DX-1S DIGITAL PABX

MFC98 Manual

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CONNECTION ELECTRONICS LTD.

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Unit 6A, 28/F, Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, Hong Kong Tel: +852 2412 1386 Fax: +852 2411 3984 Email: info@cel-group.com **Web: http://www.cel-group.com**

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1. INTRODUCTION

This manual provides a general description and operation procedures for **MFC98 Console with V136 Software** installed. Since the operation and programming procedures are different in different version software, the information in this manual may not be matched if the console is not installed with related version system software.

The MFC98 Operation Manual is divided into the following sections:

- Introduction
- Major Features
- MFC98 PC Interface Card with MFC98 Software
- Console Hardware
- Prepare the Console
- Console Setup Mode
- Attendant Console Mode
- Management Mode
- Programming Mode
- Diagnostic Mode
- SMDR Display Mode
- Power Down Arrangement

2. MAJOR FEATURES

2.1 MULTIPLE CONSOLE

DX-1S System supports multiple consoles operation. The system can support up to 16 MFC-1S / MFC98 Consoles and all consoles can operate concurrently.

2.2 MULTIPLE FUNCTIONS

MFC98 Console can be an attendant console, programming console or maintenance console for DX-1S System. Maintenance persons can change the console function by switching the console to different operation mode. No additional wiring or programming is required. It provides the flexibility and cut down system cost while console can be in multiple purposes.

2.3 OPTICAL ISOLATED INTERFACE

The optical isolated serial interface technology is employed in the interfaces of DX-1S System and MFC98 Consoles. This interface has great advantage compare with traditional RS-232C serial link. Since the grounding signal of DX-1S System is optical isolated from all the consoles, i.e. no electrical connection, any interference between the ground of different hardware and any data lost during transmission could be avoided. The surge voltage induces in one device will not spread over the whole system. Eventually, the whole system will not be collapsed.

2.4 POWER DOWN ARRANGEMENT

Any one of MFC98 Console can be shut down for maintenance purpose or save energy in non-busy hours, other consoles will not be affected.

2.5 REMOTE ADMINISTRATION

Besides connecting to DX-1S directly, MFC98 is also capable to connect DX-1S remotely via modem.

After the remote connection is established, MFC98 become a system console as if it is connected directly. With the exception of Attendant Console Mode (due to no console extension is available), remote mode MFC98 can perform all the of DX-1S system console tasks.

2.6 OTHER FEATURES

MFC98 is a multi-function console for DX-1S System. The console can be the Attendant Console, Programming Console and Maintenance Console for the system.

When MFC98 operates in Attendant Console Mode, it will have the following functions:

- System Status Display
- Busy Lamp Field
- Clock Display
- Extension Status Inquiry
- Incoming Call Identification
- Attendant Operator Call Processing. E.g. Call Transfer, Call Hold, Call Answering, etc.

When MFC98 operates in Management Mode, the operator can set the features for any extension, e.g. Wake Up Service, Message Waiting, Call Forwarding, etc.

When MFC98 operates in Programming Mode, the console becomes a Programming Console of DX-1S System to program the system parameter for different features.

When MFC98 operates in Diagnostic Mode, the console becomes the Maintenance Console of DX-1S System to input the diagnostic command to diagnose system hardware for maintenance purpose.

There is SMDR Display Mode in MFC98 Console. This mode allows console to act as a display terminal to display SMDR information for call monitoring. The console can also save the SMDR data to file for future reference or Call Accounting purpose.

2.7 DIFFERENT METHODS TO CONNECT DX-1S

MFC98 is capable to connect DX-1S in three different methods, which provide greater flexibility for different system configuration and also make remote administration possible. The three modes are:

- connect via MFC98 PC Interface Card
- connect via Remote Interface Module (RIM-1S)
- remote connect via modem.

2.7.1 CONNECT VIA MFC98 INTERFACE CARD

This is the simplest method and most cost-effective way in connecting MFC98 to DX-1S. After the MFC98 PC plugged in an MFC98 PC Interface Card, it can connect directly to DX-1S.

2.7.2 CONNECT VIA REMOTE INTERFACE UNIT (RIM-1S)

This method do not require an MFC98 PC Interface Card, a PC is connecting to RIM via RS-232C serial port (COM1 or COM2). Then RIM connects directly to DX-1S.

This method is suitable for a PC (e.g. Notebook computer) which cannot plug in an MFC98 PC Interface Card.

2.7.3 CONNECT REMOTELY VIA MODEM

This method is connecting MFC98 to DX-1S using two modems and one RIM. MFC98 connects to a standard modem at COM1 or COM2 and then dial to DX-1S. On the DX-1S side, DX-1S connects to RIM and RIM connects to another standard modem to receive the call from MFC98.

This method is mainly for remote system administration.

2.7.4 OPERATION DIFFERENCE IN DIFFERENT MODE OF CONNECTION

Users are required to edit the SETUP.INI in MFC98 program directory for MFC98 to select the mode of connection used. Please refer to section 4.8 CONSOLE CONFIGURATION FILE for detail description of editing SETUP.INI file.

Besides the connecting procedure, the operation of MFC98 is independent of the method of connection. In the following of this manual, discussions will base on the first connection method – Connect via MFC98 PC Interface Card. For details of connecting via RIM and modem, please refer to the RIM-1S manual.

3. MFC98 PC INTERFACE CARD WITH CONSOLE SOFTWARE

3.1 HARDWARE ASSEMBLY

MFC98 PC Interface Card includes the following hardware and software:

Assembly Include	Qty
MFC98 PC Interface Card Installed	1
4-Core Cable with RJ -11 Modular Jack	1
MFC98 System Software Installation Disks	1

Table 3-1 MFC98 PC INTERFACE CARD ASSEMBLY

3.2 DESCRIPTION

The MFC98 PC Interface Card is an optical isolated serial port card. It is installed in a standard PC station to form a Console for DX-1S. The console system transmits or receives the system data through the PC Interface Card to communicate with DX-1S System. Since the communication port in the card is optical isolated, it prevents the surge which induces in the console bus to damage the system.

The MFC98 System Software Package includes Console Software Diskettes and Reset Software Diskette. The Console Software is to operate the console. The Reset Software is used to reset the Console Setup Mode Password to default value in case the user had programmed his/her own password when they are lost.

4. PREPARE THE CONSOLE

4.1 MFC98 PC INTERFACE CARD INSTALLATION

Reference to DX-1S Installation Manual for details.

- The PC station, using to install MFC98 PC Interface Card for MFC98, should meet the following requirements:

Hardware	Requirements
PC Computer Station	PC/AT Compatible
CPU	Pentium II / K6 – 233MHz or higher
Expansion Slot for PC Interface Card Installation	One ISA Slot available
COM Port and Interrupt for PC Interface Card	COM 4 (2E8) and IRQ 7
RAM	16M Byte RAM or above
Disk Driver	3.5” Floppy Disk Driver (for installation) Hard Disk with at least 10 MB free space
Parallel Port (for printer)	Standard Parallel Port set as LPT1
Operating System	Windows 95 / 98
Monitor	VGA
Keyboard	PC compatible Keyboard

Table 4-1 PC STATION REQUIREMENTS FOR MFC98 CONSOLE

4.2 MFC98 PC INTERFACE CARD DIP SWITCH SETTING

Before plug in the MFC98 PC interface card, please check the DIP switch, SW1 setting on the MFC98 PC interface card.

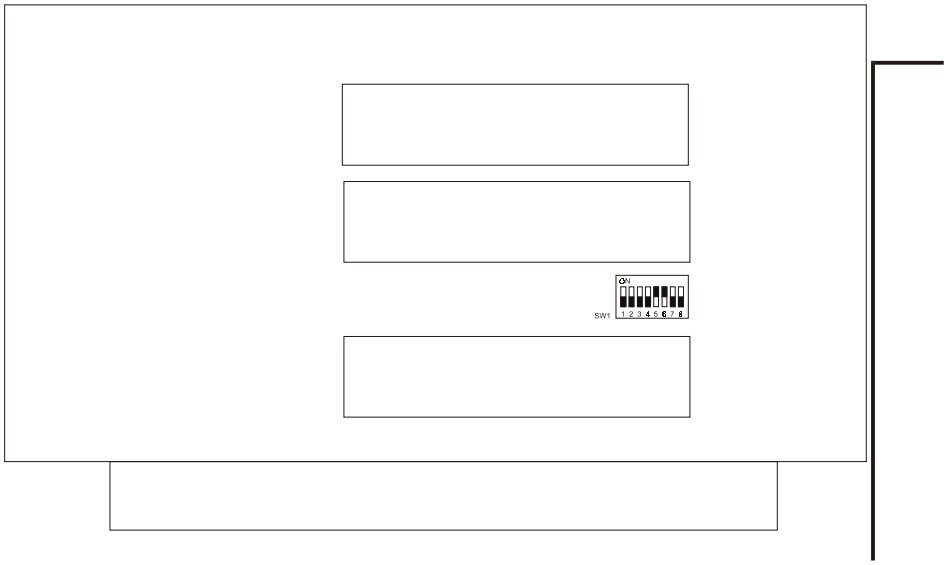

Figure 4-1 MFC98 INTERFACE CARD

- Hardware Console I.D. Setting

Switch 1 ~ 4 are the hardware Console I.D. of this card. If more than one MFC98 PC interface cards are connected to DX-1S, all of the MFC98 card should have different I.D.

Remark: The Console Service Status of the selected console I.D. in DX-1S (Programming item 118) must be set to 1 for proper MFC98 operation.

Default setting is switch 1 ~ 4 = OFF (I.D. = 0).

Switch Setting				Console I.D.	Switch Setting				Console I.D.
1	2	3	4		1	2	3	4	
OFF	OFF	OFF	OFF	0	ON	OFF	OFF	OFF	8
OFF	OFF	OFF	ON	1	ON	OFF	OFF	ON	9
OFF	OFF	ON	OFF	2	ON	OFF	ON	OFF	10
OFF	OFF	ON	ON	3	ON	OFF	ON	ON	11
OFF	ON	OFF	OFF	4	ON	ON	OFF	OFF	12
OFF	ON	OFF	ON	5	ON	ON	OFF	ON	13
OFF	ON	ON	OFF	6	ON	ON	ON	OFF	14
OFF	ON	ON	ON	7	ON	ON	ON	ON	15

Table 4-2 DIP SWITCH CONSOLE I.D. SETTING

- MFC98 Mode

Switch 5 must set to ON for using with MFC98 Console software.

Default setting: ON (MFC Mode)

- COM port and interrupt selection

Switch 6 and 7 are for interrupt selection, so that either one should be set to ON. Switch 6 = ON is using IRQ 7 and switch 7 = ON is using IRQ5

Switch 8 is COM port address selection. ON = 2F8 (COM3) and OFF = 2E8 (COM4).

Default setting: 6 = ON, 7 = OFF, 8 = OFF. (COM4, IRQ7)

4.3 OLD MFC-1S PC INTERFACE CARD INSTALLATION

MFC-1S PC interface card is the former version of MFC98 interface card and MFC-1S PC interface card can also work with MFC98. When using MFC-1S PC interface card with MFC98 console software, ALL console service status in DX-1S (programming item 110) must set to 1. Beside the slightly difference in hardware setup, the PC station hardware requirement and MFC98 setup procedure are the same.

- Setup Hardware Interrupt Level (JP1, the jumper block to set interrupt level).
- The default hardware interrupt level (IRQ) is 7; PIN1, PIN 2 and PIN 6 are shorted.

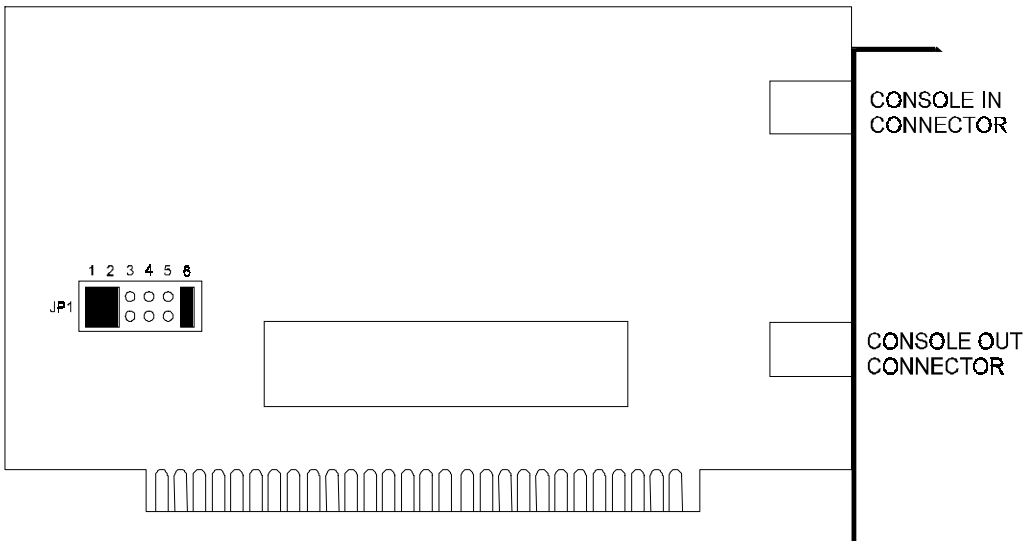

Figure 4-2 MFC-1S PC INTERFACE CARD

4.4 CONSOLE HARDWARE INSTALLATION

Reference to DX-1S Installation Manual for details.

4.5 COM PORT SETTING OF MFC98 PC INTERFACE CARD

The MFC98 PC interface card acts as a special COM port card to communicate with the DX-1S digital PABX. It is recommended to configure the MFC98 PC interface card to IRQ = 7, Address = COM4 (02e8). This is also the factory default setting of the PC Interface Card.

After inserting the card to PC, it also requires adding the COM port in Windows 98 Control Panel.

In Control Panel select Add New Hardware then follow the instruction to complete the installation. (Detailed information about adding new hardware in Windows 98 please refers to Windows 98 manuals).

It is recommended to check any hardware conflict after adding the COM port.

4.6 SOFTWARE SETUP

1. Exit all open applications and insert the MFC98 installation disk 1 into floppy drive.
2. Click the **START** button and select **RUN**
3. Type your floppy drive letter, followed by **:\setup**
4. Follow the on-screen instructions to complete the MFC98 installation.

4.7 BEST SCREEN RESOLUTION

It is recommended to use 640 x 480 or 800 x 600 screen resolution for MFC98, otherwise it cannot display in full screen mode. It is also recommended to use small fonts for best visual effect.

4.8 CONSOLE CONFIGURATION FILE

MFC98 software requires an initialization file, SETUP.INI which is a plain text file containing the setting of MFC98 program. So, it is required to check / change the SETUP.INI file before the first execution of the MFC98 program. The passwords in the SETUP.INI file should be modified by MFC98 SETUP MODE and the other items should be modified by a text editor. The SETUP.INI file is located at the MFC98 program directory or user can edit it by click on SETUP in the START | PROGRAM | MFC98.

If the file is not existing, MFC98 will use its default value for operation. For connecting MFC98 via RIM-1S, this file must exist. The following table shows the fields and their description in SETUP.INI.

Item	Description and Setting	
SMDR_SAVE_PATH	The path for saving SMDR. (This path is under the MFC98 program path).	
SMDR_ON_MONITOR	Value=ON	SMDR will display on screen in SMDR Display Mode
	Value=OFF	SMDR will not display on screen in SMDR Display Mode
CONSOLE_ID	Console ID when MFC98 start	
COM_PORT	Value=1	COM1 (PC connects Modem or RIM-1S).
	Value=2	COM2 (PC connects Modem or RIM-1S).
	Value=4	COM4(use PC interface card).
CONSOLE_MODE	Value=0	MFC98 with PC interface card.
	Value =1	MFC98 connects RIM-1S via serial port (Local Mode).
	Value=2	MFC98 connects RIM-1S via Modem (Remote Mode).
MODE_INITIALIZATION	Modem Initialization Command. (For detail about modem command, please refer to modem manual).	
MODEM_CONNECT	Modem Dialing / Connect command.	

Table 4-3 DESCRIPTION OF SETUP.INI

4.9 RUNNING MFC98 THE FIRST TIME

- The DX-1S System is switched on and connection between DX-1S and MFC98 is ready.
- Execute MFC98 from the icon at desktop or START | PROGRAM | MFC98.

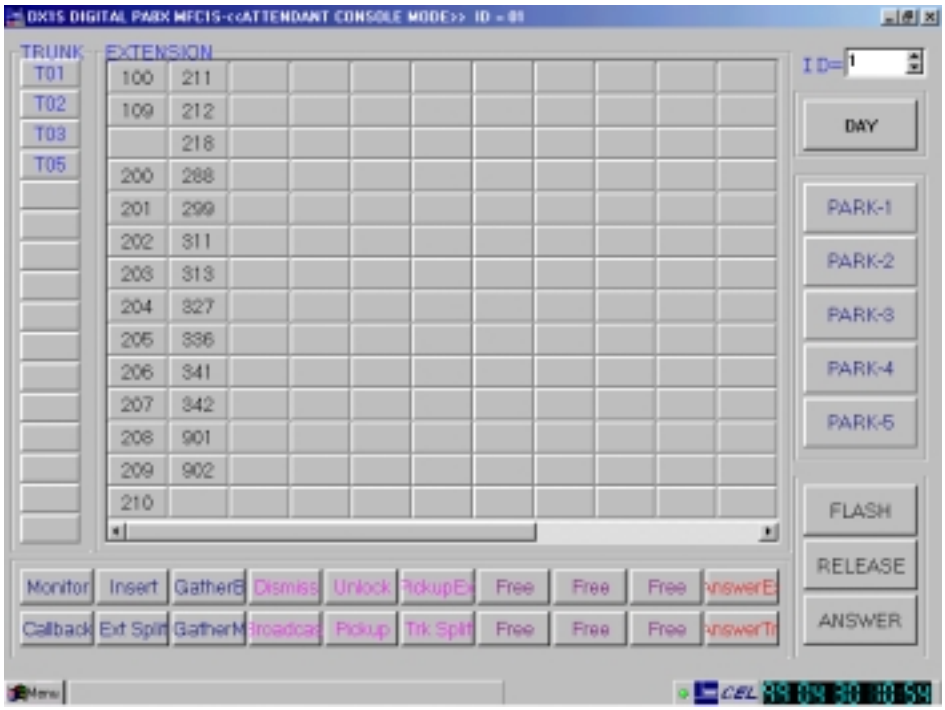

Figure 4-3 MFC98 ATTENDANT CONSOLE MODE SCREEN

- If the System Status Light at the lower right area of screen is blinking, it indicates the communication between the console and system is OK. The DX-1S system and console are running. Otherwise, the console is not yet connecting to the system. Check the connection and cable between console and system, the system and console hardware.
- A single DTMF telephone or headset telephone should install beside MFC98 Console to be the console extension.
- The console is now ready for setup.

4.10 SETUP MFC98 CONSOLE

- Setup the console program parameter and assign a unique Console ID to the console in Console Setup Mode. Please refer to section 5 CONSOLE SETUP MODE.
- Assign the console extension to a console class. System Programming Item 85 be Extension feature class - Day/Check In Mode. System Programming Item 86 be Extension feature class - Night/Check-out Mode (Reference to DX-1S Programming Manual).
- To enable a console, System Programming Item 110 - Console Service Status could be achieved (Reference to DX-1S Programming Manual).
- To assign an extension number for the console, System Programming Item 111 - Console Extension Assignment could be achieved (Reference to DX-1S Programming Manual).

4.11 MFC98 CONSOLE OPERATION MODES

MFC98 Console can operate in eight different operation modes to perform different tasks for DX-1S system. The Console Setup Mode is to set up the console operation parameters. When MFC98 is operating in Attendant Console Mode, the console becomes an Attendant Console to display the Busy Lamp field and call information. The SMDR Display Mode can display the SMDR information on screen for call monitor or maintenance purpose. The attendant operator can set the features for any extension in Management Mode. In Programming Mode, the console becomes a Programming Console for system programming. For diagnostic purpose, maintenance person can set the console in Diagnostic Mode.

Operation Mode	Function
Console Setup Mode	To setup the console operation parameters.
Attendant Console Mode	Display Busy Lamp Field, call information and system status.
SMDR Display Mode	Display SMDR information on screen and control SMDR Data printer output.
Management Mode	For feature setting for extension and entering Programming and Diagnostic Mode.
DOS Programming Mode	An operation mode under Management Mode. The system programming can perform in this mode.
Menu Programming Mode	A menu driven programming mode. The system programming can perform in this mode.
DOS Diagnostic Mode	Another operation mode under Management Mode. The system diagnostic can perform in this mode.
Menu Diagnostic Mode	Another operation mode under Management Mode. The system diagnostic can perform in this mode.

Table 4-4 MFC98 OPERATION MODES

5. CONSOLE SETUP MODE

This mode is to setup the console operation parameter. After the system and console hardware installation, the next step is to setup the console. Otherwise the console will be operated at incorrect condition and will not be able to perform the right function.

5.1 ENTER CONSOLE SETUP MODE

Enter the Console Setup Mode for console operation parameter setting.

Operation

1. Presses “F6” key in the console keyboard or select MENU | Setup Mode in Attendant Console Mode, then Console Setup Mode Password Inquiry screen will display.

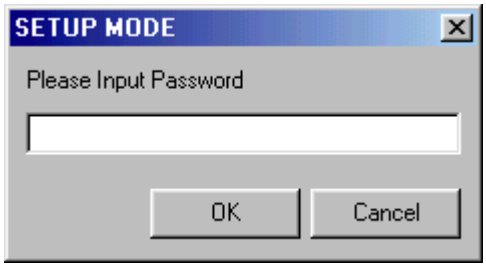

Figure 5-1 CONSOLE SETUP MODE PASSWORD INQUIRY SCREEN

2. Enter Password of Console Setup Mode in the console keyboard and press “Enter” key or click “OK”.
3. If the password is incorrect, message “Invalid Password” will be displayed on the screen and you need to enter the password from step 1 again.
4. If the password is correct, you will see another screen “Console Setup Mode” as following:
5. Select the item to change.

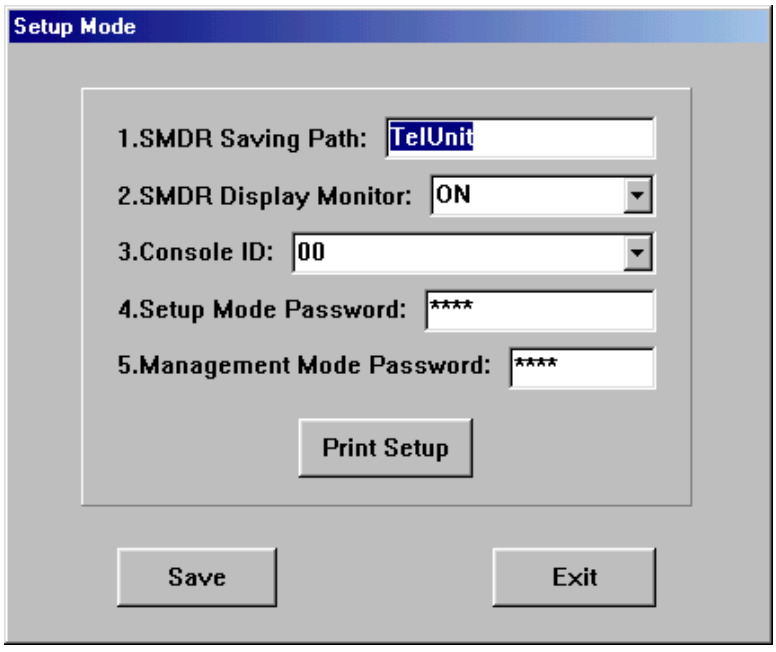

Figure 5-2 CONSOLE SETUP MODE SCREEN

Remark

1. The default Console Setup Mode Password is “9856”.

5.2 SMDR SAVING PATH

This item is to program the path for saving SMDR. (This path is under the MFC98 program path). Only Console ID=0 can receive SMDR data from system and save SMDR to file.

Operation

1. Click on or select the SMDR Saving Path field.
2. Enter the path.

Remark

1. Default value = TelUnit
2. Only Console 0 can receive SMDR data from system and display on screen.

5.3 SMDR DISPLAY MONITOR

This item enables the console to print out SMDR data on the screen in SMDR Display Mode. Only Console ID = 0 can receive SMDR data from system and display on screen.

Operation

1. Click on the down arrow on SMDR On Monitor field to select or select the SMDR On Monitor field and use the up / down arrow key to change.

Option

- ON - enable to print out the SMDR data on the screen of SMDR Display Mode.
- OFF - stop to print out the SMDR data on the screen of SMDR Display Mode.

Remark

1. Default value = ON.
2. Only Console 0 can receive SMDR data from system and display on screen.

5.4 CONSOLE ID

The Console ID is an identity number of the console. The Console ID enable DX-1S System to access or control a specified console and will not mix up with other consoles.

Operation

1. Click on the down arrow on Console ID field to select ID using mouse or select the Console ID field and use the up / down arrow on keyboard to change ID.
2. The new setting will only be valid until the “Save” button is checked.

Option

- 00 ~ 15

Remark

1. Default = 00.
2. Every console needs to setup the Console ID before normal use. The Console ID must be unique for each console. There should not have two consoles having the same Console ID. If this condition happens, it may cause wrong operation to console.
3. Only Console ID 0 can receive SMDR data from system and output to printer or display on screen.

5.5 SETUP MODE PASSWORD

The Console Setup Mode Password is used to enter the Console Setup Mode. Operator can change this password to any four-digit number.

Operation

1. Select the Setup Mode Password field.
2. Enter a four-digit number as the new password.

Remark

1. The default Console Setup Mode Password is “9856”.
2. The Console Setup Mode Password is stored in the console. Each console can have its own password and the password of different consoles does not need to be the same.

5.6 CHANGE MANAGEMENT MODE PASSWORD

The Management Mode Password is used to enter Management Mode. Operator can change this password to any four-digit number.

Operation

1. Select the Management Mode Password field.
2. Enter a four-digit number as the new password.

Remark

1. The default Management Password is “7854”.
2. The Management Mode Password is stored in the console. Each console can have its own password and the password of different consoles does not need to be the same.

5.7 SAVE THE SETTING AND LEAVE CONSOLE SETUP MODE

Although the setting in the above items are changed, these new settings will not be valid until you save the new setting.

Operation

1. Click on the “SAVE” button.
2. MFC98 will save the setting and exit to Attendant Console Mode.
3. The new setting is now valid.
4. If you do not want to save the setting, click on the “EXIT” button will leave Console Setup Mode and switch to Attendant Console Mode without saving the setting.

6. ATTENDANT CONSOLE MODE

The Attendant Console Mode displays the information in order to assist the operator handling the calls. The attendant operator can also input the directory number or feature access code, using the console keyboard or mouse or console extension keyboard for call processing when the console extension is in off hook status under this mode.

The following information is displayed in the screen:

- Software version
- Day/Night Mode Status Button
- Console ID
- System Clock
- System Status Light
- Talking Status
- Call Park Status Buttons
- Flash, Answer and Release Buttons
- Trunk and Extension Status Buttons
- Call Information
- Programmable Function Buttons
- Menu Button

6.1 ENTER ATTENDANT CONSOLE MODE

Enter Attendant Console Mode for attendant operation.

Operation

1. When executing MFC98, the Console will enter Attendant Console Mode.
2. To switch to Attendant Console Mode, you can click the “BACK” button or terminate the current window in other modes of MFC98.
3. Attendant Console Mode screen is displayed as in Figure 4-3 MFC98 ATTENDANT CONSOLE MODE SCREEN.

6.2 CONSOLE SOFTWARE VERSION DISPLAY

The version number of the MFC98 Console software can be displayed by click on the “MENU” button and select “ABOUT” option. The version display will help to clarify what version of console software is running in the console.

Display

- Software version will display as:

Figure 6-1 MFC98 VERSION NUMBER DISPLAY

6.3 CONSOLE ID DISPLAY / SELECT

The Console ID number of the console display at the top right corner of the screen.

Display

- Console ID will display as “ID=00”.

Operation

- Click on the Console ID field “up” / “down” arrow buttons to change current ID or press “F1” to change the console among 1 to 4.
- Press “F3” will reset Console ID to saved value.

Remark

1. The Console ID can change from 0 ~ 15.

6.4 SYSTEM CLOCK DISPLAY

The time displays in the bottom right corner on the screen is DX-1S System Clock. All the feature related to time will refer to this clock.

Display

- The clock is displayed in 24-hours format as “YY MM DD HH:NN”.
- YY – Year, MM – month, DD - day, HH - hour, NN - minute,

Remark

1. The clock can be set in system programming. Reference to DX-1S Programming Manual for details.

6.5 DAY / NIGHT MODE STATUS BUTTON

The Day/Night Mode Display is located under the Console ID display. It indicates the system operating in Day or Night Mode.

Display

- “DAY” indicates the system is operating in Day Mode.
- “NIGHT” indicates the system is operating in Night Mode.

Operation

- To toggle between DAY / NIGHT mode: click on the button while Console Extension is off-hook.

6.6 SYSTEM STATUS LIGHT

There is a System Status Light to indicate the status of console and the DX1S system, the communication between console and system. The System Status Light is located in the left hand size of the System Clock Display. It is blinking if the system is running normal.

Display

- If the System Status Light is Blinking, it indicates the console and DX1S system is running. The communication between console and system is in normal condition.
- If any of the following condition happen, the System Status Light will stop blinking:
  - The System is off or in failure.
  - The Console is in failure.
  - The communication between console and system is in problem.

Remark

1. If the Status Light does not blink, system or console may need trouble shooting to identify the problem.

6.7 TALKING STATUS DISPLAY

In Attendant Console Mode, press and hold the space bar will display the window of Talking Status of all talking ports. The Talking Status window has divided into two parts - Talk with Trunk and Extension – Extension.

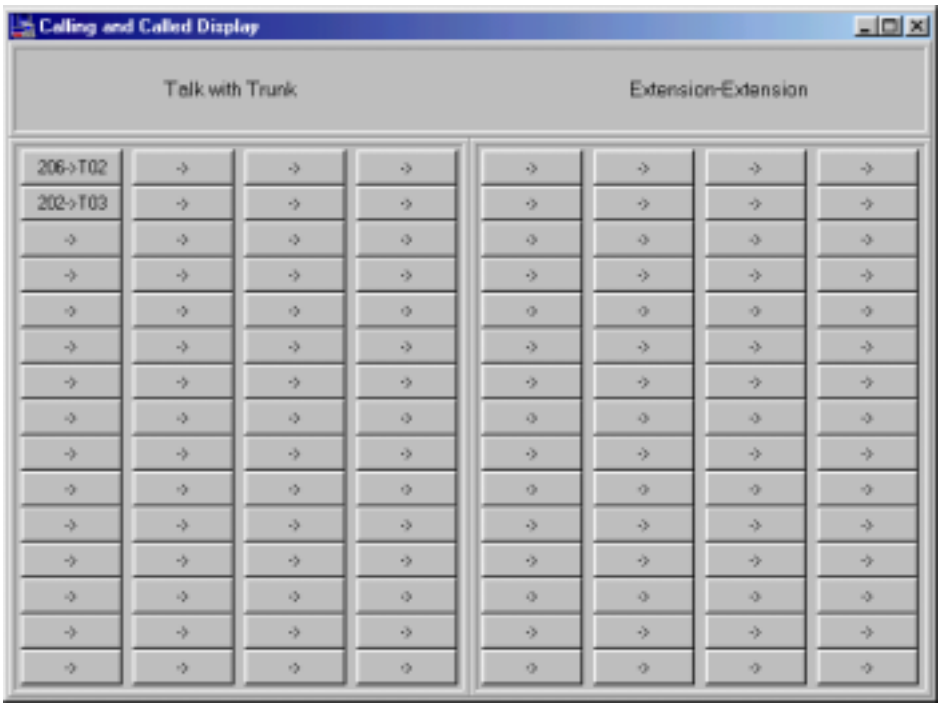

Figure 6-2 TALING STATUS WINDOW

6.8 COMMON CALL PARK INDICATION

The Common Call Park Indication are the 5 buttons (Park-1 ~ Park-5) below Day/Night Mode Display. The Command Call park buttons indicate the Common Call Park Status. There are totally 8 Common Call Park in DX-1S system, but here only show the first five Call Park Locations.

Display

Trunk Number Display	Status
In normal	Common call park location is idle.
Inversely (Green)	Common call park location is occupied.

Operation

To park a call

- Click on NORMAL Call Park button while Console Extension is talking (park the other talking port).

To retrieve a parked call

- Click on a parked (inversely) Call Park button while Console Extension off-hook and idle.

Remark

1. Attendant operator can enter the call park feature code to use Call Park Location 6 ~ 8, but the call park status 6 ~ 8 will not be displayed on the attendant console screen.
2. Please refer to DX-1S Operation Manual for detail of Call Park usage.

6.9 CALLING WAITING INDICATION

An audience indication, Windows Default Sound, is to indicate the attendance operator there is a call waiting for answer. The waiting call could be a trunk call, an extension call or a call back call.

Sound

- Windows - Default Sound effect. (This sound effect will vary with different sound scheme used in Windows setting.)

Remark

1. User may change this sound effect by CONTROL PANEL | Sounds | Windows | Default Sound.

6.10 TRUNK STATUS BUTTONS

The Trunk Status Buttons are located in the left-hand side of the screen. The numbered buttons indicates the trunk number and the trunk lines are in use. The button color indicates the trunk line status.

Display

Trunk Number Display	Status
In normal	Trunk line is idle.
Inversely (Green)	Trunk line is occupied.
Blinking (0.5s ON, 0.5s OFF)	An incoming trunk line waiting for attendant console to answer.
Winking (2.5s ON, 0.5 s OFF)	Trunk line is parked or on hold.

Table 6-1 TRUNK NUMBER DISPLAY FORMAT IN MFC98 CONSOLE

Operation

- Attendant Operator can access the trunk line by click on it while Console Extension is off-hook and idle.
- Right click on the Trunk Status Button will display a menu of operations on the trunk line. The menu contains Call Monitor, Call Back, Call override, Call Disconnect and Answer options. Click on the option will perform the action on the trunk line.
- If the trunk is talking, right click on the Trunk Status Button will also display the other talking trunk / extension number in the top of the menu.
- User can change the display of a Trunk Status Button by Shift-Right Click and then enter the new name.

6.11 EXTENSION STATUS BUTTONS

The Extension Status Display is in the middle of the screen. The numbered button indicates the extension is in use and it's extension number. The button's color indicates the extension line status.

Display

Directory Number Display	Status
In normal	Extension is idle.
Inversely	Extension is occupied.
Blinking (0.5s ON, 0.5s OFF)	Called Extension is ringing or Calling Extension is waiting for attendance console to answer.
Winking (2.5s ON, 0.5s OFF)	Extension is parked or on hold.

Table 6-2 EXTENSION NUMBER DISPLAY FORMAT IN MFC98 CONSOLE

Operation

- Attendant Operator can access the extension by click on it while Console Extension is off-hook and idle.
- Right click on the Extension Status Button will display a menu of operations on the extension line. The menu contains Call Monitor, Call Back, Call Override, Call Disconnect, Call Pickup, Broadcast Multi-

party Conference and Answer options. Click on the option will perform the selected action on the extension line.

- If the extension is talking, right click on the Extension Status Button will also display the other talking trunk / extension number in the top of the menu.
- User can change the display of an Extension Status Button by Shift-Right Click and then enter the new name.
- User can set the feature of an extension by Ctrl-Right Click on the Extension Status Button and then enter the setting in the Summary Management Mode menu.

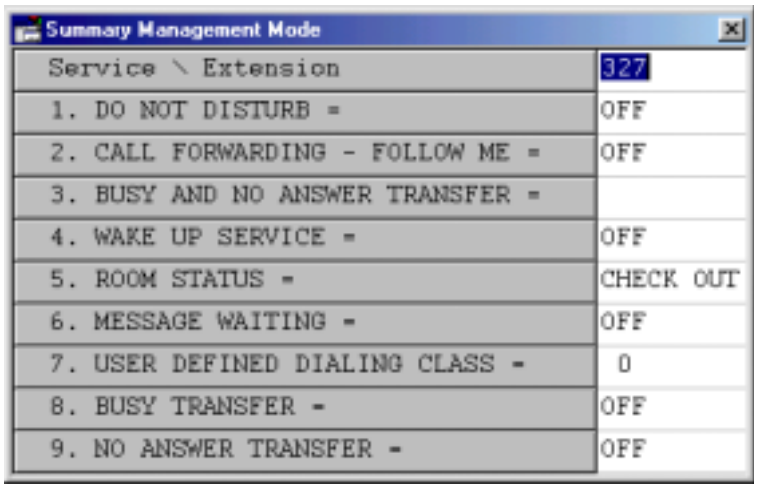

Figure 6-3 SUMMARY MANAGEMENT MODE MENU

- To move the Extension Status Button: Shift-Click on extension number and hold the Shift key (release mouse button). Drag the mouse pointer to desire place and Shift-Click again to drop the extension button

6.12 CALL INFORMATION DISPLAY FIELD UNDER ATTENDANT CONSOLE MODE

The Call Information Display Field, at the bottom of screen, displays the call information of the console telephone such as incoming call identification and call status.

Display

The call information is displayed as following:

Call Information	Console Telephone Status	Description
CALL BACK FROM EXT EEEE	Ringing	The call of Ext EEEE has been parked or transferred by the console and is calling back now.
CALL BACK FROM TRK TT	Ringing	The call of Trk TT has been parked or transferred by the console and is calling back now.
CALL BACK TO EXT EEEE	Call On Hold	The call in console telephone has been parked or transferred by Ext EEEE and is calling back to the extension.
CALL FROM EXT EEEE	Ringing	The ringing call is made from Ext EEEE.
CALL FROM TRK TT	Ringing	The ringing call is made from Trk TT.
DIAL TO EXT EEEE	Off Hook	The operator is dialing to Ext EEEE.
DIAL TO TRK TT	Off Hook	The operator is dialing to Trk TT.
TALK WITH EXT EEEE	Talking Stage	The call is connected with Ext EEEE.
TALK WITH TRK TT	Talking Stage	The call is connected with Trk TT.
TRANSFER FROM EXT EEEE	Ringing	The ringing call is transferred from Ext EEEE.
TRANSFER FROM TRK TT	Ringing	The ringing call is transferred from Trk TT.
TRANSFER TO EXT EEEE	Call On Hold	The call in console telephone is being transferred to Ext EEEE.
Remark: EEEE is the directory number of extension TT is the trunk number		

Table 6-3 CALL INFORMATION DISPLAY

6.13 DIALING NUMBER DISPLAY FIELD

The Dialing Number Display Field is next to the Calling Information Display field. When attendant dial a number using MFC98, the dialed number will display on the Dialing Number Display Field. The dialed number will only be cleared by press 'ESC' key in MFC98 keyboard.

Display

- Number dialed. ('0' – '9', '*', '.' and '/'. 'Enter' will display as ',' and '-' will display as '#').

6.14 'FLASH', 'ANSWER' AND 'RELAESE' BUTTONS

The 'FLASH', 'ANSWER' and 'RELAESE' buttons are located above the system clock display of the Attendant Console screen. The functions of these three buttons are self-descriptive and they are mainly for attendant operator to use in call processing operation. Click on the buttons is equal to take the action from a Console Extension.

6.15 USER PROGRAMMABLE BUTTONS

There have 20 user programmable buttons located above the status bar (bottom) of attendant console screen. Each programmable button can store up to 40 keystrokes for using as a keyboard macro button in attendant console call processing. The buttons can be used in conjunction with clicking on the Extension / Trunk Status Display button in performing call processing operation.

The buttons are divided into 4 classes by their types of operation and the buttons will change their color in different type of operation. The types of operation are illustrated in the following table with examples.

Operation Type	Description / Example
Console_F (Red color)	This type of function works with an extension or trunk number and executing before it. E.g. pick up an extension call by '#EEE.' - program a function button Command mode = Console_F, - Command name = Pick up - Command detail = # To pick up a ringing extension EEE, click on the Pick up function button then click the EEE extension button.
Console_N (Purple color)	This type of function is immediate execute function. E.g. universal pick up by '#9' - program a function button Command mode = Console_N, - Command name = Pick all - Command detail = #9 To pick up a ringing call, just click on the Pick all function button.
Console_B (Deep Blue color)	This type of function works with an extension or trunk number and executing after it. E.g. monitor a talking extension EEE by 'EEE 2' - program a function button Command mode = Console_B, - Command name = Monitor - Command detail = 2 To monitor the talking extension EEE, click on the EEE extension button then click the Monitor function button.
Management (Light Blue color)	This type of function will execute management function immediately. This kind of command is same as entering command in DOS Management mode. E.g. Set up busy and no answer transfer of EEE to DDD - program a function button Command mode = Management, - Command name = Set BNT - Command detail = 3*EEE*DDD Just click on the Set BNT button to set the busy and no answer transfer.

Table 6-4 TYPES OF OPERATION OF USER PROGRAMMABLE BUTTONS

6.15.1 CONFIGURE USER PROGRAMMABLE BUTTONS

Some of the user programmable buttons are pre-programmed in MFC98. Users are recommend to program the free buttons or change the pre-programmed buttons to suit their needs.

Operation

1. Right click the user programmable button to display the configuration menu

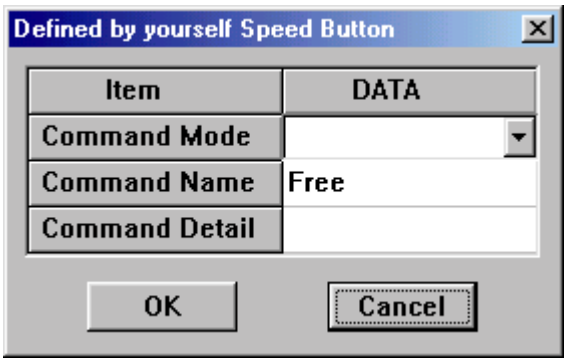

Figure 6-4 USER PROGRAMMABLE BUTTON CONFIGURATION WINDOW

2. Select the appropriate operation type in Command Mode field by click on the down arrow on the right. The operation types are described in Table 6-4 TYPES OF OPERATION OF USER PROGRAMMABLE BUTTONS.
3. Assign a name for this button. The name will display on the button in Attendant Console Mode.
4. Fills in the keystrokes require in the Command Detail filed.
5. When all the three fields had completed, click “OK” to save the setting. Click “Cancel” will abort the change.

Example

1. To configure a user programmable button to universal pick up.

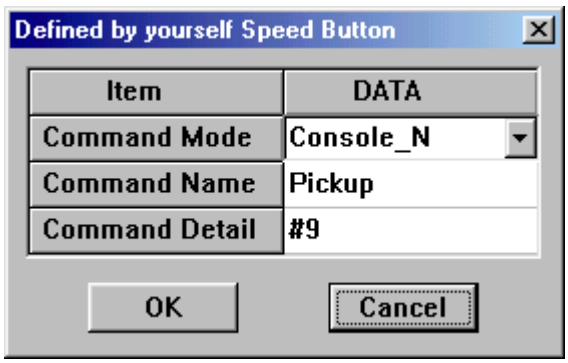

Figure 6-5 USER PROGRAMMABLE BUTTON CONFIGURE TO UNIVERSAL PICK UP

6.15.2 USING USER PROGRAMMABLE BUTTONS

To use the user programmable button is simply a mouse click on it, but be aware of that, most of the operations require console extension in an off-hook state. Also, when using the button in call processing operation, please refer to section 6.17 ATTENDANT CONSOLE CALL PROCESSING OPERATION for more information.

6.16 MENU BUTTON

The MENU button is located on the bottom left corner of the attendant screen. Click on this button will display a window with several options for different operation mode in MFC98. By clicking on the mode option or press the key labeled at the right of option to enter the operation mode.

Click on “About” will display MFC98 version number and click on “EXIT” will exit MFC98.

Figure 6-6 MENU BUTTON WINDOW

6.17 ATTENDANT CONSOLE CALL PROCESSING OPERATION

Attendant console with console extension can perform normal call processing operation using the MFC98 keyboard and mouse. Having the console display and keyboard, it becomes an efficient attendant console of the system.

6.17.1 ATTENDANT CONSOLE SETUP

Before using the attendant console for call processing operation, it requires a proper setup in the system programming setting. The following show a suggested attendant programming setting.

- Programming required in section 4.10 SETUP MFC98 CONSOLE
- Program BUSY AND NO ANSWER TRANSFER DEFAULT, item 91 of console extension to 0
- This programming setting will not be effective until DX-1S restart. For immediate change of Busy and No Answer Transfer setting without restart system, see section 7.5 FEATURE SETTING FOR EXTENSION
- Program INTERCOM CALL WAITING STATUS, item 92 of console extension to 1.
- Program DIAL TONE STATUS; item 93 of console extension to 0.
- Program CONSOLE CALL WAITING BEEP STATUS to 1.

The above setting expected that the console extension be always in OFF hook condition. Since it is off hook, the extension status will be shown as busy.

If the console extension is setup properly and a call arrives at the console extension, a call waiting tone will hear and also MFC98 will sound to indicate a call is waiting for answering. Then attendant operator can press ‘.’ at MFC98 numeric keypad or click “Answer” button to answer the call.

6.17.2 ATTENDANT CONSOLE KEYBOARD OPERATION

The Console Keyboard is for the attendant operator to input the numbers or feature codes for call processing in Attendant Console Mode. The keys for call processing are mainly located at the numeric keypads, which are implemented to have corresponding function to the telephone’s keypad.

The keypad in console extension has the same function as Console Keyboard in Attendant Console Mode.

Operation

The function of the keys in console keyboard in Attendant Console Mode is as following:

Key	Function
0 ~ 9	Number input “0” ~ “9” for call processing
*	Digit “*”
.	Answer extension queue
Enter	Toggle dial tone on / off, call release
+	Answer call in PCM / trunk / extension queue
/	Flash
#	Digit “#”
-	Same function as “#”
F1	Change Console ID among ID 1, 2, 3 and 4
F2	Exit from MFC98 program
F3	Restore Console ID to default value (pre-programmed)
F4	Switch to DOS Management mode
F5	Switch to Menu Programming mode
F6	Switch to Console Setup Mode
F7	Switch to SMDR Display Mode
F8	Switch to Menu Diagnostic Mode
F11	Switch to Phone Book

Table 6-5 KEYBOARD FUNCTION IN ATTENDANT CONSOLE MODE

Examples

An attendant console had setup as in section 6.17.1 ATTENDANT CONSOLE SETUP.

- Answer a call: When call waiting tone is heard, press ‘+’ or ‘.’. After finish the call press ‘Enter’ to release the call.
- Pick up a call: When another extension is ringing, press “#9”. After finish the call press ‘Enter’ to release the call.
- Transfer a call to another extension: While talking, press ‘/’ and the called extension number “EEEE” and then ‘Enter’. (the ‘/’ – flash is optional in Console keyboard operation).
- To initiate an intercom call: Just press the extension number “EEEE’ in idle state.
- To initiate an out-going call: Press ‘9’ to access a trunk and then press the destination number.
- To monitor a talking extension: Dial to the talking extension, when busy tone is heard, press ‘2’ to monitor.

From the above examples we know that the MFC98 keyboard operation in attendant console mode follows the operation of normal extension. Therefore we can perform all call processing operation using MFC98 keyboard in attendant console mode.

For details of all call processing operations, please refer to DX-1S Operation Manual.

6.17.3 ATTNEDANT CONSOLE MOUSE OPERATION

In contrast to the keyboard operation, mouse operations are usually executing a buttons’ function. Which provide a quicker access of a pre-defined / programmed function.

For example change system from Day mode to Night mode require key in “##11” at the keyboard but a mouse click on the Day button has the same effect.

The mouse operations in Attendant Console mode are also used to configure the function of the buttons.

The following table shows a summary of mouse Operation in attendant Console Mode.

Function	Mouse Action
Execute a function button	Click on the function button
Access a trunk	Click on the trunk button
Dial / transfer to an extension	Click on the extension button
Move an extension button	Shift-Click on extension number and hold the Shift key (release mouse button). Drag the mouse pointer to desire place and Shift-Click again to drop the extension button
Operation with extension or trunk	Right-Click the extension or trunk button. Then a menu of various possible operations (e.g. answer, monitor, override, etc.) will display. Then select an appropriate operation.
Configure programmable function button	The programmable function buttons on the lower part of Console mode screen can be configure by Right-Click the button.
Configure extension button display	Shift-Right-Click an extension button to edit the button's display number / name. After edit the button, press ENTER to confirm change or ESC to cancel change.
Extension Management	Ctrl-Right-Click and extension button will display the Summary Management Menu for that extension. After changing each field, press ENTER or double click to confirm.

Table 6-6 MOUSE OPERATION IN CONSOLE ATTENDANT MODE

Examples

An attendant console had setup as in section 6.17.1 ATTENDANT CONSOLE SETUP.

- Answer a call: When call waiting tone is heard, click "Answer" button. After the call is finished, click "Release" button to release the call.
- Pick up a call: When another extension is ringing, click on the "Pick up" user programmable button. After the call is finished, click "Release" button to release the call.
- Transfer a call to another extension: While talking, click on the destination extension button and click "Release" button.
- To initiate an intercom call: Just click on the extension button in idle state.
- To initiate an out-going call: Click on a trunk button to get a trunk then presses the destination number at keyboard.
- To monitor a talking extension: Click on the talking extension button, when busy tone is heard, press '2' to monitor.

6.18 LEAVE ATTENDANT CONSOLE MODE

Switch Attendant Console Mode to other operation mode.

Operation

1. Press "F4 ~ F8" or click "Menu" button and select desired mode to switch to.
2. The screen will change to the other operation mode screen.

Exit MFC98.

Operation

1. Press "F2" or click "Menu" button and select "Exit" to exit MFC98.

7. DOS MANAGEMENT MODE

When the console is operated in the DOS Management Mode, the attendant operator can set some features for the extensions. Maintenance person can also enter DOS Programming Mode and DOS Diagnostic Mode from DOS Management Mode.

7.1 ENTER DOS MANAGEMENT MODE

Enter the DOS Management Mode for three functions, they are features setting for extensions, go into DOS Programming Mode and DOS Diagnostic Mode.

Operation

1. Press the “F4” key in the console keyboard or Select DOS Management Mode from “Menu” button window in Attendant Console Mode
2. DOS Management Mode Password Inquiry window is displayed as in following figure.

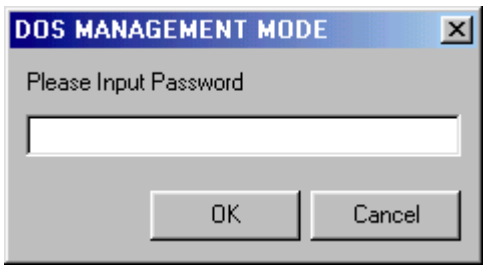

Figure 7-1 DOS MANAGEMENT MODE PASSWORD INQUIRY WINDOW

3. Enter Password of DOS Management Mode in the console keyboard and press “Enter” key or click “OK” button.
4. If the password is incorrect, it will display an error message and system will quit the inquiry window. You need to re-do from step 1.
5. If the password is correct, the Management Mode Screen will be displayed as following. The prompt will display as “Mx>”, where M indicate Management Mode and x is the current Console I.D. (0 ~ 15).

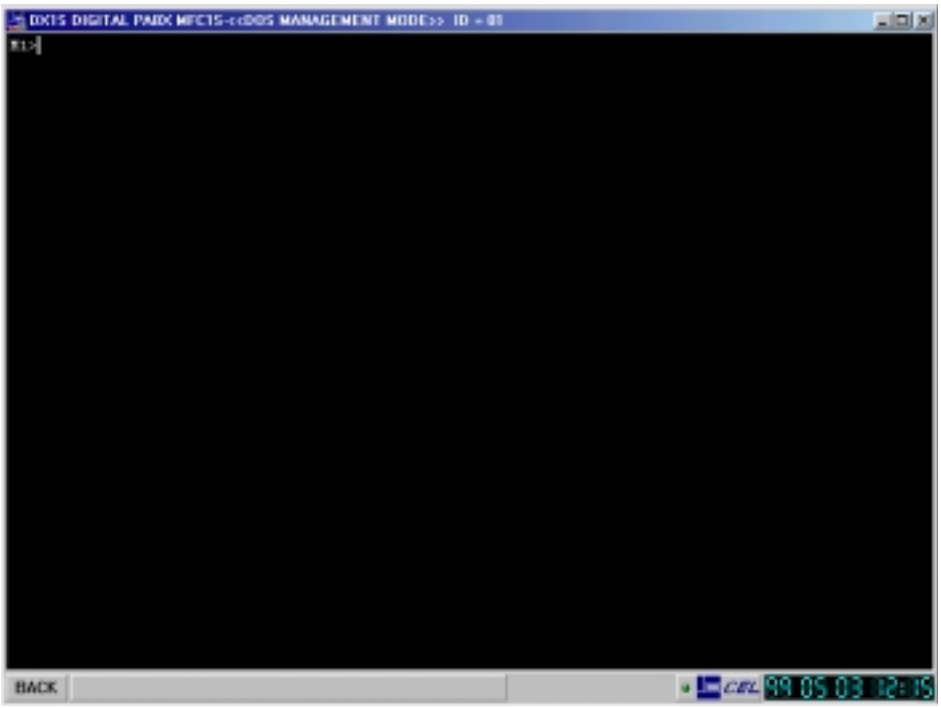

Figure 7-2 DOS MANAGEMENT MODE SCREEN

Remark

1. The default Management Mode Password is “7854”.

7.2 CALL INFORMATION DISPLAY FIELD UNDER DOS MANAGEMENT MODE

The Call Information Display Field in the bottom of screen shows the call information of the console telephone, such as incoming call identification. This helps operator to avoid missing important call information.

7.3 VIEW / PRINT / SAVE ON SCREEN INFORMATION

In DOS Management Mode, operations are performing in an interactive way. Just like the MS-DOS environment – user enters a command, and then system displays the respond on screen. The display will scroll up when it reach the bottom of the screen. On the other hand, user can use the arrow keys on MFC98 keyboard to scroll back to the previous display.

When system displays some messages or information on the screen, some of those could be printed or saved to file for future reference, such as feature setting for extension data, programming data, system configuration and diagnostic result etc.. You can enable the printing or saving function before the message displayed. The console will start to output the messages on the screen to printer or file.

Operation

Print Screen Information

1. If you want to print the message, right clicks the screen and selects “Printer” or press “Ctrl-P” in DOS Management Mode.
2. Select printer and options for print out in the standard Print window.
3. After click “OK” in the Print window,
4. From now on, information displayed will print on the selected printer.
5. Right clicks the screen again to disable the print out function.

Save Information to File

1. If you want to save the message, right clicks the screen and selects “Save as” or presses “Ctrl-S” in DOS Management Mode.
2. Enter filename while prompt to.
3. From now on, information displayed will save to the file.
4. Right clicks the screen again and selects “Stop Saving” or presses “Ctrl-S” to end save information to file.

7.4 THREE FUNCTIONS UNDER DOS MANAGEMENT MODE

There are three functions under Management Mode:

Function	Description
Feature Setting for Extension	The attendant operator can set the features for any extension in Management Mode, such as Setting Call Forwarding for Extension, Wake Up Service and Message Waiting etc.
Enter DOS Programming Mode	The DOS Programming Mode is an operation mode under Management Mode. Keying in the Programming Mode Password in Management Mode can enter the Programming Mode.
Enter DOS Diagnostic Mode	The DOS Diagnostic Mode is another operation mode under Management Mode. Keying in the Diagnostic Mode Password in Management Mode can enter the DOS Diagnostic Mode.

Table 7-1 FUNCTIONS UNDER DOS MANAGEMENT MODE

7.5 FEATURE SETTING FOR EXTENSION

The attendant operator can key in the feature access code in Management Mode to set the following features for any extension:

- Do Not Disturb
- Call Forwarding - Follow Me
- Busy And No Answer Transfer
- Wake Up Service
- Check-in / Check-out
- Message Waiting
- User Defined Dialing Class
- Busy Transfer
- No Answer Transfer

7.5.1 DISPLAY EXTENSION FEATURE SETTING

The Attendant Console can display the feature setting of the extensions.

Operation

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Press “0*”.
3. Press the directory number of the extension that the operator wants to display the feature setting.
4. Press “Enter”.
5. The screen will display the following:

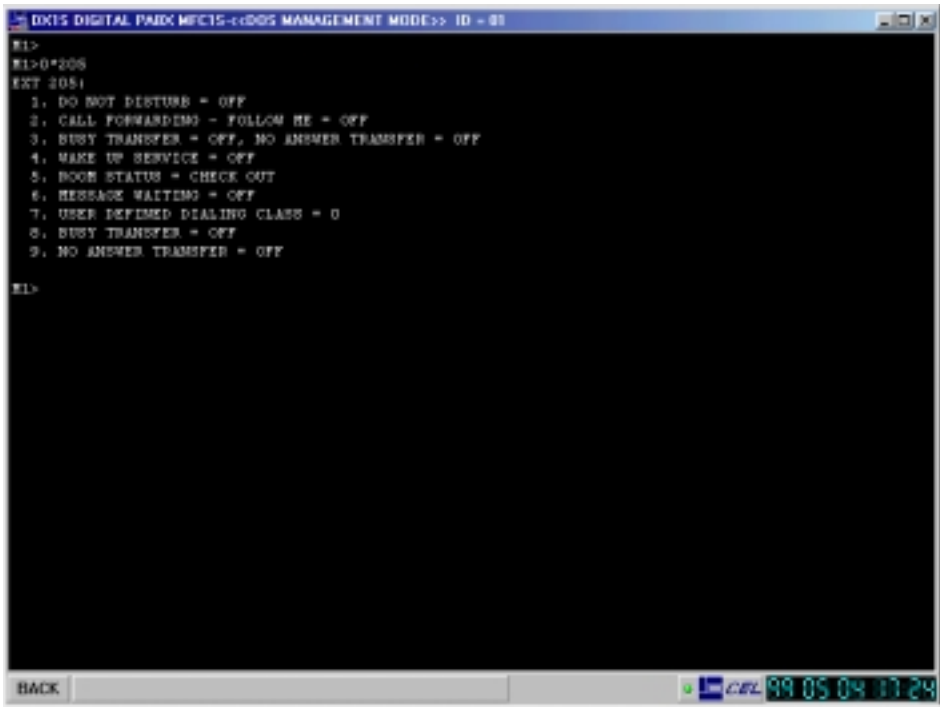

Figure 7-3 EXTENSION FEATURE SETTING DISPLAY

7.5.2 SET DO NOT DISTURB FOR EXTENSION

The Attendant Console can set or cancel Do Not Disturb feature for other extensions. Do Not Disturb feature is to stop receiving any calls.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.

2. Enter “1*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*1”.
5. Press “Enter”.
6. The screen will display “1. DO NOT DISTURB = ON”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “1*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*0”.
5. Press “Enter”.
6. The screen will display “1. DO NOT DISTURB = OFF”.

Condition

1. Busy and No Answer Transfer set before is still effective and will transfer the call to answering extension.
2. Follow Me will be canceled when Do Not Disturb is established.
3. When lift up handset, feature activation tone will be heard to remind you that Do no Disturb or Follow Me is activated.
4. Automatic Callback cannot be initiated when called extension in Do Not Disturb mode.
5. The extension can ask Attendant Console to set or cancel this feature for him/her.
6. If the extension has set the Busy and No Answer Transfer, the operator can cancel this feature for the extension.
7. If the operator has set the Busy and No Answer Transfer for the extension, the extension can cancel this feature by himself/herself.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.3 SET FOLLOW ME FOR EXTENSION

The Attendant Console can set or cancel Follow Me feature for other extensions. The extension is set Follow Me feature to forward all the calls to programmed extension.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “2*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “*”.
5. Enter the directory number of the extension that the call will be forwarded to.
6. Press “Enter”.
7. The screen will display “2. CALL FORWARDING - FOLLOW ME = YYYY”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Press “2*”.
3. Press the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “Enter”.
5. The screen will display “2. CALL FORWARDING - FOLLOW ME = OFF”.

Condition

1. Do Not Disturb is canceled when Follow Me is established.
2. The extension can ask Attendant Console to set or cancel this feature for him/her.
3. When lift up handset, feature activation tone will be heard to remind you that Do no Disturb or Follow Me is activated.
4. An extension cannot accommodate more than one forwarded extension. At each time of newly setting, the old entry will be canceled.
5. If the extension has set the Follow Me, the operator can cancel this feature for the extension.

6. If the operator has set the Follow Me for the extension, the extension can cancel this feature by himself/herself.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.4 SET BUSY AND NO ANSWER TRANSFER FOR EXTENSION

The Attendant Console can set or cancel Busy and No Answer Transfer for other extensions. If the extension is set with Busy and No Answer Transfer feature, the call will be transferred to the assigned extension when the extension is busy or has not answered the call.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “3*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “*”.
5. Enter the directory number of the extension that the call should forward to.
6. Press “Enter”.
7. The screen will display “3. BUSY AND NO ANSWER TRANSFER = YYYY”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “3*”.
3. Enter the directory number of the extension that the operators want to set the feature for him/her.
4. Press “Enter”.
5. The screen will display “3. BUSY AND NO ANSWER TRANSFER = OFF”.

Condition

1. An extension cannot accommodate more than one forwarded extension. Each time of a new setting, the old entry will be canceled.
2. The extension can ask Attendant Console to set or cancel this feature for him/her.
3. If the extension has set the Busy and No Answer Transfer, the operator can cancel this feature for the extension.
4. If the operator has set the Busy and No Answer Transfer for the extension, the extension can cancel this feature by himself/herself.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.5 SET WAKE UP SERVICE FOR EXTENSION

The Attendant Console can set or cancel Wake Up Service feature for other extensions. The extension is set with Wake Up Service will ring at the set time as morning call or reminding alarm for appointment.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “4*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “*”.
5. Enter the two digits wake up hour “HH” (24 hour format).
6. Press “*”.
7. Enter the two digits wake up minute “MM”.
8. Press “Enter”.
9. The screen will display “4. WAKE UP SERVICE = 7:30”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “4*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.

4. Press “Enter”.
5. The screen will display “4. WAKE UP SERVICE = OFF”.

Condition

1. The Wake Up Service will override Do Not Disturb feature and the extension which is set with Wake Up Service and Do Not Disturb will ring on the programmed time.
2. The extension can ask Attendant Console to set or cancel this feature for him/her.
3. An extension cannot accommodate more than one Wake Up Service. At each time of newly setting, the old entry will be canceled.
4. If the extension has set the Wake Up Service, the operator can cancel this feature for the extension.
5. If the operator has set the Wake Up Service for the extension, the extension can cancel this feature by himself/herself.

Example

1. The operator is set the Wake Up Service at 6:00 for extension 2044 by keying in 4*2044*06*00 and then return in Management Mode in MFC98 Console, the extension 2044 will ring on 6:00.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.6 SET ROOM STATUS FOR EXTENSION

The Attendant Console can set the Room Status (Check In / Check Out) for other extension.

Operation

Set the room status to check in:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “5*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*1”.
5. Press “Enter”.
6. The screen will display “5. ROOM STATUS = CHECK IN”.

Set the room status to check out:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “5*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*0”.
5. Press “Enter”.
6. The screen will display “5. ROOM STATUS = CHECK OUT”.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.7 SET MESSAGE WAITING FOR EXTENSION

The Attendant Console can set the Message Waiting Status for other extensions.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “6*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*1”.
5. Press “Enter”.
6. The screen will display “6. MESSAGE WAITING = ON”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “6*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*0”.
5. Press “Enter”.

6. The screen will display “6. MESSAGE WAITING = OFF”.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.8 SET TOLL LOCKING FOR EXTENSION

The Attendant Console can set the Users Defined Dialing Class for other extensions.

Operation

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “7*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Enter “*”.
5. Enter the one digit Dialing Class “0” ~ “7”.
6. Press “Enter”.
7. The screen will display “7. USER DEFINED DIALING CLASS = 0”.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.9 SET BUSY TRANSFER FOR EXTENSION

The Attendant Console can set or cancel Busy Transfer for other extensions individually. If the extension is set with Busy Transfer feature, the call will be transferred to the assigned extension when the extension is busy.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “8*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “*”.
5. Enter the directory number of the extension that the call should forward to.
6. Press “Enter”.
7. The screen will display “8. BUSY TRANSFER = YYYY”.

Cancel the feature:

1. Attendant operation enters Management Mode in MFC98 Console.
2. Enter “8*”.
3. Enter the directory number of the extension that the operators want to set the feature for him/her.
4. Press “Enter”.
5. The screen will display “8. BUSY ANSWER TRANSFER = OFF”.

Condition

1. An extension cannot accommodate more than one forwarded extension. Each time of a new setting, the old entry will be canceled.
2. The extension can ask Attendant Console to set or cancel this feature for him/her.
3. If the extension has set the Busy Transfer, the operator can cancel this feature for the extension.
4. If the operator has set the Busy Transfer for the extension, the extension can cancel this feature by himself/herself.

Remark

1. Reference to DX-1S Operation Manual for details.

7.5.10 SET NO ANSWER TRANSFER FOR EXTENSION

The Attendant Console can set or cancel No Answer Transfer for other extensions. If the extension is set with No Answer Transfer feature, the call will be transferred to the assigned extension when the extension has not answered the call.

Operation

Set the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.

2. Enter “9*”.
3. Enter the directory number of the extension that the operator wants to set the feature for him/her.
4. Press “*”.
5. Enter the directory number of the extension that the call should forward to.
6. Press “Enter”.
7. The screen will display “9. 9 NO ANSWER TRANSFER = YYYY”.

Cancel the feature:

1. Attendant operator enters DOS Management Mode in MFC98 Console.
2. Enter “9*”.
3. Enter the directory number of the extension that the operators want to set the feature for him/her.
4. Press “Enter”.
5. The screen will display “9. NO ANSWER TRANSFER = OFF”.

Condition

1. An extension cannot accommodate more than one forwarded extension. Each time of a new setting, the old entry will be canceled.
2. The extension can ask Attendant Console to set or cancel this feature for him/her.
3. If the extension has set the No Answer Transfer, the operator can cancel this feature for the extension.
4. If the operator has set the No Answer Transfer for the extension, the extension can cancel this feature by himself/herself.

Remark

1. Reference to DX-1S Operation Manual for details.

7.6 EXIT DOS MANAGEMENT MODE

To exit Management Mode and switch to Attendant Console Mode.

Operation

1. Enter “888” and then press “Enter” or click “BACK” button on the bottom left corner.
2. The screen will change to Attendant Console Mode.

8. DOS PROGRAMMING MODE

DOS Programming Mode is an operation mode under DOS Management Mode. All system parameters of DX-1S System, such as hardware configuration, class of service, hunting group etc., can be programmed in DOS Programming Mode. Maintenance persons can input the programming command to the system from the console keyboard and confirm the result from the screen.

8.1 ENTER DOS PROGRAMMING MODE

The DOS Programming Mode is one of two operation modes under DOP Management Mode. Maintenance persons can enter the DOS Programming Mode by entering the password in DOS Management Mode.

Operation

1. Enter the DOS Management Mode.
2. Key in “90*” and then the 4 digit Programming Mode Password.
3. Message “<<Programming Mode>>” will display.
4. The prompt in the screen will change to “Px>” if the DOS Programming Mode is entered. Where P indicate DOS Programming Mode and x is the current Console ID (0 ~ 15).
5. The programming command can be input now to program the system.

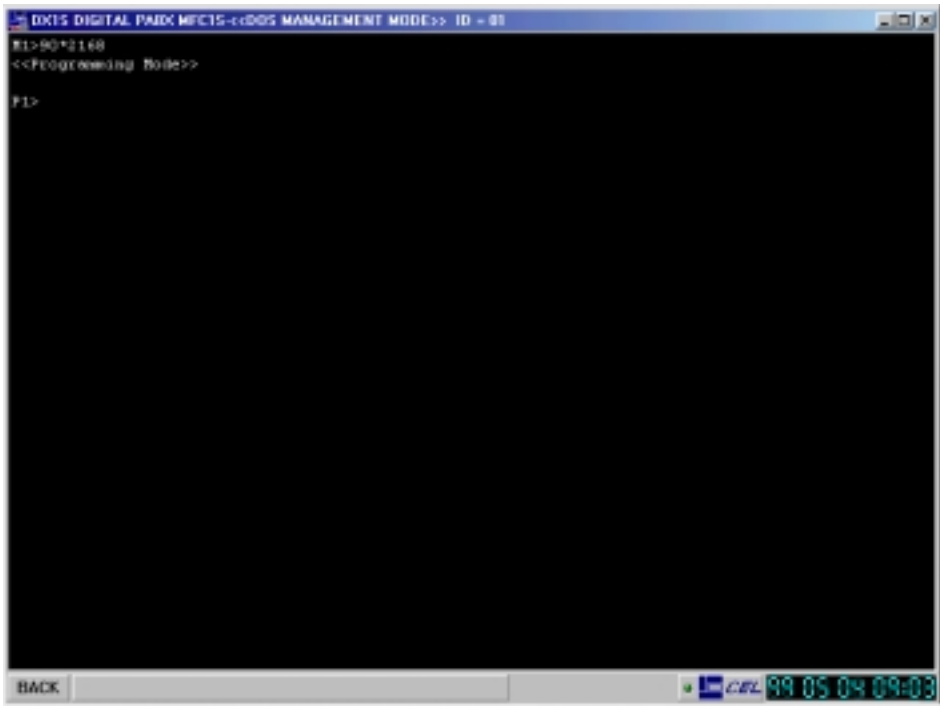

Figure 8-1 DOS PROGRAMMING MODE SCREEN

Remark

1. The default System Programming Mode Password is “2168”.
2. Reference to DX-1S Programming Manual for the details of System Programming.

8.2 ONLY ONE CONSOLE IN PROGRAMMING MODE

The DX-1S System only allows one console operate in Programming Mode at the same time. Programming mode includes DOS Programming Mode and Menu Programming Mode. If one console operate in Programming, another console will not able to enter neither DOS Programming Mode nor Menu Programming Mode.

Operation

1. If a console try to enter Programming Mode and the message “Programming Mode occupied by other console” is displayed.
2. It means there is another console operating in Programming Mode.
3. The console need to waiting until the prior console leave Programming Mode.

Remark

1. Only one console is allowed to operate in Programming Mode in the same time.

8.3 SAVING PROGRAMMING DATA AND SWITCH TO ATTENDANT CONSOLE MODE

This operation can exit Programming Mode and switch to Attendant Console Mode.

Operation

1. Press “999” and then press “Enter” or click “BACK” button and select “Yes”.
2. Message “Saving data ...” will display and the system is saving the programming data to Flash PROM.
3. If the message change to “Saving data ... OK”, the programming data has been saved to FLASH PROM successfully.
4. If the message change to “Saving data ... ERROR” will display if the programming data cannot be saved to FLASH PROM.
5. The screen will change to Attendant Console Mode.

Remark

1. If the programming data cannot be saved to FLASH PROM, retry the programming process and save the data again. If the programming data cannot be saved after retrying several time, there may have problem in Module Control Card and should have the card replaced.

8.4 SAVING PROGRAMMING DATA AND SWITCH TO MANAGEMENT MODE

This operation is to use the programming command to exit the Programming Mode and switch to Management Mode.

Operation

1. Enter “99” and then press “Enter”.
2. Message “Saving data ... ” will display and the system is saving the programming data to Flash Prom.
3. If the message change to “Saving data ... OK”, the programming data has been saved to FLASH PROM successfully.
4. If the message change to “Saving data ... ERROR” will display if the programming data cannot be saved to FLASH PROM.
5. The console will leave Programming Mode and returned to Management Mode.

Remark

1. If the programming data cannot be saved to FLASH PROM, retry the programming process and save the data again. If the programming data cannot be saved after retrying several time, there may have problem in Module Control Card and should have the card replaced.

8.5 EXIT PROGRAMMING MODE WITHOUT SAVING PROGRAM DATA TO FLASH

To exit Programming Mode and switch to Attendant Console Mode without saving the changed program data to FLASH. The newly changed program data is stored in RAM but not in FLASH if exit with this command. If the data in RAM is lost and the system will not be able to recover the data automatically since the data has not been backed up in FLASH.

Operation

3. Enter “888” and then press “Enter” or click “BACK” button and select “No”.
4. Then the message “Program data NOT save"
5. The screen will change to Attendant Console Mode in a few seconds.

Remark

1. Since the programming data have not been saved to FLASH PROM in this case, if the data in RAM is lost and the system will not be able to recover the data automatically.

8.6 EXIT TO MANAGEMENT MODE WITHOUT SAVING PROGRAMMING DATA TO FLASH

This operation is to use the programming command to exit the Programming Mode and switch to Management Mode without saving the programming data.

Operation

1. Enter “88” and then press “Enter”.
2. Then the message “Program data NOT save" and << Management Mode >> will display.
3. The screen will change to Management Mode.

Remark

1. Since the programming data have not been saved to FLASH PROM in this case, if the data in RAM is lost and the system will not be able to recover the data automatically.

9. DOS DIAGNOSTIC MODE

The DOS Diagnostic Mode is another operation mode under DOS Management Mode. Maintenance person can input the diagnostic command to diagnose the system hardware and get the result from the screen. Detail operation of system diagnostic, please refer to DX-1S Maintenance Manual.

9.1 ENTER DOS DIAGNOSTIC MODE

The DOS Diagnostic Mode is one of two operation modes under DOS Management Mode. Maintenance person can enter the DOS Diagnostic Mode by entering in Diagnostic Mode Password.

Operation

1. Enter the DOS Management Mode.
2. Key in "91*" and then the 4 digits Programming Mode Password.
3. Message "<<Diagnostic Mode>>" will be displayed.
4. The prompt in the screen will change to "Dx>" if Diagnostic Mode is entered. Where D indicate Diagnostic Mode and x is the current Console ID (0 ~ 15).
5. The diagnostic command can be input now to diagnose the system.

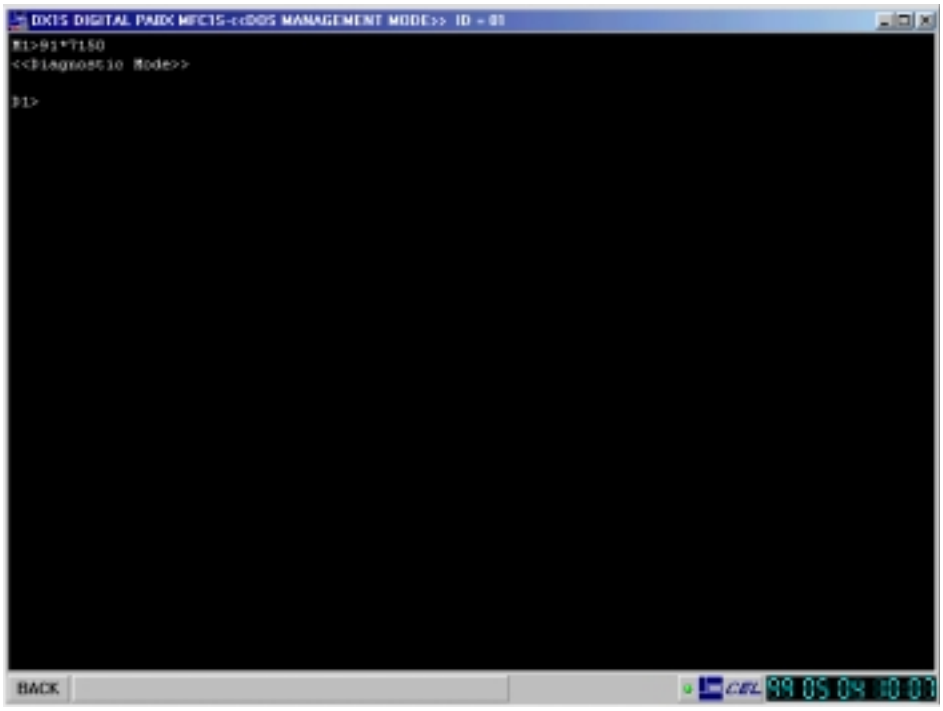

Figure 9-1 DIAGNOSTIC MODE SCREEN

Remark

1. The default System Programming Mode Password is "7150".
2. Reference to DX-1S MAINTENANCE MANUAL for details of diagnostic commands.

9.2 ONLY ONE CONSOLE IN DIAGNOSTIC MODE

The DX-1S System allows only one console operate in Diagnostic Mode at the same time. Diagnostic mode includes DOS Diagnostic Mode and Menu Diagnostic Mode. If one console operate in Diagnostic, another console will not able to enter neither DOS Diagnostic Mode nor Menu Diagnostic Mode.

Operation

1. If a console try to enter Diagnostic Mode and the message "Diagnostic Mode occupied by other console" is displayed.
2. It means there is another console operating in Diagnostic Mode and the console need to waiting until the prior console leave Diagnostic Mode.

Remark

1. Only one console is allowed to operate in Diagnostic Mode in the same time.

9.3 EXIT DIAGNOSTIC MODE AND SWITCH TO ATTENDANT CONSOLE MODE

This operation can exit Diagnostic Mode and switch to Attendant Console Mode.

Operation

1. Press “F4” or “999” or “888” or click “BACK” button and select “Yes”.
2. The screen will change to Attendant Console Mode.

9.4 EXIT DIAGNOSTIC MODE AND SWITCH TO MANAGEMENT MODE

This operation is to exit Diagnostic mode and switch to Management Mode.

Operation

1. Enter “99” or “88” and then press “Enter”.
2. Then the message “<<Management Mode>>” is displayed and the prompt is changed to “Mx>“. Where x = current Console ID (0 ~ 15).
3. The console is now in Management Mode.

10. MENU PROGRAMMING MODE

Menu Programming mode is designed to facilitate the DX-1S programming in a more user-friendly way. The programming items available here are the same as in DOS PROGRAMMING MODE. Programming item changed in Menu Programming Mode will have the same effect as changed in DOS Programming Mode.

In Menu Programming mode, user cannot enter the programming command as in DOS Programming Mode. Users are required to select the item to program from the three sub-menus. They are System, Programming and Advanced feature.

The programming items are grouped by their function under the three sub-menus. They can be identified by their name only, since no item number will list in Menu Programming Mode.

When selecting programming item, the existing programming setting will be displayed. There may also have description on the item appear next to the displayed value. To change the setting, just modify the displayed setting and press “ENTERS” key. After finish a screen of programming, click the “OK” or “CLOSE” button to confirm change.

Please refer to the DX-1S Programming Manual for the details of programming.

10.1 ENTER MENU PROGRAMMING MODE

The Menu Programming Mode is one of two programming modes in MFC98. Maintenance persons can enter the Menu Programming Mode by entering the same password as in DOS Management Mode.

If there have another console already in programming mode, system will refuse another console to enter programming mode again.

Operation

1. Press the “F5” key in the console keyboard or Select Menu Programming Mode from MENU button window in Attendant Console Mode
2. Menu Programming Mode Password Inquiry window is displayed as in following figure.

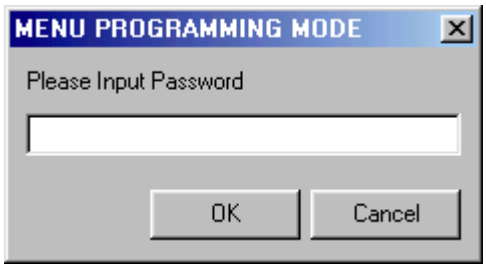

Figure 10-1 MENU PROGRAMMING MODE PASSWORD INQUIRY WINDOW

3. Enter Password of Menu Programming Mode in the console keyboard and press “Enter” key or click “OK” button.
4. If the password is incorrect, an error message will display and system will quit the inquiry window. You need to re-do from step 1.
5. If the password is correct, the Menu Programming Mode Screen will be displayed as following.

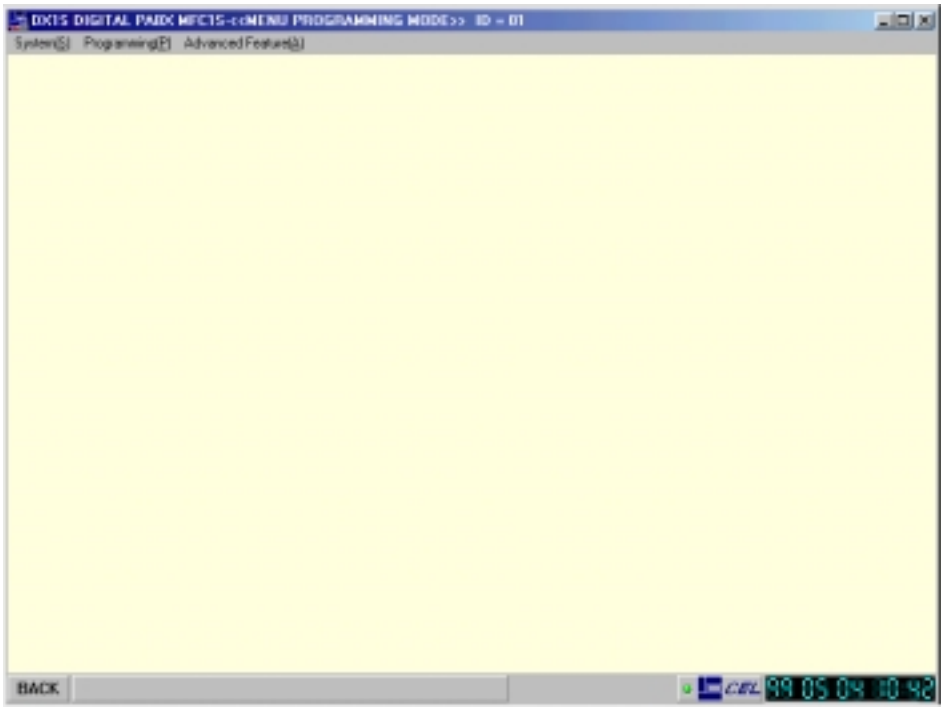

Figure 10-2 MENU MANAGEMENT MODE SCREEN

Remark

1. The Menu Programming Password is the same as the DOS Programming Mode Password and the default password is “2168”.

10.2 CALL INFORMATION DISPLAY FIELD UNDER SMDR DISPLAY MODE

The Call Information Display Field at the bottom of screen will display the call information of the console extension, such as incoming call identification. This will help the attendant to avoid missing important call information when operate in this mode.

10.3 SYSTEM SUB-MENU

This sub-menu is for system-wide parameter setting, it includes the following five options.

- System Initialization
- System Soft-Reset time
- Display System Software Version and System Clock
- Set System Clock
- Exit

10.4 PROGRAMMING SUB-MENU

The programming sub-menu includes the most commonly use trunk, extension and timing settings. They are grouped in a meaningful way and with well description with the items. There have totally ten groups:

- Extension Programming Data
- Contiguous Extension Directory Number Assignment
- Trunk Programming Data
- E/M Trunk Programming Data
- PCM Trunk Programming Data
- Tone Signal Type
- Timer
- Resource Service Status
- Code Tables
- Others

10.5 ADVANCED FEATURE SUB-MENU

Advanced Feature sub-menu includes the following fourteen groups.

- Accounting Number Dialing Class And Password
- System Password Assignment
- Speed Dialing
- Console Service Status And Extension Assignment
- Hotel Service Answering
- Trunk Group Data
- Extension Hunting Group Data
- Feature Class Assignment
- Network Hunting Group
- Randomize Account Number Password
- Tone Signal Gain
- Disconnected
- Message Waiting
- Numbering Scheme

10.6 EXIT MENU PROGRAMMING MODE AND SAVE PROGRAMMING DATA TO FLASH

This operation will exit Menu Programming Mode and switch to Attendant Console Mode. Programming data will save to flash.

Operation

1. Close all programming windows in Menu Programming Mode.
2. Click “BACK” button or System sub-menu and select “Exit”.
3. Select “Yes” when prompt for saving programming data.
4. The screen will change to Attendant Console Mode.

Remark

1. If the programming data cannot be saved to FLASH PROM, retry the programming process and save the data again. If the programming data cannot be saved after retrying several time, there may have problem in Module Control Card and should have the card replaced.

10.7 EXIT MENU PROGRAMMING MODE WITHOUT SAVING PROGRAMMING DATA TO FLASH

This operation can exit Menu Programming Mode and switch to Attendant Console Mode. The newly changed program data is stored in RAM but not in FLASH if exit with this command. If the data in RAM is lost and the system will not be able to recover the data automatically since the data has not been backed up in FLASH.

Operation

1. Close all programming windows in Menu Programming Mode.
2. Click “BACK” button or System sub-menu and select “Exit”.
3. Select “No” when prompt for saving programming data.
4. The screen will change to Attendant Console Mode.

Remark

1. Since the programming data have not been saved to FLASH PROM in this case, if the data in RAM is lost and the system will not be able to recover the data automatically.

11. SMDR DISPLAY MODE

The SMDR information will display on the screen and save to file of Console 0 in SMDR Display Mode. This help maintenance persons to monitor the calls without printing out from printer.

Each time entering SMDR display mode will generate a file for saving SMDR automatically. The saving path is defined as in section 5.2 SMDR SAVING PATH and the filename is generated as YEAR_MONTH_DAY.TXT. When entering the SMDR display mode again in the same day, another file will be generated and the filename will be YEAR_MONTH_DAY.000. Then the third time enter in the same day will generate YEAR_MONTH_DAY.001 and so on.

11.1 ENTER SMDR DISPLAY MODE

Enter the SMDR Display Mode for SMDR information display.

Operation

1. Presses “F7” key or click “Menu” button and select SMDR Display Mode in Attendant Console Mode.

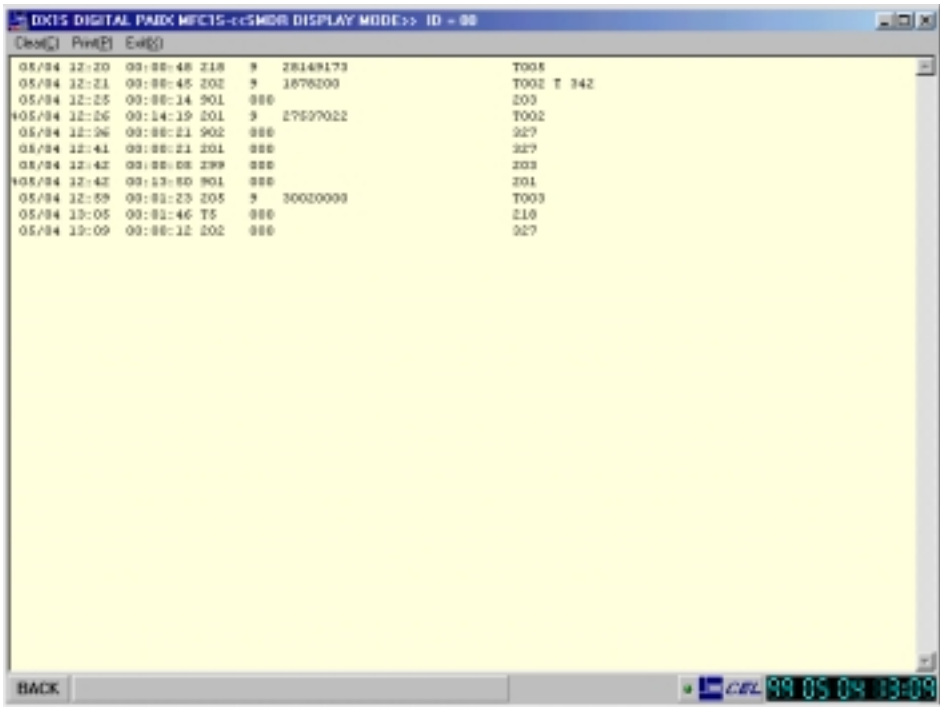

Figure 11-1 SMDR DISPLAY MODE SCREEN

Remark

1. Entering SMDR Display Mode with console ID other than 0 will get an error message and quit to Console Attendant Mode automatically.

11.2 CALL INFORMATION DISPLAY FIELD UNDER SMDR DISPLAY MODE

The Call Information Display Field at the bottom of screen will display the call information of the console extension, such as incoming call identification. This will help the attendant to avoid missing important call information when operate in this mode.

11.3 SMDR ON SCREEN

The SMDR data will display on the screen of SMDR Display Mode if this feature is enable in Console Setup Mode. Only Console 0 can receive SMDR data from the system and display on screen.

Operation

1. Enable SMDR on Monitor feature in Console Setup Mode.

11.4 SMDR DISPLAY FORMAT

The SMDR data will sort and display on screen in certain format.

Display

- The SMDR data will be displayed on screen in following format:

```
-08/13 11:40  00:07:30 288   9   24121386                    T003
 06/15 10:35  00:03:15 215   73  0085224121386               T005       0018
 03/12 15:40  00:00:55 T001  000                             238
 03/12 15:40  00:03:55 T001  000                             238 T 215
 03/10 07:38  00:04:30 203   9   24121386                    T002T 269
```

The meaning of each field is defined as following:

Name	Column	Format	Definition	Notes
Long call	1	z	space = less than 5 min - = 5~9 min % = 10~29 min + = 30 or more min	
Date	2 ~ 6	mm/dd	mm = month dd = day	mm = 01 ~ 12 dd = 01 ~ 31 (with leading zeroes)
Start time	8 ~ 12	hh:mm	hh = hours mm = minutes	hh = 00 ~ 23 mm = 00 ~ 59 (with leading zeroes)
Duration of call	15 ~ 22	hh:mm:ss	hh : mm : ss = duration in hours : minutes : seconds	hh = 00 ~ 18 mm = 00 ~ 59 ss = 00 ~ 59 (with leading zeroes)
Calling party	24 ~ 27	cccc	cccc = directory no.	cccc = 10 ~ 5999 (left-justified)
		Tnnn	Tnnn = trunk no.	nnn = 001 ~ 060 (with leading zeroes)
Trunk access code	30 ~ 33	gggg	gggg = trunk access code (outgoing calls only)	gggg = 0, 9, 70 ~ 79 or 700 ~ 760 (left-justified)
Time to answer	30 ~ 32	ttt	feature not available	000 display in this field
Digits dialed on trunk	34 ~ 57	xx.....x	up to 24 (20 if metering) digits dialed on the trunk	x = 0 ~ 9, * or #
Metering	55 ~ 59	mmmmm	mmmmm = no. of meter pulses (optional)	mmmmm = 00000 ~ 64000 (with leading zeroes)
Called party	62 ~ 65	cccc	cccc = directory no.	cccc = 10 ~ 5999 (left-justified)
		Tnnn	Tnnn = trunk no.	nnn = 001 ~ 060 (with leading zeroes)
Transfer	66	space	space = no third party	
		T	T = transfer call	
		C	C = conference call	
Third party	68 ~ 71	cccc	cccc = directory no.	cccc = 10 ~ 5999 (left-justified)
Account number	73 ~ 76	aaaa	aaaa = account number (optional)	aaaa = 0000 ~ 1999 (with leading zeroes)

Table 11-1 SMDR DISPLAY FORMAT

- Example 1 - Outgoing Call

  On 13th August at 11: 40 AM, extension 288 dial 9 to obtain trunk 003 and dialed "24121386". The conversation lasted 7 minutes, 30 seconds.

- Example 2 - Outgoing Call with Account Number

  On 15th June at 10: 35 AM, after entered the account number 0018, extension 215 dial 73 to obtain trunk 005 and dialed "0085224121386". The conversation lasted 3 minutes, 15 seconds.

- Example 3 - Incoming Call

  On 12th March at 03:40 PM, trunk 001 rang in. Extension 238 answered. The trunk party spoke to extension 238 for 55 seconds then hung up.

- Example 4 - Incoming Transfer Call

  On 12th March at 03:40 PM, trunk 001 rang in. Extension 238 answered. After speaking to extension 238, the extension then transferred the call to extension 215. The total conversation lasted 3 minutes, 55 seconds.

- Example 5 - Outgoing Transfer Call

  On 10th March at 07: 30 AM, extension 203 dial 9 to obtain trunk 002 and dialed "24121386". The called party answered, and after conversing the caller transferred the called party to extension 269. After further conversation extension 269 hung up. The total period for both conversations was 4 minutes, 30 seconds. Trunk 002 was used for the call.

Remark

1. Only Console 0 can receive SMDR data from the system and output to printer port.

11.5 SMDR OUTPUT FORMAT

The SMDR data will output to a file automatically and the output path is specified as in Section 5.2 SMDR SAVING PATH

Output Format

The console will output the SMDR data in ASCII code in following format:

```
0        1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890

-08/13 11:40  00:07:30 288   9   24121386                    T003
 06/15 10:35  00:03:15 215   73  0085224121386               T005       0018
 03/12 15:40  00:00:55 T001  000                             238
 03/12 15:40  00:03:55 T001  000                             238 T 215
 03/10 07:38  00:04:30 203   9   24121386                    T002T 269
```

Name	Column	Format	Definition	Notes
Long call	1	z	space = less than 5 min - = 5 ~ 9 min % = 10 ~ 29 min + = 30 or more min	
Date	2 ~ 6	mm/dd	mm = month dd = day	mm = 01 ~ 12 dd = 01 ~ 31 (with leading zeroes)
Start time	8 ~ 12	hh:mm	hh = hours mm = minutes	Hh = 00 ~ 23 mm = 00 ~ 59 (with leading zeroes)
Duration of call	15 ~ 22	hh:mm:ss	hh : mm : ss = duration in hours : minutes : seconds	Hh = 00 ~ 18 mm = 00 ~ 59 ss = 00 ~ 59 (with leading zeroes)
Calling party	24 ~ 27	cccc	cccc = directory no.	Cccc = 10 ~ 5999 (left-justified)
		Tnnn	Tnnn = trunk no.	Nnn = 001 ~ 060 (with leading zeroes)
Trunk access code	30 ~ 33	gggg	gggg = trunk access code (outgoing calls only)	Gggg = 0, 9, 70 ~ 79 or 700 ~ 760 (left-justified)
Time to answer	30 ~ 32	ttt	Feature not available	000 display in this field
Digits dialed on trunk	34 ~ 57	xx.....x	up to 24 (20 if metering) digits dialed on the trunk	X = 0 ~ 9, * or #
Metering	55 ~ 59	mmmmm	mmmmm = no. of meter pulses (optional)	mmmmm = 00000 ~ 64000 (with leading zeroes)
Called party	62 ~ 65	cccc	cccc = directory no.	Cccc = 10 ~ 5999 (left-justified)
		Tnnn	Tnnn = trunk no.	Nnn = 001 ~ 060 (with leading zeros)
Transfer	66	space	space = no third party	
		T	T = transfer call	
		C	C = conference call	
Third party	68 ~ 71	cccc	cccc = directory no.	Cccc = 10 ~ 5999 (left-justified)
Account number	73 ~ 76	aaaa	aaaa = account number (optional)	Aaaa = 0000 ~ 1999 (with leading zeroes)

Table 11-2 SMDR OUTPUT FORMAT

11.6 EXIT SMDR DISPLAY MODE

Exit SMDR Display Mode and go back to Console Attendant Modes.

Operation

Presses “F4” key in the console keyboard or click on the “BACK” button in SMDR Display Mode to switch to Console Attendant modes.

12. MENU DIAGNOSTIC MODE

Menu Diagnostic mode is designed to facilitate the DX-1S system diagnostic in a more user-friendly way.

In Menu Programming mode, user cannot enter the diagnostic command as in DOS Diagnostic Mode. Users are required to select the item from the four sub-menus to perform the task. Although the operation in Menu Diagnostic Mode is different from DOS Diagnostic Mode, the diagnostic principle and the test included in both diagnostic modes are the same. Detail operation of system diagnostic, please refer to DX-1S Maintenance Manual.

Menu Diagnostics mode has four sub-menus. They are System, Display, Set and Test.

12.1 ENTER MENU PROGRAMMING MODE

The Menu Diagnostic Mode is one of two programming modes in MFC98. Maintenance persons can enter the Menu Diagnostic Mode by entering the same password as in DOS Diagnostic Mode.

If there have another console already in diagnostic mode, system will refuse another console to enter diagnostic mode again.

Operation

1. Press the “F8” key in the console keyboard or Select Menu Diagnostic Mode from MENU button window in Attendant Console Mode
2. Menu Diagnostic Mode Password Inquiry window is displayed as in following figure.

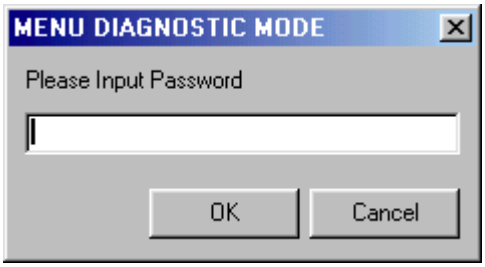

Figure 12-1 MENU DIAGNOSTIC MODE PASSWORD INQUIRY WINDOW

3. Enter Password of Menu Diagnostic Mode in the console keyboard and press “Enter” key or click “OK” button.
4. If the password is incorrect, an error message will display and system will quit the inquiry window. You need to re-do from step 1.
5. If the password is correct, the Menu Programming Mode Screen will be displayed as following.

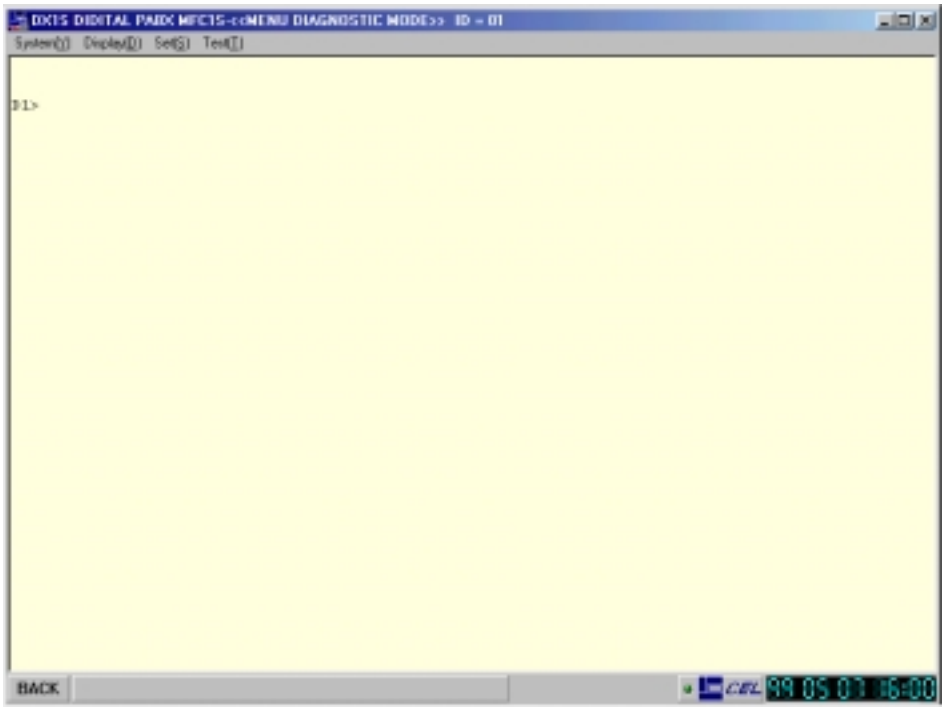

Figure 12-2 MENU DIAGNOSTIC MODE SCREEN

Remark

1. The Menu Programming Password is the same as the DOS Diagnostic Mode Password and the default password is “7150”.

12.2 CALL INFORMATION DISPLAY FIELD UNDER SMDR DISPLAY MODE

The Call Information Display Field at the bottom of screen will display the call information of the console extension, such as incoming call identification. This will help the attendant to avoid missing important call information when operate in this mode.

12.3 SYSTEM SUB-MENU

The system sub-menu includes some system-wide operation and screen display control. This sub-menu has the following five items.

- Clear SMDR Buffer And Reformat SMDR Flash
- Manual Soft-Reset
- Clear (clear display)
- Save Display
- Return to Attendant Console Mode

12.4 DISPLAY SUB-MENU

The Display sub-menu is for setting result display format and displays other system data. It include the following six items.

- Result Display
- Display MMB DIP Switch Setting
- Display Debug Data
- Display Memory Data
- Display System Running Data
- Display SMDR Data

12.5 SET SUB-MENU

The Set sub-menu is for setting the reference port / DTMF receiver for testing.

- Set Reference DTMF Receiver
- Set Reference Trunk
- Set Reference Extension

12.6 TEST SUB-MENU

The Test sub-menu is for performing the hardware tests.

- Test Port Status
- Test MCC Music / Page / Relay
- Test MCC Conference Chip
- Test MCC Cross-point Chip
- Test MCC DTMF Receiver
- Test Trunk
- Test Extension
- Test DISA Voice Card
- Burn-in Test

12.7 EXIT DIAGNOSTIC MODE AND SWITCH TO ATTENDANT CONSOLE MODE

This operation can exit Menu Diagnostic Mode and switch to Attendant Console Mode.

Operation

1. Close all sub-windows in Menu Diagnostic Mode.
2. Click on “BACK” button or click on “System” sub-menu and select “Return to Attendant Console Mode” option.
3. Select “Yes”.
4. The screen will change to Attendant Console Mode.

13. PHONE BOOK FUNCTION

MFC98 provide a phone book for recording, searching and automatic dialing of frequently use telephone numbers. Each entry of phone book contains three fields - Name, Company and Telephone number. Users are required to input all the three fields for a valid entry. On the other hand, user can search an entry by any of the fields.

In order to use the phone book function of MFC98, press 'F11' in attendant console mode to pop out the Telephone Directory window.

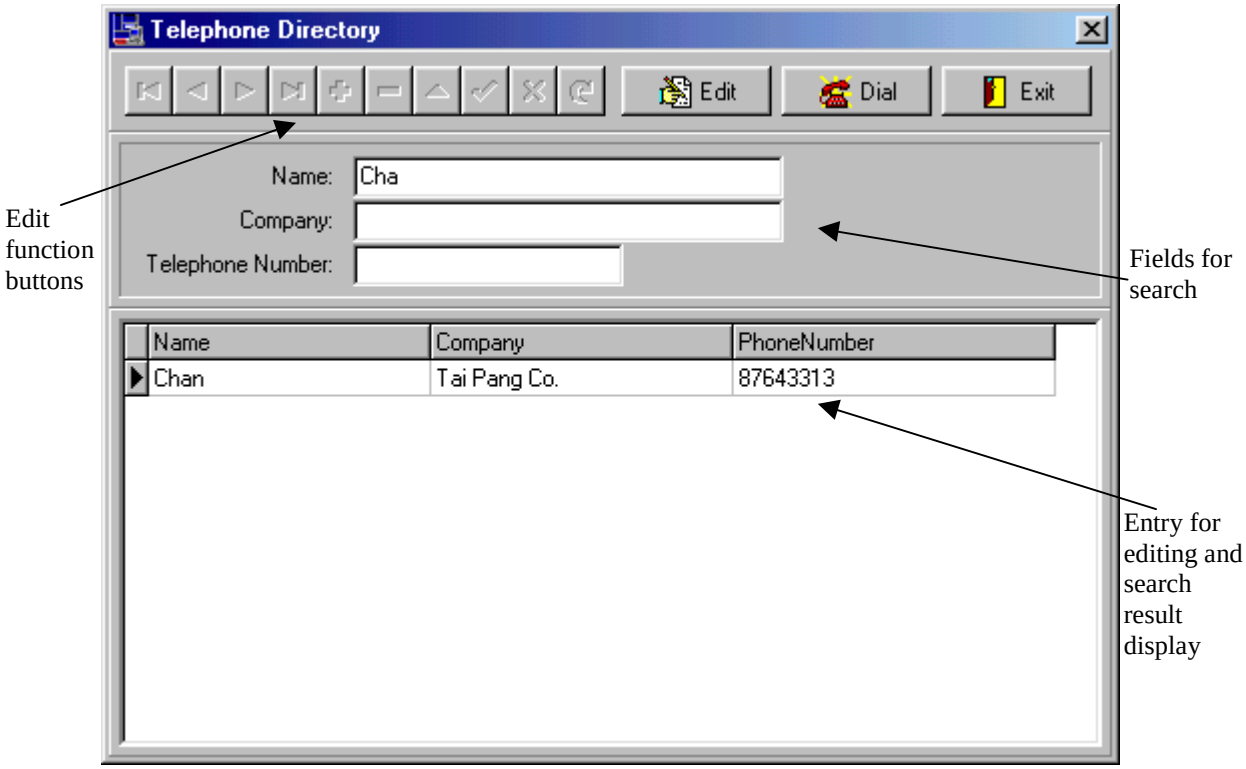

Figure 13-1 TELEPHONE DIRECTORY WINDOW

13.1 EDIT AN ENTRY

Enter Edit Mode

If all the edit function buttons are grayed out, clicks on the "Edit" button to enter edit mode. If not all the edit function buttons are grayed out, you are already in edit mode.

In edit mode, the lower portion of Telephone Directory window is for entry editing.

Add An Entry

Click on the '+' button to add an entry and then fill in all the three fields. When finish, click on the '√' button to save the entry.

Locate An Entry

Click on the ' ▸ ', ' ◂ ', ' ▸\| ' and '\|◂ ' buttons or click on the desired entry to select it as current entry. The current entry will has an arrow –' ▸ ' at it's left.

Edit An Existing Entry

In edit mode, locate the entry for editing and then click on and edit the field. To undo the last modification, click on the 'X' button to restore the field. When finish, click on the '√' button to save the entry.

Delete an Entry

Locate the entry for deleting and then click on the "-" button to delete the entry.

Remark

When entering Phone Number, invalid characters such as space and ',' will cause automatic dialing fail.

13.2 SEARCH AN ENTRY

To search an entry, just enter the keyword for searching at the search fields located at the upper portion of window. The search result will display immediately at the editing area and the current entry will have an arrow at left. If the current entry is not correct, locate the correct entry and then click on the “Dial” button for automatic dialing.

Remark

The search is case sensitive.

13.3 EXIT PHONE BOOK

Click on the “Exit” button to quit Phone Book and return to attendant console mode. The data in the Phone Book will save automatically.

14. POWER DOWN ARRANGEMENT

If there is an MFC98 Console need to shut down for maintenance purpose or save energy in non-busy hours, it should follow the below procedure.

1. Exit MFC98 by the procedure described in section 6.18 LEAVE ATTENDANT CONSOLE MODE.
2. When MFC98 is quit, exit Windows 98 by it's standard shut down procedure.
3. Turn off the PC when Windows 98 shut down.

When the console had properly shut down, other consoles connected to DX-1S will not be affected.