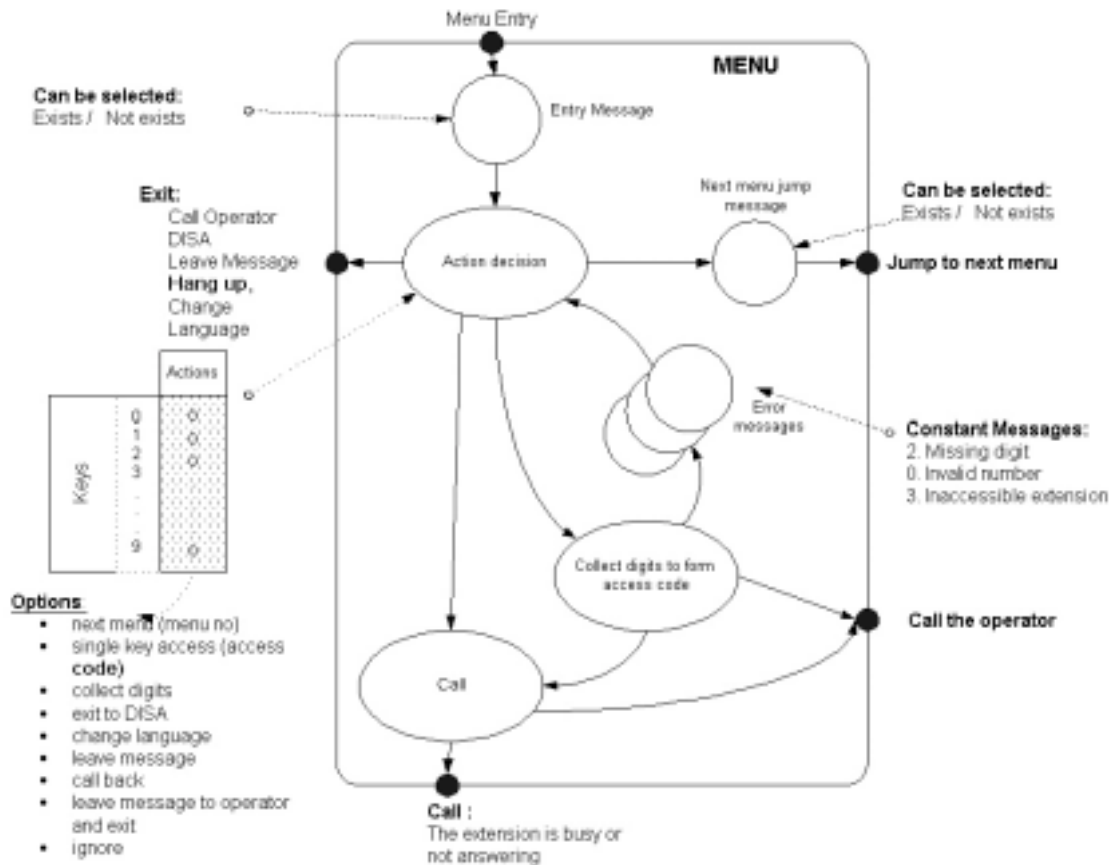
This program determines the maximum time intervals during which an external caller could wait before dialing, after dialing options have been presented to her/him. There are two types of time-out durations, namely the normal time-out and the special time-out duration.

If the message announced to the caller has been defined as "special message" (see the section "Menu Entry Message"), and if that caller has got into selection state after having listened to the special message, then the system waits until the special time-out duration is up. On the other hand, if the announced message has not been defined as "special", then the waiting period is the one determined for the normal time-out.

To clarify the topic with an example, let the normal time-out duration is 8 seconds and the special time-out duration is 4 seconds. If an extension waits at the first entry menu, then s/he is transferred to the operator at the end of 8-second period. After getting information by dialing 1 or 2 (if those informative messages are special messages), if the extension is again at the selection state, then the line is dropped after waiting for 4 seconds.

IX.2. THE MENU PARAMETERS AND THE ACTION TABLE

EVM200 has 16 menus to use for the ACD functions. The structures of all menus are the same. The structure of one of those menus is presented on the diagram below:



Each menu has an entry message. That entry message can be selected among the ACD messages (064..127) to be announced or not to be announced.

That message can be classified as special or normal. The differences between a normal and a special message can be described as follows:

- After the normal message has been announced to the caller, there is a programmable time interval in which the caller should dial a number (normal time-out period). If the caller fails to dial a number within the specified period, then the call request is automatically transferred to the menu-specific ringing extension. The caller receives a special dial tone during the normal time-out period.
- After the special message has been announced to the caller, there is another programmable time interval in which the caller should dial a number (special time-out period). If the caller fails to dial a number within the specified period, then the line is released. The caller receives a special dial tone during the special time-out period.

The entry message can be classified as ignorable or protected message, as well. The difference between those two message types can be described as follows:

- While an ignorable message is being read to the caller, the caller can skip the rest of the message and can take another action.

- While, on the other hand, a protected message is being read to the caller, the caller cannot take any other action.

After the caller has listened to, or has ignored, the special or normal type message, an action decision is initiated upon pressing a key.

The Action Decision is made according to an action table determined through programming and is initiated upon pressing a key.

Different Action choices:

- 1- Moving on to the next menu.
- 2- Access by a single key.
- 3- Forming a valid access code by collecting the numbers that is dialed by the caller.
- 4- Exiting from the ACD to the DISA line.
- 5- Changing the menu language.
- 6- Leaving message to an extension that is busy or that does not answer.
- 7- Calling a busy extension back.
- 8- Leaving message to the operator and exiting.
- 9- Waiting for another number to make action decision by ignoring a dialed digit.

The action decision is the brain of a menu and the user is led to any action field according to the result of that action decision.

Menu Entry Message:

This program determines the message to be announced as the menu entry message.

8 0 0 4 5 5 N P M

Parameters

N	: 00..15	Menu page number
P	: 0	No message is announced.
	: 1	The message cannot be ignored and it is normal.
	: 2	The message cannot be ignored; it is special.
	: 3	The message can be ignored and it is normal.
	: 4	The message can be ignored and it is special.
M	: 064..095	The message box number of the message to be announced (Does not apply if P=0.)

Default Value

For N = 00, M = 064

For N = 13, M = 072

For N = 14, M = 067

For N = 15, M = 066

Notes

If the parameter P is set to 0 , then that means no message will be announced to the caller. In that case the programmer receives dial tone without entering the kkk parameter at the end.

If the parameter P is set to 1 , then that means a message will be announced upon entering the menu in that case. The caller is not allowed to press a key and proceed to an action before the announcement is complete. Besides, the caller is automatically transferred to the operator at the end of the normal time-out period, unless s/he takes an action following the announcement.

If the parameter P is set to 2 then that means a message will be announced upon entering the menu in that case. The caller is not allowed to press a key and proceed to an action before the announcement is complete. Besides, if the caller waits until the end of the special time-out period, without taking an action, then the line will be dropped.

If the parameter P is set to 3 then that means a message will be announced upon entering the menu in that case. The caller may take another action by pressing a key while listening to the announcement, before the end of it. Moreover, the caller is automatically transferred to the operator at the end of the normal time-out period, unless s/he takes an action following the announcement.

If the parameter P is set to 4 then that means a message will be announced upon entering the menu in that case. The caller may take another action by pressing a key while listening to the announcement, before the end of it. Besides, if the caller waits until the end of the special time-out period, without taking an action, then the line will be dropped.

The menu entry message can be selected as special message, as will be mentioned later in the section action list / the next menu.

Action Table:

This program allows an action table to be chosen, so that the program code can change according to the action that has been chosen.

```
800456 N T H {P1 P2 P3}
```


Parameters

N	= 00..15 :	The Menu page number
T	= 0..9 :	The first digit that the caller will dial. (decision point)
H	= 01..09 :	The action code

H=01 : The action : "Go to the next menu"

P1 = 00..15 :	Page number of the next menu
P2 = 0 :	No message is announced.
= 1 :	The message cannot be ignored and it is normal.
= 2 :	The message cannot be ignored; it is special.
= 3 :	The message can be ignored and it is normal.
= 4 :	The message can be ignored and it is special.
P3 = 064..095 :	The message box number of the message to be announced. (Does not apply if P2 is 0)

H=02 : The action: "Extension access by single key"

P1 : The number of the extension to be accessed by single key
The parameters P2 and P3 do not apply.

H=06: The action: "Leave message"

P1 = 0 :	No message is announced.
= 1 :	The message cannot be ignored.
= 2 :	The message can be ignored.
P2 = 064..095	The message box number of the message to be announced (Does not apply if P1 is 0)

The parameter P3 does not apply.

H=07: The action: "Call back"

P1 = 0 :	No message is announced.
= 1 :	The message cannot be ignored.
= 2 :	The message can be ignored.

P2 = 064..095 The message box number of the message to be announced (Does not apply if P1 is 0)

The parameter P3 does not apply.

H= 03, 04, 05, 08, 09

The details are below.

The parameters P1, P2 and P3 do not apply.

Default Value

For the Menu 00

For T = 0, H = 03

For T = 1, H = 03

For T = 2, H = 03

For T = 3, H = 09

For T = 4, H = 09

For T = 5, H = 09

For T = 6, H = 09

For T = 7, H = 09

For T = 8, H = 09

For T = 9, H = 04

For the Menu 13

For T = 0, H = 09

For T = 1, H = 09

For T = 2, H = 09

For T = 3, H = 09

For T = 4, H = 09

For T = 5, H = 09

For T = 6, H = 09

For T = 7, H = 06, P1 = 1, P2 = 083

For T = 8, H = 09

For T = 9, H = 04

For the Menu 14

For T = 0, H = 03

For T = 1, H = 03

For T = 2, H = 03

For T = 3, H = 09

For T = 4, H = 09

For T = 5, H = 09

For T = 6, H = 06, P1 = 1, P2 = 083

For T = 7, H = 09

For T = 8, H = 09

For T = 9, H = 09

For the Menu 15

For T = 0, H = 03

For T = 1, H = 03

For T = 2, H = 03

For T = 3, H = 09

For T = 4, H = 09

For T = 5, H = 07, P1=3, P2 = 069

For T = 6, H = 06, P1=1, P2 = 083

For T = 7, H = 09

For T = 8, H = 09

For T = 9, H = 09

Notes

The action that a user will take in any menu is automatically determined according to the first digit s/he dials.

The actions that will be taken according to the digit the caller dials should be assigned to the Action Table by choosing one of the actions, which have been defined in the Action List for each digit.

Waiting without pressing any key is a selection, too, for the user. In that case the operator is called by exiting menu. For each menu page, different ringing extension access codes can be entered in order to determine which extension the line will be automatically transferred to.

01 : The next menu

Upon pressing the key, one proceeds to the next menu that has been defined by programming. That selection has two parameters:

- i) The number of the next menu: a number should be entered in the range 00..15,
- ii) The jump message: It can be defined as present or not present. If there is a jump message, then the number of the message box containing the jump message should also be entered and that message is also announced (apart from the entry message of the next menu) before proceeding to the next menu. That feature has been created by taking applications into consideration such as automated information services.

02 : Single-key Call

- a) A call is initiated as soon as pressing a key and an extension is immediately called. That feature has a single parameter.

The access code: A valid extension access code (the ringing extension)

- b) If the called extension is busy, then the process jumps to the Busy Menu, returns to the same menu and starts again from the entry message.
- c) If the called extension does not answer, the process jumps to the No Answer menu, returns to the same menu and starts again from the entry message.

03 : Collecting Numbers

The numbers that are dialed during the normal or special time-out periods are collected by the system. Then the system checks whether the dialed code is a valid access code.

- a) If that is a valid access code, then the related extension is called.
 - I. If the called extension is busy, then the process jumps to the Busy Menu, returns to the same menu and starts again from the entry message.
 - II. If the called extension does not answer, the process jumps to the No Answer menu, returns to the same menu and starts again from the entry message.
- b) If the dialed code is not a valid access code or if it is the code of an inaccessible extension, then, in that case:
 - I) If the access code digit quantity is not enough, then the "Incomplete Number" constant message is announced and the process returns to the Action Decision step.
 - II) If the access code is invalid, then the "Wrong Number" constant message is announced and the process returns to the Action Decision step.
 - III) If the access code belongs to an inaccessible extension, then the "Inaccessible Extension" constant message is announced and the process returns to the Action Decision step.

04 : Exit to DISA

The user receives the DISA dial tone, upon exiting the Auto Attendant. Then s/he can take any action that a normal user is authorized to do on DISA lines.

05 : Change Language

Another language is selected upon pressing the related key. In that case:

- a) The system converts the language of the messages in all menus to another language.
- b) The process continues in the other language, starting from the entry of the same menu.

Once the language has been changed, the later language will be valid until the caller exits the Auto Attendant.

06 : Leave Message:

- a) The system puts the caller into the queue for the busy extension and, if it has been programmed in that way, announces a message like "Please wait."
- b) The system lets the caller leave a message with a length of at most 30 seconds.
- c) The process continues through the entry of the same menu. That action can be taken in the Busy and No Answer menus only. A message like "You can leave your message after the beep when you press the key..." may be announced.

07 : Call Back

- a) The system puts the caller into the queue for the busy extension and, if it has been programmed in that way, announces a message like "Please wait."
- b) The system announces the Queue Information constant message to the caller.
- c) If the caller waits for 40 seconds,
 - I. If the extension is still busy, then the process returns to the Busy Menu.
 - II. If the extension does not answer the call request, even if s/he has hung up, then the process returns to the No Answer Menu.

08 : Call the Ringing Extension

- a) The system transfers the call to the ringing extension.
- b) If the ringing extension is busy, then a message such as "The extension you are calling is busy. Please wait." is announced and then the caller is put into the queue of the ringing extension. The connection is established when the ringing extension becomes available.
- c) If the ringing extension does not answer the call request within 30 seconds, then a message such as "We are sorry, your call cannot be answered right now. Please call again later." is announced and then the line is dropped.

09: No Action

The key is ignored. No action is taken. Another number is awaited for the action decision.

Menu Ringing Extension:

When a certain quantity of busy and unanswered calls are made or when a certain quantity (see the total penalty) of invalid/incomplete numbers are dialed within a menu, the ringing extension determined by that parameter is called by exiting the menu.

Besides, there is the choice of "Call the ringing extension." in the action list that can be assigned to the keys.

8 0 0 4 5 7 N A

Parameters

N : 00..15 The menu page number
A : The ringing extension

Default Value

A = 1110

EVM200 Voice Level Settings:

8 0 0 4 5 8 T S

Parameters

T : 0 The system message gain
: 1 The ACD message gain
S : 0..6 The gain parameter (0 lowest, 6 highest)

Default Value

For T = 1, S = 3,
For T = 0, S = 3.

X. LAN ADAPTOR CARD PROGRAMS

LAN Adaptor card is an interface used to program the system remotely through an IP network such as LAN, WAN or Internet. As LAN Adaptor card is a kind of a network element, some network settings must be made to before using it.

Network Settings:

Used to make the network settings of LAN Adaptor card.

8 0 0 4 7 0 P T

Parameters

- P : 1 IP number
: 2 Network gateway address
: 3 Subnet mask address
: 4 Port number
- T : Takes values depending on the value of the parameter P.
- P 1 IP number of 12 digit
2 Gateway address of 12 digits
3 Subnet mask address of 12 digits
4 Port number of 5 digits

Notes

Example:

If 800 470 1 192168002235 is entered, IP number is set to 192.168.2.235.

If 800 470 3 255255255000 is entered, subnet mask is set to 255.255.255.0.

If 800 470 4 15000 is entered, the port number is set to 15000.

After making these settings, a short cut for the ADMIN200 program must be created and the following must be add at the end of the target line in the Properties of the short cut. **"/lan:192.168.2.235:15000"**. ADMIN200 must be run through this short cut.

XI. LEAST COST ROUTING/NETWORKING PROGRAMS

Least Cost Routing (LCR) facility is one of the most flexible and effective facility of the system. By the use of this facility, extensions make their calls as making normal calls as the system is selecting the cheapest or the most effective route with the extensions knowing it. Additionally, via the networking facility, far systems can be connected to each other and the extensions of each system can call extensions from the other system as if they are in the same system.

As the LCR facility is very powerful but detailed, most of the settings are made through ADMIN200 program. The programs that can be entered through the system supervisor's telephone are given below:

LCR Activation:

The LCR parameters which are set via ADMIN200 program can be activated or deactivated by this program.

800803 P

Parameters

P : 0 LCR parameters are not active
 : 1 LCR parameters are active.

LCR Route Access Authority:

For the extensions whose Line Access Authorities are the same, the LCR route Access authority can be defined with this program. Thus, the extensions are authorized to use different levels of the LCR facility.

800804 A B C D E F G H

Parameters

A : 0-63 Access authority for the extensions with local line access authority.
 B : 0-63 Access authority for the extensions with long distance line access authority.
 C : 0-63 Access authority for the extensions with international line access authority.
 D : 0-63 Access authority for the extensions with line access authority level 4.
 E : 0-63 Access authority for the extensions with line access authority level 5.
 F : 0-63 Access authority for the extensions with line access authority level 6.
 G : 0-63 Access authority for the extensions with line access authority level 7.
 H : 0-63 Access authority for the extensions with line access authority level 8.

XII. FLEXIBLE NUMBERING PROGRAMS

The access codes of extensions and lines, as well as feature codes, can be changed through the flexible programming feature in your DS200 system. The numbers have been assigned as factory default, regardless of the extension/line difference, as the first number of the first card being 1110 and incrementing that number by one for the following cards. If a card with a capacity of less than 16 lines has been installed in a slot, then only a portion of the 16 access codes reserved for that slot corresponding to the number of the lines is employed. The remaining portion is not used. Codes can be defined of length up to 8 digits for extensions, lines and the features. The new number of a line, whose access code has been changed, is used for all programs.

The programs related to the flexible numbering are entered while the system is in the programming mode. Since those data are stored separately from other parameters, even if the system is reset through the code 800002 9, they retain their most recent values.

Clearing Extension And Line Access Codes:

This program clears all extension and line numbers.

800900

Notes

If a new numbering plan coincides with the previous or the default ones at too many points, then it may be too cumbersome to enter the new plan by the code 800903 A E, so all extension and line numbers are cleared through the code 800900. Then it will be necessary to enter new access codes for extensions and lines all over again. If the number of any extension is not entered after dialing that code, then one cannot access that extension.

Clearing Feature Access Codes:

This program clears all feature access codes.

800901

Notes

- 1- If there are too many coincidences between the flexible numbering plan to be entered and the current feature access codes, then entry of new feature codes can be facilitated by entering that code.
- 2- You can delete all feature access codes by using that code. However, the programming access prefixes 800, 801 and 802 are not deleted when that code is used.

Flexible Numbering Reset:

This program loads the default values to the Flexible Numbering table.

800902

Notes

Whatever the capacity of the system is, the access codes of all extensions are contained in the table. For the cases when a change will be done on a previously entered numbering plan, that program must not strictly be entered, or all the previously entered numbers will take on their default values. Since the default values for all extensions are loaded, regardless of the system capacity, following the entry of the program 800902, the numbers of non-existing extensions should not be assigned to the existing extensions. Hence, it is necessary to delete those non-existing extensions prior to number assignment. Besides, in case things go wrong while entering a numbering plan, it is possible to reset through this program, if necessary.

Extension/Line Access Code:

This program changes the extension and line numbers.

8 0 0 9 0 3 H E

Parameters

H : The access code of the extension or the line.

E : The new access code. (minimum 1, maximum 8 digits)

Notes

A new access code can be entered for any extension or a line through this program. If the entered access code is of 8 digits, then dial tone or the invalid operation tone is received after entering the last digit. If dial tone is received, then the entered code does not coincide with any other code and the operation has been accomplished. On the other hand, if the invalid operation tone is received, then that means the code coincides with other codes, thus the operation has not been accomplished.

If the entered access code is of less than 8 digits, then the operation should be terminated with "*" key. (If the operation is attempted to be terminated by hanging up, then it cannot be accomplished.) In that case, either dial tone or the invalid operation tone is received. For the invalid operation case, either the coincided code must be replaced by another, or must be temporarily deleted. Clearing access codes through the code 800900 facilitates the entry of a numbering plan with many coincidences with the previous codes. (see Clearing Access Codes)

The access code of the line with number H is cleared after entering 800903 H, terminating the entry by "*" and receiving dial tone, respectively. That line can no longer be accessed, when another extension is called or external call is made through that line, nothing is transmitted as the access code of the line. Clearing access code can be applied as a temporary action in case there is code coincidence.

For example, suppose you would like to change the access code of an extension from 1112 to 1144, and at the same, you would like to change access code of another extension from 1144 to 1112. Both of the actions 800903 1112 1144 * and 800903 1144 1112 * will result with error. In that case, the programs 800903 1144 *, 800903 1112 1144 * and 800903 1144 1112 *, respectively, should be entered.

If the Karel digital telephone set is utilized for programming, then the coinciding number will be displayed, in case of a coincidence.

Changing Access Codes Of A Group Of Extensions Or Lines:

This program changes the current access codes of a whole line or extension group all at once.

800904 H₁ H₂ E

Parameters

- H₁ : The access code of the first line or the extension in the group.
H₂ : The access code of the last line or the extension in the group.
E : The new access code to be assigned to the first line or extension of the group. (minimum 1, maximum 8 digits)

Notes

- 1- Numbers are automatically assigned by starting from E and incrementing by 1 to all lines between H₁ and H₂.
- 2- In case E is of less than 8 digits, the program code must be terminated with "*".

Example: When 800906 1110 1125 2110* is entered, the access codes that were once between 1110 and 1125, now vary between 2110 and 2125 accordingly, after the change.

Feature Access Code:

This code changes the feature access codes.

800905 P E

Parameters

- P : The Feature code (3-digit special code)
E : The new access code (minimum 1, maximum 8 digits)

Feature Access Code Table

FRC	Feature	Default FAC
001	Follow me	85
002	Call Back	81
003	Line Park	4
004	Line Access	9
005	Last Number Redial	60
006	Calling From Common Pool	3
007	Selective Call Pick Up	82
008	Group Call Pick Up	5
009	Parked Call Retrieve	45
010	Parked Call Retrieve From Parking Extension	44
011	Date Setting	833
012	Time Setting	832
013	Set to Night Mode	879
014	System Parameter Update	744
015	Private Pool Entry	84
016	Common Pool Entry	834
018	Call Record Clear	8765
019	Call Record Listing	8766
020	Call Record Listing Stop	8768
021	All Call Record Listing	8767
022	Call Record Counter Reset	8769
023	Programming Access Prefix	800
024	Programming Mode Entry	87777
025	Programming Mode Exit	87778
026	Night Mode Exit	878
027	Parallel Ringing	835
028	Do Not Disturb Activation	831
029	Do Not Disturb Cancel	830
030	Password Define	836
031	Phone Lock	837
032	Line Transfer to Extension	839
033	Conference	5
034	Executive – Secretary Enable	888
035	Executive – Secretary Disable	889
036	Reminder	8380
037	Remote Follow Me	865
038	Line Drop	798
039	Password Dialing From Another Extension	799
040	ISDN Line Park	47
041	Pager Activation	741
042	Serial Call Transfer	8
043	Serial Call Transfer on ISDN phones	48
044	Message Waiting On The Operator	740
045	Wake Up Service	8388
046	Remote Programming Through DISA Line	74
047	Auto-Dial Common Pool	78
048	Auto-Dial Private Pool	77
049	Night Watch Code	869
050	Line Transmit Voice Level	67
051	Line Receive Voice Level	66

FRC	Feature	Default FAC
052	Marked Line Access	790
053	Account Coded Line Access	797
054	Line Access through DISA Line	9
055	Hotel Room Status	730
056	Hotel Room Status Query	731
057	Hotel Room Query - Group	7319
058	Check-in / Check-out	732
059	Meet Me Enable	738
060	Minibar Account	733
061	Meet Me Cancel	739
062	Room Monitoring Enable	8385
063	Room Monitoring Activate	9
064	Wake Up Service - Group	8389
065	Headset User Extension	742
066	Background Music	743
067	Listening to ACD and System Messages	7585
068	Recording ACD and System Messages	7586
069	Deleting ACD and System Messages	7557
070	Deleting All System Messages	7558
071	Deleting All ACD Messages	7559
072	Clear All Message Boxes	7561
073	Copy Message from Card to Card	7560
074	Line Access with a Line on Hold	69
075	Listening to New Messages	8646
076	Listening to All Messages	8645
078	Leave Message	82
079	Temporary Absent Message	8648
080	Permanent Absent Message	737
082	Permanent Absent Message Activation	7371
083	Permanent Absent Message Deactivation	7372
084	Permanent Absent Message Clear	7370
085	Permanent Reminder with Message	8387
086	Temporary Reminder with Message	8384
087	Extension/Line Programming Access Prefix	801
088	Extension/Line Programming Access Prefix_Group	802
089	Busy Extension Call Pick Up	43
090	Door Opener	100
091	Follow Me No Answer	866
092	Ring Transmit to Phone with Local Battery	#3
093	Line Flash	#2

Notes

The access codes of the features can be modified through this program when one wishes to make use of the features through shorter codes, or in cases when the entered numbering plan makes the feature codes too long.

If the entered access code is of 8 digits, then dial tone or the invalid operation tone is received after entering the last digit. If dial tone is received, then the entered code does not coincide with any other code and the operation has been accomplished. On the other hand, if

the invalid operation tone is received, then that means the code coincides with other codes, thus the operation has not been accomplished.

If the entered access code is of less than 8 digits, then the operation should be terminated with "*" key. In that case, either dial tone or the invalid operation tone is received. For the invalid operation case, either the coincided code must be replaced by another, or must be temporarily deleted.

For example: A line is requested by pressing 9 in order to make external call; the code of that feature is 004. If the code 800904 004 01* is entered, then dialing 01, instead of 9, is required to access a line. The features that can be modified through the flexible numbering and their 3-digit special codes are in the table above.

If the Karel digital telephone set is utilized for programming, then the coinciding number will be displayed, in case of a coincidence.

Access Code According To The Physical Location:

This program defines the extension or line access codes according to physical location data.

8 0 0 9 0 6 F E

Parameters

- F : The 4-digit physical address of the line the number of which will be changed.
- E : The new access code (minimum 1, maximum 8 digits)

Notes

- 1- This program defines a new number for an extension or a line by using its physical address.
- 2- This program is useful for entering the correct access code without the need for the previous access code data, in case access codes of some of the extensions or lines have been forgotten or confused.

SUMMARY:

Entering a New Numbering Plan (Following Reset):

- ◆ Fill in the Access Table form.
- ◆ If you clear the access codes of some non-existing extensions in the system in order to assign them to the existing extensions, or, in order to utilize the starting figures of them (eg. utilizing 2 in a system without an extension whose number starts with 2120), then enter Inaccessible next to that extension in the form.
- ◆ Enter a new numbering plan through the programs 800903, 800904, and 800905. In case there are coincidences, clear the coinciding access codes temporarily through the code 800903 H.
- ◆ Check whether the plan has been entered correctly by calling the extensions and accessing the features.

- ◆ Transfer the Access Table to the non-volatile memory through the program 800000.
- ◆ Keep the Access Table form; it will be necessary in the future, when you would like to make modifications.

Entering a New Numbering Plan (While there is already another plan):

- ◆ Fill in an Access Table form anew.
- ◆ If the numbering plan to be entered coincides with the current plan too much, then clear the extension and line access codes through 800021 or load the default values to the table through 800120.
- ◆ Enter the new numbering plan through the programs 800903, 800904 and 800905. In case there are coincidences, clear the coinciding access codes temporarily through the code 800903 H.
- ◆ Check whether the plan has been entered correctly by calling the extensions and accessing the features.
- ◆ Transfer the Access Table to the non-volatile memory through the program 800000.
- ◆ Keep the Access Table form; it will be necessary in the future, when you would like to make modifications.

Making Modifications on the Current Numbering Plan:

- ◆ Make the necessary modifications on the current Access Table.
- ◆ Make the modifications, which have been recorded into the form, through the programs 800903, 800904 and 800905. In case there are coincidences, clear the coinciding access codes temporarily through the code 800903 H.
- ◆ Check whether the plan has been entered correctly by calling the extensions and accessing the features.
- ◆ Transfer the Access Table to the non-volatile memory through the program 800000.
- ◆ Keep the Access Table form; it will be necessary in the future, when you would like to make modifications.

In Case Problems Related to Accessing Occur:

- ◆ Dial 744 on the operator phone. That code will re-load the program parameter and the Access Table from the non-volatile memory. If the problem persists, then make the necessary corrections on the Flexible Numbering Plan.

XIII. MAINTENANCE PROGRAMS

Powering A Card On/Off:

This program allows replacement or addition of any line/extension interface card to the system while the system power is on.

800950 Y P

Parameters

- Y : The slot number of the card
- P : 0 Power of the card is off.
- : 1 Power of the card is on.

Default Value

P = 1 for all cards.





Notes

You can perform operations related to the cards through that code without powering the system off when you want to add or remove a card while the system is operating. Only the extension or line modules are turned on and off by that action, whereas the UTIL200 and CPU200 cards strictly must not be removed from the system in any case while the system is operating.

The slot numbers corresponding to racks are in the table below: (The values that the parameter Y can take on.)

THE SECOND CABINET		6 th rack
4 th rack	48	94
	49	80
	50	81
	51	82
	52	83
	53	84
	54	85
	55	86
	56	87
	57	88
	58	89
	59	90
	60	91
	61	92
	62	93
		78
		64
		65
		66
		67
		68
		69
		70
		71
		72
		73
		74
		75
		76
		77

THE FIRST CABINET		
1 st rack	2 nd rack	3 rd rack
14	30	46
	16	32
00	17	33
01	18	34
02	19	35
03	20	36
04	21	37
05	22	38
06	23	39
07	24	40
08	25	41
09	26	42
10	27	43
11	28	44
12	29	45
13		

-  UTIL200 cards
-  EX200 or EVM200 cards
-  CPU200 card (No slot number)
-  CC Enable (No slot number)

The slot numbers of the UTIL200 cards have been presented, however the UTIL200 cards cannot be turned on or off through that program.

By using that program, a card can easily be removed from the system by being powered off. Likewise, when a new card is added to the system, the card can be powered by that program.

Clearing The Non-Volatile Memory:

800951

Notes

When this code is dialed, all the parameters in the non-volatile memory are deleted. Then, in order to provide normal system operation, either the system tables should be reset or a parameter file which has previously been created for an exchange with the same configuration should be loaded through the ADMIN200 PC interface.

Card Configuration:

800952 Y P

Parameters

- Y : PRI ISDN / R2 card Slot number
- P : 100100 The card is in the master mode (internal clock is used).
- : 100101 The card is in the slave mode (external clock is used).

- : 100200 Receive/transmit wire order of the card is in TE mode.
- : 100201 Receive/transmit wire order of the card is in NT mode.

Notes

- 1- The entry of that program must be terminated with the "*" key.
- 2- The parameter of that program which is related to time is used especially in videoconference applications for selecting location of the PRI ISDN card.
- 3- If a problem with LEDs are observed when the card is placed into the slot, then that could be solved by adjusting the NT/TE mode parameter of the program.

Communication Query:

This program transfers the data, related to the communication among the CPU200 Communication Controller and the other peripheral units, to the DS_DATA.BIN file.

800960 P

Parameters

- P : 0 The communication parameters data do not flow into the DS_DATA.BIN file.
- : 3 Data related to all communication parameters flow into the DS_DATA.BIN file.
- : 4 Data related to all communication parameters of ISDN and digital extensions flow into the DS_DATA.BIN file.
- : 8 Data related to the communication parameters of all Karel telephone sets and the DSS modules flow into the DS_DATA.BIN file.

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program. When the admin software is run, the DS_DATA.BIN file is automatically created by the software.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.
- 3- Since the content of the file DS_DATA.BIN is encrypted, the data in that file cannot be deciphered by anyone except the specialized personnel. The proper check of the file will be performed by Karel.

Dynamic Parameter Query:

800962

Notes

The inquired data is saved into the DS_DATA.BIN file.

Card Version Query:

This program transfers the software version data of any card, which belongs to the system, to the DS_DATA.BIN file.

800970 Y 00

Parameter

Y : The number of the slot where the card is located.

Notes

- 1- Please see the Card Turn On/Off program, for the card slot numbers corresponding to racks.
- 2- The code 800960 3 should have been entered in order to make use of that program.
- 3- The ADMIN200 PC interface must be operational in order to utilize that program.
- 4- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

CC Version Query:

This program transfers the software version data of the CPU200 Communication Controller to the DS_DATA.BIN file.

800971 00

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

Analog Extension Card Version Query:

This program transfers the software version data of the analog extension cards to the DS_DATA.BIN file.

800972 00

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- All extension cards are inquired by that program.
- 3- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN

file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

BRI ISDN Card Version Query:

This program transfers the software version data of the EX200 (0/8S0) and EX200 (8 T0/S0) cards to the DS_DATA.BIN file.

```
800973 00
```

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

PRI ISDN And R2 Card Version Query:

This program transfers the software version data of the PRI ISDN and R2 cards to the DS_DATA.BIN file.

```
800974 00
```

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

Analog Line Card Version Query:

This program transfers the software version data of the analog line cards to the DS_DATA.BIN file.

```
800975 00
```

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

Extension Parameter Query:

This program transfers all the parameter data of an extension to the DS_DATA.BIN file.

```
800976 A
```

Parameter

A : The access code of the extension

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

Version Query Of Karel Feature Phones And DSS Modules:

This program transfers the software version data of the Karel Digital telephones and the DSS modules to the DS_DATA.BIN file.

800977 00

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

Feature Table Query:

This program transfers table data related to some features to the DS_DATA.BIN file, in case a problem occurs. By this way, it can be monitored whether there is a problem related to those features.

800978 P

Parameter

P : 0 The Call Back feature table
 : 1 The Wait on Busy feature table
 : 2 The Call Park feature table
 : 3 Tables of all of the features above

Notes

- 1- The ADMIN200 PC interface must be operational in order to utilize that program.
- 2- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

PRI ISDN Card As System Clock Source:

800979 Y P

Parameters

- Y : PRI ISDN / R2 card slot number
- P : 0 The card cannot be used as the clock source.
: 1 The card can be used as the clock source.

Default Value

P=0 for all PRI ISDN/R2 cards.

Notes

- 1- One of the cards which are enabled as a source for the system clock by this program, is activated as the external clock source for the system if the external clock utilization is activated by 800980 coded program. If for any reason the card fails to receive the external clock, another card is activated by the system automatically.
- 2- Especially for data applications like video transmission, one of the cards in the first rack of the system must be enabled as the clock source. Additionally 800980 coded program must be used to activate the external clock source for the system.

External Clock:

If it is required to synchronize the system with an external device (this is generally required for data applications like videoconference), then with this program the system must be set to use the external clock.

800980 P

Parameters

- P : 0 System uses its internal clock.
: 1 System uses the external clock.

Default Value

P=0

Notes

- 1- If P=1 but the system cannot detect an external clock then it goes on using its internal clock.
- 2- If the system is set to use external clock source with this program then any one of the PRI ISDN / R2 cards which are enabled as the external clock source by 800979 coded program, is selected as the external clock source by the system automatically and the system synchronizes itself to that clock.
- 3- Especially useful for video conference and similar data transfer applications together with 800979 coded program.

Line Monitoring:

Thanks to this program, a call being made on a line can be monitored and checked to see if there is any problem.

800989 Y P

Parameter

Y : The slot number of the related card

P : 00..30 The number of the line to be monitored on the card

Notes

- 1- Do not hang up after having entered the program code. The conversation on the related line will be connected to your phone. In that case you can listen to both parties, but they cannot hear you.
- 2- The program is automatically deactivated when the phone through which the programming has been done is hung up.

Resetting The System By Preserving Its Parameters:

In case a malfunction occurs in the system, the system status information is transferred to the DS_DATA.BIN file through this program.

800990

Notes

- 1- When this code is dialed, the system restarts without being powered off and with all the modified and saved parameters being preserved. This code is especially useful when there is a confusion about the parameters which have been saved into the system memory. It is also useful for inquiries about cases such as inaccessibility of a line as the result of suspension.
- 2- The ADMIN200 PC interface must be operational in order to utilize that program.
- 3- Prior to the entry of that code, the current DS_DATA.BIN file belonging to the ADMIN200 PC interface should be renamed. Then the code should be entered and the DS_DATA.BIN file should be copied to another location when the recording is over, in order to be sent to Karel. Finally, the previously renamed file should be renamed as DS_DATA.BIN again.

XIV. REMOTE PROGRAMMING

The DS200 system can be remotely programmed over the telephone lines.

The remote programming feature is one of the best and most efficient means of software maintenance especially on customer side.

Instead of spending extra time and making extra effort to reach the customer, a responsible technician can take advantage of the Remote Programming method in order to enter all of the programming codes and to activate some of the user features.

This chapter gives information about the features a technician can make use of through remote programming. The terminology below applies within the chapter:

The technician: The person who performs the remote programming.

The Admin: The system supervisor on the customer side.

Activation Of The Remote Programming :

The system supervisor can put the system into remote programming mode. In order to realize this, s/he has to make hook flash and dial 74 while speaking with the technician. In that case the line in use is marked as DISA and the technician can program the system by exploiting all the authority the Admin possesses. The Admin can activate the remote programming for more than one line simultaneously so that more than one technician can program the system at the same time.

Important Notes For The Technicians Who Will Make Use Of The Remote Programming Feature:

- a) If the technician is the extension of another system :
 1. The technician must be using a DTMF telephone set.
 2. The system, which the technician has employed, must be transmitting the dialed DTMF tones directly to CO. In other words, the system must not be processing those DTMF tones before transmitting to CO. For instance, if the system is an MS48, then the technician must be prohibited by programming to use the keys "* " / "# ".
- b) If the technician is directly connected to CO and the remote programming line is in DP mode:
 1. In order to start the remote programming, either the operator should call the technician or the technician should use a DP-DTMF convertible telephone set.
 2. The technician should be using her/his telephone in DP mode in order to call the operator.
 3. Afterwards, the technician should enter the necessary codes through remote programming by converting the telephone into DTMF mode.
- c) Once the remote programming is activated, if the technician does not enter any code within 5 minutes, then the line is released automatically.
- d) Following the initiation of the remote programming, the technician starts to hear a special discontinuous dial tone and keeps on hearing it after each successful program or feature code entry.

- e) If the technician enters a program or feature code incorrectly, then s/he receives the error tone. In such a case, s/he can refresh the discontinuous dial tone by pressing the "*" key.
- f) If the numbering plan of the system, which is remotely programmed, has been previously modified, then the technician must use the new numbering plan.

A technician can use all of the program codes that are available in this guide. Additionally, s/he can activate the user and operator features below during the remote programming:

1. The night mode
2. Time setting
3. Date setting
4. Common pool entry
5. Parameter download
6. Call Listing
7. All Call Listing / Stop Listing
8. Total Cost Listing
9. Call Record Clear
10. Remote Follow Me
11. Line Access

Since the line used for the remote programming has been automatically marked as DISA, the technician can access another line only by dialing an extension number and entering the corresponding password of that extension.

If no number is dialed within 15 seconds, after another line is accessed, then the line, which has already been accessed, is automatically released.

The external call, which the technician will make, can take at most 50 seconds.

12. Calling an extension:

While using this facility, if the extension of the system hangs up, the line is not released but the technician receives the special dial tone for remote programming, so that s/he can continue with the remote programming of the system.

Exiting The Remote Programming Mode

After the remote programming is completed, the technician should give information to the Admin about the programming s/he has performed.

In order to exit the remote programming mode:

1. The technician can drop the line by pressing the "# " key on her/his telephone, or,
2. The Admin drops the line by dialing 798 and the system exits the remote programming mode.