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Tek-MMARS® II

(Management, Monitoring, and Reporting System)



Alpha Communications®

42 Central Drive
Farmingdale, NY 11735-1202
Phone: (631) 777-5500
Fax: (631) 777-5599

Website:

www.alpha-comm.com

Email:

info@alpha-comm.com

TOLL-FREE Technical #:

1-800-666-4800

Tek-MMARS® II is a totally integrated real time Management, Monitoring and Reporting System that may be added to TekTone®'s NC300 Tek-MICRO® Microprocessor-Controlled Nurse Call System. Total system capacity: 8 CPUs standard (16 optional).

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Operation, Installation and Service Manual

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Tek-MMARS® II

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1.0 SYSTEM INTRODUCTION

Tek-MMARS®II is a Management, Monitoring, and Reporting System. This system is designed to work with the micro-processor based NC300 Tek-MICRO® Nurse Call System.

Tek-MMARS®II will provide the following functions:

• Management and Reports:

Tek-MMARS®II has the ability to monitor and store patient and staff activity. All NC300 System activity will be saved on a hard drive. The information may be retrieved via the following four types of reports.

- 3.2.1. Call Response Report
- 3.2.2. Call Activity Report
- 3.2.3. Nurse Aide Assist Report
- 3.2.4. System Statistics Report

These reports are further described in Section 3.0 of this manual.

• Monitoring:

Tek-MMARS®II provides real time monitoring of all nurse call activity from up to 16 NC350C Series CPUs (with serial port). The monitoring feature also provides “CALL TYPE” filtering. If the “CODE” calls only option is selected, only “CODE” calls will appear on Tek-MMARS®II.

• Radio Pocket Paging:

With the addition of an NC366 Pocket Pager Transmitter, pages can be sent automatically or semi-automatically to NC390 Series Alpha Numeric Pocket Pagers. Paging can be centrally located for multiple nurse call systems via the Tek-MMARS® System.

• Event Printing:

In addition to providing report printouts, Tek-MMARS®II will also provide event printouts.

• Restoring/Backing Up:

Tek-MMARS®II has the ability to backup and restore event files. This gives the user the ability to create a permanent history record on disk, and to restore that information for reporting on those files.

A WORD ABOUT ELECTROSTATIC DISCHARGE

What Is It? Static electricity is a result of triboelectric charging of two dissimilar non-conductive materials rubbed together, like rubbing your feet on a carpet on a cold winter day, or in a dry climate. The resulting charge is detected when you reach out to touch a doorknob, or some other metallic object. The resulting discharge may be only startling, or in severe cases it may even be painful. The actual electrical charge is dependent on the materials rubbed together, humidity, rate of separation and other factors.

What Can It Do? While this effect may be disturbing to humans, the effect on electronic equipment is often more serious, ranging from disrupting the operation to actual damage of the components. These effects result from the high voltages that may be developed. The simple act of walking across a carpet may develop as much as 30,000 volts; changing a bed sheet may create a charge of 100,000 volts or more. Such voltages readily cause arcing (the spark you see in the dark when you grab the doorknob, after walking across the carpet, etc.). The arcing is evidence of a discharge path. Due to the high voltage involved, the discharge current can jump to any nearby metallic object. If the discharge is to or through an electronic device, such as the nurse call system, the operation of the device may be affected. If the discharge current passes through internal components, these components may be damaged or their operation degraded.

What Can We Do About It? The manufacturer of the nurse call equipment has already taken steps to protect the equipment from electrostatic discharge (ESD) effects. However, since the cause of the problem is not in the equipment, but in the environment, further measures are required of the installer and the user to achieve complete protection.

What The Installer Can Do: In humid climates or in places where the relative humidity is kept at 65% or greater, there will likely be few problems with ESD. Where problems may occur, the following measures can be taken.

1. Ground all exposed metal surfaces, such as patient station panels, etc. Grounding should be to a #16 or larger conductor.
2. Install nurse call system wiring in metal conduit. This conduit may also be used to ground panels. The conduit must be electrically continuous and be grounded.
3. Use shielded wire in cable for nurse call system station-to-station wiring. The use of open conductors invites inductive coupling of discharge currents which can cause the same problems as direct discharge currents.
4. Ground your body before handling system components. This can be done using a wrist strap, or simply by contacting a grounded surface. Use caution to avoid hazardous voltages while grounded.

What The User Can Do: The most common cause of ESD in hospitals is due to changing linen on hospital beds while the patient call cord or pillow speaker is still connected to the nurse call system. The following precautions will help.

1. Remove the call cord or pillow speaker from the bed before changing. It will be necessary for the nursing staff to discharge themselves by contacting a grounded metal object before placing the call cord or pillow speaker back on the bed; otherwise, a spark can jump to the nurse call equipment, causing the very damage they are trying to avoid. (To avoid a shock while discharging static electricity on the body, hold a metal object, such as a key, and use that object to contact the grounded surface.)
2. Ground the bed and use antistatic mattress covers in contact with the bed frame. For safety, it may be desirable to make the ground connection through a 1 megohm resistor. Nursing staff must be trained to disconnect and reconnect the ground whenever beds must be moved.
3. Use grounded appliances and equipment near nurse call systems. The use of approved electrical equipment will usually take care of this.

This information is provided to make you aware of ESD problems so that precautions may be taken to avoid damage and disruption of system operation.

2.0 INSTALLATION PROCEDURE

Read the following instructions concerning system equipment, and determine installation methods before proceeding.

- A. *Determine equipment locations*
- B. *Install wiring*
- C. *Check wires for shorts and grounds*
- D. *Complete NC300 installation*
- E. *Connect NC300 to Tek-MMARS®II*
- F. *Check connections*
- G. *Configure Tek-MMARS®II System*
- H. *Test Tek-MMARS®II System*
- I. *Train system operators*

2.1 SYSTEM REQUIREMENTS

- A. NC300 Nurse Call System.
- B. NC386A/8 Tek-MMARS®II System.

2.2 SYSTEM SUMMARIES

- A. NC300 Nurse Call System

For details on the installation and setup for this system, refer to the “NC300 Installation Instructions and Service Manual” Version 1.92 or later (IL421).

- B. NC386A/8 IBM Compatible PC

The NC386A/8 should be located where best suited for each facility’s requirements.

- C. NC300 to NC386A/8 Interconnection

See *Figure 1* for location of ports.

Cables must be wired for RTS/CTS handshaking, as described in *Figure 1*. The maximum wire distance is 100’.

- D. Parallel Printer

The supplied parallel printer plugs into the parallel printer port (Female 25-pin) on the back of the Tek-MMARS®II.

- E. Pager System

Compatible pager systems are: Scope® Serial Pagers, Motorola® People Finder Pager, Visiplex® VS-2100, Stentofon AstraPage® (*optional*). See *Figure 14* for connection of ports.

- F. Zip Drive

A Zip Drive is used for the data archive and restore feature of the Tek-MMARS®II System.

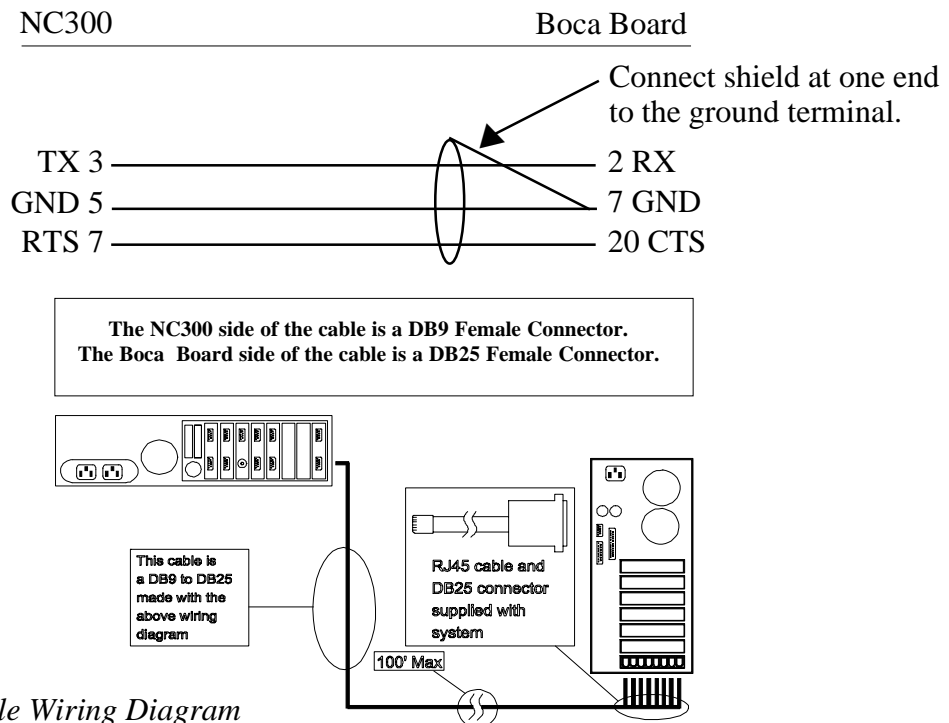


Figure 1: Cable Wiring Diagram

3.0 Tek-MMARS®II Reporting System

Tek-MMARS® II produces four types of standard reports, which provide valuable information to evaluate and optimize staff time. The information contained in these reports will also provide the facility information for accountability for each zone, room, type of call, and time period. If no parameters are chosen, the report(s) selected will automatically assume that you want all floors, zones, rooms, and calls from the time of the last archive. The headings found on each of the reports contain all of the parameters chosen for that specific report.

3.1 STARTING THE REPORTS

A. To start the Reports Program:

1. Using the mouse, position the cursor over the word “REPORTS” and “click”
-OR-
2. Using the keyboard, hold down the “ALT” key, press “R” simultaneously, release and press “ENTER”.
3. MMARS Database Information window will appear. Refer to *Figure 2*.

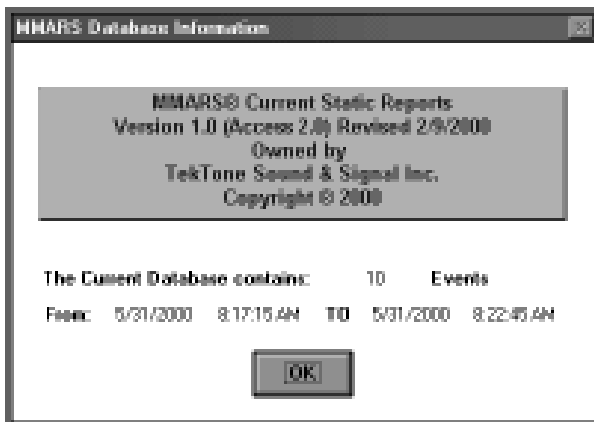


Figure 2: MMARS Database Information

4. Using the mouse, position the mouse over the word “OK” and “click”. The information window will disappear.
-OR-
5. Using the keyboard, press the “ENTER” key on your keyboard. The information window will disappear.

3.2 MMARS MAIN INPUT FORM

A. In this form the user will define the parameters of the report.

- Select Call Type(s)
- Enter Time/Date Period
- Custom Event
- Custom Label

- Select Zone(s)
- Select System(s)
- Enter Room/Bed Number(s)
- Reports Header Information

1. Using the mouse, position the cursor over the boxes. To make a selection, “click” in box; a black “X” will appear in the box you have selected.
-OR-
2. Using the keyboard, select a box by using the “ARROW” keys to highlight your selection, then press the “SPACEBAR”, and an “X” will appear in your selected box. Refer to *Figure 3*.

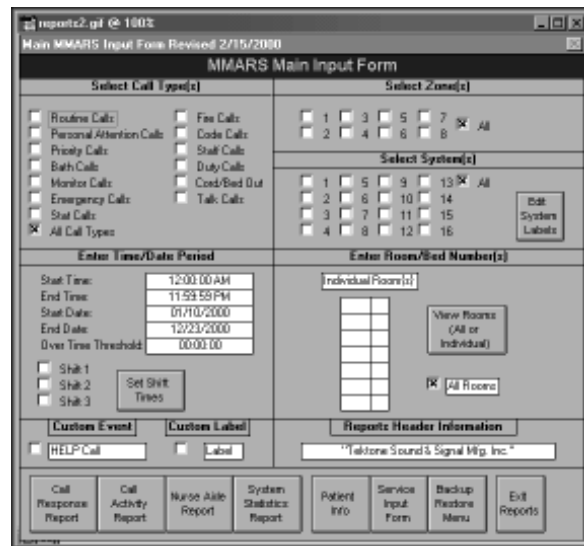


Figure 3: MMARS Main Input Form

3. Once the parameters have been selected, choose the report type desired.

3.2.1 Call Response Report:

- A. This report provides information on the date of the call, time of the call, room number, type of call, when the call was responded to, and the total amount of time the patient had to wait for a response.
- Using the mouse, position your cursor over the words "CALL RESPONSE REPORT" and "click".
-OR-
 - Using the keyboard, press the "ARROW" keys to highlight "CALL RESPONSE REPORT", and press the "SPACEBAR" (a new window will appear). Refer to Figure 4.

"TekTone Sound & Signal Mfg. Inc."
MMARS Call Response Report

System: 1 Mount Vernon

| Date | Room # | Event | Call Placed | Response Time |
|--------|----------|--------------------------------|--------------------------|---------------|
| 5/1/00 | 0302 - 1 | BATH CALL BATH RESET | 8:22:27 AM 8:22:55 AM | 00:08:19 |
| 5/1/00 | A101 - A | ROUTINE CALL TALK INITIATED | 8:19:00 AM 8:19:30 AM | 00:08:23 |
| 5/1/00 | A101 - 0 | TALK INITIATED TALK RESET | 8:19:57 AM 8:19:57 AM | 00:08:20 |
| 5/1/00 | A103 - A | ROUTINE CALL TALK INITIATED | 8:17:05 AM 8:17:35 AM | 00:08:30 |
| 5/1/00 | A103 - 0 | TALK INITIATED TALK RESET | 8:17:45 AM 8:18:00 AM | 00:08:24 |

Figure 4: Sample Report, MMARS Call Response Report

3.2.2 Call Activity Report:

- A. This report displays information on calls placed by each room, total calls for the time period, by routine and priority levels, and the average response time for priority calls.
- Using the mouse, position your cursor over the words "CALL ACTIVITY REPORT" and "click".
-OR-
 - Using the keyboard, press the "ARROW" keys to highlight "CALL ACTIVITY REPORT", and press the "SPACEBAR" (a new window will appear). Refer to Figure 5.

"TekTone Sound & Signal Mfg. Inc."
MMARS Call Activity Report

System: 1 Mount Vernon

| Room # | Bed # | Routine Calls Placed | Priority Calls Placed | Average Priority Response Time |
|--------------------|-------|----------------------|-----------------------|--------------------------------|
| B202 | 1 | | 1 | 00:00:18 |
| A101 | A | 1 | | |
| A103 | A | 1 | | |
| Room Totals | | 2 | 1 | 00:00:18 |

Figure 5: Sample Report, Call Activity Report

3.2.3 Nurse Aide (Assist) Report:

A. This report indicates the number of times a nurse or aide visited a patient room and how much time was spent in the room for each call. However, it will not display calls that did not require any staff presence.

1. Using the mouse, position your cursor over the words “NURSE AIDE REPORT” and “click”.
- OR-
2. Using the keyboard, press the “ARROW” keys to highlight “NURSE AIDE REPORT”, and press the “SPACEBAR” (a new window will appear). Refer to Figure 6.

TekTone Sound & Signal Inc.
MMARS Nurse/Aide Room Report

| | | | |
|---|--|--|--|
| Zone <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input checked="" type="checkbox"/> All Zones | System(s) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> All Systems | Room/Bed Number(s) <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input checked="" type="checkbox"/> All Rooms | Start Time: 12:00:00 AM End Time: 11:59:59 PM Start Date: 03/14/2000 End Date: 03/15/2000 OverTime Threshold: 00:00:00 <input type="checkbox"/> Shift 1 <input type="checkbox"/> Shift 2 <input type="checkbox"/> Shift 3 |
|---|--|--|--|

Total Records for Report: 1
Total Pages for Report: 2

TekTone Sound & Signal Inc.
MMARS Nurse/Aide Room Report

System: 1 First Pulmonary Floor

| Date | Time | Room | Type | Response |
|---------|------------|------|----------------|------------|
| 3/19/00 | 3:47:47 PM | 8101 | NURSE IN CALL | 3:47:47 PM |
| | | | NURSE OUT CALL | 3:48:30 PM |
| | | | Time In Room | 00:00:43 |

Figure 6: Sample Report, Nurse/Aide Room Report

3.2.4 System Statistics Report:

A. This report displays all staff and patient activity. The report consists of the total calls placed within the given time span, the total number of times master to room communication occurred, the number of times a nurse or aide visited the rooms, and the total and average amount of time spent for each category.

1. Using the mouse, position your cursor over the words “SYSTEM STATISTICS REPORT” and “click”.
- OR-
2. Using the keyboard, press the “ARROW” keys to highlight “SYSTEM STATISTICS REPORT”, and press the “SPACEBAR” (a new window will appear). Refer to Figure 7.

TekTone Sound & Signal Inc.
MMARS System Statistics Report

| | | | |
|---|---|--|--|
| Zone <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input checked="" type="checkbox"/> All Zones | System (s) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> All Systems | Room/Bed Number(s) <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input checked="" type="checkbox"/> All Rooms | <input type="checkbox"/> Shift 1 <input type="checkbox"/> Shift 2 <input type="checkbox"/> Shift 3 |
|---|---|--|--|

Start Time: 12:00:00 AM
End Time: 11:59:59 PM
Start Date: 1/23/1997
End Date: 01/15/1998
OverTime Threshold: 00:00:00

Total Pages for Report: 2

Sample Report
MMARS System Statistics Report

System: 1 First Pulmonary Floor

| Description | Event Count | Report Total | Average Time |
|--------------------------------------|-------------|--------------|--------------|
| Nurse Master/Room Communication Time | 113 | 10:00:26 | 08:55:50 |
| Staff Response Time | 60 | 05:12:06 | 08:50:35 |
| Nurse In Room Time | 3 | 00:01:52 | 08:50:56 |
| Call Initiated From Room | 111 | 10:58:31 | 08:55:55 |

Figure 7: Sample Report, System Statistics Report

3.3 SERVICE INPUT FORM

- A. When selected, allows the generation of a service report that can be forwarded to the maintenance department or service company.

Figure 8: Service Input Form

3.3.1 Service Reports:

- A. This report displays all system maintenance activity. If there is a problem with the system being Up or Down, faulty bulbs, etc., it is documented in this report.

- Using the mouse, position your cursor over the words "SERVICE REPORTS" and "click".
- OR-
- Using the keyboard, press the "ARROW" keys to highlight "SERVICE REPORTS", and press the "SPACEBAR" (a new window will appear). Refer to Figure 9.

| "TekTone Sound & Signal Mfg. Inc." | | | |
|--|--|---|---|
| MMARS Service Report | | | |
| Zone | Call Type | System or Systems | Room/Bed Number(s) |
| <input type="checkbox"/> Zone 1 | <input type="checkbox"/> System Up | <input type="checkbox"/> 1 | <input checked="" type="checkbox"/> All Rooms |
| <input type="checkbox"/> Zone 2 | <input type="checkbox"/> System Active | <input type="checkbox"/> 2 | |
| <input type="checkbox"/> Zone 3 | <input type="checkbox"/> Lamp Faults | <input type="checkbox"/> 3 | |
| <input type="checkbox"/> Zone 4 | <input type="checkbox"/> Code Faults | <input type="checkbox"/> 4 | |
| <input type="checkbox"/> Zone 5 | <input checked="" type="checkbox"/> Comm. Faults | <input type="checkbox"/> 5 | |
| <input type="checkbox"/> Zone 6 | <input type="checkbox"/> Master Fault | <input type="checkbox"/> 6 | |
| <input type="checkbox"/> Zone 7 | <input type="checkbox"/> Menu Session | <input type="checkbox"/> 7 | |
| <input type="checkbox"/> Zone 8 | <input type="checkbox"/> Reports Started | <input type="checkbox"/> 8 | |
| <input checked="" type="checkbox"/> Zone All | <input type="checkbox"/> MMARS Started | <input checked="" type="checkbox"/> All Systems | |
| | <input checked="" type="checkbox"/> MMARS Active | | |
| | <input checked="" type="checkbox"/> All Call Types | | |
| | | Start Time: 12:00:00 AM | |
| | | End Time: 11:59:59 PM | |
| | | Start Date: 01/10/2000 | |
| | | End Date: 12/23/2000 | |
| | | OverTime: 00:00:00 | |
| Total Pages for Report: 3 | | | |
| Total Records for Report: 6 | | | |

| "TekTone Sound & Signal Mfg. Inc." | | | |
|------------------------------------|------|------------------------|---------------|
| MMARS Service Report | | | |
| System: 1 Mount Vernon | | | |
| Date | Room | Event | Response Time |
| 6/1/00 | 01 | MENU SESSION BEGIN | 3:48:05 PM |
| | | MENU SESSION END | 3:48:08 PM |
| | | Total Time On: | 00:00:03 |
| 6/1/00 | 8401 | CODE FAULT | 3:49:11 PM |
| | | CODE FAULT REPAIRED | 3:49:31 PM |
| | | Total Time On: | 00:00:20 |
| 6/1/00 | 8401 | CODE FAULT | 3:49:45 PM |
| | | CODE FAULT REPAIRED | 3:50:48 PM |
| | | Total Time On: | 00:01:03 |
| 6/1/00 | 8401 | COMMUNICATION FAULT | 3:48:45 PM |
| | | COMMUN. FAULT REPAIRED | 3:48:53 PM |
| | | Total Time On: | 00:00:08 |
| 6/1/00 | 8401 | LAMP FAULT | 3:48:45 PM |
| | | LAMP FAULT REPAIRED | 3:51:39 PM |
| | | Total Time On: | 00:02:54 |

Figure 9: Sample Report, Service Report

3.3.2 Back to MMARS Main Form:

- A. When this button is selected it simply returns to the MMARS Main Input Form. Refer to Figure 10.

Figure 10: MMARS Main Input Form

3.4 BACKUP / RESTORE MENU

- A. This selection enables the user to backup files and store for later use, or to restore previously archived files for report use.

- Using the mouse, position your cursor over the words "BACKUP RESTORE MENU" and "click".
- OR-

2. Using the keyboard, press the “ARROW” keys to highlight “BACKUP RESTORE MENU”, and press the “SPACEBAR” (a new window will appear). Refer to Figure 11.



Figure 11: Backup/Restore Menu

3.4.1 Backup Current MMARS to Zip Drive:

- A. At an interval decided upon, the backup function is used to archive system data on disk for retention and future use.
 1. Using the mouse, position the cursor over the button for “Backup Current MMARS to Zip Drive” and “click”.
-OR-
 2. Using the keyboard, press the TAB key to highlight the “Backup Current MMARS to Zip Drive” button, and press the “SPACEBAR”.

3.4.2 Move Current Records to Backup Data Base:

- A. This function allows the user to create a secondary backup file on the hard disk. Note: *Calls* is the current database and *Calls1* is the backup database.
 1. Using the mouse, position the cursor over the button for “MOVE CURRENT RECORDS TO BACKUP DATA BASE” and “click”.
-OR-
 2. Using the keyboard, press the “TAB” key to highlight the “MOVE CURRENT RECORDS TO BACKUP DATA BASE” button and press the “SPACEBAR”.

3.4.3 Open Restore Menu:

- A. This function allows retrieval of data from a Zip disk or hard disk file to use for report generation.
 1. Using the mouse, position the cursor over the button for “OPEN RESTORE MENU” and “click”.
-OR-
 2. Using the keyboard, press the “TAB” key to highlight the “OPEN RESTORE MENU” button, and press the “SPACEBAR”. Refer to Figure 11.

3.4.3.1 Restore Records From CALLS1 to Calls:

- A. This function allows the user to **restore** records from Calls1 to Calls using the supplied start date and end date. (Dates must be entered to proceed.)
 1. Enter start date at blinking cursor in M/D/YYYY format. All 4 digits of the year must be entered to proceed.
 2. Cursor automatically jumps to ending date. Refer to Figure 12.



Figure 12: Restore Menu

3.4.3.2 Delete Records From Calls:

A. This function allows the user to **delete** records from Calls using the supplied start date and end date. (Dates must be entered to proceed.)

1. Enter start date at blinking cursor in M/D/YYYY format. All 4 digits of the year must be entered to proceed.
2. Cursor automatically jumps to ending date. Refer to *Figure 12*.

3.4.3.3 Run Restore Program

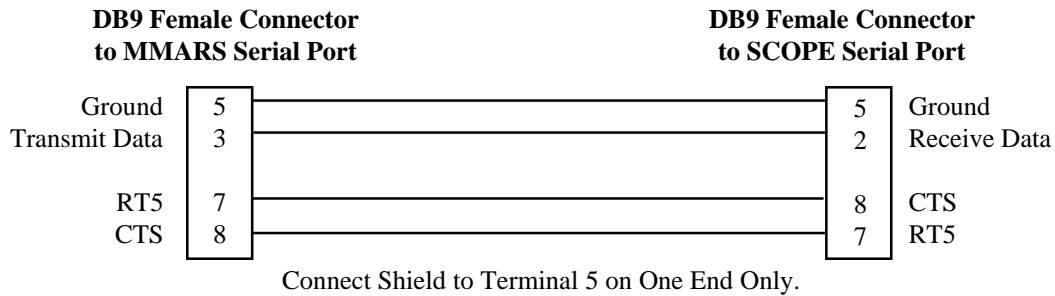
A. Restores previous backup from Zip disk to hard drive.

3.5 EXIT REPORTS

To exit reports, press the exit reports button and it will take you back to the Main Menu Display. Refer to *Figure 13*.



Figure 13: Main Menu Display



MMARS

Motorola® People Finder



**The Tek-MMARS® II side of the cable is a DB9 Female Connector.
The Motorola® side of the cable is a DB25 Male Connector.**

Figure 14: Pager Wiring Diagram

4.0 SYSTEM OPERATING INSTRUCTIONS

4.1 GENERAL INFORMATION

Tek-MMARS®II is a Windows 98® based system. General terms and instructions are listed below.

A. General Windows 98® Terms

POINT: Move the mouse cursor until the tip of the arrow on the screen “points” on the desired location.

CLICK: Press and release the left mouse button.

DRAG: Move the mouse while holding the left mouse button down.

BUTTON: 

A grey rectangular button on the screen with text or pictures explaining its purpose. It is used to cause an action.

RADIO BUTTON: 

A series of circular buttons with text to the right. Each button will be empty or will have a large dot in it. The dot indicates which button has been chosen. Only one button in a series may be chosen at one given time.

CHECK BOX:

A series of small square boxes with text to the right. Each box will be empty or will have an “X” in it. Each time a box is selected, it toggles between “ON” (X) and “OFF” (empty). Depending upon the function, several combinations of checks may be selected.

B. Selecting a Button

1. Using the mouse, position the cursor over the button and “click” on it; -OR-
2. Using the keyboard, cycle through the buttons using the “TAB” key until the desired button is highlighted, then press the “ENTER” key.

C. Selecting a Radio Button

1. Using the mouse, position the cursor over the button and “click” on it; -OR-
2. Using the keyboard, cycle through the buttons using the “TAB” key until the desired button has the large dot in it, then press the “ENTER” key.

D. Selecting Check Boxes

1. Using the mouse, position the cursor over the box and “click” on it; -OR-
2. Using the keyboard, cycle through the boxes using the “TAB” key until the desired box is selected and press the “SPACEBAR” to toggle it “ON” or “OFF”.

4.2 MAIN MENU FUNCTIONS

NOTE: The screen will show all active calls as required depending upon setup of the call display file. If a call is not selected, it will not be displayed. (Default is to not display calls).



Figure 15: Main Menu Display

Refer to Figure 15 above for the MAIN MENU functions.

Selecting the file menus listed at the top of the MAIN MENU enables the user to configure the Tek-MMARS® System to perform to the needs of that user’s working environment. These file menus are described as follows:

4.2.1 Display

A. Display - DISPLAY ON/OFF

This option allows the user to toggle the main display of calls on or off. The menu check mark is an indicator of the current state.

1. Using the mouse, position the cursor over the word DISPLAY and “click” on it; The presence of a check mark will indicate an enabled state. -OR-

2. Using the keyboard, hold down the “ALT” key and press “D”.
3. A drop down menu will appear allowing you to toggle DISPLAY on or off.
4. Using the mouse, drag it down to highlight DISPLAY ON/OFF and then release. Each time this is done it is being toggled; The presence of a check mark will indicate an enabled state.
-OR-
5. Using the keyboard, press the down arrow key until highlighted and then press the “ENTER” key.

B. Display - SORTING ENABLED

This option allows the user to toggle the main display sorting from priority to no sorting. The menu check mark is an indicator of the current state.

1. Using the mouse, position the cursor over the word DISPLAY and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “D”.
3. A drop down menu will appear allowing you to toggle SORTING ENABLED on or off.
4. Using the mouse, drag it down to highlight SORTING ENABLED and then release. Each time this is done it is being toggled; The presence of a check mark will indicate an enabled state.
-OR-
5. Using the keyboard, press the down arrow key until highlighted and then press the “ENTER” key.

C. Display - FILTER

This option allows the user to select what call types will be displayed on screen. The user may select all calls or any combination of calls to be displayed.

1. Using the mouse, position the cursor over the word DISPLAY and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “D”.

3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight FILTER and then release;
-OR-
5. Using the keyboard, press the down arrow key until FILTER is highlighted and then press the “ENTER” key.
6. Refer to *Figure 16* for the CALL FILTER menu that will appear.
7. Select the filter options needed by checking the appropriate buttons using either the mouse or keyboard.
8. Select the “OK” button to save and exit back to the “MAIN” menu.

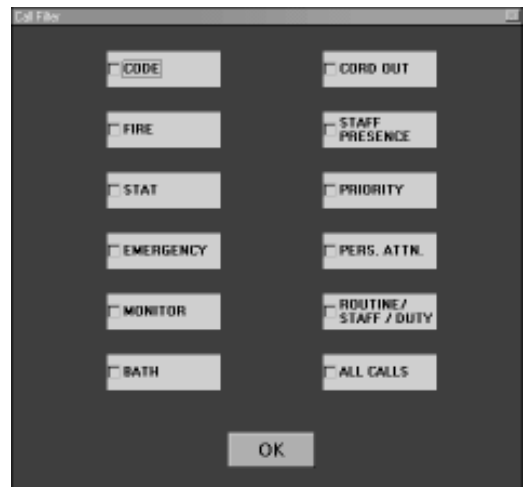


Figure 16: Call Filter Display

4.2.2 Event Printing

A. Event Printing - EVENT PRINTING

This option allows the user to choose whether or not events are echoed to a local printer. Users may select echoed call types using the “CALL TYPE SELECTION” option.

1. Using the mouse, position the cursor over the words TOGGLE EVENT PRINTING ON/OFF and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “E”.

3. A drop down menu will appear allowing you to select TOGGLE EVENT PRINTING ON/OFF.
4. Using the mouse, drag it down to highlight TOGGLE EVENT PRINTING ON/OFF and then release. Each time this is done it is being toggled; the presence of a check mark will indicate an enabled state.
-OR-
5. Using the keyboard, press the down arrow key until highlighted and then press the "ENTER" key.

B. Event Printing - CALL TYPE SELECTION

This option allows the user to select which call types are echoed to the local printer when event printing is active. To echo a given call type, the corresponding option box must be checked. Users may select any or all call types to be echoed.

1. Using the mouse, position the cursor over the word TOGGLE EVENT PRINTING ON/OFF and "click" on it;
-OR-
2. Using the keyboard, hold down the "ALT" key and press "E".
3. A drop down menu will appear.
4. Using the mouse, drag it down until the words CALL TYPE SELECTION are highlighted and then release;
-OR-
5. Using the keyboard, press the down arrow key until the words CALL TYPE SELECTION are highlighted and then press the "ENTER" key.
6. Refer to *Figure 17* for the EVENT PRINTING CALL FILTER menu that will appear.
7. Select the call type options needed by checking the appropriate buttons using either the mouse or keyboard.
8. Select the "OK" button to save and exit back to the "MAIN" menu.

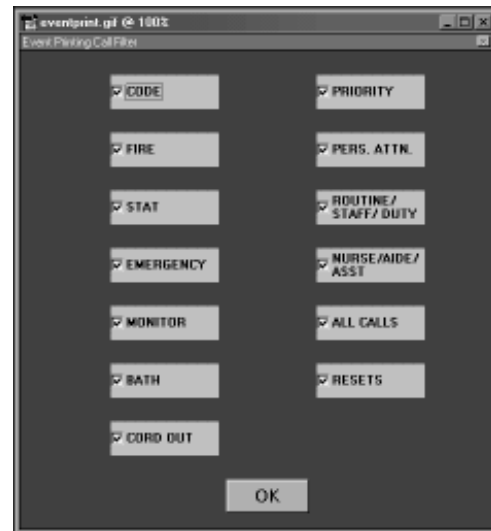


Figure 17: Event Printing Call Filter

4.2.3 Utilities

A. Utilities - AUDIO ALERT

NOTE: These settings are typically configured at the factory; if changes are required, please contact the factory for details. This option allows the user to select which call types will generate sounds and which sounds can be played using wave files (i.e., codecall.wav).

1. Using the mouse, position the cursor over the word UTILITIES and "click" on it; -OR-
2. Using the keyboard, hold down the "ALT" key and press "U".
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight AUDIO ALERT and then release;
-OR-
5. Using the keyboard, press the down arrow key until AUDIO ALERT is highlighted and then press the "ENTER" key.
6. Refer to *Figure 18* for the AUDIO ALERT SELECTION menu that will appear.
7. Fill out the appropriate information as needed. Full path information to the .wav file must be entered by the user.
8. Select the "OK" button to save and exit back to the "MAIN" menu.

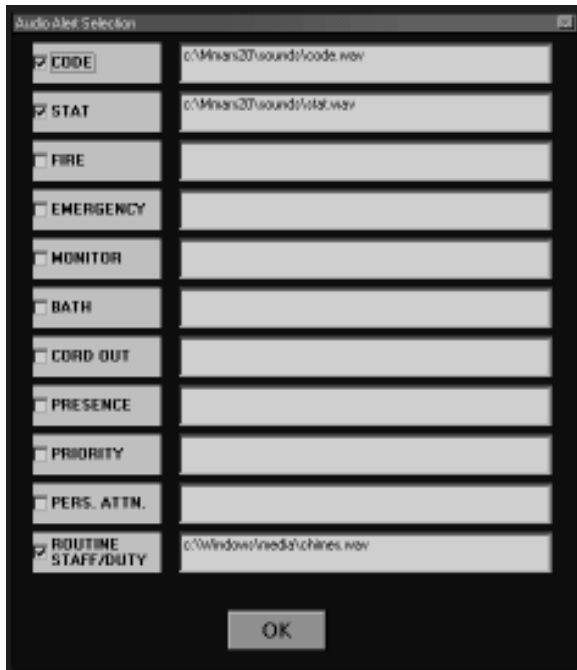


Figure 18: Audio Alert Selection

A. Utilities - SETUP CUSTOM CALL TYPES

This option allows integration of custom NC300 software to Tek-MMARS®II. This option is only used if custom software containing custom call type labels is installed in the nurse call system.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it; -OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight SETUPCUSTOMCALL TYPES and then release; -OR-
5. Using the keyboard, press the down arrow key until SETUPSYSTEMCALL TYPES is highlighted and then press the “ENTER” key.
6. Refer to *Figure 19* for the EDIT CALL TYPES menu that will appear.
7. Fill out the appropriate information as needed.

8. Select the “EXIT” button to cancel and exit back to the “MAIN” menu; or select the “APPLY” button to save and then select the “EXIT” button to return to the “MAIN” menu.



Figure 19: Edit Call Types

B. Utilities - PASSWORD OPTIONS
Set Master Password

This option allows the system administrator to set the password for restricted access function of Tek-MMARS®II. The user will be prompted for the old password, then, if correct, will be prompted for the new password. To ensure that the password has been entered correctly, the user will be prompted to re-enter the new password. If correct, the password will be saved; otherwise, the old password remains.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it; -OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight PASSWORD OPTIONS and then release; you will notice that another window pops open and displays two options: SET MASTER PASSWORD and ASSIGN PASSWORDS TO FUNCTIONS. -OR-

5. Using the keyboard, press the down arrow key until **PASSWORD OPTIONS** is highlighted and then press the right arrow to select either **SET MASTER PASSWORD** and **ASSIGN PASSWORDS TO FUNCTIONS**.
6. Refer to *Figure 20* for the **SYSTEM PASSWORD EDITOR** menu that will appear.
7. Enter new password and then re-enter to confirm.
8. Select the "OK" button to save and return to the **MAIN** menu; or select the "CANCEL" button to cancel and return to the **MAIN** menu.

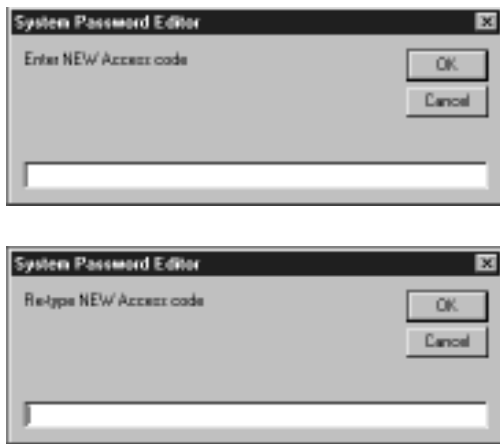


Figure 20: System Password Editor

C. Utilities - PASSWORD OPTIONS
Assign Passwords to Functions

This option allows the system administrator to select which functions are password restricted. If access is restricted, subsequent calls to these functions will require the user to enter the current system password before the function is available to them. Since the Master System Password is used to protect all functions, extensive planning by the system administrator regarding what will be protected and to whom the password is given is highly advised.

1. Using the mouse, position the cursor over the word **UTILITIES** and "click" on it; -OR-
2. Using the keyboard, hold down the "ALT" key and press "U".
3. A drop down menu will appear.

4. Using the mouse, drag it down to highlight **ASSIGN PASSWORDS TO FUNCTIONS** and then release; -OR-
5. Using the keyboard, press the down arrow key until **ASSIGN PASSWORDS TO FUNCTIONS** is highlighted and then press the "ENTER" key.
6. Refer to *Figure 21* for the **PASSWORD PROTECT FUNCTIONS** menu that will appear.
7. Select the functions to be password protected by checking the appropriate buttons using either the mouse or keyboard.
8. Select the "EXIT" button to save and exit back to the "MAIN" menu.

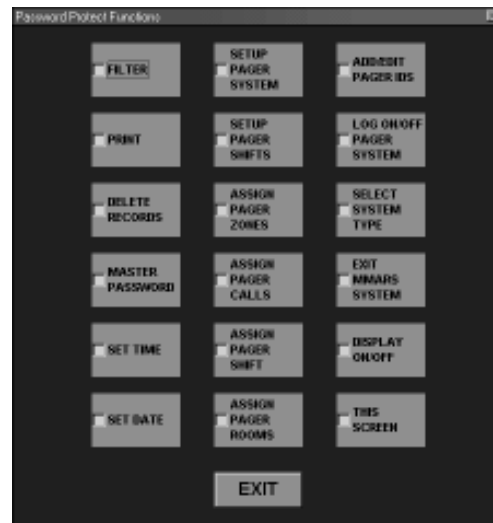


Figure 21: Password Protect Functions

D. Utilities - PRINT GENERAL SYSTEM PARAMETERS

Prints general system parameters to a text file called **GENERAL.TXT** located in the **MMARS20 \Data Directory**. To view it, use Windows® notepad.

E. Utilities - ALLOW REMOTE SYNCHRONIZATION OF TIME/DATE

This allows the **MMARS** system time to be synchronized by the **NC300** System it is connected to. See **NC300 Manual** for additional details.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ALLOW REMOTE SYNCHRONIZATION OF TIME/DATE and then release; the presence of a check mark will indicate an enabled state.
-OR-
5. Using the keyboard, press the down arrow key until ALLOW REMOTE SYNCHRONIZATION OF TIME/DATE is highlighted and then press the “ENTER” key.

F. Utilities - SET SYSTEM TIME

In order for Tek-MMARS®II to be effective, the current system time and date MUST be correct. In the event that the system clock located in the lower left corner of MAIN menu is incorrect, use this option to correct the current time. This may also be accomplished by clicking the left mouse button on the clock display.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight SET SYSTEM TIME and then release;
-OR-
5. Using the keyboard, press the down arrow key until SET SYSTEM TIME is highlighted and then press the “ENTER” key.
6. Refer to *Figure 22* for the SET SYSTEM TIME menu that will appear.
7. Select the “APPLY” button to save and exit back to the “MAIN” menu; or select the “CANCEL” button to cancel.

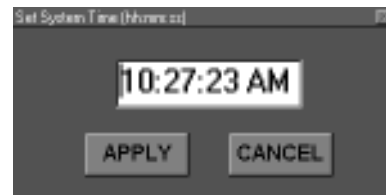


Figure 22: Set System Time

G. Utilities - SET SYSTEM DATE

In order for Tek-MMARS® to be effective, the current system date MUST be correct. Use this function to view or set the current system date.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight SET SYSTEM DATE and then release;
-OR-
5. Using the keyboard, press the down arrow key until SET SYSTEM DATE is highlighted and then press the “ENTER” key.
6. Refer to *Figure 23* for the SET SYSTEM DATE menu that will appear.
7. Select the “APPLY” button to save and exit back to the “MAIN” menu; or select the “CANCEL” button to cancel.

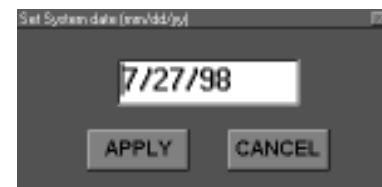


Figure 23: Set System Date

H. Utilities - SHELL TO DOS LEVEL

This option allows the user to open a DOS window. Users should have a good working knowledge of the operation of Microsoft® Windows as well as MS-DOS before using this option.

1. Using the mouse, position the cursor over the word UTILITIES and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “U”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight SHELL TO DOS and then release;
-OR-
5. Using the keyboard, press the down arrow key until SHELL TO DOS is highlighted and then press the “ENTER” key.
6. By releasing the mouse or pressing “ENTER”, the DOS window will be opened. Refer to *Figure 24* for the MS-DOS Prompt menu that will appear.

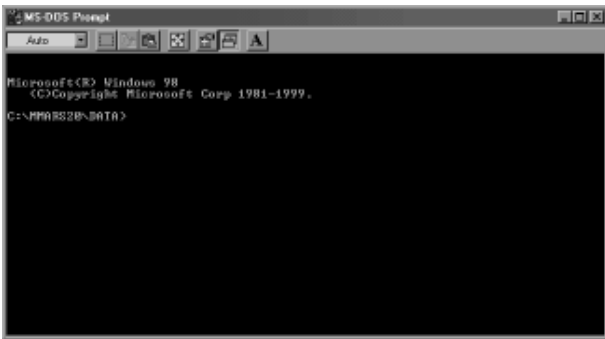


Figure 24: MS-DOS Prompt

4.2.4 Pager Options

A. Pager Options - OPERATION MODE Full-Auto / Semi-Auto

If a system is set to Semi-Auto mode, a box will appear to ask the user if the call should be sent, cancelled, or if a custom message should be sent. When Semi-Auto mode is selected, a message will appear telling the user that full-time attention is required at the MMARS System. The message will appear in the lower left hand corner of the main MMARS Screen.



Figure 25: Full Auto / Semi Auto

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight OPERATION MODE and then release;
-OR-
5. Using the keyboard, press the down arrow key until OPERATION MODE is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight FULL AUTO / SEMI AUTO and then release;
-OR-
8. Using the keyboard, press the down arrow key until FULL AUTO / SEMI AUTO is highlighted and then press the “ENTER” key. Refer to *Figure 25*.

B. Pager Options - DEFAULTS SETUP System Description

Information contained herein applies only to MMARS systems connected to local pager systems.

The user may also select a default call response mask that will be used in setting the call types to which a pager will respond. This is a “quick select” function that allows the user to select a set of call responses that may be assigned to a pager. For more information on how this is used by MMARS, see the section dealing with Pager Assignments, then Assign Pager Call Responses.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight DEFAULTS SETUP and then release;
-OR-

5. Using the keyboard, press the down arrow key until **DEFAULTS SETUP** is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight **SYSTEM DESCRIPTION** and then release;
-OR-
8. Using the keyboard, press the down arrow key until **SYSTEM DESCRIPTION** is highlighted and then press the “ENTER” key. The **PAGING SYSTEM SPECIFICATIONS** Menu will appear; refer to *Figure 26*.
9. Select the functions needed by checking the appropriate buttons using either the mouse or keyboard.
10. Select the “EXIT” button to save and exit back to the “MAIN” menu.

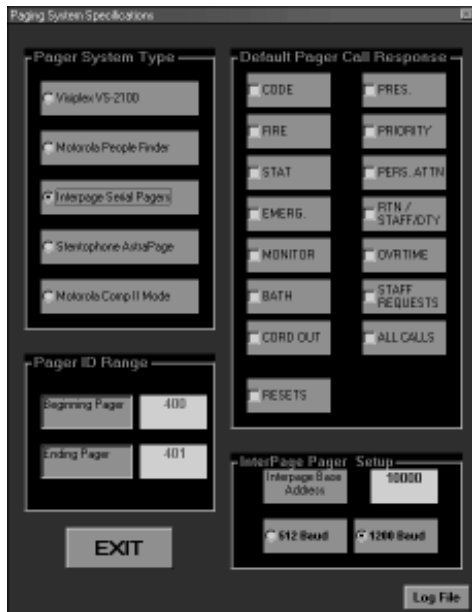


Figure 26: Paging System Specifications

C. Pager Options - DEFAULTS SETUP Define Shifts

This allows the user to determine beginning and ending times for shifts. These shifts are used to determine at what times during the day a pager will be notified of calls. MMARS supports up to four (4) different shifts, but **ONLY ONE** may span midnight, and shifts may not overlap each other.

1. Using the mouse, position the cursor over the words **PAGER OPTIONS** and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight **DEFAULTS SETUP** and then release;
-OR-
5. Using the keyboard, press the down arrow key until **DEFAULTS SETUP** is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight **DEFINE SHIFTS** and then release;
-OR-
8. Using the keyboard, press the down arrow key until **DEFINE SHIFTS** is highlighted and then press the “ENTER” key.
9. Refer to *Figure 27* for the **SHIFT SETUP MENU** that will appear.
10. Fill in the appropriate information needed.
11. Select the “DONE” button to save and exit back to the “MAIN” menu.

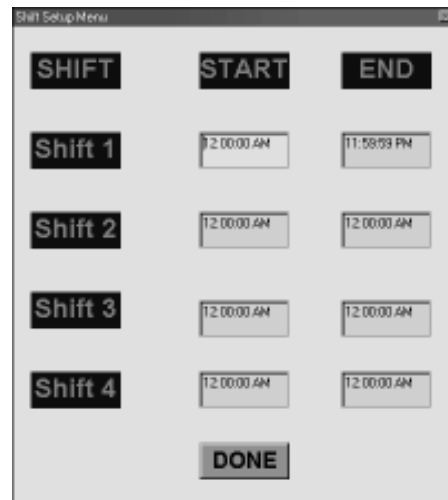


Figure 27: Shift Setup Menu

D. Pager Options - DEFAULTS SETUP Edit Custom Messages

This option allows the user to add, delete, or edit the preprogrammed messages that may be sent to pagers. Messages already existing in the database will be displayed in "PAGES".

Tek-MMARS®II supports an unlimited number of custom messages. **These messages are used in manual mode only.**

1. Using the mouse, position the cursor over the words PAGER OPTIONS and "click" on it;
-OR-
2. Using the keyboard, hold down the "ALT" key and press "O".
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight DEFAULTS SETUP and then release;
-OR-
5. Using the keyboard, press the down arrow key until DEFAULTS SETUP is highlighted and then press the "ENTER" key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight EDIT CUSTOM MESSAGES and then release;
-OR-
8. Using the keyboard, press the down arrow key until EDIT CUSTOM MESSAGES is highlighted and then press the "ENTER" key.
9. Refer to *Figure 28* for the CUSTOM PAGER MESSAGES menu that will appear.
10. To view the next page, select "NEXT". To view the previous page, select "PREVIOUS".
11. To add a new message to the database, click the first unused check box. When the dialog box appears, enter the message to add, and click "OK".

12. To delete a message from the database, select the message by clicking on it, then, when the dialog box appears to enter a new message, click on "OK", leaving the message blank.
13. To edit a message, select the message to edit, then enter the message as desired in the dialog box, and choose "OK".
14. Changes are not saved unless the function is exited via the "SAVE MESSAGES" button. The "CANCEL" button will always ignore the changes.

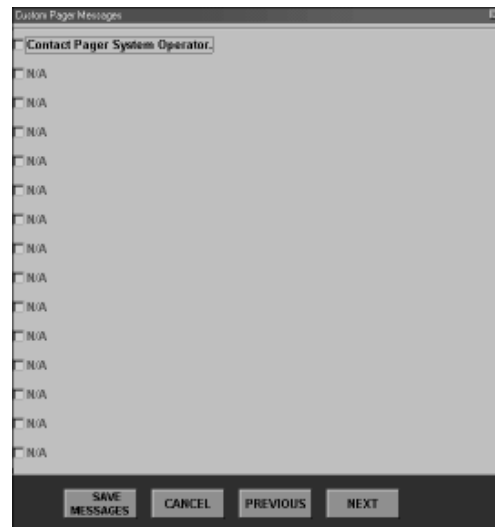


Figure 28: Custom Pager Messages

E. Pager Options - ASSIGNMENTS Assign Zones

This allows the user to decide to what zones a pager will be assigned. Up to sixteen systems and eight zones per system are supported by Tek-MMARS®.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and "click" on it;
-OR-
2. Using the keyboard, hold down the "ALT" key and press "O".
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-

5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ASSIGN ZONES and then release;
-OR-
8. Using the keyboard, press the down arrow key until ASSIGN ZONES is highlighted and then press the “ENTER” key.
9. Refer to *Figure 29* for the ASSIGNPAGER ZONES menu that will appear.
10. First select the pager to assign zones to. To select a pager, click on the corresponding selection box.
11. A new screen will appear to allow zone selection. Refer to *Figure 30* for the SYSTEM SELECTION menu that will appear.
12. Each system consists of eight zones. The system is selected first, then individual zones are assigned by selecting the corresponding option control. To assign all zones for the currently selected system, the user may either select the “ALL ZONES” control or click each “ZONE” individually. This process is repeated for all systems to which the pager will be assigned.
13. To remove a zone assignment, select the appropriate system, and click on the “ZONE”.
14. Click on the “RETURN” button to return to the ASSIGN PAGER ZONES menu.
15. Continue by repeating the above procedures or click on the “EXIT” button to return to the MAIN menu.

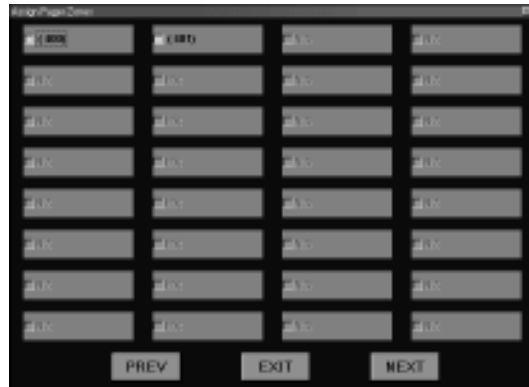


Figure 29: Assign Pager Zones



Figure 30: System Selection

F. Pager Options - ASSIGNMENTS Assign Call Responses

This option allows the user to select the types of calls to which a pager will respond.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ASSIGN CALL RESPONSES and then release;
-OR-

8. Using the keyboard, press the down arrow key until ASSIGN CALL RESPONSES is highlighted and then press the “ENTER” key.
9. Refer to *Figure 31* for the ASSIGNPAGER CALL TYPES menu that will appear.

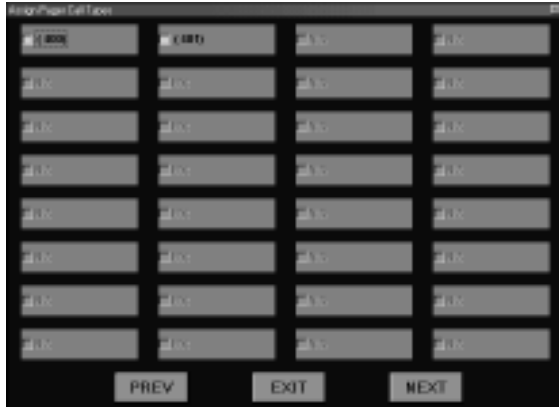


Figure 31: Assign Pager Call Types

10. First select the pager to assign zones to. Select the pager by clicking on the corresponding selection box.
11. A new screen will appear to allow the custom call selection. Refer to *Figure 32* for the ASSIGN PAGER CALL RESPONSE menu that will appear.
12. Select the calls to which that pager will respond by clicking the call type. To use the defaults that were set up when the pager system was set up, click the “DEFAULTS” button.
13. Always click on “SAVE” to end the session and save the assignments. This will return you to the ASSIGNPAGER CALL TYPES menu.
14. Continue by repeating the above procedures or click on the “EXIT” button to return to the MAIN menu.

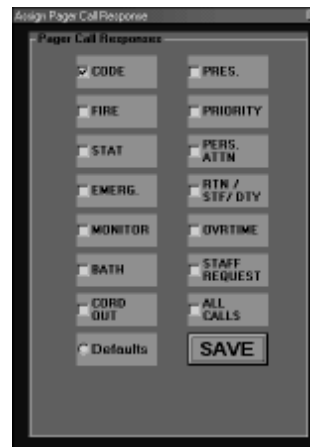


Figure 32: Assign Pager Call Response

G. Pager Options - ASSIGNMENTS Assign Shifts

This option allows the user to select the shifts that the pager will be active.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ASSIGN SHIFTS and then release;
-OR-
8. Using the keyboard, press the down arrow key until ASSIGN SHIFTS is highlighted and then press the “ENTER” key.
9. Refer to *Figure 33* for the ASSIGNPAGER TO A SHIFT menu that will appear.
10. First select the shift to assign. The system will automatically go to the next screen.

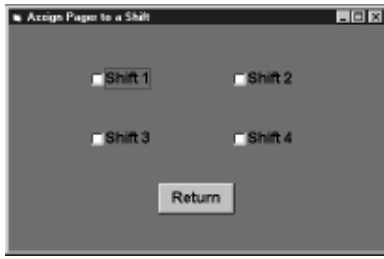


Figure 33: Assign Pager to a Shift

11. A new screen will appear to allow for pager shift assignments. Refer to *Figure 34* for the ASSIGN/EDIT PAGER SHIFT ASSIGNMENTS menu that will appear. (NOTE: The pagers listed in red are already selected to respond to that zone.)
12. Select the pager from the list by clicking on it, then click on all the shifts to which the pager will be assigned. For information on defining the shifts, see the section on “DEFINE SHIFTS”
13. Continue by repeating the above procedures or click on the “EXIT” button to return to the MAIN menu.

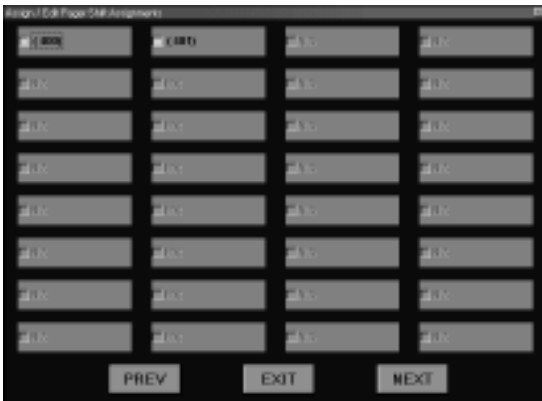


Figure 34: Assign/Edit Pager Shift Assignments

H. Pager Options - ASSIGNMENTS Assign by Room

This option allows the user to assign a pager to calls from a specific room.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.

4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ASSIGN BY ROOM and then release;
-OR-
8. Using the keyboard, press the down arrow key until ASSIGN BY ROOM is highlighted and then press the “ENTER” key.
9. Refer to *Figure 35* for the ASSIGN PAGER RESPONSE BY ROOM menu that will appear.
10. Enter the room, bed, and system in the format RRRR-B-SS where “RRRR” is the room number, “B” is the bed number, and “SS” is the two digit system number. (NOTE: If the pager has already been assigned to the zone containing this room it will be listed when you type in the room number.)

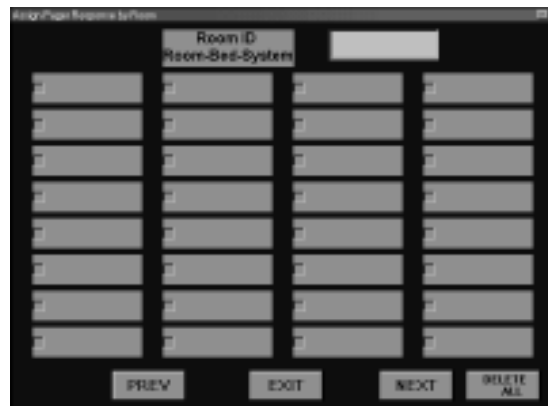


Figure 35: Assign Pager Response by Room

11. A list of pagers will appear.
12. Scroll through the list of pagers using “NEXT” and “PREVIOUS” until the desired pager is listed.
13. Select the pager by clicking on the corresponding selection box.

14. Select the call types that the pager will respond to for this room (this assignment pertains to this pager for this room ONLY). If the defaults button is selected, the default settings will equal the default call mask created when the pager system was set up. Refer to *Figure 35*.
15. To delete a room, click on the room number to be removed and you will be asked to confirm decision.
16. To make the assignment, click on "EXIT".

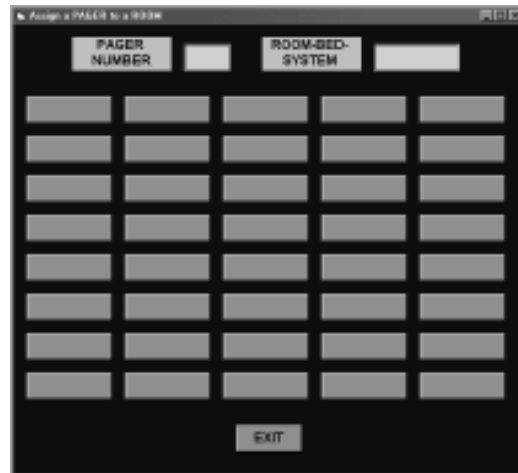


Figure 36: Assign a Pager to a Room

I. Pager Options - ASSIGNMENTS Assign by Pagers ID

This option allows the user to assign pagers to rooms by pager ID.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and "click" on it;
-OR-
2. Using the keyboard, hold down the "ALT" key and press "O".
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the "ENTER" key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ASSIGN BY PAGERS ID and then release; -OR-
8. Using the keyboard, press the down arrow key until ASSIGN BY PAGERS ID is highlighted and then press the "ENTER" key.
9. Refer to *Figure 36* for the ASSIGN a PAGER to a ROOM menu that will appear.

10. Enter the three digit pager ID code.
11. A list of rooms to which this pager is assigned will appear.
12. To add a new room assignment to this pager, click in the "Room-Bed-System" box. Enter the four character room number, a dash, the one character bed ID, a dash, and the two digit system ID number (RRRR-B-SS).
13. The assignment will appear on the next available button.
14. To delete an assignment, click on the button containing the room. A dialog box will appear. Respond by clicking OK.
15. The assignment will disappear, and the list will be re-ordered.
16. Continue with above procedure until all have been entered, and click on the "EXIT" button to return to the MAIN menu.

J. Pager Options - ASSIGNMENTS Name Pagers

This option allows the user to assign a name to a specific pager number.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and "click" on it;
-OR-
2. Using the keyboard, hold down the "ALT" key and press "O".

3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight NAME PAGERS and then release;
-OR-
8. Using the keyboard, press the down arrow key until NAME PAGERS is highlighted and then press the “ENTER” key.

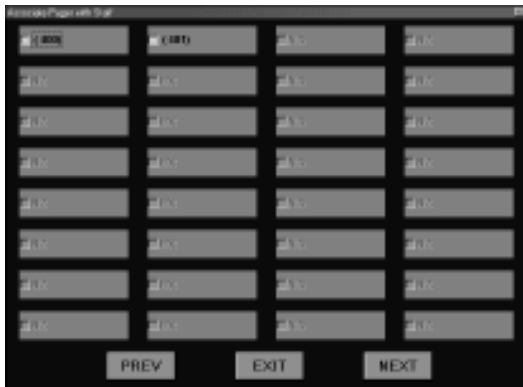


Figure 37: Name Pagers

9. Choose the pager to assign a name to.
10. A menu will appear asking for name information.
11. Refer to *Figure 38* for the ASSOCIATE PAGER WITH STAFF menu that will appear.



Figure 38: Associate Pager with Staff

12. Type in the name which will be associated to the pager and click on the “APPLY” button to save or “CANCEL” to cancel.

13. Continue with the above procedure or click on the “EXIT” button to return to the MAIN menu.

K. Pager Options - ASSIGNMENTS Edit Pager ID

This option allows the user to change the ID number of a pager.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. A drop down menu will appear.
7. Using the mouse, drag it down to highlight EDIT PAGER ID and then release;
-OR-
8. Using the keyboard, press the down arrow key until EDIT PAGER ID is highlighted and then press the “ENTER” key.
9. Refer to *Figure 39* for the EDIT/ADD PAGER IDs menu that will appear.

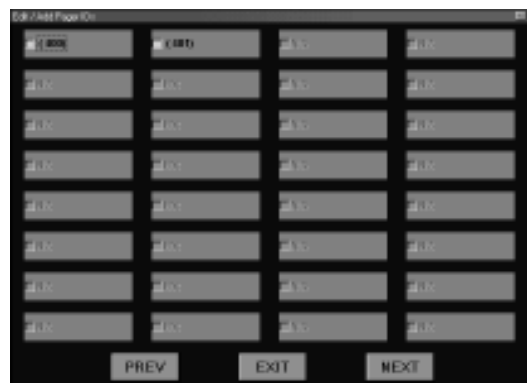


Figure 39: Edit/Add Pager IDs

10. Select the pager to edit/add by clicking the corresponding selection box.
11. A menu will appear asking for new name information.
12. Refer to *Figure 40* for the PAGER ID EDITOR menu that will appear.



Figure 40: Pager ID Editor

13. Enter the number you wish to change it to and click on the “FINISHED” button to save. This will return you to the menu in *Figure 14*, press “EXIT” and return to the MAIN menu.

L. Pager Options - ASSIGNMENTS
Add a New Pager

This option allows the user to add a new pager number.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Another drop down menu will appear.
7. Using the mouse, drag it down to highlight ADD A NEW PAGER and then release;
-OR-

8. Using the keyboard, press the down arrow key until ADD A NEW PAGER is highlighted and then press the “ENTER” key.
9. Refer to *Figure 41* for the PAGER ID EDITOR menu that will appear.



Figure 41: Pager ID Editor

10. Type in the number of the pager you are adding.
11. After typing in the new pager number, the EDIT/ADD PAGERS ID screen (refer to *Figure 39*) will appear allowing you to edit another pager number, if so desired.
12. Continue adding with the above procedure, or click on the “EXIT” button to return to the MAIN menu.

M. Pager Options - PRINT PAGER
ASSIGNMENTS

This option will give you a printout of all the pagers on the system.

1. Using the mouse, position the cursor over the word PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight PRINT PAGER ASSIGNMENTS and then release;
-OR-
5. Using the keyboard, press the down arrow key until PRINT PAGER ASSIGNMENTS is highlighted and then press the “ENTER” key.
6. Refer to *Figure 42* for an example of a printout.

Example:

Assignments for Pager 400 (Name of Pager)

System 1 12345678
 System 2
 System 3
 System 4
 System 5
 System 6
 System 7
 System 8
 System 9
 System 10
 System 11
 System 12
 System 13
 System 14
 System 15
 System 16

Figure 42: Sample Printout

N. Pager Options - LOG ON/OFFPAGER SYSTEM

This option prepares the pager system for input from Tek-MMARS®II. It should ONLY be used if there is a pager system attached to Tek-MMARS® II and the system is not already online. Refer to the indicator panel in the lower right corner of the MAIN menu (*Figure 15*) if in doubt of the current log on status.

1. Using the mouse, position the cursor over the words PAGER OPTIONS and “click” on it;
-OR-
2. Using the keyboard, hold down the “ALT” key and press “O”.
3. A drop down menu will appear.
4. Using the mouse, drag it down to highlight LOG ON/OFFPAGER SYSTEM and then release;
-OR-
5. Using the keyboard, press down the arrow key until LOG ON/OFFPAGER SYSTEM is highlighted and then press the “ENTER” key.

6. Every time this option is selected it is being toggled “ON” or “OFF”.

7. Refer to *Figure 43* for the PAGER STATUS INDICATORS.



Figure 43: Pager Status Indicators

5.0 SUGGESTED TEST INSTRUCTIONS FOR Tek-MMARS® II

5.1 START SYSTEM

1. Ensure all appropriate NC300 Systems are active and have been connected according to the wiring diagrams in Section 2.2
2. Turn Tek-MMARS®II PC on
3. Turn on printer (if connected)

Tek-MMARS®II System should start automatically after Windows 98® finishes loading. Tek-MMARS®II screen should appear as shown in *Figure 15*. In the Tek-MMARS®II Main Menu Display, the system up status area should indicate which NC300 Systems are up and connected properly. This is indicated by the appropriate “GREEN” LED’s in the system up status area. If all LED’s are “GRAY,” check system connections to Tek-MMARS®II.

5.2 TESTING THE MMARS SYSTEM

Using Tek-MMARS®II Test Worksheet (Appendix A), check appropriate Call Types for your NC300 Systems that are connected. Using this check list, initiate calls from each NC300 System to ensure call displays on screen.

Example:

- A: Place a “Routine Call” from an NC300 System. “Routine Call” should appear on the MMARS screen providing that “DISPLAY” is turned on (see Section 4.2.1-A) and “CALL DISPLAY FILTERING” (see Section 4.2.1-C) has “Routine Call” selected.
- B: “Routine Call” should also be printed on the event printer providing that “EVENT PRINTING” (see Section 4.2.2-A) is turned on and “EVENT PRINTING CALL FILTER” (see Section 4.2.2-B) has “Routine Call” selected.
- C: The appropriate pager should beep and display “Room #: 8101-1 Routine Call”, providing that the pagers (see Section 4.2.4) are set up on the system.
- D: Cancel “Routine Call” from NC300 System.
- E: “Routine Call” should disappear from the Tek-MMARS®II screen.

F: Event printer should print “Routine Call Reset”.

G: Pagers will be unaffected, appropriate pager will continue to beep and display until it is cleared or reset. Pagers may only be reset or cleared at the pager.

Repeat steps A through G for all the appropriate Call Types that were selected on the Tek-MMARS®II Test Worksheet (next page).

| Valid Call Types for NC300 Systems | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| EVENT | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Routine Call | | | ✓ | | | | | | | | | | | | | |
| Pers. Attn. Call | | | | | | | | | | | | | | | | |
| Priority Call | | | | | | | | | | | | | | | | |
| Bath Call | | | ✓ | | | | | | | | | | | | | |
| Emergency Call | | | | | | | | | | | | | | | | |
| Fire Call | | | ✓ | | | | | | | | | | | | | |
| Monitor Call | | | | | | | | | | | | | | | | |
| Code Call | | | | | | | | | | | | | | | | |
| Staff Call | | | | | | | | | | | | | | | | |
| Duty Call | | | | | | | | | | | | | | | | |
| Aide Requested | | | | | | | | | | | | | | | | |
| Aide In | | | | | | | | | | | | | | | | |
| Nurse Requested | | | | | | | | | | | | | | | | |
| Nurse In | | | | | | | | | | | | | | | | |
| Stat Requested | | | | | | | | | | | | | | | | |

Figure 44: Appendix A Test Worksheet

5.3 TESTING THE MMARS REPORTS

After testing all the appropriate Call Types from each NC300 System, “Check Reports” (see Section 3.0) to make sure that appropriate data has been collected into the Tek-MMARS®II Data Base.

Appendix A

MMARS Test Worksheet

Date of Test: _____

| Valid Call Types for NC300 Systems | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| EVENT | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Routine Call | | | | | | | | | | | | | | | | |
| Pers. Attn. Call | | | | | | | | | | | | | | | | |
| Priority Call | | | | | | | | | | | | | | | | |
| Bath Call | | | | | | | | | | | | | | | | |
| Emergency Call | | | | | | | | | | | | | | | | |
| Fire Call | | | | | | | | | | | | | | | | |
| Monitor Call | | | | | | | | | | | | | | | | |
| Code Call | | | | | | | | | | | | | | | | |
| Staff Call | | | | | | | | | | | | | | | | |
| Duty Call | | | | | | | | | | | | | | | | |
| Aide Requested | | | | | | | | | | | | | | | | |
| Aide In | | | | | | | | | | | | | | | | |
| Nurse Requested | | | | | | | | | | | | | | | | |
| Nurse In | | | | | | | | | | | | | | | | |
| Stat Requested | | | | | | | | | | | | | | | | |