GARD MC
Multiplexer Programming

1. Connect monitor and keyboard to the IPC.

2. Connect the system to the mains.

   The entrance menu appears on the monitor (fig.1).

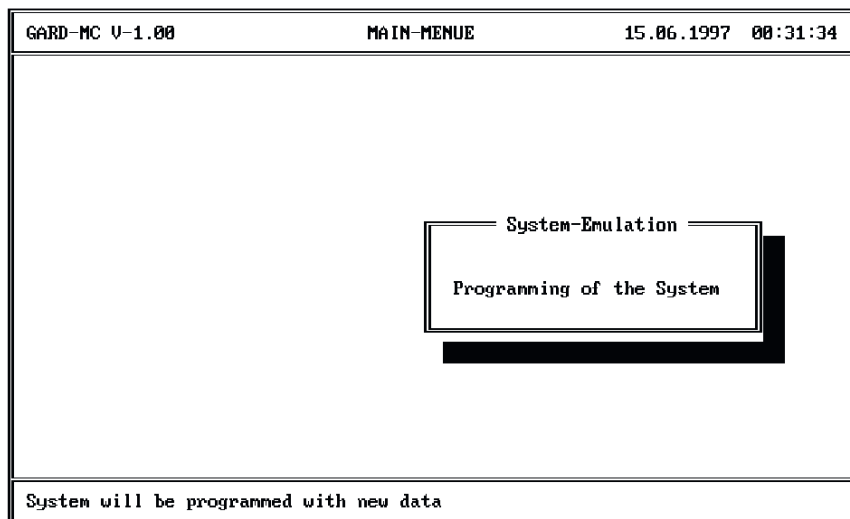   Wait until fig. 2 appears and confirm with [ESC].

```
GARD-MC V-1.00              MAIN-MENUE          15.06.1997  00:31:34




                              ┌─ System-Emulation ──────┐
                              │                          │
                              │  Programming of the System │
                              │                          │
                              └──────────────────────────┘




System will be programmed with new data
```

fig. 1

If the programme is started for the first time, there is no need for entering the password as demanded in fig. 3, but only press [ENTER].

In the following mask (fig.4) you can enter a password under the point „*Change password*" (see below).
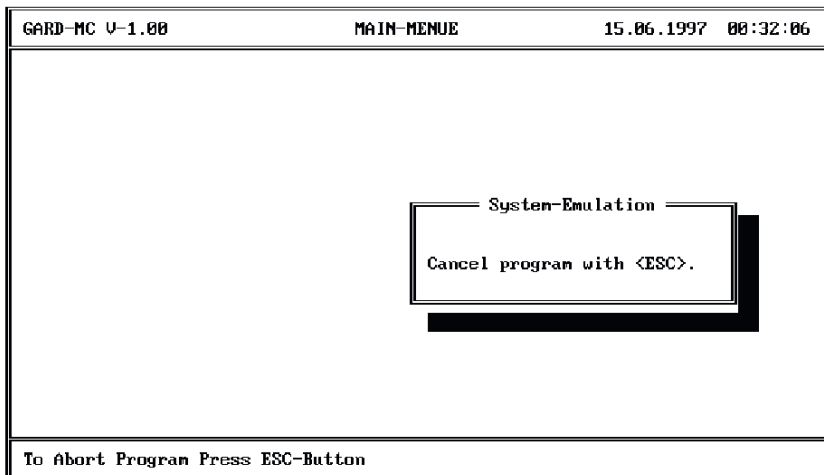
```
┌──────────────────────────────────────────────────────────────┐
│ GARD-MC V-1.00              MAIN-MENUE          15.06.1997 00:32:06 │
│ ┌──────────────────────────────────────────────────────────┐ │
│ │                                                            │ │
│ │                                                            │ │
│ │                                                            │ │
│ │                          ┌═ System-Emulation ═┐           │ │
│ │                          │                     │          │ │
│ │                          │ Cancel program with <ESC>. │    │ │
│ │                          │                     │▓         │ │
│ │                          └─────────────────────┘▓         │ │
│ │                            ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓          │ │
│ │                                                            │ │
│ └──────────────────────────────────────────────────────────┘ │
│ To Abort Program Press ESC-Button                            │
└──────────────────────────────────────────────────────────────┘
```

fig. 2

```
┌──────────────────────────────────────────────────────────────┐
│ GARD-MC V-1.00              MAIN-MENUE          15.06.1997 00:32:20 │
│ ┌──────────────────────────────────────────────────────────┐ │
│ │        ┌═ Input Password ═┐                                │ │
│ │        │                   │                               │ │
│ │        │ Password:  ****   │                               │ │
│ │        │                   │▓ ┌═ System-Emulation ═┐        │ │
│ │        └───────────────────┘▓ │                     │       │ │
│ │          ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓  │ Cancel program with <ESC>. │ │
│ │                               │                     │▓      │ │
│ │                               └─────────────────────┘▓      │ │
│ │                                 ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓       │ │
│ │                                                            │ │
│ └──────────────────────────────────────────────────────────┘ │
│ To Abort Program Press ESC-Button                            │
└──────────────────────────────────────────────────────────────┘
```

fig. 3

```
GARD MC V-1.050                 MAIN-MENUE                   08.04.2002
----------------------------------------------------------------------

                        MENUE - SELECTION

                    Editing of components
                    Editing of satellites
                    Editing of group calls
                    Editing of relais
                    Editing of video control
                    Change password
                    Adjust system time
                    System Configuration
                    System RUN

                        END OF PROGRAM

Select Menue with Cursor-Buttons and push ENTER
```
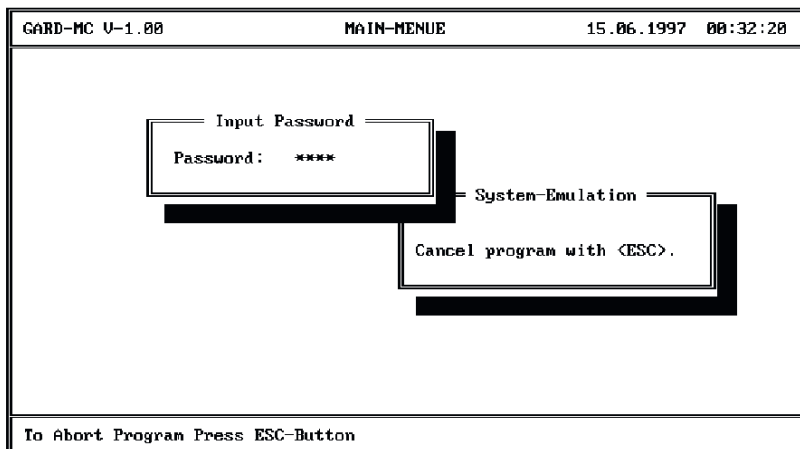
fig. 4

3.   For system configuration select

Editing of components

and confirm with [ENTER]. The following mask (fig. 5) shows
in the left upper corner the group which is now treated (group:01).

```
----------------------------------------------------------------------
GARD MC V-1.041    Editing of components    01.02.2000    12:26:12
----------------------------------------------------------------------
Group: 01
Nr.        Card-1 Card-2 Card-3 Card-4  Card-5 Card-6  Card-7  Card-8
01          M01    .....  .....  .....   .....  .....   .....   .....
02          .....  .....  .....  .....   .....  .....   .....   .....
03          .....  .....  .....  .....   .....  .....   .....   .....
04          .....  .....  .....  .....   .....  .....   .....   .....
05          .....  .....  .....  .....   .....  .....   .....   .....
06          .....  .....  .....  .....   .....  .....   .....   .....
07          .....  .....  .....  .....   .....  .....   .....   .....
08          .....  .....  .....  .....   .....  .....   .....   .....
09          .....  .....  .....  .....   .....  .....   .....   .....
10          .....  .....  .....  .....   .....  .....   .....   .....
11          .....  .....  .....  .....   .....  .....   .....   .....
12          R01    .....  .....  .....   .....  .....   .....   .....
13          .....  .....  .....  .....   .....  .....   .....   .....
14          S14    .....  .....  .....   .....  .....   .....   .....
15          .....  .....  .....  .....   .....  .....   .....   .....
16          S16    .....  .....  .....   .....  .....   .....   .....
Move-> Cursor  Delete-> DEL  Edit-> ENTER  ESC-> End
----------------------------------------------------------------------
```

fig. 5

You can select one of the 4 possible groups by pressing [↑] or [↓].
All stations which belong logically together form one (working) group.
Master stations (or main stations) of this group operate as master for the sub-stations.

Within *one* group only *one* main station can operate as "head" station. This configuration is entered in the ***Editing of satellites*** menu (fig.6). Furthermore the "sub" masters are activated in this menu (see also page 5).

The **Nr** (= No) column indicates the multiplexer terminal number corre-sponding to the cards of your system.

Enter the call numbers of the connected stations in colums **Card-1** to **Card-8**. Proceed as follows:

Select line and column with the cursor and confirm with [ENTER].
Enter the following:

Master or main station: Mxx M=Master   xx=call number
Substation (door/cell station) :   Sxx   S=Substation xx=call number

Only enter substations which have already been connected, otherwise there will be permanent error messages at the master station.

Optional Music: Stations with music receive an additional *M* after their call number, f. ex. **M25M** = **M**asterstation no. **25** with **M**usic.
Optional radio access: Stations with radio access (master/main stations only) receive an additional *F* after their call number,
f. ex. : **M25F** = **M**asterstation no.**25** with radio access. This allows master stations to listen to radio communication; the number of persons listening at the same time is not restricted. Pressing the *S key* allows to speak.
The radio transmission modules are also entered with an *F* following their call number, f. ex. : **S97F** = **S**ubstation no.**97** **F** = radio
Master stations without radio access can´t call the radio transmission module.
Optional Priority: Stations with priority receive an additional *P* after their call number, this means that the respective station is always in first place.

After having entered all stations, leave the mask by pressing [ESC].

If the installation comprises substations, select

Editing of satellites (fig. 6)

in the Main Menu (Abb. 4)

```
GARD-MC V-1.00          Editing of satellites        15.06.1997  10:16:10

      Master delay Master delay Master      Comment
 G1A    1    2      2    5      3           ....................
 G1B  ..:.. ..:..  ..:.. ..:..  ..:.. ..:..
 G1B   ..    .      ..    .      ..          .
```

```
GARD-MC V-1.00          Editing of satellites        15.06.1997  10:16:53

      B-on  B-off B-on  B-off B-on  B-off  Comment
 G1A    1    2      2    5      3           ....................
 G1B  13:00 14:00 17:00 07:00 ..:.. ..:..
 G1B   ..    .      ..    .      ..          .
```

```
GARD-MC V-1.00          Editing of satellites        15.06.1997  10:17:21

      Master delay Master delay Master      Comment
 G1A    1    2      2    5      3           ....................
 G1B  13:00 14:00 17:00 07:00 ..:.. ..:..
 G1B   ..    .      ..    .      ..          .

 G2A   ..    .      ..    .      ..
 G2B  ..:.. ..:..          ══════ Edit adress ══════
 G2B   ..    .
                       New adress :    3
 G3A   ..    .
 G3B  ..:.. ..:..
 G3B   ..    .      ..

 G4A   ..    .      ..    .      ..
 G4B  ..:.. ..:..  ..:.. ..:..  ..:.. ..:..
 G4B   ..    .      ..    .      ..


 Move -> Cursor  Delete -> DEL  Edit -> ENTER  ESC -> End  F1 -> Help
```

fig. 6

The following mask shows 4 sections representing the 4 working groups of the *„Editing of components"* mask (fig. 5, pages 3 - 4).

In the 1st line of the **"Master"** column you enter the number of the main station which operates as master station for the substations of this group. Select the respective field with the cursor and confirm with [ENTER], then enter the number of the main station under *„Edit address"*.
Confirm again with [ENTER]. The mask is closed and the number is registered.

If a call shall be transferred to another master station after a certain time, enter the transferral time in the *"delay"* column (steps of 10 to 90 sec) as described on the bottom of page 5.

    1 = call transfer after   1 - 10 sec
    2 = call transfer after 10 - 20 sec

The number of the master station receiving the transferred call is entered in the next column.

This can be repeated once again, i. e. within each group one master station and two „submaster" stations can be determined.

Attention: If no transferral time is entered, the master stations will operate in parallel.

In the second line daily recurrent time limits are entered indicating the master station (line 3) receiving transferred calls.
Proceed as follows:
Select the field as above with the cursor and confirm with [ENTER].
Enter the beginning of the call transfer under column **B-on** and the end of the call transfer under column **B-off**.

Enter in line 3 the master station(s) to which calls shall be transferred, same procedure as above.

If all data have been entered, leave the menu with [ESC].

If you intend to use this function, a keyboard and a monitor has to be connected to the calculator when the multiplexer is started for the first time which will allow to set the clock of the calculator.

If you want to release a group call or make special announcements to a certain number of stations (groups different from the above mentioned working groups), select

Editing of Group-Calls

in the **Main Menu** (fig.4).

The following mask (fig.7) shows the actual group on the upper left side. Select another group by pressing [↓] [↑]. Enter the call numbers of the master/substations under columns *01-16, 17-32* respectively as described above.

Totally 7 group calls can be created. 8 and 9 are reserved for special functions.

```
GARD-MC V-1.00          Editing of Group-Calls      15.06.1997  00:33:57

Group-Call: 01
            01-16    17-32    33-48    49-64    65-80    81-96
            M01      ...      ...      ...      ...      ...
            M02      ...      ...      ...      ...      ...
            M03      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...
            ...      ...      ...      ...      ...      ...

Move -> Cursor  Delete -> DEL  Edit -> ENTER  ESC -> End        Nr:01
```

fig. 7

Select with the cursor in the **Main Menu** (fig. 4)

Editing of Relais

and confirm with [ENTER]. Enter the stations under columns
D01 to D10, the modes (1, 2 or 3) under column *M .*

1 – The relay is activated if a substation calls the master station.
2 – The relay is activated if a sub and a master station are communi-
      cating and the master additionally activates the *"S"* key.
3 – The relay is activated if a master station calls a substation.
4 - The relay is activated if a substation calls the master station and
      drops-out after 3 seconds.

```
GARD-MC V-1.041   Editing of relais-outputs    01.02.2000   08:47:45

        Name: R01

Out     D01   D02   D03   D04   D05   D06   D07   D08   D09   D10   M
01      S14   S16   ...   ...   ...   ...   ...   ...   ...   ...   1
02      S16   ...   ...   ...   ...   ...   ...   ...   ...   ...   1
03      ...   ...   ...   ...   ...   ...   ...   ...   ...   ...   1
04      S14   ...   ...   ...   ...   ...   ...   ...   ...   ...   2
05      S14   ...   ...   ...   ...   ...   ...   ...   ...   ...   3
06      S16   ...   ...   ...   ...   ...   ...   ...   ...   ...   2
07      S16   ...   ...   ...   ...   ...   ...   ...   ...   ...   3
08      ...   ...   ...   ...   ...   ...   ...   ...   ...   ...   1
```

fig. 8   Move -> Cursor Delete -> DEL Edit -> ENTER ESC -> End

---

In the **Main Menu** (fig. 4) you select

Change password

to enter a new password.


```
GARD-MC V-1.00              MAIN-MENUE              14.06.1997  17:00:03

                    ┌─ Change password ─┐
                    │ New password:     │
                    └───────────────────┘




Select Menue with Cursor-Buttons and push Enter
```

fig. 9

A mask as per fig. 9 appears where you enter the password and confirm with [ENTER].
Now you are asked to enter the *new password* again and confirm again with [ENTER].

The configuration is now terminated.

All entered parameters of your configuration are stored on flash disc.

Basic System Parameters

```
GARD-MC Vers: 12.04.2007-0     MAIN-MENUE           23.04.2007  11:55:34

                    ═══ MENU - Selection ═══
                    Editing of components
                    Editing of satellites
                    Editing of group-calls
                    Editing of relais
                    Editing of video-control
                    Change password
                    Adjust system-time
                    System-Configuration
                    System-RUN

                        END of Program
```

Basic system parameters are entered under „*System-Configuration*".

```
GARD-MC Vers: 12.04.2007-0 System-Configuration     23.04.2007  12:00:09

        Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
         2    0    2      1      0    0    0     0
```

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:17:40

          Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
           1    0    2      1      0    0    0     0
                   ┌──────── Help Connection-Try-Time ────────┐
                   │                                           │
                   │    Please put in the number of the        │
                   │  connection-try-time of 2 satellites      │
                   │     in 10-second-steps. (max 9)           │
                   │       0=connection immediately            │
                   │                                           │
                   │                                           │
                   │              <  OK  >                     │
                   └───────────────────────────────────────────┘
```

Under „CTr" you put in the number of the connection-try-time of 2 satellites in 10-second-steps (max 90 sec). Confirm with [ENTER].

0 = connection immediately

1 = connection after 10 sec, otherwise the alarm is cancelled

2 = connection after 20 sec, idem etc….. (max 9 = 90 sec)

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:23:31

          Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
           2    0    2      1      0    0    0     0
                   ┌──────── Help Channel-Max ────────┐
                   │                                   │
                   │   Please put in the quantity of the │
                   │       channels in this system.      │
                   │                                   │
                   │                                   │
                   │              <  OK  >              │
                   └───────────────────────────────────┘
```

Under "Cha" you enter the number of the speech channels connected to the system and confirm with [ENTER].

```
GARD-MC Vers: 12.04.2007-0 System-Configuration          23.04.2007  12:36:23

              Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
               1    0    2      1      0    0    0     0
                          ┌══════ Help Music-Channel ══════┐
                          │                                │
                          │  Please put in the channel-number, on
                          │  which the music in this system runs.
                          │
                          │
                          │
                          │             <  OK  >
                          └────────────────────────────────┘
```

Put in the channel number on which the music in this system runs
under „MCh" and confirm with [ENTER].

No music = „0"

```
GARD-MC Vers: 12.04.2007-0 System-Configuration          23.04.2007  12:37:48

              Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
               1    0    2      1      0    0    0     0
                          ┌══════ Help COM-Port ══════┐
                          │                           │
                          │  Please put in the number of the
                          │    COM-Port, on which the MUX in
                          │       this system connected.
                          │
                          │
                          │          <  OK  >
                          └───────────────────────────┘
```

Under „COM" you put in the number of the COM-Port on which the system
is connected. **Standard is „1".**
This should only be changed in case of modifications at the IPC or if a new
PC is connected to the system.

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:38:49

        Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
         1    0    2      1       0    0    0     0

                    ╔═══ Help Defect-Repeat-Time ═══╗
                    ║                               ║
                    ║  Please put in the number of the
                    ║  repeat time of any defect device
                    ║  in 10-second-steps. (max 32767)
                    ║
                    ║
                    ║              <  OK  >
                    ╚═══════════════════════════════╝
```

Under „**Def_Rep**" you put in the number of the repeat time of any defective device in 10-second-steps and confirm with [ENTER].

1 = after 10 sec

2 = after 20 sec etc.

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:14:06

        Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
         1    0    2      1       0    0    0     0

                    ╔═══ Help Sabotage-alarm ═══╗
                    ║                           ║
                    ║ 0=Sabotage-alarm of device not active
                    ║ 1=Sabotage-alarm of device is active
                    ║
                    ║
                    ║
                    ║            <  OK  >
                    ╚═══════════════════════════╝
```

Under „**Sab**" the sabotage-alarm is activated which must be integrated into the Substation. Confirm with [ENTER].

1 = sabotage alarm is active

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:40:26

        Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
         1    0    2      1       0    0    0     0

                    ═══ Help Logfile ═══

                    0=Logfile is disabled
                    1=Logfile is enabled




                         <  OK  >
```

Under „**Log**" it is set down whether all system calls are recorded or not.
Confirm with [ENTER].

0 = disabled; 1 = enabled

```
GARD-MC Vers: 12.04.2007-0 System-Configuration        23.04.2007  12:41:01

        Cha  MCh  COM  Def_Rep  Sab  Log  AlCl  CTr
         1    0    2      1       0    0    0     0

                ═══ Help Alarm-Clear automatic ═══

                    Value between 0 and 24 hours
                      After that time, alarm
                   will be cleared automatically.
                  0=Never clear alarm automatically.



                         <  OK  >
```

A substation´s call releases at the master station an alarm signal which is
switched off as soon as the operator starts communication.
Under „**AlCl**" the time is entered after which an alarm is cleared automatically

0 = never clear alarm automatically

Gard-MC LogFile Legend

Letter	Meaning
A	Master - Slave Communication
B	Master - Master Communication
C	End of Communication
D	Group Call
E	Slave Alarm
F	Clear Alarm
G	Forced Communication Master - Slave
H	Forced Communication Master - Master
J	Slave Emergency Alarm
L	Door lock release—Relay on
M	Door lock release—Relay off
S	Communication Master - Slave Emergency Call
X	System Start
Y	Defective Device
Z	Device again in operation

After system restart enter under LogFile (EVENT.NEW):
`<X,0,0, 26.02.2007 , 11:22:59>`

Files on the compact flash disc

CLARSON.BAT	Start file
CLAR2005.EXE	Programme file
	(Parameter /e starts the system in editing mode)
PINDATA.DAT	Editing of components
SATDATA.DAT	Editing of satellites
GRUPDATA.DAT	Editing of group-calls
RELDATA.DAT	Editing of relais
GEUTEBR.DAT	Editing of video-control
CONFIG.DAT	System-configuration
EVENT.NEW	LogFile

Network interface:
FTP Hostname: 192.168.1.200
FTP UserID: anonymous

4. In the **Main Menu** (fig.4) you select

System Run

The system is restarted and operates with the new configuration.

List of Subjects