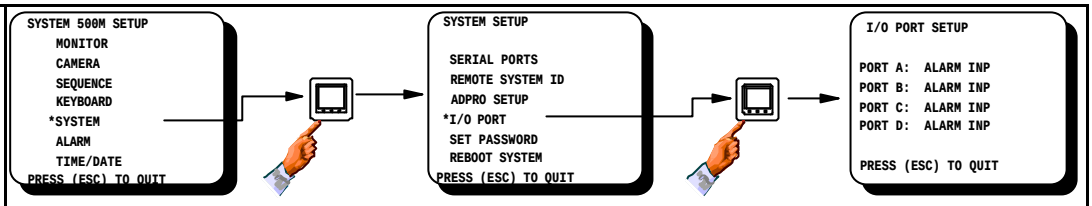
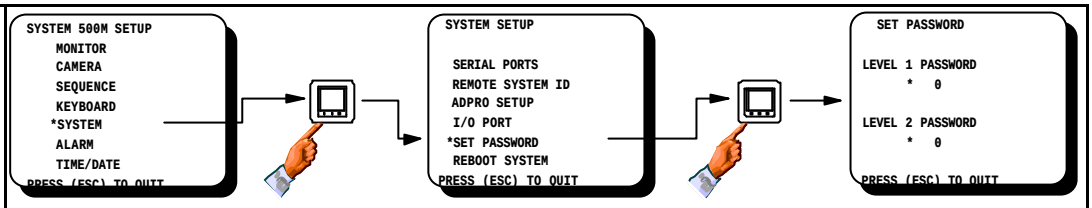
Programming of I/O Port:



Field	Type	Description	Default Value	Valid Entry
Port A	Info.	Alarm inputs	ALARM INP	-
Port B	Info.	Alarm inputs	ALARM INP	-
Port C	Info.	Alarm inputs	ALARM INP	-
Port D	Choice	Set if this port should be used for alarm inputs or sequence control input / outputs.	ALARM INP	ALARM INP SEQ TRIG

Programming of Password:



Field	Type	Description	Default Value	Valid Entry
Level 1 Password	Numeric	Set the Adpro/Alarm Status Level 1 Password using up to four digits.	None (=0)	0 - 9999
Level 2 Password	Numeric	Set the SYSTEM 1000M/Adpro Setup Password using up to four digits.	None (=0)	0 - 9999

Warning! *Once you have allocated a password it will not be possible to change any system settings without using the password.*

Reboot of system:

Note!	All changes in the SYSTEM SETUP requires a system reboot. Accept this field when all system parameters has been changed in order to reboot the system.

Introduction to the SYSTEM 500M alarm handling

The Alarm setup system is the most complex part of the setup system. It is therefore recommended, that the complete alarm section of this manual is read before the programming is started in order to be familiar with the mode of operation, and the options available.

The alarm handling has the highest priority in the system, meaning that in case of alarms these will be processed before anything else such as video sequences.

If the monitors selected as alarm monitors has been set with respect to valid cameras these settings will be overruled in case of alarms displaying cameras which would normally not be valid for these monitors.

Programming of *Alarm Source input on this rack*

This field is used to specify if alarms are connected.

The total maximum number of alarms, that can be processed, are 32.

- **INTERNAL:** Alarm are received on the built-in alarm module type 590M, which accepts up to 32 potential free alarm contacts.
- **NOT USED:** Will disable the Alarm handling.
- **IEC:** Alarms are received in serial format, using the IEC protocol.

Setting the *Alarm Offset field*

This field is only relevant if the SYSTEM 500M is programmed as a *Remote System*. In order to distinguish between the alarms connected to the different *Remote Systems*, this field must be set.

Note! It is not controlled automatically by the SYSTEM 1000M(the Main System), that all *Alarm Offset* fields on the *Remote Systems* have unique settings.

Alarm log printer

It is possible to connect a serial printer or an external computer for logging of alarm events. The following information will be transmitted as printable ASCII characters: The alarm number, the programmed alarm text, time and date and the alarm status; i.e. active, inactive or cleared.

Example: `009  13:19:31  29/11-94  ALARM 009  ACTIVE`

Handshake is software based using the Xon/Xoff control signals; refer to the *Programming of serial ports* section for more information on Xon/Xoff handshake.

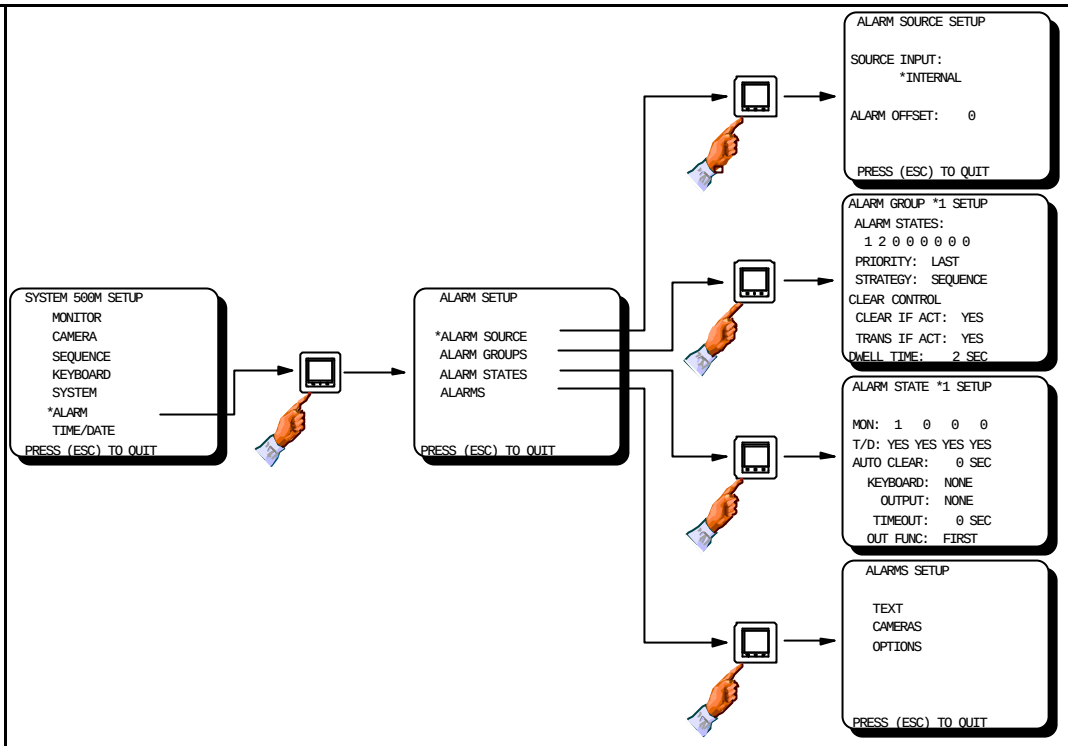
The serial printer can either be connected to one of the serial ports on the matrix.

Note: Remember to set the *Device* field and the baud rate of the serial port accordingly; refer to the *Programming of Serial Ports 1 and 2* section.

Note! A new protocol(IEC) for controlling the SYSTEM 500M, is now available. With the new protocol it is possible to control all functions of the 500M, including generating alarms, system status feed-back, direct camera/monitor selection etc.
For further information, please contact Ernitec A/S.

Alarm Setup

Menu Structure:



Programming of Alarm Source Setup:

Field	Type	Description	Default Value	Valid Entry
Source input on this rack	Choice	Specify the type of alarm source.	NOT USED	INTERNAL IEC NOT USED
Alarm Offset	Numeric	Set the alarm input offset for the alarm inputs, e.g. an offset of 32 will number the inputs 33-64. This field is only used if the 500M is programmed as a *Remote System*.	0	0 - 511

What is an *Alarm Group*?

An alarm group is the central point in the alarm handling where the general alarm strategy is decided. Up to eight alarm groups can be defined meaning that up to eight independent alarm handling systems can be implemented.

This feature can be used to sort the alarms in logical groups; i.e. perimeter alarms in one alarm group, access control alarms in another group, fire alarms in a third group etc. This is very operator convenient since each operator will only be presented for alarms belonging to his field of responsibility.

Assignment of *Alarm States* to an Alarm Group

To each alarm group is connected one or several *alarm states*. In the alarm states the alarm monitors and other general options are defined; the alarm state is the active part of the alarm handling system - this is where the alarmed pictures are displayed etc. Totally eight alarm states are available; they can all be attached to one alarm group or freely distributed to several alarm groups. The only limitation is that an alarm state can only be used once meaning if all eight alarm states are attached to one group the remaining seven alarm groups are inactive.

How to define in which order the alarms should be processed: *Priority* field

·**LAST:** The newest or last arrived alarm is the most important, meaning that it will be displayed immediately. What happens to any previous arrived alarms are decided in the *Strategy* and *Transfer* fields.

·**FIRST:** The oldest or first alarm arrived is the most important, meaning that it will be displayed until cleared although other alarms arrives. What happens to any later arrived alarms are set in the *Strategy* and *Transfer* fields.

What should happen if several alarms are active simultaneously: *Strategy* field

·**DISABLED:** This alarm group is inactivated; useful if e.g. the perimeter alarms, which are covered by this alarm group, should be disabled, while keeping e.g. the fire alarm group enabled.

·**SEQUENCE:** The alarmed pictures from the multiple alarms will sequence on the alarm monitor(s); if more than one alarm state is attached to the group the sequencing will take place on the monitors belonging to the second state (or last state if more than two states are attached to the group) while the most important alarm will remain on the alarm monitors belonging to the first state. Refer to *Example 1* on the next page.

·**SINGLE:** Only one alarm can be present in each alarm state attached at the same time. If only one alarm state is attached to this alarm group only one alarm will be present in the system; either the **LAST** or the **FIRST** - all other alarms will be ignored. If several alarm states are attached to this group the LAST/FIRST alarm will be moved to the next state. Basically this means that if three states are attached to this alarm group, three alarms can be present in the system simultaneously since each alarm state contains one SINGLE alarm. (*Example 2*)

·**SEVERAL:** Only one alarm is displayed in each alarm state; further alarms are queued hidden behind the most important alarm, the LAST/FIRST alarm. If several alarm states are attached to the group, the queuing will take place in the last alarm state. Refer to *Example 3* on the next page.

What should happen when the alarm is cleared: *Clear control* fields
When an alarm is cleared either manually by an operator or automatically when the alarm is deactivated the *Clear if active* and *Transfer if active* settings decides what happens. When the operator clears an alarm it is always the most important alarm which is cleared, i.e. the alarm displayed in the first state. Also refer to the *Keyboard Setup*, where a keyboard can be assigned to the alarm group for direct resetting of alarms without further key selections.

Clear if active field

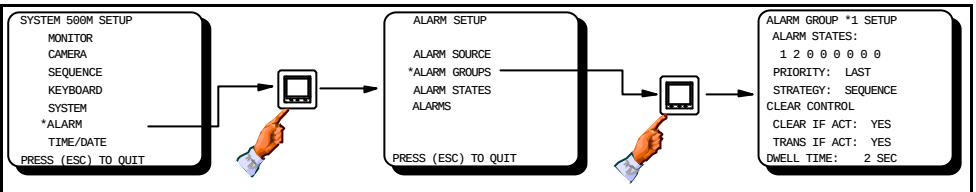
Specifies whether an alarm which is still physically active can be cleared. Depending of the *Transfer alarm* field setting the alarm will either be transferred to the next alarm state, if any, or scrapped. Also it opens the possibility to scroll through an alarm queue using the clear alarm key.

Transfer if active field

Specifies whether an alarm which is still physically active can be transferred to the next state when the alarm is cleared. If *Transfer if active* is set to NO and *Clear if active* is set to YES the alarm will be scrapped.

Note: The *Priority, Clear if active* and *Transfer if active* fields settings are overruled by the individual alarm settings, refer to the *Alarms Setup* section.

Programming of Alarm Group 1 to 8:



Field	Type	Description	Default Value	Valid Entry
Alarm States	Numeric	Set which alarm states should be used in the selected alarm group. ***Note!*** *An alarm group can handle from 1 to 8 alarm states. If no alarm state has been allocated to an alarm group, that group will be disabled.* *The alarm states are activated or used in the order they are located; i.e. the left most state is the First state.* ***Warning!*** *It is not allowed to use the same alarm state in more than one group.*	Alarm State 1 + 2 in Alarm Group 1. No other Alarm States specified	1 - 8
Priority	Choice	Program the general priority level. ***Note!*** *Last = Last alarm arrived has highest priority, First = First alarm highest priority.*	LAST	LAST FIRST
Strategy	Choice	Set the Alarm strategy for the selected group.	Group 1 = SEQUENCE Group 2-8 = DISABLED	DISABLED SEQUENCE SINGLE SEVERAL
Clear if active	Choice	Set if the alarms should be cleared even if the alarms are still physically active. ***Note!*** *This setting will be overruled by the individual alarm settings.*	YES	YES NO
Transfer alarm	Choice	Set if the alarms should be transferred to the next alarm state even if the alarm is still physically active. ***Note!*** *This setting will be overruled by the individual alarm settings.*	YES	YES NO
Alarm dwell time	Numeric	Set the dwell time for alarm sequence. (how long should each alarmed picture be displayed in a sequencing state)	2	1 - 255 (sec.)

Refer to the previous page:

Example 1: If three alarm states are attached to the alarm group and five alarms are active the FIRST/LAST two alarms are displayed on the alarm monitors belonging to the first two alarm states. The pictures from the remaining three alarms are sequencing on the alarm monitors belonging to the last alarm state.

Example 2: If three alarm states are attached to the alarm group and five alarms are active only the FIRST/LAST three alarms are displayed. The remaining two alarms are ignored.

Example 3: If three alarm states are attached to the alarm group and five alarms are active the FIRST/LAST three alarms are displayed on the alarm monitors belonging to the first two alarm states. The pictures from the remaining two alarms are queued in the last alarm state and will be displayed, when the alarms already displayed are cleared.

What is an *Alarm State*?

The alarm state is the active, visible part of the alarm handling defining the alarm monitors, camera station control and VCR control. Eight alarm states are available, each with the possibility of defining up to four alarm monitors.

The alarm states are attached to one or several *alarm groups*.

For each alarm monitor it is possible to have the time and date (**T/D**) displayed automatically.

It is also possible to have a **KEYBOARD** attached to an alarm state for automatic camera control in alarm situations. This is especially convenient in situations where the camera type is one of the Adpro equipment types, i.e. VM12/14, VM30 or VST 10CA and the alarm input is connected to (sourced from) these devices, since the [CLEAR ALARM] function on the 150XM keyboard will reset the alarm condition in the alarmed Adpro unit automatically, too.

Also convenient if the camera type is set to PTZ, since these functions can be accessed immediately without additional key selections.

In case of alarms external equipment can be activated; e.g. a VCR.

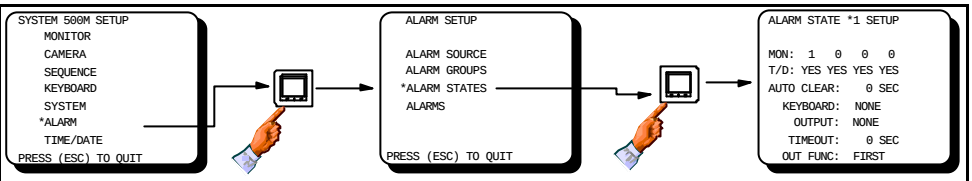
Auto Clear

It is possible to assign an automatic clear alarm time-out for each Alarm State. The time starts when an alarm is received in the Alarm State (displayed on the Alarm Monitor), when the specified time runs out, the system will clear the displayed alarm and the alarm will be handled just as if the [CLEAR ALARM] key was pressed.

This means that the feature with time-out on automatic cleared alarms, is <u>not</u> dedicated to the specific alarm inputs, but to the alarm monitors.

Note: The Auto Clear feature is automatically disabled on monitors where alarm pictures are beeing sequenced.

Programming of Alarm State 1 to 8:



Field	Type	Description	Default Value	Valid Entry
Mon	Numeric	Set which monitors to be used in the different alarm states. ***Note!*** *Up to four monitors can be specified for each alarm state.* ***Warning!*** *It is not possible to allocate the same monitor output to be used in several Alarm States.* ***Warning!*** *It is possible, but not legal, to assign no monitors to an Alarm State that is being used.*	State 1=Monitor 1 State 2=Monitor 2 State 3=Monitor 3 State 4=Monitor 4 State 5=Monitor 5 State 6=Monitor 6 State 7=Monitor 7 State 8=Monitor 8	All monitor ID's
T/D	Choice	Set if the Time and Date function should be displayed on the individual alarm monitors in connexion with alarms.	YES	YES NO
Auto Clear	Numeric	Set the time, in seconds, how long the alarm should be displayed before being cleared.	0 (No time-out)	0 - 255
Keyboard	Choice	Set which keyboard should get camera control on the camera displayed on the first alarm monitor in this alarm state in case of alarm.	NONE	KBD 1 - 6
Output	Choice	Program which output to be activated in case of alarm.	NONE	NONE VCR I (Internal) O/C I (Internal)
Time-out	Numeric	Set how long time the output should be activated. ***Note!*** *0 = follows the alarm, 1 - 255 time in seconds.*	0	0 - 255
Output function	Choice	Set if the output should be activated only by the first alarm in the state, or each time an new alarm is displayed. ***Note!*** *The option **Each** will only work if Time-out is >0.*	FIRST	FIRST EACH

Programming of the individual alarm input settings

The *Alarms Setup* settings are used to specify how each individual alarm should perform with respect to the cameras to be displayed, prepositions to be called, type of alarm contact, priority, alarm text etc.

Alarm text settings

An individual alarm text is available to all alarms; each with 20 alphanumeric characters. Several options are available: **TEXT LINE** is equal to the line number, where line number 9 is the bottom line. Note, that line number 9 is the default camera text line position; this means that if **TEXT LINE** is set to 9 the alarm text will replace the camera text.

In case the alarm inputs e.g. are used as quick camera selects the alarm text can be disabled by setting the **DISPLAY TEXT** to **NO**.

Note: If the Camera ID Text position has been changed from its default value(Bottom Left), the Alarm Text will follow the Camera ID Text, meaning that by default, it will be displayed on the line just above the Camera ID Text.

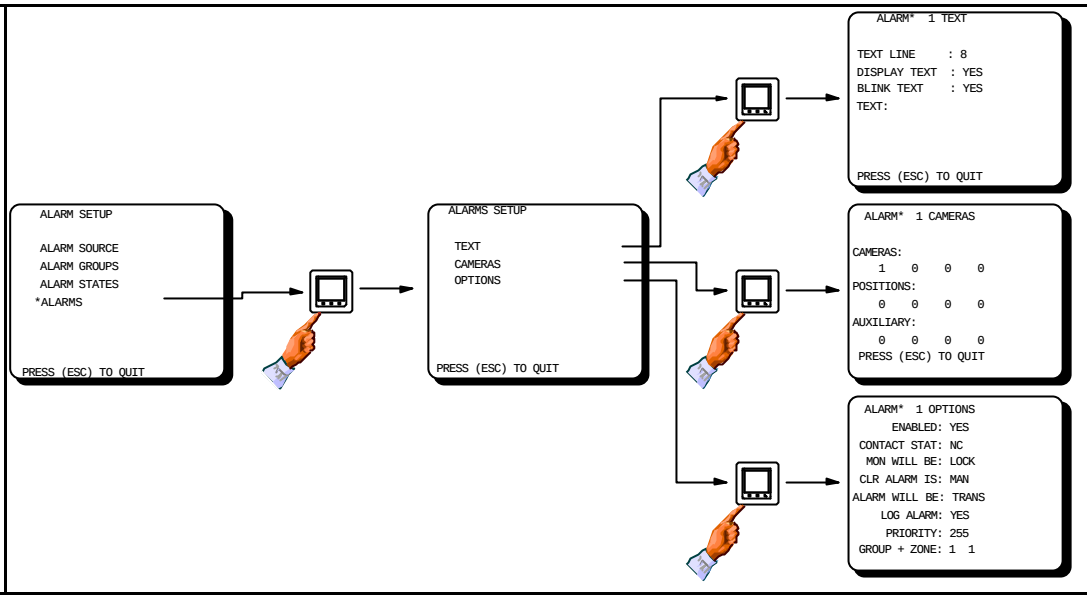
Selecting *Alarm Cameras*

Each alarm can display up to four cameras, call a preposition for each camera, and activate an Auxiliary relay in the Camera Station. If the number of alarm monitors defined under the alarm state is less that the number of alarm cameras only the corresponding number of cameras are displayed.

The leftmost alarm camera will be displayed on the leftmost alarm monitor programmed at the *Alarm State Setup* and so on. If a keyboard is attached to the alarm state it will automatically gain control to the leftmost alarm camera in alarm situations. This is especially convenient in situations where the camera type is one of the Adpro equipment types, i.e. VM12/14, VM30 or VST 10CA and the alarm input is connected to (sourced from) these devices, since the [CLEAR ALARM] function on the 1502M/1503M keyboard will reset the alarm condition in the alarmed Adpro unit automatically, too.

Also convenient if the camera type is set to PTZ, since these functions can be accessed immediately without additional key selections.

Menu Structure:



Programming of Alarm Text:

Field	Type	Description	Default Value	Valid Entry
Text line	Numeric	Set the display position (the line number) of the Alarm text string.	8	1 - 9
Display text	Choice	Set if the Alarm text should be displayed.	YES	YES NO
Blink text	Choice	Set if the alarm text should blink.	YES	YES NO
Alarm text	Text	Program an alarm text of max. 20 alphanumeric characters.	ALARM XXX	

Programming of Alarm Cameras:

Field	Type	Description	Default Value	Valid Entry
Cameras	Numeric	Set which cameras to be displayed in connexion with this alarm. ***Note!*** *Each alarm can call maximum four cameras.*	Alarm 1 = Cam 1, Alarm 2 = Cam 2 etc.	All camera IDs
Prepositions	Numeric	Program a preposition to be called in connexion with alarms. ***Note!*** *Only in connexion with BDR-55X, BDR-575 and ICU*	0	0 - 126
Auxiliary	Numeric	Program an Auxiliary relay to be activated in connexion with alarms. ***Note!*** *Only in connexion with BDR-5XX, BDR-575 and ICU*	0 = NONE	0 - 8

Programming various options for each alarm

The assignment of each alarm to an alarm group takes place here. In addition it is possible for each alarm to program a number of options which only effects the individual alarm.

Enable/Disable

Each alarm can be individually enabled or disabled.

Normally Closed or Normally Open alarm contacts

It is possible to have a mixture of normally closed (**NC**) and normally open contacts (**NO**).

LOCKED or UNLOCKED alarm monitors

It is possible to **LOCK** the alarm monitors in order to prevent the operator from selecting new cameras on alarmed monitors. The **UNLOCK** option is useful when the alarm inputs are used for non-alarm purposes, e.g. as quick camera select inputs. When set as **UNLOCK**, it is possible to override the alarm picture with manual camera selection and camera sequences. When an **UNLOCK** alarm is reset, the alarm picture will stay on the monitor. If an **UNLOCK** alarm is displayed on a monitor where a camera sequence is running, the alarm picture will be inserted in the camera sequence.

Manual or automatic clearing of each alarm

When the *Clear alarm is* field is set to **MAN** the operator will have to clear the manually from the keyboard. If set to **AUTO** the alarmed pictures will be removed automatically when the alarm input is deactivated.

Clearing active alarms

The *Alarm will be* field has influence when the operator clears the alarm while the alarm input is still active. When set to **TRANSFER** the alarm will be transferred to the next state (if any) in the current alarm group. If set to **SCRAPPED** the alarm will be removed from the system although still physically present.

Note: This setting will overrule the corresponding setting in the *Alarm group* setup.

Should the alarm be logged?

It is possible to log information about each alarm on a serial port on which a printer or a computer are connected

Alarm *priority*

The alarms can be prioritised individually; useful if certain fatal alarms should be able to overrule any other alarms already in the system and be presented immediately.

Note: This setting will overrule the corresponding setting in the *Alarm group* setup.

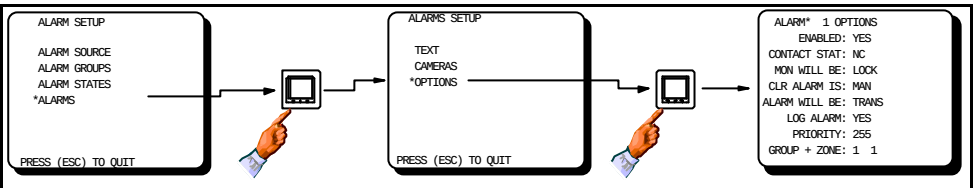
Assignment of each alarm to an alarm group

Specifies which alarm group the alarm belongs to.

Alarm Zones

The alarms can be divided into Alarm Zones, thereby making it possible for the operator to enable/disable a number of alarms that are located in the same Zone. This is done from the *Alarm Status* menu, for further details, please refer to the *SYSTEM 500M User Instruction*. 9 Alarm Zones are available.
It is also possible from the 1502M/1503M to make a macro, that can automatically enable/disable one or more Alarm Zones. For further details, please refer to the *Setup Instruction* for the 150XM keyboards.

Programming of Alarm Option:



Field	Type	Description	Default Value	Valid Entry
Enabled	Choice	Enable the selected alarm?	YES	YES NO
Contact status	Choice	Set if the selected alarm should accept N/C or N/O contacts. ***Note!*** *N/C = Normal Closed contact. N/O = Normal Open contact.*	N/C	NC NO
Monitor will be	Choice	Set if the alarm should lock the monitor(s) to prevent manual camera selection.	LOCK	LOCK UNLCK (=unlock)
Clr alarm is	Choice	Set if the alarm should be cleared manually from the keyboard or automatically.	MAN	MAN AUTO
Alarm will be	Choice	Set if the alarm should be transferred to the next alarm state or scrapped. ***Note!*** *This setting will overrule the ALARM GROUP SETTING.*	TRANS	TRANS SCRAP
Log alarm	Choice	Set if the alarm should be logged to a printer.	YES	YES NO
Priority	Numeric	Set the individual alarm priority. ***Note!*** *This setting will overrule the ALARM GROUP SETTING.* *Priority 1 = Highest priority.*	255	1 - 255
Alarm group	Numeric	Set which alarm group the alarm should be assigned to.	1	1 - 8
Alarm Zone	Numeric	Set which Alarm Zone the alarm should be assigned to. ***Note!*** *The Alarm Zone setting has no influence whatsoever on the way the alarms are handled.* ***Note!*** *Alarm zone 9 is reserved for alarms that are not allowed to be disabled in the Alarm Status menu.*	1	1 - 9

Time/Date

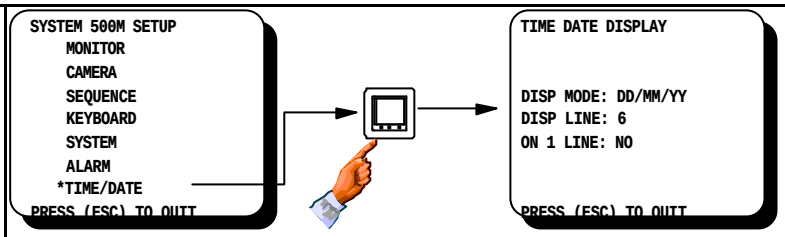
The time/date can for operator convenience be displayed in various ways and positions in order to adjust to local habits.

The time and date itself is set by exiting the setup mode then using the **[ESC]** ® **[T/D]** keys.

The time and date is automatically downloaded and updated to the connected Adpro VMD rack(s) - thereby eliminating separate time and date settings.

Note! If the Camera ID Text has been changed from default (Bottom Left), the position of the Time/Date text will by default be two lines above the Camera ID Text.

Time/Date Setup



Field	Type	Description	Default Value	Valid Entry
Disp Mode	Choice	Select the display mode	DD/MM-YY	DD/MM-YY MM/DD-YY YY-MM-DD YY-DD-MM
Disp Line	Numeric	Specify the line number used for Time/Date. ***Note!*** *If "ON 1 LINE"* is set to NO, the highest number is 8	6	1 - 9
On 1 Line	Choice	Display the Time and Date information on one line?	NO	YES NO

Keyboard 1500M/1501M set-up

When using external keyboard(s) in an installation, it is important to check the factory programmed default settings for the keyboards before use and programming to avoid conflict or dead-lock situations like several keyboards having the same address.

Beeper

The beeper in the keyboard is used to indicate right key entries in connection with set-up.

If the entries are wrong nothing will happen, and you can try again.
If all entries are correct a long high tone is played, and the keyboard resets automatically.

Keyboard 1500M/1501M Setup

Refer to the figure for the set-up menu structure of the 1500M/1501M keyboard.
If several parameters should be changed it is necessary to start from the beginning with each parameter, by pressing the ESC and MENU keys at the same time, and entering the password.
The default password is 0000(four times zero).

Default settings

The default settings are indicated with an '*****' on the next page.

Change the keyboard type

- Press the key **1** to change the keyboard type.
- Press **1** to set the keyboard for **Direct Camera Contro**l, press **2** to set the keyboard for **System Control**.

Change of keyboard address

- Press the key **2** to change the **keyboard address**, press a number between **3** and **6** indicating the new **keyboard address**.

Change the baud rate

- Press the key **3** to change the **baud rate** setting.
- Press the keys **1**, **2**, **3**, **4** or **5** in order to set the new **baud rate**.

Change the interface type

- Press the key **4** to change the **interface** type.
- Press the key **1** to set RS232 **interface**, press **2** to set the interface for RS485.

Change the function of the AUX relays

- Press the key **5** to change the function of the **AUX relays**.
- Press **1** for latched function, press **2** for un-latched function.

Change the password

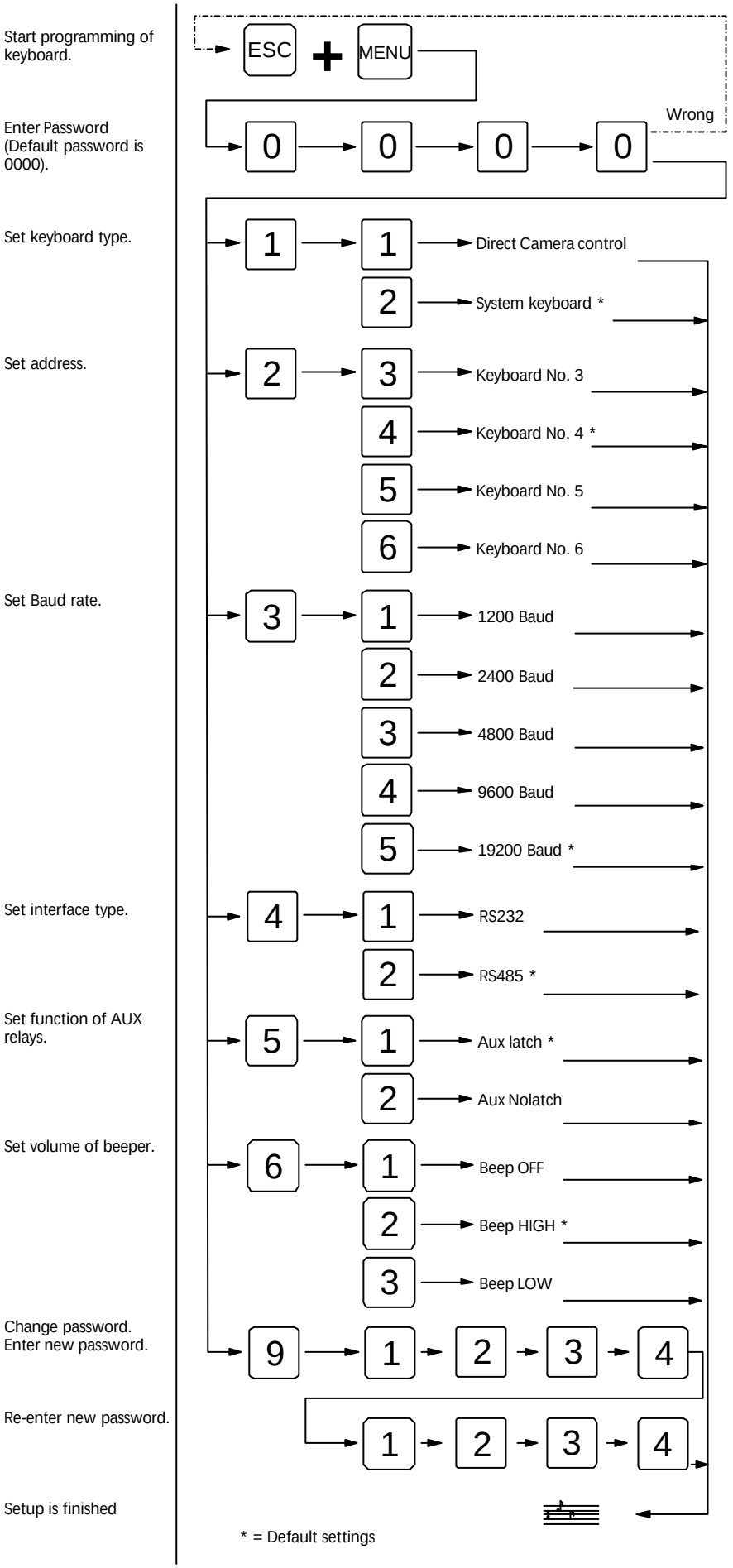
- Press the key **9** to change the **password**, and enter the new **password** (4 digits).
- Re-enter the new **password**.

Quick set-up

The basic settings of the keyboards 1500M/1501M can easily be set up, by pressing the following keys during power ON of the keyboard.

ESC + **0**: Direct Camera Control - RS485 - 2400 baud
ESC + **2**: System Keyboard - RS232 - 19200 baud - Keyboard no. 2/3
ESC + **3**: System Keyboard - RS485 - 19200 baud - Keyboard no. 3
ESC + **4**: System Keyboard - RS485 - 19200 baud - Keyboard no. 4
ESC + **5**: System Keyboard - RS485 - 19200 baud - Keyboard no. 5
ESC + **6**: System Keyboard - RS485 - 19200 baud - Keyboard no. 6

The rest of the settings are not affected by the above.


Start programming of keyboard.
ESC
+
MENU
Enter Password (Default password is 0000).
Wrong
0
0
0
0
Set keyboard type.
1
1
Direct Camera control
2
System keyboard *
Set address.
2
3
Keyboard No. 3
4
Keyboard No. 4 *
5
Keyboard No. 5
6
Keyboard No. 6
Set Baud rate.
3
1
1200 Baud
2
2400 Baud
3
4800 Baud
4
9600 Baud
5
19200 Baud *
Set interface type.
4
1
RS232
2
RS485 *
Set function of AUX relays.
5
1
Aux latch *
2
Aux Nolatch
Set volume of beeper.
6
1
Beep OFF
2
Beep HIGH *
3
Beep LOW
Change password. Enter new password.
9
1
2
3
4
Re-enter new password.
1
2
3
4
Setup is finished
* = Default settings

Keyboard 1502M/1503M set-up

In order to start programming press the **ESC** and **MENU** keys at the same time and enter the password (4 digits). The default password is 0000.
In order to exit programming press the ESC key, and the keyboard will automatically be rebooted in order to activate the new setting(s).

Default settings

The main default settings are factory programmed as follows:

- Keyboard type: System keyboard
- Communication: ARC NET
- Address : 4
- Baud rate: 312,50 Kbs
- Password: 0000

Change keyboard type

- Press the key **F4** to toggle between the keyboard types.

Change communication media

- Press the key **F6** to toggle between **ARC NET** - **RS232** - **RS485**

Set baud rate

- Press the **F7** key to toggle between the valid baud rates.

Change of keyboard address

- Press the **F9** key to get to the **Kdb.No** menu.
- Press the **F4** key to toggle between the valid keyboard numbers.

Set the function of the AUX keys

- Press the **F9** key to get to the **AUX** menu.
- Press the **F6** key to toggle between **Latch/No Latch** function.

Change the password

- Press the **F9** key to get to the **Change Password** menu.
- Enter the new password (4 digits).
- Re-enter the new password.

Set the volume of the key-press beeper

- Press the **F9** key to get the **Beep** menu.
- Press the **F4** key to toggle between **HIGH** - **LOW** - **OFF**.

Start programming of keyboard

Enter Password (Default password is 0000)

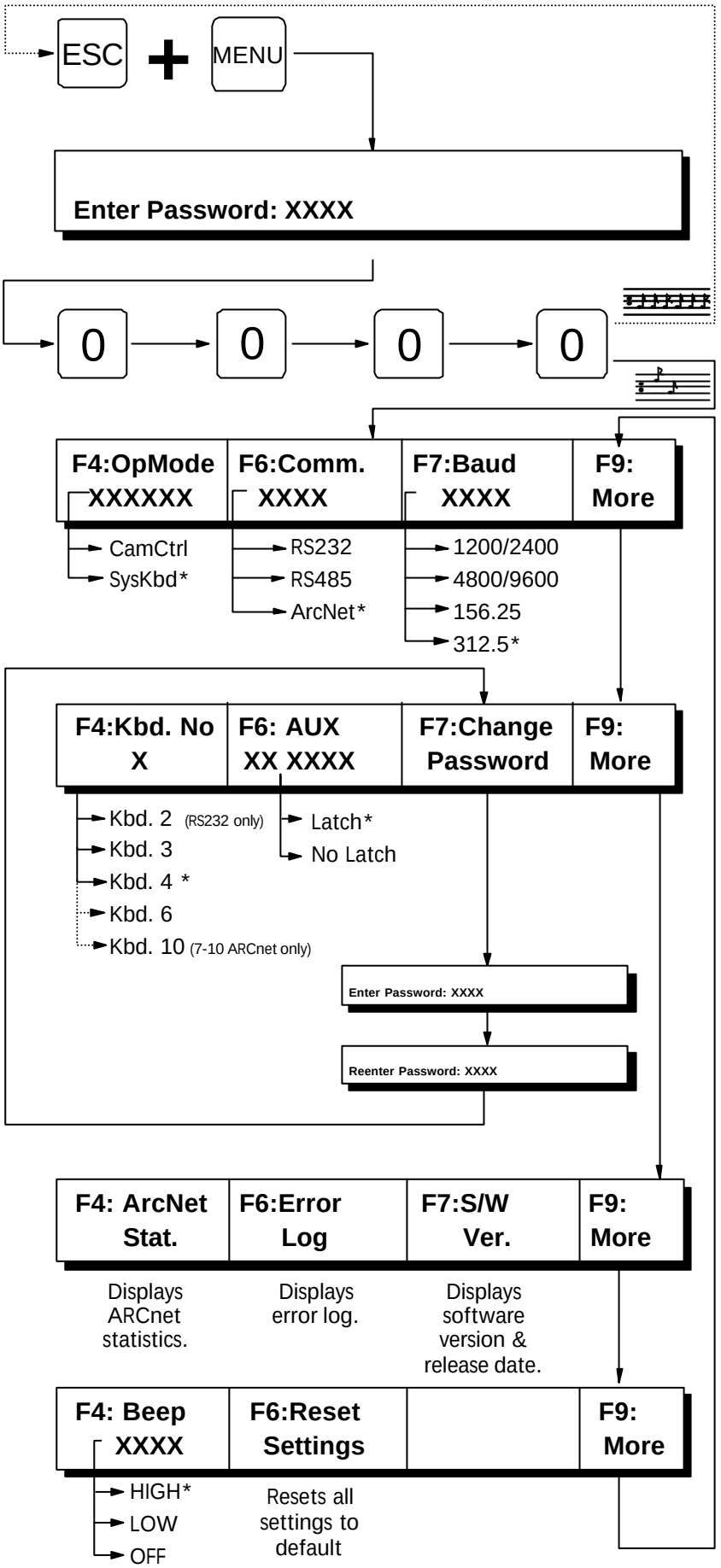
Select keyboard type, Baud rate and communication

Set keyboard address. Set Function of AUX relays in BDR-5XX/ICU Change password.

Service menu only

* = Default setting

Set beeper tone. Reset keyboard settings to default (marked with an *)



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Macro Recording

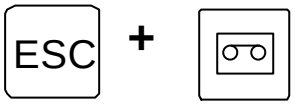
Each 1502M and 1503M can individually record a number of macros consisting of a number of keystrokes. Each keyboard has its own set of macros.
Each keyboard can store 100 macros each consisting of up to 80 keystrokes.
The macro recording is made while the keyboard is on-line to the matrix in order to supervise the result of the macro. It is possible to enter the set-up system and change system settings from macros; convenient in connexion with change of guards, day/night settings or equivalent.

Note: Since the macros are programmed and stored in the keyboards all user- and programming messages during the macro recording are shown in the keyboard display only.

Warning: In each macro only **one** Adpro command can be included; e.g. one channel select or equivalent.

Start recording a macro

In order to initiate the recording of a macro:



Starts recording of a macro.

Press, and hold, ESC while pressing MACRO

```
Recording MACRO. Press <MACRO> to stop.
```

During recording the following message is shown in the keyboard display:

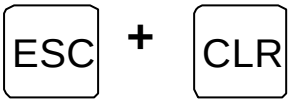
Recording keystrokes
The keystrokes are entered while the keyboard is on-line to system in order to simultaneously see the effect of each keystroke. The keystrokes are also shown in the keyboard display.

When the macro is full the following message is shown in the keyboard display:

```
Warning Macro full!
```

Deleting Keystrokes

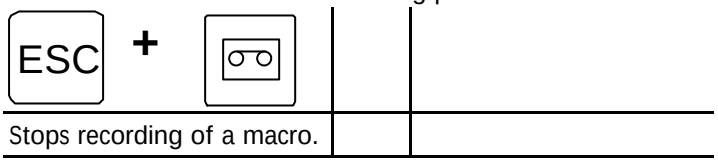
In order to delete the last keystroke during the macro recording:



Deletes the last keystroke.
Press, and hold, ESC while deleting with CLR.

End the current macro recording

In order to finish the current macro recording press:



Press, and hold, ESC while pressing MACRO

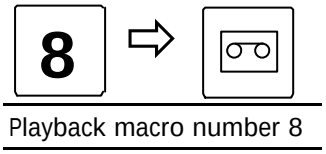
The following message is shown in the keyboard display:

Enter a number to be assigned to this macro in the range of 1 to 100 and confirm by pressing the MACRO key. If the ESC-key is depressed the programmed key strokes will be scrapped.

```
Assign MACRO key no, or press <ESC> to QUIT
```

Macro playback

In order to playback a macro:



Press, and release, '8' followed by MACRO

If no macro has been assigned to the selected number, the following message is shown in the keyboard display:

```
Macro empty.
```

Deleting a macro

In order to delete a previously programmed macro, simply make a new macro with no keystrokes programmed; i.e. start recording and immediately afterwards finish the macro recording again. Finally assign this empty macro to the macro number you wish to delete.

Programming the ICU, BDR-55X & BDR-575 Camera Station

Using the Series 1500M external keyboards

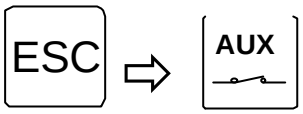
Save preposition

To save preposition number 3, press:

Save preposition number 3

Display preposition sequence stack

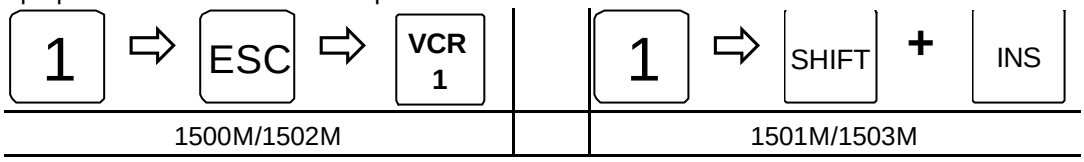
To display the sequence stack stored in the camera station currently being controlled(only BDR-55X):



Display preposition sequence stack

Insert a preposition in the sequence stack

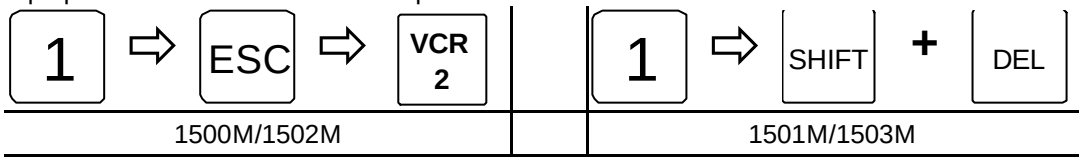
To insert preposition number 1 in the sequence stack stored in the camera station:



Insert preposition number 1 in the sequence stack

Delete a preposition from the sequence stack

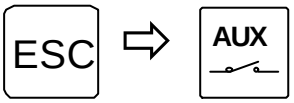
To delete preposition number 1 from the sequence stack stored in the camera station:



Delete preposition number 1 from the sequence stack

Clear the preposition sequence stack

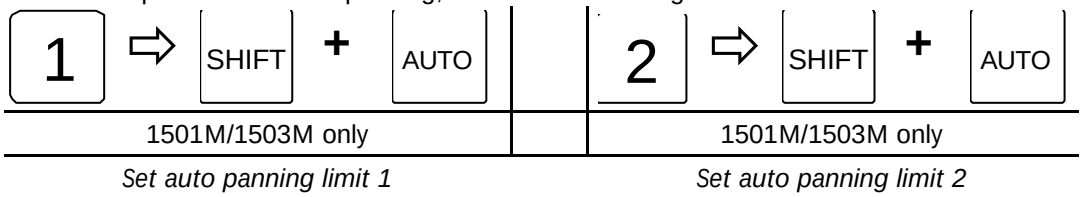
Clear the preposition sequence stack stored in the camera station currently being controlled:



Clear the preposition sequence stack

Set Auto panning limits (only ICU & BDR-575)

To set the two limit positions for auto panning, for the camera being controlled:



Set auto panning limit 1 *Set auto panning limit 2*

Programming the ICU, BDR-55X & BDR-575 Camera Station

Using the internal front panel keyboard.

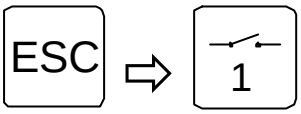
Save preposition

To save preposition number 3, press:

Save preposition number 3

Display preposition sequence stack

To display the sequence stack stored in the camera station currently being controlled(only BDR-55X):



Display preposition sequence stack

Insert a preposition in the sequence stack

To insert preposition number 1 in the sequence stack stored in the camera station:

Insert preposition number 1 in the sequence stack

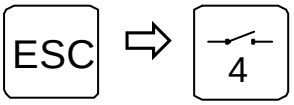
Delete a preposition from the sequence stack

To delete preposition number 1 from the sequence stack stored in the camera station:

Delete preposition number 1 in the sequence stack

Clear the preposition sequence stack

Clear the preposition sequence stack stored in the camera station currently being controlled:



Clear the preposition sequence stack

Appendix

Figure A-1: Key numbers on the 1500M keyboard.
Figure A-2: Key numbers on the 1501M keyboard.
Figure A-3: Key numbers on the 1502M keyboard.
Figure A-4: Key numbers on the 1503M keyboard.

The key numbers are used, when the operator should be restricted to use only a limited number of the keys available on his keyboard, *please refer to page 19 for further information.*