

KAREU 10 KAREU 120

4 LINE LCD DISPLAY FEATURE TELEPHONE SET



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TECHNICAL REFERENCE AND USER GUIDE

JUNE-2009

Version Table			
Software Version		Date/Version of Guide	
FT10-4	FT20-4	Date/Version of Guide	
AAB	AAB-AAC	AAA/26.03.2003	
ABA-ABE	ABA-ABH	AAB/13.02.2007	
ABA-ABE	ABA-ABH	AAC/04.09.2007	
ABF	ABK-ABM	AAD/06.06.2009	

FT10-FT20/4 TTKK- Ver. AAD-06.06.2009

KAREL reserves the right to make modifications in product features mentioned in this document for development and improvement purposes, without prior notice. Individual products may possess characteristics different from those that have been mentioned in this document, due to their differences in software and hardware versions.



ISSUES TO PAY ATTENTION TO

- Read this guide carefully before you use your device and keep it for later reference.
- Any mistake with the connections in your device may damage it or your exchange.
 Especially the connection to the exchange must be made by the Authorized
 Technical Services. The explanations about connections in the User's Guide have
 been intended to give information only.
- A connection box comes with your device. The connections must be made as described in the installation chapter.
- In case you need a connection of plug-outlet type, never apply electric plugs and outlets; use plugs, outlets and connection components that are specific to telephones.
- Do not make any connection other than the extension connection of the KAREL telephone system.
- There is no part that you can repair or maintain in your device; therefore call the authorized technical service in case of any malfunction.
- Keep your device away from direct sunlight.
- Do not let any liquid substance spill on your device.
- Do the exterior cleaning of your device with a slightly moistened piece of cloth.
- Do not apply any chemicals for cleaning.
- Please call your authorized dealer in case you would like to change the place of your device. Use its own packing to carry the device.

PREFACE

Chapters in this guide have been prepared in order to present detailed technical information to people who need technical-introduction-based information about the FT10 and FT20 4 Line Display Feature Phones, in addition to giving technical information about programming and use of those telephones. By this way, one could understand abilities of the FT10 and FT20 4 Line Display Feature Phones, how it will be operated in accordance with customer demands and things that should be done in order to operate them with full performance.

The first chapter - "Technical Introduction" – It contains technical information about the hardware and software structures of the FT10/20 Feature Phone. Information in this chapter, for which knowledge in mechanics, electricity and electronics may be prerequisite, aims to introduce structure of the phone.

The second chapter – "Installation" – The methods to be followed for the installation of the FT10/20 Feature Phone are explained. This chapter must be read definitely before the installation by the personnel who will perform the installation.

The third chapter – "Utilization Features" – This chapter gives pratical information about the usage of FT10/20 Feature Phone.

The fourth chapter – "Program Features" – This chapter gives detailed information about the software features that will enrich functions of the FT10/20 Feature Phone and that could be applied to meet daily communication needs of customers more comprehensively.

The last chapter – "Accessories" – It gives short information about the accessories which are used with this FT10/20 Feature Phone.

Best Regards,

KAREL

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TECHNICAL INTRODUCTION INTRODUCTION

FT10 is a telephone set, which can be used with all MS series exchanges of KAREL, and that provides ease and rapidity to the usage of those systems.

NOTE: FT10 is not compatible with the MS26S exchange, as an exception.

FT20, on the other hand, is a telephone set, which can be used with the entire DS series exchanges of KAREL and whose utilization characteristics are significantly similar to that of FT10. Differences between the two products arise from the fact that the features supported by the DS and MS type exchanges are different. Those facts have been specified in the guide; they are supposed to be considered during usage.

By the FT10 and FT20 telephone sets:

- Users are provided with the facility of performing several operations such as calling back, auto dialing, follow me, conferencing and alarm setting, by pressing a single key through special-purpose keys and the display that are on the telephone, without the necessity to know the system-specific special codes.
- Active services and call information, as well as the actions that the user can take for them, are displayed through the four-line LCD (liquid crystal).
- Actions that can be taken for the active services and the call information, which are indicated on the LCD display, are carried out easily and rapidly through four keys with special functions that are located below the display.
- One-touch extension and/or line calls can be made over the phone book and programmable keys. (This facility is valid or MS Series software with the version ACA or better.)
- Statuses of the extensions and/or lines that have been assigned to those keys can be viewed through the lights (LED) in two colours, which are embedded into the programmable keys.

COMPATIBILITY

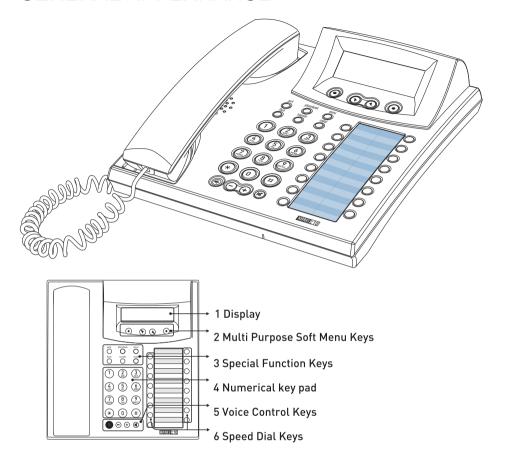
The **FT10** telephone set is compatible with the 3.11H or better software of the exchanges of models MS26C, MS38S, MS48, MS48S, MS48C, MS128 and MS224. The **FT20** telephone set is compatible with the entire versions of the exchanges of models DS200. DS200S and DS200M.

PARTS LIST ON DELIVERY

Parts that are included in the FT10 or FT20 package:

- FT10 or FT20 telephone.
- Handset.
- Spiral cable of the handset,
- Data cable with RJ11 connectors at two ends,
- Console connection box,
- Technical Reference and User Guide.

GENERAL APPEARANCE



TECHNICAL SPECIFICATIONS

Weight: 900 gr

Dimensions: 217 mm x 229 mm x 86 mm Operational Temperature: 5 °C - 40 °C Storing Temperature: -20 °C - +60 °C

Humidity: 0 - %80

Dialing Method: DTMF (Tone dialing)

USER INTERFACE

DISPLAY



Information presentation display is of four lines with 20 characters. The following information that facilitates usage is present on the LCD display, which indicates the active features of the telephone and the functions of the flexible keys at that moment:

- Date, time
- Entry to the menu options, phone book
- Activated services (such as Auto-dial, Follow Me and Redial)
- Call information [FT10] (Incoming Call Extension 121, Missed Call E 121 1/01)
 [FT20] (Incoming Call Extension 1444, Missed Call E 1444 1/01)
- Action options that can be taken for the active call and service

[FT10] (Such as Redial / Call, Missed Call E 113 Details?) [FT20] (Such as Redial / Call, Missed Call E 1444 / Details?)

DISPLAY KEYS







These keys are located below the display and they play an important role in usage of FT10/20.

Actions that can be carried out and/or information that can be received by a user while:

- a call / conversation is being made
- the telephone is being programmed
- the telephone is on hook

are presented through the display. In order to carry out these actions and/or access that information, the keys are pressed according to the options on the display.

These keys are used for accepting or declining the alternatives presented to the user on the display at that moment, or they are used for accessing new alternatives. Functions that will be activated by those keys or title of the information to be accessed are indicated on the display. Such a display will be actualized only if there exists a function programmed on the key or information to be accessed through the key. For example, if there are options not more than two, then the navigation keys do not function.

Selection Keys:

They are used for confirming and activating the case indicated right at the top of the display at that moment. For instance, for **FT10**, the options "menu" and "phone book" appear on the display of the telephone during off-hook status, above these keys. Any desired option could be confirmed through these keys and access to submenus is provided. Function of the selection keys change according to the options prompted on the display.

Navigation Keys:

While in programming mode, left navigation key provides access to the previous main menu if it is pressed on main menus, and if it is pressed on submenus, then the entire options in that submenu are displayed. Starting from the first submenu down to the last one, the entire options can be easily reached; moreover, one goes back to the first submenu again after the last one, without exiting to the main menu. However, if the "Exit" option is confirmed through the right selection key, then one goes back to the main menu, where those options are located. While making changes in the content of the phone book, as the cursor shifts one digit back, the entry is erased by one character on each move.

By the right navigation key, one proceeds to the next menu or message from all menus in cases when the "> " sign appears on the display. The entire main menus starting from the first one down to the last are displayed and then one returns to the first main menu again, after the last menu. It is also possible to browse the submenus, once one has a made a selection in the main menu and has proceeded to the submenus.

SPECIAL FUNCTION KEYS



- "Park" Key: If this key is pressed during an ongoing line call, then that line is parked. If it is pressed when there is a parked line, on the other hand, then the parked lines are retrieved one by one.
- "Phone Book" Key: This key activates the phone book and it provides access to the entire telephone records from that.
- "Menu" Key: This key activates the menus by which the telephone is programmed and it provides access to the submenus.
- "Flash" Key: It puts an ongoing external or internal call on hold or puts a line on hold back to conversation mode.
- "Transfer" Key: It functions the same as hanging up and then picking up phone. While there is a line on hold, it transfers the other ongoing call to the line on hold.
- "Redial" Key: This key dials again the last external number that has been called.

Park:

A line or an internal conversation can be parked by pressing this key during the conversation. If it is pressed when there is a parked line, then it puts the parked line into conversation mode. Likewise, if this key is pressed when there is a parked internal call, it puts the internal call into the conversation mode. When the call is parked by using that key, "parked line" information and "Retrieve" option for the line appear on the display. The call can be retrieved by pressing the right selection key or the "Park" key for a second time. A call can be parked more than once and more than one line can be parked at the same time. When a line has been parked, the telephone can be used independently from that external conversation, i.e., internal and external calls can be made by making use of the entire features.

A call can be parked more than once and more than one line can be parked at the same time. When a line has been parked, the telephone can be used independently from that external conversation, i.e., internal and external calls can be made by making use of the entire features. For FT10/20 Feature Phone users, if there are parked line and also parked internal call and if the other service is activated, the internal line call will be retrieved in turn with this key.

The first call which is parked will be displayed in the first rank of the park list.

The second function of this key is, on the other hand, providing the relation between the exchange and the console. The key is employed when it is required to change the number of the telephone or to reset the connection to the exchange. When the key is pressed until the "beep" is received and then it is released, the telephone prompts for the extension number to be put on the data line of the exchange.

In order to enter the "terminal no=aa" value of FT10, this key is pressed consecutively to proceed until the correct extension number is displayed and the extension number will have been entered to the telephone upon lifting and then replacing the handset.

As FT20 is concerned, the extension number, "telephone number, no=aaaa" is entered according to the numerical values that have been assigned to the programmable keys and then the number is detected by the exchange upon pressing the "Connect" key.

(Those numerical values have been explained in detail under the title FT20 Factory Default.)

* For FT20, it should be used when a new number is defined for the telephone or when the FT20-exchange connection is desired to be reset.

Phone Book:

This key provides access to the telephone book, which has been created through the main menus that have been accessed by using the "Menu" key or its option on the display, which contains names and phone numbers and over which operations on those entries could be carried out.

If there is any record in this phone book, then those records, which are in alphabetical order, are directly displayed. The records that are present in the telephone at that time can be directly searched by name or number query through the "Find" option on that display. (The phone book is empty at the first use of the telephone.) The other records can be displayed by the navigation keys. (On FT10 telephones, no calls can be made through the "Phone Book/Find" option.)

Besides, the "Find", "Add", "Change" and "Delete" options can be accessed over the navigation keys after selecting the "Up" option that is on the display. The other records can be displayed through the navigation keys. In the event that there is no record, only the "Add" and "Change" options are displayed. The submenu title, named as "Entry Message", can be accessed when the "Change" option is selected and the navigation keys are used. The expression with at most 18 characters that is entered here will be displayed on the display of the telephone during off-hook state. Detailed information about the phone book has been presented in the relevant section.

Menu:

It is used for doing the entire Phone Settings. The menu is entered by pressing this key and then one can proceed to the entire main menus and then to the submenus, and the navigation keys can be used for moving within those menus or submenus, if necessary.

The telephone gets into the busy mode after the menu has been entered and it remains so until the menu is exited.

Flash:

It is used for putting the calling party on hold during an internal or external call. When it is pressed for a second time, the call on hold is retrieved, or the call can be retrieved by the "Retrieve" option that appears when the key is pressed.

It drops the line when it is used while the other party has not yet picked up the phone. A single call can be put on hold at a time. There is no limit for the duration to press the key; however, in the event that the line that has been put on hold has not still be retrieved at the end of a certain period that is determined by the exchange software, the line may automatically be dropped.

Transfer:

It is used for transferring an ongoing call to another call that is on hold. In order to actualize the transfer operation, first of all the conversing party should be put on hold by using the flash key or the "Hold" / "Park" option on the display. Afterwards, the number to which the transfer operation will be done is dialed. At this point, the operation is accomplished by pressing the transfer key before or after conversing with the extension to which the call is to be transferred.

During a "Transfer" operation done over FT20/DS200:

- A line cannot be transferred to another line.
- If it is the FT user who has started the conversation, then an extension cannot be transferred to a line.
- On the other hand, if it is a line that has started the conversation, then that line can be transferred to an extension.

Making use of the transfer option on the LCD display will also accomplish the transfer operation following the same rules above.

Redial:

It dials again the last number that has been dialed. This key functions the same way as the "Redial" option on the display. The difference between "Redial" and "Auto-dial" is that the "Auto-dial" option automatically calls the other party repeatedly until busyness status is over (Actually, at most 16 times), whereas the "Redial" option calls only once. When the "Redial" option is used, the line access code and the dialled number are displayed together on FT20 display.

NUMERICAL KEY PAD

It is composed of 3x4 (DTMF) key matrix. Moreover, these keys are used for number or character (letter, figure or symbol) entry during the operations related to the "Phone Book". Grouping of the characters with respect to the keys are as follows. Standards that apply for similar applications have been complied with for this subject. If any programmable key is pressed when the letter entry is being made with capital letters, the entry starts to be made by small letters. By the same way, if any programmable key is pressed again, small letters turn into the capital letters. If the small letters are started to use the "^" is displayed on the top left side of the screen.

Group of "1":	(space) 1 \$ % &	
Group of "2":	A B C 2 #	(a b c)
Group of "3":	D E F 3:	(d e f)
Group of "4":	G H I 4 -	(g h i)
Group of "5":	JKL5((j k l)
Group of "6":	M N O 6)	(m n o)
Group of "7":	PQRS7	(p q r s)
Group of "8":	T U V 8 +	(t u v)
Group of "9":	W X Y Z 9	(w x y z)
Group of "0":	0 →!?=	

VOICE CONTROL KEYS

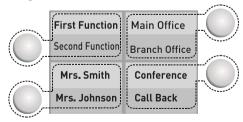
Control of voice features of FT10 and FT20 telephones are fulfilled by making use of four keys:



"Key: (Handsfree: It is a feature of telephone that it emits voices into the room or transmits voices inside the room to the other parties while the handset is still on hook.) This is the key with a red icon that puts the telephone into the "handsfree" status and that signifies this through an embedded LED. The key is called H/F key, and the LED inside it is called H/F LED.

- Key performs different functions in different cases. These are:
- When it is pressed while the handset is on hook, the telephone is picked up as "handsfree" and the H/F LED lights. In this case, a number can be dialed and a conversation can be made without lifting the handset. Pressing the key during a conversation terminates the conversation.
- The H/F LED starts to blink if it is pressed while dial tone or busy tone is being
 received over the handset or while a conversation is being made. If the handset is
 replaced before the H/F LED goes out, then one continues to receive dial tone or
 busy tone, or one can go on with the conversation. The conversation is terminated
 if the handset is replaced after the H/F LED has become off.
- If the handset is lifted during the handset status, then the rest of the conversation goes on via the handset. Replacing the handset terminates the conversation.
- While the handset is on hook, in the event that this key is pressed twice consecutively, the other party can be heard both via the handset and the H/F speaker. The opposite party would hear the things spoken via the handset only, but no voice would be transmitted to the opposite party via the H/F microphone. The conversation terminates by replacing the handset at this status.
- If "Headset" usage has been activated through menu options, then this key may also be used for putting the headset on line. Headset usage has been explained in detail in the "Connection Points" section.
- "Key: It is used to decrease the level of voice received during conversation in the Handsfree mode.
- "Yey: It is used to increase the level of voice received during conversation in the Handsfree mode.
- **Key:** The **MUTE** key with a black icon, which provides interruption of the outgoing voices during the all conversations and which signifies that via the LED inside it. Pressing the key for a second time will maintain the voice transmission to the opposite party again. Please note that this key is used only during the H/F conversations. When a conference is started through the FT20 telephone the outgoing voices can be interrupted by pressing this "MUTE" key.

SPEED DIAL KEYS



Two functions can be programmed for each of the speed dial keys, which consist of 16 keys with lights. Features that can be assigned to these keys through programming:

Extension Number

- Line Number
- Private and Common Pool Number
- Function Services (Services such as Follow Me, Call Back, Do Not Disturb, Telephone Lock, Conference, Night Mode)
- **[FT20]** Feature codes (DS200 programming and user codes, such as entry to programming by the code 877777, Do Not Disturb function by the code 831.)

These assignments are done to the first or the second functions of the key during the program entry done by pressing the "menu" option. Assignment is done to the first function if the key is pressed for a short time, and it is done to the second one if the key is pressed for a longer period. Transition of the key to the first or second function is indicated by a short or a long beep, respectively. Besides, the LED that belongs to the key lights in green for the first function and lights red for the second one during programming.

When the keys that have been programmed for extension, line, private or common pool are pressed, these numbers are called directly. When the keys that have been programmed for the services such as Follow Me and Call Back are pressed, these services are activated directly or a necessary input is prompted. (Such as the extension number, to which the Follow Me action will be carried out.)

When the keys, to which "User Code" has been numerically assigned, are pressed, the service that has been determined through the user code is activated directly or the appropriate code is prompted. The Follow Me service (85) and the extension number to which the forwarding will be done would constitute an example for that kind of usage.

FUNCTION PROGRAMMING FOR THE SPEED DIAL KEYS

This feature provides for taking advantage of some functions that have been defined for FT10 and FT20 in the exchange properties, by pressing a single key. A user may program for those keys the features presented by the Karel telephone branch exchange, which s/he would use most frequently.

Different methods can be employed for assigning functions to the programmable keys of the FT10 and FT20 feature telephone sets. These operations are carried out for FT10 through the submenus of Function, Private Pool or Automatic Programming in the Phone Settings > Key Settings option. For FT20, on the other hand, they are carried out through the submenus of Feature, Feature Code or Automatic Programming in the Phone Settings > Key Settings option.

By the Function Programming Menu: FT10 and FT20

Features most frequently employed by users are among those options. The programming can be carried out by assigning desired ones out of the 10 options that have been presented in the Key Settings > Feature submenu, in order to apply that programming option. First the key to be used is selected, then the desired one out of the 10 presented functions is brought to the display through the right/left navigation keys and the programming is completed by the "Accept" key. These selections have been explained below:

- **Follow Me Key:** If this key is pressed while dial tone is being received and then if number of an extension is entered, then forwarding to that extension is actualized and then red LED lights. If it is pressed again while dial tone is being received, then the forwarding is cancelled and the LED goes out.
- Call Back Key: If a called extension is busy or not answering and if busy tone
 is received upon attempting to access a line, then that extension/line is called back
 by pressing this key and the appropriate red LED lights (No LED lights on FT10.) In
 order to cancel the call back operation, the key is pressed again while dial tone is
 received and the LED goes out (No LED lights on FT10.)
- Do Not Disturb Key: It puts that extension into the "Do Not Disturb" mode if it
 is pressed while receiving dial tone and the red LED starts to blink. In that case,
 telephone rings once when the extension is called. If it is pressed again while
 receiving dial tone, then the "Do Not Disturb" service is cancelled and the LED
 goes out.
- Telephone Lock Key: If this key is pressed while dial tone is being received
 and then a password is entered afterwards, then the telephone will be closed for
 external calls. The telephone will be open for external calls again, if the procedure
 is repeated in that mode. The corresponding red LED is on while the telephone is
 locked and goes out when it is unlocked.
- Conference Key: During a call with an extension or line, this key is employed for including another extension or line into the conference. If a line is desired to be included into the conference, the line with which the conversation is going on is put on hold by pressing this key and one proceeds to conversation status with the line to be included into the conference. A triple conference is established upon pressing this key again. If it is an extension that is to be included into the conference, then that extension is called after making hook flash during the call with an extension or line. The triple conference will have been established upon pressing this key, after initiating the conversation with that extension. If it needs the "Drop" option which is appeared during the triple conference can be used. At the time of conference the "Mute" key can be used in order to provide the interruption of the outgoing voice. During the conference with the extensions or lines the information of the ongoing conversation of the extension or line will be displayed.
- Night Mode Key: It can be employed only through the telephones that have been defined as the operator. It puts the system into the Night Mode when it is pressed while dial tone is being received and the LED will be turned on. If it is pressed again, then it puts the system into the Day Mode and the LED goes out.
- Page Key: When this "Page" key is pressed, the first functions of the all-programmable speed dial keys are became the second functions of the all-programmable speed dial keys. In that case two different function statuses of each key are displayed through the LEDs. In normal operation, the LED lights in red for the first page functions and lights in green for the second page functions. When the green LEDs are ON, it means the second functions of the keys are active. Moreover, when the green LED lights, the chararater "^" will be seen in the date/time line of the display and it shows that the second functions of the programmable keys are active. If there is a key as a "page" key and another key is desired to program as page key, the first and the second functions of the old page key is directly erased. At the first initiation of the phone, the LED of page key (if exists) will light in red.

- Auto Dial Key (FT10): The telephone automatically calls the corresponding number when the auto-dialer is activated. If the called party is busy, then the calling action is performed repeatedly in every 15 seconds. As soon as the business of the opposite party is over, the telephone notifies that by ringing itself or by short beep.
- Message Key: If there is an EVM module placed on the system and a voice
 message is left to the extension, the LED of this message key will blink to inform
 the extension a new message left. All voice messages left to you can be listened
 successively if the key is pressed.
- Call Collect Key (FT20): When a user is busy or in a conversation, the incoming internal or external call can be taken by pressing this key and at that time the first line is dropped. During a conversation, a notice tone which informs that there is a new call, is heard. If this key is pressed, a new conversation is started with this call and the existing call is parked.

Code Programming:

By the Private Pool Programming Menu: FT10

Twenty most frequently called external numbers can be programmed into the private pool of the telephone. Moreover, functions supported by the exchange can also be assigned to the keys by applying private pool programming. (Please refer to the user's guide of your exchange for information related to the functions supported by the exchange and the codes to program them.)

After entering "Register no=" via Key Settings > Private Pool submenu, codes of the entire features presented to users can be programmed for the "no=" option by primarily pressing the "*" key.

Example: An extension using the MS48 exchange can make conversation with a party at the door over telephone, provided that there is a door phone (the device for the action being mentioned) connected to the exchange and s/he can open the door upon wish through telephone, if the door connection has been made to her/his exchange. An FT10 user that employs those features frequently can facilitate utilization by programming those functions for the keys of the telephone. In order to do that, first the user's guide of the exchange should be referred to for information about the topics "Door phone Conversation" and "Door Opener". By this way, one would learn whether the exchange code for Door phone Conversation is 110 or 10 and the code for Door Opener is 151 or 129, as well as properties of the functions. Then, by accessing FT10 menu, submenus of "Phone Settings", "Key Settings" and "Private Pool" are selected, respectively. Upon the displayed warning, "Press Key", the memory key that will be used for door phone conversation is pressed. In case there is another function or extension number that has previously programmed for that key, it will be deleted. Once the key to be employed has been selected, the prompt "Register no=" is displayed. Each user has a capacity of 20 numbers reserved for her/him. A memory number in the range 01..20 is entered corresponding to the "Register no=" prompt on the display and the entered value is automatically confirmed. The sign "no=" appears on the display, afterwards. At this step, the exchange code of door phone is entered after pressing the" *" key shortly: (*110) or (*10). The programming is completed by pressing the right selection key. The display reverts to the "Private Pool" menu. The actions explained above are repeated for the door opener function as well; codes (*151) or (*29) is entered, then they are confirmed by the right selection key and the operation is thus accomplished. One reverts to the Key Settings submenu screen by pressing the "Up" key. Then the user can talk over the door phone or open a door, each by pressing a single key that s/he has previously chosen.

NOTE:

- The code required for "Door Phone Conversation" is 110 in the MS48 exchange, however, capacities smaller than 6/18 require the code 10.
- On the other hand, the code required for "Door Opener" is 151 in the MS48 exchange, however, for capacities smaller than 6/18, the required code becomes 29.

By the Feature Code Programming Menu: FT20

The entire functions supported by the exchange can be programmed for **FT20** feature telephone set through the Feature code menu. Any eight-digit code can be assigned to the programmable keys. That code could be one that is related to user, such as Follow Me (85), one that is related to the operator, such as Wake Up Service (8389) or one that is related to the system supervisor, such as entry to the exchange programming (877777). If the entered code is none of them, then it is taken as an extension number and this extension number is called directly when this key is used. After accessing the Key Settings > Feature code submenu, if one of the programmable keys is selected, one of the corresponding codes is entered for the "no=" option and then if it is confirmed through the "Accept" key, then the program will have been assigned to the selected key. (Please refer to the user's guide of your exchange for information related to the functions supported by the exchange and the codes to program them.)

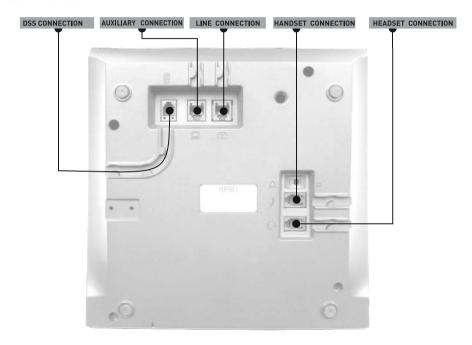
By Automatic Programming Menu:

In FT telephone sets, possibility of assigning different functions to the entire keys simultaneously is provided via the Auto Setting option under the Key Settings menu. This feature will be explained in detail later in the section "Auto Settings". Via the automatic programming, about 20 functions can be programmed for the FT telephone sets at the same time. These functions can be changed later one by one, as already explained in the sections above, or they can be cleared through the "Clear All?" option in the same menu.

INSTALLATION

CONNECTION POINTS

Under FT10/20, there are five connections. Connections and their characteristics have been illustrated below.



DSS CONNECTION: "Direct Station Select Unit" connection point. By employing this connection point, the FT10/FT20 feature telephone set can be used together with DSS10/DSS20 **Direct Station Select Unit** in order to make use of the exchange features more actively.

AUXILIARY CONNECTION: The connection point that is required for programming FT over computer. It has been reserved for future use or applications.

LINE CONNECTION: Line connection point of FT.

HANDSET CONNECTION: Handset connection point.

HEADSET CONNECTION:

It is employed for connecting headset option to the telephone. The standard headset could be obtained from KAREL.

HEADSET TYPES: KAREL GLS201



- Activation of Headset: The selection is made through the PHONE SETTINGS >HEADSET menu. (HEADSET >Disable, With HANDSFREE, Without HANDSFREE) The headset option is in Disable mode by default.
- While telephone is on hook, when the H/F key is pressed, the telephone is picked up through the headset. If H/F key is pressed again, then the headset is turned off and the telephone gets into HF mode. The telephone is hanged up, if the H/F key is pressed again. During a conversation over the headset, if the handset is lifted or if the telephone is picked up through the handset, then the voice level will decrease, since it will be split into two.
- In order to facilitate headset utilization: PHONE SETTINGS > LAZY MODE could be selected. In that case, the telephone is picked up automatically after the first ringing without pressing any key and conversation goes on via the headset.

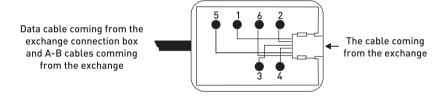
FT10 INSTALLATION

In order to operate the telephone, first, the spiral handset cable is connected to the connection point under the telephone and to the handset. Then FT10 must be connected to the KTS line of the exchange.

Required Hardware For The Connection:

FT10 is presented to the user together with a "telephone data cable" of length 2.5 m. and a connection box. There are 6-pin, RJ-type male connectors at both ends of the "telephone data cable". One end of this cable has been attached to a 6-pin, RJ-type female connector that is on the connection box. The connector at the other end of the cable will be attached to its correspondent under FT10. The cavity, which is on the side of the connection box without the 6-pin, RJ-type female connector, has been left for other cabling that would be carried out on the box. (Parallel connection of the DATA / +12 VDC / GROUND (GND) signals and A / B terminal connections.)

Those signals are present on the console connection box that is included in the FT10 hardware:

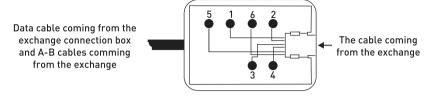


- 1. + 12 VDC
- No connection
- 3. B (Tip) signal coming from the corresponding extension
- 4. A (Ring) signal coming from the corresponding extension
- 5. Ground (GND)
- 6. Data signal

In addition to the telephone data cable, another cable that can be used during installation is the "system data cable", which is distributed as one for each exchange. One end of the "system data cable" has been attached to its connection box. On the other, there is a connector at the free end of the cable, which is fit for the KTS (serial data) port socket of the corresponding exchange.

The 6-pin, RJ-type male connector on the other side of the connection box will be employed for parallel connection of data / +12 VDC / ground signals.

Those signals are present on the exchange connection box that is included in the exchange hardware:



- 1. + 12 VDC
- 2. Busy
- 3. No connection
- 4. No connection
- Ground (GND)
- 6. Data signal

NOTE: The "Busy" signal is used for KY16 Mini Printer, which is another KAREL product.

If the distance between the exchange and FT10 is more than the total lengths of the two cables mentioned above (approximately 4 meters), then it would be necessary to obtain flat telephone cable in order to make the connection between the two connection boxes. Note that the cable should comply with the standards.

Connecting FT10 To The Exchange:

Cabling of the first telephone to be connected to the KTS line of the exchange:

- 1) Free end of the "system data cable" is attached to the KTS port socket of the system.
- 2) One end of the "telephone data cable" is attached to the connection box that is at the end of the system data cable. The other end is connected to the FT10 telephone.
- 3) Connection of the A-B wires of the corresponding extension is made to the connection box. In order to do that, two wires taken from the corresponding extension connector of the exchange are attached to the red and green points on the connection box.

NOTE1: If the exchange is MS26C, MS38S or MS224, and if the first FT10 will be connected to the operator, then connections of the extension wires should not be made, because the A and B connections for the operator are also ready on the KTS sockets of those exchanges. Additional realization of those connections may prevent the exchange from operating.

NOTE2: If the exchange and the first telephone are far away from each other for more than 4 meters, then standard flat telephone elongation cable of sufficient length should be applied in order to provide the connection between the two connection boxes.

4) After the telephone has been connected, the extension settings should be done, as will be explained in the next section.

Cabling of the telephone while there is another device connected to the KTS line of the exchange:

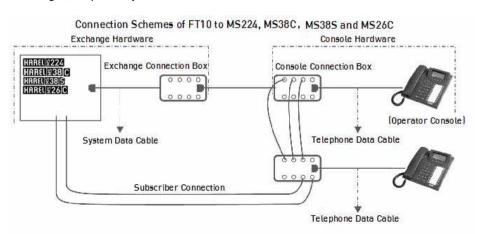
1) Parallel connection should be made from the connection box of the device that has previously been connected to the KTS line to the wires that carry data (white), +12 VDC (blue) and ground (black) signals and this connection should be made in the same order to the connection box of the FT10 that is newly to be connected to the exchange.

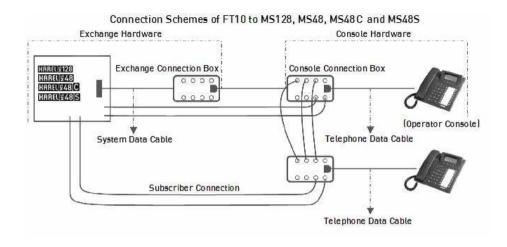
NOTE: Short circuit or wrong order of the wires during the installation may result in improper operation or malfunction of the exchange or the other devices that have been connected to the KTS line.

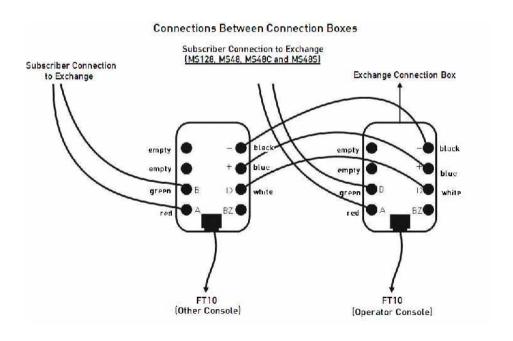
- 2) Then, extension connection to FT10 should be made. In order to do that, two wires taken from the corresponding extension connector of the exchange should be attached to the red and green points on the connection box of FT10.
- **3)** After the telephone has been connected, the extension settings should be done, as will be explained in the next section.

IMPORTANT NOTE: If FT10 is to be connected over a distance longer than 5 meters, then A-B (ring-tip) and serial data (KTS) wires should be carried over separate cables, one should especially pay attention to employ shielded cables for long-distance installations of serial data wires.

The figures below illustrate connections of FT10 to the MS26C, MS38S and MS224 exchanges, respectively, and connections to the MS48S, MS48, MS48C and MS128 exchanges, respectively.







Defining Extension Number For FT10

At the first moment **FT10** is connected to the exchange, the two-digit extension number is displayed in the "Terminal no=aa" format. That number has been set as "11" as factory default and it signifies the last two digits of the extension number.

If the data on the LCD display are changing upon lifting and replacing the handset, then that indicates extension settings are correct. However, if those data are not changing, then the extension number of FT10 must be set. In order to do that:

- 1) The "Park" key is pressed until the message "Terminal no=aa" appears on the display (aa= a two-digit number last two digits of the physical number of the extension.)
- 2) One proceeds by pressing the "Park" key in short whiles until the extension number that is desired to be set appears on the LCD display.
- 3) When the desired number has appeared on the display, the handset is lifted and replaced once. From then on, FT10 will operate at that defined extension.

NOTE: When number of another extension of the exchange is entered to FT10, the speech channel is activated; however, the data line does not function.

Number Of FT10s That Can Be Connected To The Exchange And Connection Distances

- 1) The FT10 telephones can be connected to the first 16 extensions of the exchange.
- 2) Number of FT10s that will be connected to the exchange and accessories using the external data line of the exchange should not exceed 8 in total. The maximum number of FT10 which will be connected to the system can be 8.
- **3)** If "data / 12 VDC / ground" signals and the "A / B" wires are carried to FT10 over separate cables, then an FT10 can be located at most 250 meters far from the exchange in the event that ordinary cables are employed.

That distance would decrease as the number of feature telephone sets that are connected to the exchange increase. For example, when 8 FT10s are connected to the exchange as previously explained, the maximum allowed distance between the telephone sets and the exchange drops to 25 meters.

In such a case, if the "12 VDC" signal amplitude of the last FT10 drops below +8.5 VDC, then the performance may be improved by connecting a +12 VDC power supply between 12VDC and ground terminals.

FT10 Start-up State

The telephone set would be ready for operation after the required connections have been made and the correct extension number has been defined. The display and the programmable keys start to perform their functions.

Beginning LED simulation will light just in yellow for the FT20 feature phones.

By default, there is no program assignment for the programmable keys. These keys are to be programmed by user according to needs. Please refer to the section "Key Settings and Automatic Settings" in this guide for detailed information. In order to change settings of your telephone and other settings of your exchange, refer to the section "Phone Settings". Settings of telephone set are not cleared as the exchange is shut down and then powered.

If the telephone set has previously been connected to the system and if it is connected again after having been removed, then it gets ready for use within a few seconds. In that short period, first the version information of FT10, then the "Terminal No:aa" message appear on the display. After that message the telephone would be ready for utilization.

In the event that the exchange is reset or is shut down and restarted while the telephone has been connected to the exchange, the telephone first waits for the system to start and display the version information of FT10 and then the message "Terminal No: aa" (for 15 sec.), then it establishes the connection with the exchange after that waiting period.

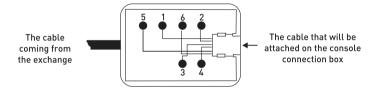
FT20 INSTALLATION

In order to operate the telephone, first, the spiral handset cable is connected to the connection point under the telephone and to the handset. Then FT20 must be connected to the KTS line of the exchange.

Required Hardware For The Connection:

FT20 is presented to the user together with a "telephone data cable" of length 2.5 m. and a connection box. There are 6-pin, RJ-type male connectors at both ends of the "telephone data cable". One end of this cable has been attached to a 6-pin, RJ-type female connector that is on the connection box. The connector at the other end of the cable will be attached to its correspondent under FT20. The cavity, which is on the side of the connection box without the 6-pin, RJ-type female connector, has been left for other cabling that would be carried out on the box. (Parallel connection of the -48VDC / GROUND (GND) + DATA signals and A / B terminal connections.)

Those signals are present on the console connection box that is included in the FT20 hardware:



- 1- 48VDC
- 2- No connection
- 3- B (Tip) signal coming from

the corresponding extension

4- A (Ring) signal coming from

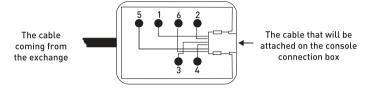
the corresponding extension

- 5- Ground (GND) + Data
- 6- No connection

In addition to the telephone data cable, another cable that can be used during installation is the "system data cable", which is distributed as one for each exchange. One end of the "system data cable" has been attached to its connection box. On the other, there is a connector at the free end of the cable, which is fit for the KTS (serial data) port socket of the corresponding exchange.

The 6-pin, RJ-type male connector on the other side of the connection box will be employed for parallel connection of -48 VDC / ground + data signals.

Those signals are present on the exchange connection box that is included in the exchange hardware:



- 1- 48 VDC
- 2- No Connection
- 3- No connection
- 4- No connection
- 5- Ground (GND) + data
- 6- No connection

If the distance between the exchange and FT20 is more than the total lengths of the two cables mentioned above (approximately 4 meters), then it would be necessary to obtain flat telephone cable in order to make the connection between the two connection boxes. Note that the cable should comply with the standards.

Connecting FT20 To The Exchange:

Cabling of the first telephone to be connected to the KTS line of the exchange:

- 1) Free end of the "system data cable" is attached to the KTS port socket of the system.
- 2) One end of the "telephone data cable" is attached to the connection box that is at the end of the system data cable. The other end is connected to the FT20 telephone.
- **3)** Connection of the A-B wires of the corresponding extension is made to the connection box. In order to do that, two wires taken from the corresponding extension connector of the exchange are attached to the red and green points on the connection box.

NOTE: If the exchange and the first telephone are far away from each other for more than 4 meters, then standard flat telephone elongation cable of sufficient length should be applied in order to provide the connection between the two connection boxes.

4) After the telephone has been connected, the extension settings should be done, as will be explained in the next section.

Cabling of the telephone while there is another device connected to the KTS line of the exchange:

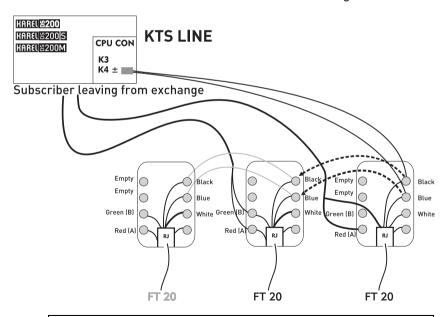
1) Parallel connection should be made from the connection box of the device that has previously been connected to the KTS line to the wires that carry ground and data (blue) and -48 VDC (black) signals and this connection should be made in the same order to the connection box of the FT20 that is newly to be connected to the exchange.

NOTE: Short circuit or wrong order of the wires during the installation may result in improper operation or malfunction of the exchange or the other devices that have been connected to the KTS line.

- 2) Then, extension connection to FT20 should be made. In order to do that, two wires taken from the corresponding extension connector of the exchange should be attached to the red and green points on the connection box of FT20.
- **3)** After the telephone has been connected, the extension settings should be done, as will be explained in the next section.

IMPORTANT NOTE: If FT20 is to be connected over a distance longer than 5 meters, then A-B (ring-tip) and serial data (KTS) wires should be carried over separate cables, one should especially pay attention to employ shielded cables for long-distance installations of serial data wires.

The illustration below shows the connection of FT20 to the exchange.



WARNING!Check if there is any short circuit among connections.

Defining Extension Number For FT20

At the first moment **FT20** is connected to the exchange, the four-digit extension number appears on the display in the "Telephone no=aaaa" format.

If the data on the LCD display are changing upon lifting and replacing the handset, then that indicates extension settings are correct. However, if those data are not changing, then the extension number of FT20 must be set. In order to do that:

- The message "Telephone number / no= " appears on the display after the "Park" key is pressed for a long time and then released.
- 2) The telephone number is entered according to the numerical values that have been assigned to the programmable keys. (Those numerical values have been given in detail in the section "FT20 Start-Up State".)
- 3) After the telephone number, which has been entered accordingly is confirmed through the "Connect" key, FT20 will operate at that defined extension.

NOTE: When number of another extension of the exchange is entered to FT20, the speech channel is activated; however, the data line does not function in parallel to the speech path.

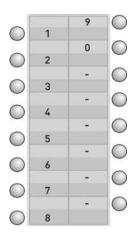
Number Of FT20s That Can Be Connected To The Exchange And Connection Distances:

- 1) The FT20 telephones can be connected to any extension of the exchange.
- 2) Number of FT20s that will be connected to the exchange and accessories using the external data line of the exchange should not exceed 25 in total.
- 3) If "-48VDC/ ground+ data" signals and the "A / B" wires are carried to FT20 over separate cables, then an FT20 can be located at most 2 kms. far from the exchange in the event that ordinary cables are employed.

That distance would decrease as the number of the feature telephone sets that are connected to the exchange increase. For example, when 10 FT20s are connected to the exchange as previously explained, the maximum allowed distance between the telephone sets and the exchange drops to 250 meters.

FT20 Start-Up State

When the telephone set is attached to the system for the first time, user is prompted to enter her/his extension number through the message "Telephone Number/No=" on the display. At that time, the display cursor enables data entry. After the user has entered her/his telephone number by making use of the programmable keys of the elephone set and has confirmed it through the "Connect" key, the telephone would get in use following three short beeps. In case the entered number is not a proper one for the exchange, the message "Enter a valid number" is displayed and short beep is emitted. This case would continue until the correct number is entered.



In the table above, numerical values of the programmable keys, which will be used for entering the extension number that belongs to FT20 and which are valid only for this case.

Example: If the number of the FT20 feature telephone set, which is determined by the exchange is 1023, then the number 1023 is supposed be entered upon the message "Telephone Number/ no=" that will appear on the display when the telephone is attached to the system for the first time. As can be seen in the Table-1 as well, the telephone number is typed by pressing each of the 1st key (numeral 1), the 10th key (numeral 0), the 2nd key (numeral 2) and the 3rd key (numeral 3) once and the number will have been assigned to the telephone after the confirmation through the "Connect" key.

NOTE: When number of another extension of the exchange is entered to FT20, the data line is activated; however, it does not function in parallel to the speech channels.

If the telephone set has previously been connected to the system and if it is connected again after having been removed, then it gets ready for use automatically within 30 seconds. In that 30-second period, first the version information of FT20 appears on the display, then the "Connecting/No:aaaa" message. After that message the telephone would be ready for utilization. The entire LEDs of FT20 are turned on and off once for testing during the start-up period. If the extension number that has previously been defined for FT20 does not exist in the system, then the message "Enter correct number" appears on the display and the user is expected to enter the extension number again. In case the user fails to enter a new extension number, the message "Connecting/No:aaaa" is displayed once every minute upon each attempt to connect to the exchange. If the connection fails each time, then error tone is received together with the incorrect number message. The user is kept on being prompted for a correct extension number each time. That process is repeated until the FT20 user enters the correct extension number. (Extension number entry is supposed to be done as explained above.) In the event that the exchange is reset or is shut down and restarted while the telephone has been connected to the exchange, the telephone first waits for the system to start and display the version information of FT20 and then the message "Connecting/No:aaaa", while the system detects the entire installed cards (for 15 sec.), then it establishes the connection with the exchange after that waiting period.

UTILIZATION FEATURES

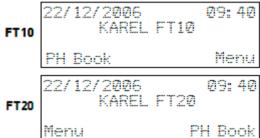
DEFAULTS AND ACTIVE SERVICE INFORMATION

The display is the most active conductor for the usage of the FT telephones. The telephone is easily utilized by viewing through the display the active features of the telephone and the exchange, information about incoming calls, options that could be applied during a call, data coming over the network and the options for Phone Settings. Hence, utilization features of the telephone will be explained from the beginning by the LCD display views.

1. While Telephone Is On Hook:

On the LCD display, time, date and services that have been activated at that moment, if there are any, or system services that are active are visualized while the telephone is on hook.

SAMPLE DISPLAY WHILE THE TELEPHONE IS ON HOOK



SAMPLE DISPLAY WHILE THE TELEPHONE IS ON HOOK AND THE ACTIVE SERVICE IS PRESENT

```
72/12/2006 09:40
Follow Me
112
Hide Phone Book
```

- 1.1. The display order of the services that are active has been arranged so as the most recent active service would be displayed first.
- 1.2. While telephone is on hook and there are messages on the display related to the services that are active, a user can perform operations related to those services with ease. For instance, s/he can view the contents of Missed Calls through the "Details" key. In that mode of the telephone, the Missed Call information is displayed in the middle line of the screen as source of the call (line or extension), access code of the source, hour and minute of the call, respectively. Moreover, date and time information is displayed in the top line of the screen and operations that could be done on Missed Calls at the bottom line. If the numbers in the Missed Call list have been saved in the phone book, then saved names in the phone book, instead of numbers, are displayed.

2. While Telephone Is Off Hook:

When the telephone goes off hook and dial tone is received, screen clock is situated at the top of the display and the message related to the active services at the bottom. While there is a message related to active services, operation query that could be done corresponding to that message is located at the bottom of the display.

(Operation queries that could be done for active services of the system are displayed when the user is the system supervisor.) As soon as any number is started to be dialed, while the clock is displayed at the top of the screen, the numbers being entered slide from right to left at the bottom.

2.1 Operation gueries corresponding to the service that is active:

For the activated services: Cancel?

These services are Follow Me [(FT10) xxx, (FT20) xxxx], Telephone Lock, Auto-dial, Music (FT10), Do Not Disturb and Alarm.

NOTE:

• x: Extension number to which forwarding is done

FT10 SCREEN THAT APPEARS WHEN THE TELEPHONE IS FORWARDED TO THE EXTENSION WITH NUMBER 112

FT20 SCREEN THAT APPEARS WHEN THE TELEPHONE IS FORWARDED TO THE EXTENSION WITH NUMBER 1023



NOTE:

If the number of the extension to which the telephone is forwarded is present in the phone book, then the name of the extension, instead of the number, is displayed.

FT20 Do Not Disturb mode has been activated. It can be deactivated through the "Cancel" key.

22/12/2006 Do Not Disturb	09: 40
Hide	Cancel

For The Services In Which The Operator Can Intervene: Night Mode

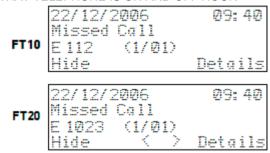
By this feature that is employed by the operator only, you can put the parameters on line, which you would like to be applied by the system while operating at night. For instance, actions such as employing the Auto Attendant to answer line calls, disabling the entire extensions, except the operator, to access lines.



For the Missed Calls: Details?

A list of the Missed Calls is displayed including source and time of the call (extension/line number). Information of Missed Calls, starting from the most recent one is saved in the list, 8 ones for **FT10** and 20 ones for **FT20**. (If there are Missed Calls that have not yet been checked by the user, then that information is displayed on the screen.)

IN THE EVENT THAT TELEPHONE IS ON AND OFF HOOK



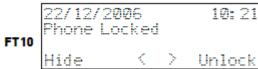
VIEW OF THE DISPLAY AFTER THE "DETAILS" KEY HAS BEEN PRESSED

	22/12/2006 E 112 (1/01)	Ø9:	40
FT10	08:30 21/12/200 Hide	6	>

NOTE:

In case any information of a call or an activated service, which is related to the telephone is received while the Missed Calls are being viewed on the display, the Missed Call being viewed is considered as not checked and it is not cleared from the Missed Call list. Hence, the user has the opportunity to view that call he has missed, when he would like to view the Missed Calls again.

While telephone is locked: Unlock?



IF THE TELEPHONE HAS BEEN LOCKED BY 837 PPP(P), THEN IT CAN BE UNLOCKED THROUGH THE "UNLOCK" KEY.

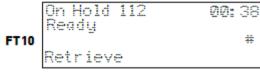
NOTE:

PPP(P): The password for **FT10** is of 3 digits, whereas the one for **FT20** is of 4 digits.

HERE THE LOCK CAN BE CANCELLED BY ENTERING PASSWORD.

THE VIEW BELOW APPEARS AFTER THE UNLOCK KEY.

While there is a parked line: Retrieve?



2.2 When any call request is received by the telephone, the notification indicating the call request blinks in the second line from the top of the display, whereas source (extension + her/his number, external line + its number, external line retrieved + its number) of the call is displayed in the second line from the bottom. For Call Back Call, Auto-dial and Alarm, the user is notified only by a message blinking on the display in the second line from the top. At this view, time and date information is still displayed at the top of the screen.

VIEW OF THE DISPLAY WHEN A CALL REQUEST IS RECEIVED:

	22/12/2006	09: 40
FT20	Incoming Cal Extension 1023 H.free He	l eadset

VIEW, WHICH SIGNIFIES THAT AUTOMATIC CALL HAS BEEN ACCOMPLISHED:

Line 7203 Auto-Dilaer Back Enter

VIEW, WHICH SHOWS THE LINE THAT IS SELECTED BY AUTO-DILAER HAS BEEN CALLED

FT20 22/12/2006 09:40
Incoming Call
Auto-Dialer
H. free Headset

NOTE:

- (Line number is displayed as DD and extension number as AAA for FT10.)
- (Line number is displayed as DDDD and extension number as AAAA for FT20.)

CONVERSATION FEATURES:

When The User Accesses A Line

While the line is being displayed on FT10 with its number, the user is inquired for "Park" and "Hold" options. On FT20, on the other hand, the user is inquired for "Drop" option while the line is being displayed with its number. In this mode, line number that is dialed is displayed in the second line from the top on the screen.

[FT20] If the user fails to dial a number within 4 seconds after s/he accesses the line, then messages on the display switches to "Hold?" and "Call Back?". In this state, numbers dialed by the user are not displayed, but they are detected.

on the screen.

2. In The Event That A Line Is Transferred To The User or The User Picks Up A Line Call Coming To Someone Else

The message "Hold?", together with the line number that has been picked up is brought to view.

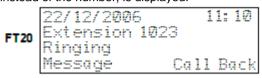
When the transferred call rings on the FT20 phone the name-number information of the extension who transfers the call will be displayed on screen. This facility is supported with the DS system software version of Z_ADA and better. Moreover, the name and number informations need to be defined on IDEA program and the phonebook of FT20.

3. In The Event That The User Calls Any Extension

One of the messages called number is ringing, forwarded number is ringing or telephone in the group is ringing is displayed together with the number of the extension that is ringing. In this state, actions that could be taken by the user, as well as the corresponding queries such as "Call Back" and "Message" will be located at the bottom line of the display and upon pressing the right selection key, the operation will be accomplished.

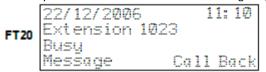
NOTE:

• If the extension number has already been saved in the phone book, then the stored name, instead of the number, is displayed.

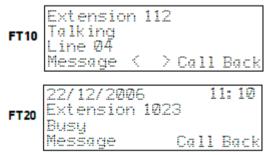


4. In The Event That The User Calls A Busy Extension Or Attempts To Access A Busy Line

4.1. Busy extension: The busy status is brought to view, together with the extension number and the user is inquired for the "Call Back" and "Message" options.



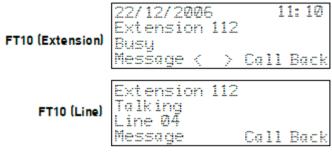
4.2. Busy line: The busy status is brought to view, together with the line number and the user is inquired for the "Call Back" option.



4.3. Extension-Extension, Extension-Line: If the called extension is conversing with another line or extension, then number of the extension is displayed, as well as the notification of that conversation and number of the extension or the line with which that extension is conversing and then the user is inquired for the "Call Back" and "Message" options. Moreover, the message "Conversing" is displayed in the second line from the top on **FT10** screen, if the called extension is conversing with a line.

```
Extension 112
Talking
Line 04
Message < > Call Back
```

4.4. Line-Extension, Line-Line: Number of the line which is attempted to be accessed, as well as notification of the busy status and the number through which the line is accessed is brought to view and then the user is inquired for the "Call Back" option.



5. While The User Is Making Conversation With Any Extension Number of the extension with whom the conversation is going on is displayed. In this state, the user is inquired for the "Hold?" option.

22/12/2006 09:40 Extension 1023 00:23 Hold

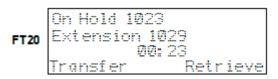
6. When The User Has Put An Extension/Line On Hold

The user is inquired for the "Retrieve?" option, together with the number of the extension/line on hold.



7. While There Is An Extension/Line On Hold:

In case the user calls a busy extension, the busy status is displayed as well as the extension number (If there is an extension or line, with which the busy extension is conversing, then that number is displayed, too.) and the user is inquired for "Retrieve? + extension/line number on hold" and "Transfer? + extension/line number on hold" options. Moreover, if there is more than one call on hold on FT20 phone in the case the extension is busy, the number of the calls in queue are displayed. This facility is supported with the DS system software version of Z ABH or better.



EXAMPLE: THE SCREEN VIEW DISPLAYING THAT THE CALLED EXTENSION WITH NUMBER 1029 IS BUSY WHILE THE EXTENSION WITH NUMBER 1023 IS ON HOLD.

On Hold 1023
Extension 1029
Busy
Transfer < > Retrieve

8. In The Event That The User Calls An Extension While There Is A Line On Hold

The status of the user is brought to view by one of the corresponding messages and the user is inquired for "Retrieve? + line number on hold" and "Transfer? + line number on hold" options.

On Hold 7210 11:00
Extension 1023
00:23
Transfer < > Retrieve

9. In The Event That The User Makes An Internal Conversation While There Is An Extension/Line On Hold

While the conversation status is brought to view, as well as the number with which the conversation is being made, the user is inquired for the "Hold?" and "Call Back?" options.

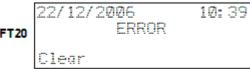
On Hold 1023 11:00 Line 7210 00:23 Hold < > Call Back

NOTE:

As one proceeds by the navigation keys, "Park" and "Auto-dial" menus will appear.

10. Other Messages:

❖ In case the user takes an erroneous action during a conversation, the notification *Error* begins to blink in the second line of the screen and date and time information is displayed at the top of the screen. In addition to that, the message "Clear" appears at the lower left corner. One can go back to the Ready by the "Clear" option.



SCREEN VIEW SIGNIFYING THAT A CALL IS MADE THROUGH MEMORY:

SCREEN VIEW SHOWING QUANTITY OF PULSE PRICES IN CASE OF A CONVERSATION WITH A LINE:

SCREEN VIEW SHOWING THAT THE EXTENSION WITH NUMBER AAA IS BEING WARNED THROUGH EAR:

THE MESSAGE THAT APPEARS WHEN THE SYSTEM CAPACITY IS INQUIRED BY THE CODE 739:

THE MESSAGE WHICH APPEARS WHEN THE TRANSFERRED CALL TURNS BACK:

Note: When there is a returning parked call and the telephone is ringing, the caller ID is displayed together with the access code of line.

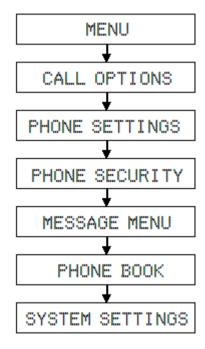
^{*} This message disappears after having been displayed for a while.

PROGRAM FEATURES

PROGRAMMING MENUS

The user performs entrance to programming by making use of the flexibly functional selection key that is under the option "menu" that appears on the display or specially functional MENU key, while the telephone is off hook and dial tone is being received. In order for the user to activate the services s/he makes use of or deactivate the active ones within the program menus, a single menu comes to view. If the service, which the user would like to do operations on, is active, then the "Disable" menu, or else the "Enable" menu come to view. The programming features consist of 6 main menus and their submenus.

Characteristics of the entire menus have been explained below.



CALL OPTIONS

Submenu titles:

- Call Diversion
 - All Calls/ Extension No=
 - No Answer/ Extension No=
 - No Answer Cancel
- Auto Dial
 - Last Number
 - Private Pool/ Register No=
 - Common Pool/ Register No=
- Paging
 - o All
 - Group/ Extension No=
 - Extension/ Extension No=
- Missed Calls
- Answered
- Dialled

Call Diversion

- When All Calls is selected and an extension number is entered within 30 seconds, all calls coming to the FT user rings at the extension specified here.
- When No Answer is selected and an extension number is entered within 30 seconds, an incoming call is forwarded to the extension specified here, if it is still not answered although it has rung three times.
- No Answer Cancel option can be selected to cancel the previously activated Follow Me No answer feature.

Auto Dial

The telephone automatically calls the corresponding number when the auto-dialer is activated. If the called party is busy, then the calling action is performed repeatedly in every 15 seconds. As soon as the busyness of the opposite party is over, the telephone notifies that by ringing itself or by short beep. This feature can be deactivated by using the "Cancel" option on the display.

- By selecting the Last Number option, the most recent number that has been dialed is automatically called.
- When the **Private Pool** option is activated, the private pool numbers, which have previously been entered into the memory by the menu "Private Pool Entry", are automatically called. The value to be entered here is one of the two-digit private pool indices in the range 01-20 for FT10 and single-digit indices in the range 1-9 for FT20.
- By the Common Pool option, the common pool numbers, who have been stored in the exchange and whose entries have been done by the operator only are automatically called.

Paging

In connection with the handsfree feature, pagings in several forms could be done in order to be heard through the speakers of the telephones while dial tone is being received.

- All
- Group
- Private

Missed Calls

Information about the most recent 8 Missed Calls for FT10 and 20 most recent Missed Calls for FT20 can be successively viewed including source and time of the call. In the event that there are more than one Missed Calls, they can be browsed by using the navigation keys on the display. In case the source of the unanswered all is an extension, if name of the extension is present in the phone book, then that name is displayed instead of the number. The "Call" option in that menu does not provide for direct calling of the number.

- No record!
- List of Missed Calls

Answered (FT20)

Information about the most recent 20 Answered Calls can be successively viewed including source and time of the call. In the event that there are more than one Answered Call, they can be browsed by using the navigation keys on the display. In case the source of the Answered call is an extension, if name of the extension is present in the phone book, then that name is displayed instead of the number. The "Call" option in that menu provides for direct calling of the number.

Dialed (FT20)

Information about the most recent 20 Dialed Calls can be successively viewed including source and time of the call. In the event that there are more than one Dialed Call, they can be browsed by using the navigation keys on the display. In case the source of the Dialed call is an extension, if name of the extension is present in the phone book, then that name is displayed instead of the number. The "Call" option in that menu provides for direct calling of the number.

PHONE SETTINGS

Submenu titles:

- Key Settings
 - **Extension**
 - Press Key/ Extension No=
 - o Line
- Press Key/ Line No=
- Private Pool
 - Press Key/ Register No=/ No=
- o Common Pool
 - Press Key/ Register No=
- o Feature
 - Press Key
 - Follow Me
 - Call Back Key
 - Do Not Disturb Key
 - Phone Lock Key
 - Conference Key
 - Night Mode Key
 - Auto Dial Key (FT10)
 - Message Listen Key
 - o Page Key
 - o Call Pick Up Key (FT20)
- Feature Code (FT20)
 - Press Key/ No=
- o Auto Setting
 - Option1
 - Option2
 - Option3
 - Option4 (FT10)
 - Clear All?
- Do Not Disturb
 - o Enable/ Disable
- Reminder
 - Without Message/ Time=
 - With Message/Time= / Please Leave Message
- Eprom Version
 - System Version
 - FT Version
- Lazy Mode
 - o Enable/ Disable
- Private Pool Entry (FT20)
 - Register No=/ No=
- Language
- Headphone
 - o Disable

- With Handsfree
- Without Handsfree
- Signal Beep Option (FT20)
 - Enable/ Disable
- Price
 - o Last Call
 - Meter Pulse Price
- Home Area Code
- Line Access Code

Key Settings

Number of keys that can be programmed is 16 in total and assignments of programs are done to those. In case the user presses those keys continuously for one second, the second function of the key is detected. Therefore, total number of features that can be programmed becomes 32. During programming, the LED that belongs to the keys signifies to which key and to which function of the key the assignment is done by lighting in two colors. When the LED is observed to be lighting in green by pressing the key until the single short beep is received, the first function will have been assigned and the second function will have been assigned when the LED is observed to be lighting in red by pressing the key until the short beep is received for the second time (for 1 second.) The keys become active after the programming mode is exited

The assignments performed on these keys cannot be cancelled one by one; however, new assignments can be done to them without encountering the error signal. Cancellation of contents of the programmable keys can be carried out by selecting Phone Settings > Key Settings > Auto Setting> Clear All.

Extension Programming

You can reach an extension you call frequently through a single key by programming her/his number on that key. In order to do that, one first proceeds to the programming menu.

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- ♦ Extension no: Then the "Extension No="menu comes to view. In this menu, the display cursor enables data entry. After the user enters the extension number by using the numeric keypad, s/he confirms the extension number s/he has entered by pressing the "Accept" key. The extension number is of 3 digits for FT10 and of 4 digits for FT20. In case an FT10 user attempts to enter an extension number with more than 3 digits, the program takes the first three digits as the extension number and then proceeds to the next menu. An FT20 user can enter an extension number with at most 8 digits, in the event that s/he enters an incorrect number, the program displays the "Erroneous Number" message.

After the acceptance of the extension number, **FT** checks whether the extension number, which is desired to be programmed, has been set to any key before and if that extension number has previously been programmed on any key, then the [Previously Programmed (05)] message is displayed for 1 second and error tone is emitted. If, on 46

the other hand, the number has not been programmed before, then **FT** checks whether the entered number is a correct one (whether it is defined in the system.)

In the event that the entered number on **FT10** is not correct (defined in the system) the "Erroneous Number" message is displayed for 1 second and error tone is received.

In case a number that has not been defined in the system is entered for **FT20**, the message "Enter correct number" is displayed. On the other hand, in the event that the number is correct, the message "Successful" is displayed for 1 second, OK tone is received and the Key Settings is completed in both systems.

An extension number can be assigned to a single key only. After the programming mode is exited and those keys are pressed, the extension that has been stored on the key is directly called. In addition to the calling function, status of the extension, which has been programmed as the first function of the programmable keys can be viewed by the LED next to it, as described below.

Extension Status	Red LED
On Hook	Off
Busy	Continuously On
Ringing	Blinking
[FT10] Calling the Operator	Blinking fast

NOTE: LEDs light in reverse colour based on the "page key". LED of the extension who is in the conversation with the FT user or LED of the parked extension/line lights in the direct contrary colour to the "page" key. For example, while the page key is lighting in red colour, one of the exact extension LED, who is in the conversation with this FT user, will light in green. If the page key lights in green, in this case the LED of this extension will light in red. This facility is only valid for FT20 telephone sets.

Line Programming

It enables you to program a specific line number on a key. By pressing that key, you can access the line that has been programmed on the key and make a call (provided that it is vacant) and you can access that number by a single key. In order to do that, one proceeds to the extension programming menu.

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- Line no: If a determined line number is entered and confirmed, then that line number will have been assigned to that key.

Programming one of the line access codes such as 01,02... for **FT10** is sufficient for accessing the line directly when the programmed key is pressed. The programmed key detects the number as 701,702... and provides making calls by accessing the line. If an incorrect code is entered, on the other hand, the user is warned by the message "Erroneous Number".

For **FT20**, on the other hand, it is necessary to enter the line access codes that are present in the system 701,702,703.... That code could be of at most 8 digits. In case a

line that has not been defined in the system is entered, the message "Enter correct number" is displayed.

A line access code can be assigned to a single key only.

After the programming mode has been exited, upon pressing those keys, it is possible to access the programmed line, without pressing **9**. While a line that has been assigned to a programmable key has already been accessed, if that key is pressed, then the line is parked. The line is retrieved upon pressing the key again.

WARNING

[FT20]Under the "Line" submenu, the access codes of ISDN (BRI/PRI) can not be accepted.

[FT20] If the external line is called, this external line number will be displayed on the screen continuously.

Status of the line, which has been programmed as the first function of the key can be viewed by the LED next to it, as described below.

Line Status	Red LED
Vacant	Off
Busy	Continuously On
Call request is being received	Blinking
Parked	Blinking fast
[FT20] Out of Service	Off

Private Pool Programming

You can program 20 line numbers for FT10 and 9 line numbers for FT20, which you call most frequently on the private pool of your telephone. You could shorten duration of calling action by programming the memory numbers on the keys. However, that programming is carried out for FT20 depending on the memory storage that has been done previously through the PHONE SETTINGS >PRIVATE POOL menu. On the other hand, it can be used for FT10 for two kinds of programming. The first of them is a kind of memory storage, in which 01-20 entries can be stored and determined numbers are entered by the "no=" option. In the second of them, the entire programming codes out of the service options that have been specified in the user's guide can be assigned to the programmable keys by entering the Feature codes.

FT10

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- Register no: Afterwards, the "Register no=" menu is displayed. In this menu, the display cursor enables data entry. As soon as the user enters the second digit of the number s/he has started to enter (01-20), FT10 automatically confirms the number and checks whether the memory number that has already been entered has previously been assigned to any key (this system is like the one in the extension programming.)
- No: The desired line number or access code is entered. In order to assign the service codes, on the other hand, first of all one of the codes that are mentioned in

the user's guide is dialed after pressing the "*" key and then it is confirmed. By this way the service code is assigned to the key.

FT20

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- Register no: In this menu, the display cursor enables data entry. Here, entries of
 the indices that could be assigned are done as single digit in the range 1-9. The
 entered index is automatically detected and then the number that you would like to
 be assigned to the key is prompted by the "no=" menu.
- No: Any desired line number could be entered. Even though 9 is not appended to the beginning of the numbers that are stored in the private pool, during the calls made by using the keys, whose assignments are done in this menu, calls are made by including 9 at the beginning of the numbers in order to access lines directly. After exiting the programming mode, when these keys are pressed, the private pool number that has been assigned to the key is directly called.

Common Pool Programming

Line numbers that have been stored in the common pool memory fields with number 00-49 by the operator can easily be assigned to the programmable keys.

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- Register no: Indices that belong to the line numbers, which have been entered
 into the common pool of the exchange, are assigned to the programmable keys by
 this menu option. After exiting the programming mode, when these keys are
 pressed, the common pool number that has been assigned to the key is directly
 called.

[FT20] As a characteristic of the DS200 exchange, the index that is supposed to be entered here must be exactly of three digits (such as 001.)

Feature

It provides making use of some functions that have been defined in the system by pressing a single key. For example, in order for the call requests coming to you to ring at some other extension, you can press the key that has previously been programmed and enter the number of the extension, to which you would like your calls to be forwarded.

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- Then the "Function/ Follow Me Key" menu is displayed. Through the right navigation key, the desired feature is reached in this menu. After the user has reached the function s/he wants, confirms it by pressing the "Accept" key. It is checked whether the selected function has previously been set. If it has been set

before, then the program is not accepted; it is accepted only if it has not previously been set and the LED that belongs to that key is turned on. (This system is like the one in the Extension Programming, the message "Successful" is displayed for 1 second and confirmation tone is received.)

The functions are as follows:

Function Options:

- Follow Me
- Call Back
- Do Not Disturb
- Telephone Lock
- Conference
- Night Mode *
- Auto Dial Key (FT10)
- Message Listen Key
- Page Key
- Call Pick Up Key (FT20)

Feature Code [FT20]

Any code of 8 digits can be assigned to the programmable keys by using this menu option.

- Press Key: The key, on which the programming will be done, is pressed for a short or a long period in order to select the first or the second function, respectively.
- ♦ Code: This code may be one, such as 85 (Follow Me) that could be applied by a user, one, such as 8389 (Wake Up service) that could be applied by the operator or one, such as 877777 (Entry to exchange programming) that could be applied by the system supervisor. If the entered number is none of these, then it is detected as an extension number and that extension is called whenever that key is used.

Auto Settings

FT10

There are five different options in order to program the programmable keys automatically. The keys are automatically programmed upon proceeding to the desired option and selecting it. These programming options are:

- Option 1 (Extension Numbers)
- Option 2 (Line Numbers)
- Option 3 (Common Pool Numbers)
- Option 4 (Automatic Functions)
- ♦ Clear All

^{*} It applies only when the user is the operator.

How the keys will be programmed by each option has been illustrated through diagrams below. Here, "E" is the abbreviation for extension numbers, "L" for line numbers and "CP" for the common pool.

Option 1			
1.key	Func1 E 111	9.key	Func1 E 119
	Func2 E 127		Func2 E 135
2.key	Func1 E 112	10.key	Func1 E 120
	Func2 E 128		Func2 E 136
3.key	Func1 E 113	11.key	Func1 E 121
	Func2 E 129		Func2 E 137
4.key	Func1 E 114	12.key	Func1 E 122
	Func2 E 130		Func2 E 138
5.key	Func1 E 115	13.key	Func1 E 123
	Func2 E 131		Func2 E 139
6.key	Func1 E 116	14.key	Func1 E 124
	Func2 E 132		Func2 E 140
7.key	Func1 E 117	15.key	Func1 E 125
	Fonk2 E 133		Func2 E 141
8.key	Func1 E 118	16.key	Func1 E 126
	Func2 E 134		Func2 E 142

Option 2			
1.key	Func1 L 1	9.key	Func1 L 9
	Func2 L 17		Func2 L 25
2.key	Func1 L 2	10.key	Func1 L 10
	Func2 L 18		Func2 L 26
3.key	Func1 L 3	11.key	Func1 L 11
	Func2 L 19		Func2 L 27
4.key	Func1 L 4	12.key	Func1 L 12
	Func2 L 20		Func2 L 28
5.key	Func1 L 5	13.key	Func1 L 13
	Func2 L 21		Func2 E 111
6.key	Func1 L 6	14.key	Func1 L 14
	Func2 L 22		Func2 E 112
7.key	Func1 L 7	15.key	Func1 L 15
	Func2 L 23		Func2 E 113
8.key	Func1 L 8	16.key	Func1 L 16
	Func2 L 24		Func2 E 114

Option 3			
1.key	Func1 CP 00	9.key	Func1 CP 08
	Func2 CP 16		Func2 CP 24
2.key	Func1 CP 01	10.key	Func1 CP 09
	Func2 CP 17		Func2 CP 25
3.key	Func1 CP 02	11.key	Func1 CP 10
	Func2 CP 18		Func2 CP 26
4.key	Func1 CP 03	12.key	Func1 CP 11
	Func2 CP 19		Func2 CP 27
5.key	Func1 CP 04	13.key	Func1 CP 12
	Func2 CP 20		Func2 CP 28
6.key	Func1 CP 05	14.key	Func1 CP 13
	Func2 CP 21		Func2 CP 29
7.key	Func1 CP 06	15.key	Func1 CP 14
	Func2 CP 22		Func2 CP 30
8.key	Func1 CP 07	16.key	Func1 CP 15
	Func2 CP 23		Func2 CP 31

Option 4			
1.key	Func1 Phone Lock	9.key	Func1 ACD
	Func2 Door Opener		Func2 E 115
2.key	Func1 Message Listen	10.key	Func1 Mute
	Func2 Door Phone		Func2 E 116
3.key	Func1 Auto-Dial	11.key	Func1 Night Mode
	Func2 Hookflash		Func2 E 117
4.key	Func1 Reminder	12.key	Func1 Music
	Func2 Lazy Mode		Func2 E 118
5.key	Func1 Do Not Disturb	13.key	Func1 Call Pick Up
	Func2 E 111		Func2 E 119
6.key	Func1 Follow Me	14.key	Func1 Conference
	Func2 E 112		Func2 E 120
7.key	Func1 Line Park	15.key	Func1 Call Back
	Func2 E 113		Func2 E 121
8.key	Func1 Parallel Operator	16.key	Func1 Paging
	Func2 E 114		Func2 E 122

FT20

When selected, 3 different options are presented to the user. Upon any of those options is selected, extension, line or user features are assigned to the programmable keys automatically or the entire key assignments that have previously been done are cleared. As for these options:

- Option 1 (Extension Numbers)
- Option 2 (Line Numbers)
- Option 3 (Automatic Functions)
- ♦ Clear All

The assignments done to the programmable keys automatically when this menu item is selected have been illustrated through diagrams below.

Here, "E" is the abbreviation for extension numbers, "L" for line numbers, "PP" for the private pool and "CP" for the common pool.

Option	n 1		
1.key	Func1 E 1110	9.key	Func1 E 1118
	Func2 E 1126		Func2 E 1134
2.key	Func1 E 1111	10.key	Func1 E 1119
	Func2 E 1127		Func2 E 1135
3.key	Func1 E 1112	11.key	Func1 E 1120
	Func2 E 1128		Func2 E 1136
4.key	Func1 E 1113	12.key	Func1 E 1121
	Func2 E 1129		Func2 E 1137
5.key	Func1 E 1114	13.key	Func1 E 1122
	Func2 E 1130		Func2 E 1138
6.key	Func1 E 1115	14.key	Func1 E 1123
	Func2 E 1131		Func2 E 1139
7.key	Func1 E 1116	15.key	Func1 E 1124
_	Func2 E 1132		Func2 E 1140
8.key	Func1 E 1117	16.key	Func1 E 1125
	Func2 E 1133		Func2 E 1141

Option 2			
1.key	Fonk1 Phone Lock	9.key	Fonk1 Lazy Mode
	Fonk2 E 1126		Fonk2 E 1134
2.key	Fonk1 Auto-Dial	10.key	Fonk1 Conference
	Fonk2 E 1127		Fonk2 E 1135
3.key	Fonk1 Reminder	11.key	Fonk1 Night Mode
	Fonk2 E 1128		Fonk2 E 1136
4.key	Fonk1 Do Not Disturb	12.key	Fonk1 E 1121
	Fonk2 E 1129		Fonk2 E 1137
5.key	Fonk1 Follow Me	13.key	Fonk1 E 1122
	Fonk2 E 1130		Fonk2 E 1138
6.key	Fonk1 Line Park	14.key	Fonk1 E 1123
	Fonk2 E 1131		Fonk2 E 1139
7.key	Fonk1 Call Pick Up	15.key	Fonk1 E 1124
_	Fonk2 E 1132		Fonk2 E 1140
8.key	Fonk1 Call Back	16.key	Fonk1 E 1125
	Fonk2 E 1133		Fonk2 E 1141

Do Not Disturb

- ♦ When **Enable** is selected, telephone rings once in every 20 seconds for an incoming call.
- Do Not Disturb mode is cancelled upon selection of Cancel.

Music (FT10)

- By the selection of Activate, music that has been loaded to the exchange can be listened to. This option can be employed especially for the lines that are put on hold.
- Listening to music option is deactivated by Cancel.

Reminder

- With message: Following the entry of the reminder time in "HHMM" format, a message with maximum duration of 30 seconds could be recorded without waiting for any notification signal. Whenever the reminder is active, the reminder tone is received from the telephone. In the meantime, the recorded message can be listened to repeatedly upon pressing the H/F key. In that case, upon using the H/F key once again, the message and the reminder are cancelled. This option is displayed only when there is an EVM module installed in the system.
- Without message: It provides for receiving of the reminder tone until the telephone is picked up and then hanged up at the time of reminding, which has been entered in "HHMM".

EPROM Version

FT₁₀

By this menu option, one can reach version information of an MS-series exchange and the FT10 telephone set.

♦ System Version: Example: -MS48 AAA

◆ FT Version: Example: FT10/4 ABE

FT20

One can reach version information of the DS200 exchange and the FT20 telephone.

System Version: Example: -Z_ADA
 FT Version: Example: FT20/4 ABC

Lazy Mode

- Enable: When the lazy mode is activated, the telephone is picked up automatically in handsfree mode and the call is answered.
- By selecting **Disable**, the lazy mode is exited; hence the telephone is not automatically picked when a call is received.

In order to reach the "Disable" and "Put on line" options, the "Select" option may have to be employed twice.

Private Pool Entry (FT20)

- Register no: The private pool index in the range 1-9 is entered corresponding to the "Register no" message displayed when this menu item is selected.
- No: Then, line number that will be assigned to the specified index is entered. No code should be appended to the beginning of that number for accessing a line. The STD, the ISD, or the GSM operator codes should be fully entered, including 0. Extension numbers may not be assigned as private pool numbers.

Language

Any desired one out of the language options that are displayed here, such as Turkish, English, Spanish, Afrikaans, Polish (FT20), Portuguese (FT10), Russian, French and Greek can be selected and the telephone starts to display menu messages in the selected language.

Headphone

The "Headset" option, which is presented in order to make use of the telephone comfortably by a headset, offers three different options as disable, with handsfree and without handsfree.

- Disable mode is already active when the "headset" option is selected for the first time. It is employed for canceling the different later options.
- When With handsfree is selected, the telephone is picked up through the headset while it is on hook, by the fast handsfree key. Upon pressing it again, the headset is turned off and the telephone gets into the HF mode.
- When Without handsfree is selected, the telephone is not picked up through the headset while it is on hook, by the fast handsfree key. If the handset is lifted during a conversation via the headset, the voice level decreases, for it will be split into two.

Signal Beep Option

- When the Enable option is selected, a special warning tone is received for an incoming call, in case the phone is busy.
- The warning tone is cancelled through the **Disable** option.

In order to reach the "Enable" and "Disable" options, the "Accept" or "Select" options may have to be employed more than once.

Price (FT20)

- By the Last Call selection, pricing of the last line, over which the call has been made is done.
- Meter Pulse Price: By selecting "Accept" in this menu, upon entering the pricing data of maximum five digits, which is considered to correspond to one pulse price,

the pricing information based on that pulse price information is shown on the display during conversations. The character "," is supplied to be entered for decimal values. For each pulse price the call charging can be calculated as decimal values. The decimal part can be entered after pressing the character ",".

Home Area Code (FT20)

With this facility, the city code is entered to the phone memory and the number without the city code is seen on the called extension phone display when the calling is long distance or unanswered. (For only FT20-2&4E Feature Phones)

When the facility is selected, there is a cursor which supplies maximum 6 digits to be entered displayed on the screen. With this cursor the desired "home area code" is entered and then it is confirmed in order to be saved into the memory of the FT20 phone. If any number, within the defined home area code, is dialled only the number without the area code is displayed on the screen.

The existing area code (AAA) will be shown on the right side of the display when the "Home Area Code" menu is entered.

Line Access Code:

With this facility, if there is an incoming call that includes the Caller ID information and the "Area Code", which has been defined before, only the Line Access Code is displayed instead of the Area Code on the screen. In order to realize it, firstly, the line access code need to be entered to the phone and savied into the memory. In this way, the number information of the call will come with the information of the line access code not with the area code.

When the facility is selected, there is a cursor which supplies maximum 6 digits to be entered displayed on the screen. With this cursor the desired "line access code" is entered and then it is confirmed in order to be saved into the memory of the FT20 phone. If any number, within the defined home area code, is dialled the number with the line access code is displayed on the screen.

This facility provides to redial the missed calls within the defined codes with a single key.

The existing line access code (DD) will be shown on the right side of the display when the "Line Access Code" menu is entered.

Example:

For FT20, suppose that "Home Area Code" and "Line Access Code" have been defined successively as "0212" and "9". If there is an incoming call numbered with "0212 2672030" to the phone, since the first three digits of the incoming Caller ID information has been defined before on to the phone, the defined code "0212" will be erased and the line access code "9" will be added instead of home area code.



The user will see the number "92672030" through the screen as a call source. When this calling is got as a missed call by the phone, the user can call this number by pressing the single "OK" key. The main purpose of this facility is providing to redial such a missed call within the defined line access code with a single key.

For FT10, if "Home Area Code" has been defined as "0212" and there is a call with the number of "0212 2672030" received, in this case the code "0212" will be erased from the head of the number and only the number "2672030" will be displayed on the screen.

Notes:

- When there is a returning parked call and the telephone is ringing, the caller ID is displayed together with the access code of line.
- When Last Number Redial option is used, only line access code was displayed on FT20 display. This is modified so that dialled number is also displayed.

PHONE SECURITY

Operations of defining / changing passwords, which are required in order to make use of features such as making calls or listening to messages through another extension within one's own authorization limits, can be carried out through this upper menu item.

Submenu titles:

- Password
 - Define (If there is no password)
 - Change (If there is password)
 - Cancel
- Phone Lock (If password has been defined)
- Phone Unlock (If telephone is locked)

Password

In case the user has no defined password:

When **Define** is selected, a password consisting of 3 digits (000...250) for FT10 and 4 digits (0000...8888) for FT20 is expected to be entered.

In case the user has previously entered a password of her/his own:

- By the Change option, an existing password can be changed. First of all, the old password is entered and confirmed, and then the new one is entered. The new password will be active for later operations.
- By the Cancel option, the currently used password is cancelled and operation requiring a password cannot be done from then on. A password must be defined in order to enable such operations.

Phone Lock

 Password: This menu appears only when the telephone is not locked and becomes active, if a password has been defined before. By this menu option, password query before line access, as well as telephone locking, is provided.

Phone Unlock

 Password: This menu appears only in the event that the telephone is locked. The telephone can be unlocked by using the "Unlock" option and then entering password.

MESSAGE

It appears only when there is an installed EVM module (and DRAM module for the two-channel EVM.)

Submenu titles:

- Absent Message
 - Read Message
- Message Listen
 - All Messages
 - Message
 - Password= (If password has been defined)

Absent Message:

Read message: By this menu, you could leave a message to be announced to people who call you when you are not at your place, provided that you confirm the message through the "Terminate" key. In case the absent message is employed, the telephone does not ring when a call is received; instead, the calling party hears the recorded message. The maximum message duration is 30 seconds.

Message Listen:

You can successively listen to the messages you have received. With the message key which informs that there is a new message through the related LED which blinks, the new message can easily be listened to. If a password has been defined, you will be required to enter it.

 All messages: By this menu option, you can listen to the entire (actually, the ones whose time-out periods have not yet expired and the ones which have not been *erased.) messages you have received, provided that they have not been listened prior to last 15 minutes or locked.

^{*} The messages, which are listened to by using the "New messages" menu option are erased in 15 minutes unless they are "locked".

SYSTEM SETTINGS

Only the system supervisor is authorized to use this menu. That is, this menu is displayed only on FTs that are employed as the operator telephone and some special operations can be carried out via this upper menu option.

Submenu titles:

- Setting Time
 - o Time=
- Setting Date
 - DD/MM/YY=
- Night Mode
 - o Enable/Disable?
- Common Pool
 - Register No=/ No=
- ACD
 - Enable/Disable?
- Parallel Operator
 - o Enable/Disable?

Setting Time

HH:MM=: In this menu, the display cursor enables data entry and the user is required to enter the system time in 24-hour format. As soon as the user enters the hour, the character ":" automatically appears on the display and the user is expected to enter the minute.

Setting Date:

◆ DD/MM/YY=: In this menu, the display cursor enables data entry. As the user enters the day and the month, the character "f" automatically appears on the display.

Night Mode:

- **Enable?:** The exchange is taken into the night mode.
- **Disable?:** The exchange is taken out of the night mode.

Common Pool Entry:

- In the Register no section, FT10/FT20 primarily prompts the operator for the common pool number. Then the operator enters it. That number should be of 2 digits in the range 0-99 for FT10 and of 3 digits for FT20 due to the exchange storage capacity of 1000 records. The number does not need to start with line access code.
- No: It prompts the operator for the number to be stored in the common pool.

ACD:

- Enable?: ACD is put on line.
- **Disable?:** ACD is put off line.

Parallel Operator:

- Enable?: Parallel operator is put on line.
- Disable?: Parallel operator is put off line.

PHONE BOOK

A phone book of 60 entries in total can be created by using this upper menu item. 16 characters are reserved for the entry of name/number into the Phone Book. Numbers that have been stored in the phone book can be searched by using the "Find" option here. Search operation can also be carried out through the "Phone Book" option that can be seen on the off-hook display of the telephone or by employing the corresponding function key (phonebook.) Another advantage of using the phone book is in the event that any information of call, conversation, Missed Call, hold, park or forwarding that is related to a number stored in the phone book is received, the name corresponding to that information is displayed. If there are no records that have previously been stored in the phone, that upper menu item presents only two options, namely, "Add" and "Change". The option "Change" here applies only for the permanent message that will be displayed continuously on the off-hook display of the telephone. Once the option "Add" is once employed, additional options are also presented to the user. Note that, while operations related to the entire options are being done, the left navigation key on the display can be employed for deleting letters or figures.

The numbers which have been added to the Phone Book before can be called through FT20 phone. Also by pressing the "Phone Book" key which is seen on to the LCD display the desired number can be dialed after the number is found by using the "Find by number" submenu.

Submenu titles:

- Find
 - Find By Name/ Name=
 - Find By Number/ No=Time=
- Add
 - Name=/ No=
- Change
 - Find By Name/ Name=
 - Find By Number/ No=
 - Constant Message/ Record Message
- Delete
 - Find By Name/ Name=
 - Find By Number/ No=
 - Clear All

Find

Searches can be performed among the records in the phone book by using this menu. Submenus "Find by name" and "Find by number" are located within this menu.

FT10 users can use this facility to supply an internal or external calling if the MS system software version is CAA or better.

- Find by name: By using this menu, characters are entered and the Find operation is performed. When the FT telephone set finds the matching name within the records, that entry is displayed. In case the telephone could not find the exact name, the most similar entry starting with the same letter as the searched name is displayed. On the other hand, in the event that no entry starting with the same letter as the searched name is found, the telephone set displays the first entry that starts with the alphabetically next letter after the first letter of the searched name.
- Find by number: By using this menu, the user enters a number and carries out the Find operation. In case no record that matches the entered number is found, the telephone set presents the entry within the records, which comes first with respect to the alphabetical order of their first letters. When any record is found, the other entries could also be inspected by using the navigation keys. While those records are being displayed, the user can exit the records and go back to the main menu by using the key "Up".

Add

The user can store data into the phone book by using this menu. When this menu is accessed, the telephone set prompts the user to enter a name (at most 12 characters). After the user enters name by using the search keys, s/he proceeds to number entry (at most 15 digits) section by using the "Accept" key. Following the number entry, storing operation is completed by pressing the "Store" key.

Change

The submenus "Find by name", "Find by number" and "Greeting message" are located within this menu. The entry to be changed is found by using search menus, as described above (When the searched entry is found, while the records are being displayed, the query "Change?" is also displayed.) The user initiates the change operation by pressing the "Change" key. During the change operation, the display cursor enables data entry, so, any desired change could be made through the right navigation key. In that case, the left navigation key can be employed for deleting previous letter or number (as the Backspace key.) After the necessary changes have been made on the record, the user terminates the change operation by pressing the "Store" key.

- Find by name: By using this menu, characters are entered and the change operation is performed. When the FT telephone set finds the matching name within the records, that entry is displayed. In case the telephone could not find the exact name, the most similar entry starting with the same letter as the searched name is displayed. On the other hand, in the event that no entry starting with the same letter as the searched name is found, the telephone set displays the first entry that starts with the alphabetically next letter after the first letter of the searched name.
- Find by number: By using this menu, the user enters a number and carries out the change operation. In case no record that matches the entered number is found, the telephone set presents the entry within the records, which comes first with respect to the alphabetical order of their first letters. When any record is found, the other entries could also be inspected by using the navigation keys. While those records are being displayed, the user can exit the records and go back to the main menu by using the key "Up".
- When Constant Message is selected, the entry message can be recorded or changed by using the "Record message" menu. Content of the entry message is KAREL by default.

Delete

The submenus "Find by name" and "Find by number" are located within this menu. The entry to be deleted is found by using search menus, as described above (When the searched entry is found, while the records are being displayed, the query "Delete?" is also displayed.) The user accomplishes the deleting operation by pressing the "Delete" key.

- Find by name: By using this menu, characters are entered and the deleting operation is performed for any desired record.
- Find by number: By using this menu, a number is entered and deleting operation is performed for any desired record.
- Clear All: When the "Accept" key is pressed in this menu, the entire phone book records and the entry message is deleted from the memory.

Things to pay attention to while entering names and numbers to the phone book:

Numeric keypad is employed to enter names in any one of the submenus of the phone book main menu. Characters, which these keys contain, have been explained under the title "Numeric Key Pad".

- The display cursor enables data entry, when typing letters on the display is required (name or permanent message.) Until the letter to be typed appears on the display, the corresponding key is repeatedly pressed without any break. In order to type the next letter, corresponding key of that letter is pressed as many times as necessary. If two letters that will be typed consecutively are on the same key, then it takes two seconds for the cursor to move to the next digit after the first letter is typed.
- If any programmable key is pressed when the letter entry is being made with capital letters, the entry starts to be made by small letters. By the same way, if any programmable key is pressed again, small letters turn into the capital letters. If the small letters are started to use the "A" is displayed on the top left side of the screen.

EXAMPLE: In order to type "TELEFON", one should press 8 key once, 3 key 2 times, 5 key 3 times, 3 key 2 times, then wait for 2 seconds, after the cursor moves to the next digit, one should press 3 key 3 times, 6 key 3 times and after waiting for 2 seconds, again press 6 key 2 times. Then one proceeds to the next screen after confirming the TELEFON character string through the "Accept" key.

- While typing letters or numbers on the display, previously typed letter or number can be deleted by pressing theleft navigation key. This key functions as a "backspace" key.
- When the phone book is empty, only "Add" and "Change" menus are displayed.
- When the phone book is entirely full, the "Add" menu is not displayed.
- Upon pressing the "Accept" key without entering any letter or after deleting all the letters on the display, the error message "Enter a correct name." is displayed.
- In the event that any information of call, talking, Missed Call, hold, park or forwarding that is related to a number stored in the phone book is received, the name corresponding to that information is displayed. Maximum 16 characters can be displayed on the screen.

APPENDIX:

Error Messages

- In case the user starts to enter an incorrect access code, s/he can obtain [Error]
 information by entering a number that does not exist in the system, so that s/he
 could have the opportunity to enter the access code again.
- 2) The system takes no action for the keys pressed during display of the messages (Error message, Line back...) that resides on the display for a specific period of time.
- 3) In the event that an incorrect operation is done while in the programming mode, the error message is displayed in two lines for one second. The user receives erroneous action tone from the handset during that period. No key pressed in the meantime is detected and the telephone returns to the upper menu after the error display is over.
- 4) Whenever you see the SERIAL ERROR (XX) message in the top line of your telephone, this indicates that your telephone cannot communicate with the exchange. In that case, the upper group keys and special keys of your telephone do not work. In such cases call your authorized reseller.

ACCESSORIES

Direct Station Select (DSS) and Busy Display Panel (BDP) Modules:

These modules are designed to have the similar phisical and visual outlooks in order to increase the number of Speed Dial Keys via the DSS modules and to add the fearture to monitor the states of extensions and line the via BDP modules.



DSS10-16T (For only FT10 Feature Phones)

Direct Station Select Module with 16 Speed Dial Keys & 70 LEDs.

- 16 double function programmable keys together with the associated LEDs used to monitor the status of the programmed function.
- BDP to monitor the states of the extensions, lines as well as some system features.



DSS10-28 (For MS Series) and DSS20-28 (For DS Series)

Direct Station Select Module with 28 Speed Dial Keys

 28 double function programmable keys together with the associated LEDs used to monitor the status of the programmed function.



DSS10-00 (For MS Series) and DSS20-00 (For DS Series)

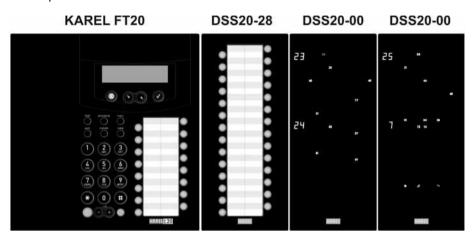
Busy Display Panel Module with 210 LEDs

- BDP to monitor the state of the extensions, lines as well as some system features. With Page definitions, option to display the states of all the ports of the system.
- The possibility of monitoring the status of the system through a large display on it. By that way, one can easily see at a glance which extensions and lines are busy.
- Statuses of 200 extensions can be monitored simultaneously.

More than one DSS10 or DSS20 modules can be used together with the same telephone in order to serve the operators with high traffic.

Sample Configurtaion:

For a DS200 system with 350 extensios, the following configurtaion is recommended for the operator.



In this configuration, 44 Programmable Speed Dial Keys and the business of 400 LEDs can be monitored. In this sample, 300 extensions starting with the number of 23, 24 and 25 and 7 lines starting with 7 is monitored.

