



USER MANUAL

MULTISPORT SCOREBOARDS

Ver. 3.65

NAUTRONIC
SCOREBOARD SYSTEM



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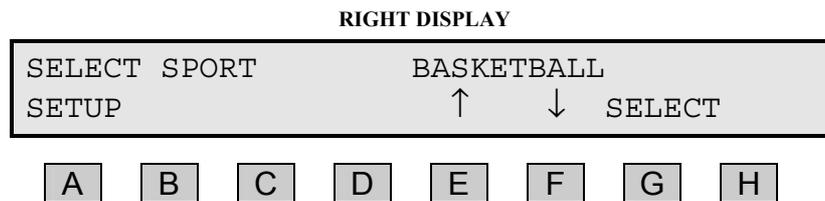
When the console is connected

When connecting the console the menu will start in the last sport that was selected or in the default sport. Ref. 2.1

To get to the main menu, press **B**, EXIT.

1. Main menu

The main menu shows the clock in the board and in the console (left display).



SETUP: **A** exits to the setup menu.

Choice of sport: Press **E** or **F** to select between the various sport activities.

With **ENTER** or **G** the sport activity is selected.

The selected sport activity is shown in the display, and is marked with a LED indicating the selected activity.

The following sport activities are available:

- Handball
- Basketball
- Volleyball
- Tennis
- Icehockey
- Waterpolo
- Floorball
- Minihockey
- Futsal

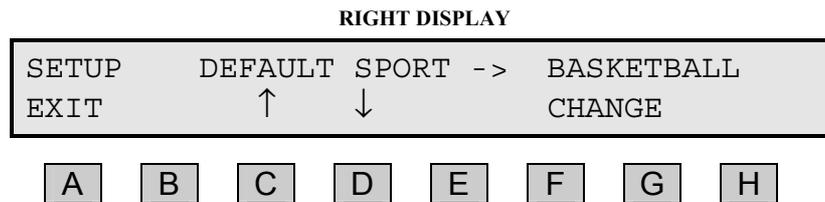


2. Setup

2.1.1 How to get to the setup menu

When you are in the following menu –

- 1) Sport menu: Press the two **MASTER** **RESET** simultaneously.
Next press **B** (EXIT) to go to the main menu.
- 2) Main menu (Sport selection): Press **A** (SETUP) to go to the setup menu.



EXIT: Press **A** to return to the main menu.
The changes are automatically saved!

Use **C** or **D** to choose between the following options in the menu:

Default sport

Selection of default sport activity when starting the system..
The default sport activity can be changed by pressing **F** or **G**.

Service menu

The service menu is for authorised personnel who know the access code.
The service menu is described in details at ref. 11.

Language

Use **F** or **G** to choose between the following languages:
English, Danish, German, Swedish, Finnish, Turkish, Dutch,
French, Russian, Spanish, Latvian and Portugese.

Set board on-time

This period of time the clock on the scoreboard is turned on.
Before and after this time period, the scoreboard if off.
Press **F** or **G** to change the period of time.

The period of time is indicated in hours.

Ex.: 10 a.m. - 12 p.m. (10 - 24 -the scoreboard is switched on during this period)

The period of time is registered on the numeric keyboard.

To delete the last indicated figure press **CLEAR** .

Accept with **ENTER** or cancel changing time with **MENU** .

Hint!

Time of day clock is always off : 00 – 00.

Time of day clock is always on : 00 – 24.

Note: The lifetime of LED's are increased by limiting the time the clock is on.

There is no reason to have the scoreboard turned on longer than necessary.

**Set clock**

Press **F** or **G** to set the clock.

The time is entered on the numeric keyboard.

With **CLEAR** the last typed figure is erased.

Accept with **ENTER** or cancel setting the clock with **MENU** .

Clock module:

If a radio controlled NT240 clock module is installed on the NauNet the 24-hour clock will be automatically controlled by the clock module.



3. Handball setup menu

RIGHT DISPLAY

HANDBALL	SUB	#	30:00	TIME	HORN
SAVE	EXIT	MENU	OFF	TIME	UP
					AUTO

A **B** **C** **D** **E** **F** **G** **H**

Game menu: Press **MENU** or start the game time to go to the game menu.

SAVE: Press **A** to save changes.
(Save setup)

EXIT: Press **B** to return to main menu.
(Main menu) Is only available if the game is not yet started.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT !

SUB MENU: Press **C** to go to the sub menu.
The player numbers and the team names can be changed in the sub menu.
Ref. 3.1.1

#: Press **D** to enable (ON) or disable (OFF) player numbers.
Player numbers (on/off) If player numbers are disabled, then you are not asked to type in a player number after a score or penalty.

TIME: First press **STOP** then **E** to change the time of the game.
(Changing time of game) If match is running, it is the running time that can be changed.
Time is set with the numeric pads.
With **CLEAR** the last typed number is erased.
Accept with **ENTER** or cancel changing the time with **MENU** .

UP: Press **G** to select whether the time counts upwards or downwards.
(count up / down)

AUTO: Press **H** to change between automatic or manual horn.
(Horn)



3.1.1 Handball setup sub menu

RIGHT DISPLAY					
SUB MENU	TEAMNAME	PLAYERS			
EXIT ROLL	H G	H	G	H	G

EXIT: Press or to return to the handball setup menu.

ROLL: If there only is a team text display in the board, the team setup (player names) is scrolled in the display.
Press to scroll or stop the team setup.

TEAMNAME: Press or to change the name of **H**ome or **G**uest team.
Change name; ref. 9.1

TeamColor: Press or to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.

PLAYERS: Press or to change **H**ome or **G**uest player names and numbers.
(No. + Name) Change players; ref. 9.2



3.1.2 Handball play menu

RIGHT DISPLAY

PENALTIES:	2:00	2:00	PER	TIME-OUT	0:00
H CARD G	H/1	G/3	1	H/1	G/2 ÷

A **B** **C** **D** **E** **F** **G** **H**

Setup-menu: Press **MENU** to enter the setup-menu.

CARD: The menu is only available if the sideboards are ON..
 Press **A** or **B** to grant a Home or Guest player a red or yellow card. (please see ref. 3.2.1)
 Press **H** before **A** or **B** to cancel granting a card to a player.

RIGHT DISPLAY

PENALTIES=	2:00	2:00	PER	TIME-OUT	0:00
+ 2 min	H/1	G/3	1	H/1	G/2 ÷

A **B** **C** **D** **E** **F** **G** **H**

Setup-menu: Press **MENU** to enter the setup-menu.

PENALTY: Press **C** or **D** to grant Home or Guests a penalty. (2 min.)
 Press **H** before **C** or **D** to cancel a penalty.
 To grant an additional 2 min. penalty to a player press **A** or **B** followed by **C** or **D** for Home or Guests. Choose which of the up to 3 players with a penalty who will be granted the additional 2 min by pressing **D**, **F** or **H** (see illustration below).
 Press **A** or Menu (Exit) to return to the play-menu, if neither is pressed it will automatically return to the play-menu after 15 seconds.
 Number of penalties is showed in the display (H/x or G/x) and as dots on the scoreboard. The shortest penalty is shown in the display and in some versions also in the middle section of the board.

RIGHT DISPLAY

HOME PENALTY:	1:58	1:34	0:35
Exit	+ 2:00	+ 2 min	+ 2 min

A **B** **C** **D** **E** **F** **G** **H**

PER: Press **E** to go to next period.
 (Period) Press **H** before **E** to go to the previous period. The period is automatically counted upwards, as the time runs out, and the reset button is activated.



- TIME-OUT:** Press **F** or **G** to start a time-out for either **H**ome or **G**uests. (1 min.)
 Press **H** before **F** or **G** to cancel a time out. By pressing **STOP** the time-out period stops without starting the match time.
 By pressing **START** the time-out period stops and the match time starts.
 Number of time-outs is shown in the display (H/x or G/x) and in the middle section of the board.
 When the game time has run out the number of time-outs is being reset when the **RESET** button is activated. The time-out time is shown in the display over ÷ and in the middle section - or instead of the remaining match time.
 The horn sounds when 10 sec. left of the time out.
- + :** When **H** is pressed the keys from **C** to **G** work as a minus-function. The ÷ in the display is flashing, as long as the minus-function is activated. If a key is not pressed within 10 sec. the minus-function is de-activated.

Match time:	The match time is started and stopped with START and STOP . If the time is stopped it may be reset with RESET . If time is stopped during a period then press RESET 2-3 seconds to reset time.
Points:	With + and - , the points in the left hand side of the console is adjustable (both up & down). The points in the board is updated when RESULT is activated. The LED over RESULT is illuminated when the points in the console are different from the points on the board.
Reset match:	Press the two MASTER RESET simultaneously to reset the results and the time.
Horn:	By pressing HORN the horn signals. When selecting automatic horn, the horn signals when the match time ends.

3.1.3 Handball – Granting a card

RIGHT DISPLAY

HOME	PLAYER	FOUL						
SELECT	CARD:					YEL	RED	

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

- Select card:** Press **G** to grant a yellow card.
 Press **H** to grant a red card.

RIGHT DISPLAY

HOME	PLAYER	FOUL	CARD:	YEL/RED			
TYPE	PLAYER	NUMBER:	xx		FOUL:	x	

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

- Select player:** Type player number on control consoles numeric keys.
 Finish by pressing **ENTER** to grant a card to a player.
 Finish by pressing **MENU** to return without granting a card.



4. Basketball setup menu

RIGHT DISPLAY

BASKETBALL	SUB	#	20:00	S.CLK	TIME	HORN	
SAVE	EXIT	MENU	ON	TIME	24	UP	AUTO

[A] [B] [C] [D] [E] [F] [G] [H]

GAME MENU:

With **[MENU]** or by starting the match time the game menu occurs.

SAVE:

(Save setup)

Press **[A]** to save changed data.

EXIT:

(Main menu)

Press **[B]** to return to main menu (select sport).

Is only accepted if a match is not running.

Possible error message: MATCH IS RUNNING...

PRESS MASTER RESET BEFORE EXIT !

SUB

MENU:

Press **[C]** to go to sub menu.

Player numbers, team names, max. player fouls and max. team fouls can be changed in the sub menu; ref. 4.1.1

#:

Player numbers (on/off)

Press **[D]** to enable (ON) or disable (OFF) player numbers.

If player numbers are disabled, then you are not asked to type in a player number after a score or penalty.

(This menu point will only be available if it is possible to show player no. in the scoreboard)

TIME:

(Change match time)

Press **[E]** to change match time.

If match is running, then it is the running time that can be changed.

Type new time on the numeric keyboard.

Press **[CLEAR]** to delete last typed number.

Press **[ENTER]** to accept or press **[MENU]** to return without changes.

S.CLK:

(Change Shot Clock)

Press **[F]** to change "Shot Clock" time.

If match time has not been running, then "Shot Clock" pre-set time is changed.

Else "Shot Clock" start time is only adjusted for the next count down.

Type time in seconds on the numeric keypad.

Press **[CLEAR]** to delete last typed number.

Press **[ENTER]** to accept or press **[MENU]** to return without changes.

UP:

(Up/down count)

Press **[G]** to change between counting up or down in the match time.

AUTO:

(Horn)

Press **[H]** to change between automatic or manual horn signal.



4.1.1 Basketball setup sub menu

RIGHT DISPLAY

SUB MENU	TEAMNAME	PLAYERS	PLAY. TEAM
EXIT ROLL	H G	H G	5 FOUL 8

A **B** **C** **D** **E** **F** **G** **H**

EXIT: Press **A** or **MENU** to return to basketball setup menu.

ROLL: If there only is a team text display in the board, the team setup (player names) is scrolled in the display.
Press **B** to scroll or stop the team setup.

TEAMNAME: Press **C** or **D** to change the name of **H**ome or **G**uest team.
Change name; ref. 9.1

TeamColor: Press **C** or **D** to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.

PLAYERS: Press **E** or **F** to change **H**ome or **G**uest player names and numbers.
(No. + Name) Change players; ref. 9.2

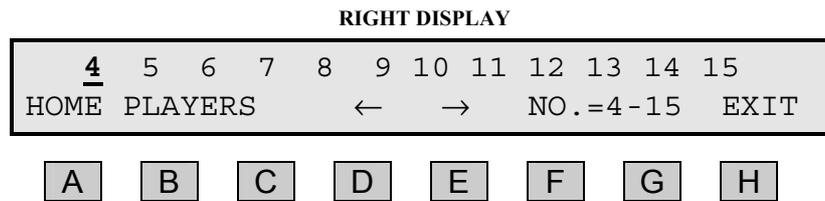
NO.: Only available if no text displays are installed and individual player numbers are installed in sideboards.
(Player numbers) Press **E** or **F** to register player numbers of **H**ome or **G**uest team.
How to register player numbers; ref. 4.1.2

PLAY. FOUL: Press **G** to change maximum player fouls. (5 or 6)
(Max. player fouls) Changes are activated when exiting sub menu.

TEAM FOUL: Press **H** to change maximum team fouls. (5, 6, 7, 8 or 9)
(Max. team fouls) Changes are activated when exiting sub menu.



4.1.2 Registration of player numbers.



The cursor flashes in front of the player number which may be changed.

The number is registered on the numeric keys (0-99).

Press **ENTER** to accept, then move on to next number (to the right).

If the number already is in use the second appearance is set to 0.

The number 0 is not shown in the board.

- ←: Press **D** to accept the number and return to the last typed player number (to the left).
- : Press **E** to accept the number and move on to the next player number (to the right).
- NO.=4-15:** Press **F** or **G** to set player numbers for 4-15.
- EXIT:** Press **H** or **MENU** to return to the setup sub menu and update player numbers in the side boards.



4.1.3 Basketball play menu

RIGHT DISPLAY

POS	EDIT	PLAY	FOULS	PER	TIME-OUT	0:00
---	SCORE	H/1	G/3	1	H/1 G/2	÷

A **B** **C** **D** **E** **F** **G** **H**

Setup menu: To select the setup menu press **MENU**.

POS: Press **A** to change ball possession for throw-in to Home or Guest team. If short time between pressing the **A**, the POS will change in sequence Home, Blank, Guest, Blank, Home etc. If pausing for more than 4 secs. The sequence is Home, Guest, Home etc.

Edit

Score: Press **B** to change the score of a home or guest player.
(Change player score) How to change score; ref. section 4.2.1
Not available if side console is connected and board has individual player score. Ref. 4.3

PLAY.FOULS: Press **C** or **D** to give Home or Guest player one foul.
(Player fouls) Press **H** before **C** or **D** to cancel one Home or Guest player foul.
No. of team fouls is shown in the display and in the middle section on the board.
Not available if side console is connected. Ref. 4.3

With NS265 and soft dip setup 00016:

If team fouls are equal with the max. team fouls (5 to 9)-1, i.g. 4-8, the number above **C** or **D** start to flash and the console-buzzer sounds for approx. 1sec.
Press **C** or **D** for switch the red dot of NS265 ON or OFF of the Home or Guest team.

PER: Press **E** to increase period number.
(Period) Press **H** before **E** to decrease period number.
The period is automatically increased, when time runs out and the reset button is activated.

TIME-OUT: Press **F** or **G** to start Home or Guest time out. (1 min.)
Press **H** before **F** or **G** to cancel one time out.
Press **STOP** to stop time out without starting match time.
Press **START** to stop time out and start match time. Number of time outs is shown in the display and as dots on the board. Number of time outs is reset when match time runs out and reset is pressed. The time out time is shown in the display above ÷ and in the middle section of the board or instead of the match time. The horn sounds when 10 sec. left of the time out.

÷ : When **H** is pressed, then **C** to **G** keys function as a minus operation. The ÷ is flashing in the display, as long the minus operation is active. If no key is pressed within 10 sec. then the minus operation is de-activated.



Match time:	Match time is started and stopped with START and STOP . If time is stopped, then press RESET to reset the time. If time is stopped during a period then press RESET 2-3 seconds to reset time.
Point:	Press + or - to increase or decrease the points in the control console. The LED dot above RESULT is on, when the points in the console are different from the points shown on the board. The points in the board are updated by pressing RESULT . If board has individual player score, then type the number of the player who scored with the numeric keypad and accept with ENTER . If side console is connected and board has individual player score, then score has to be given in the side console. Ref. 4.3
Reset match:	Press both MASTER RESET to reset time and the result.
Horn:	Press 🔊 to signal with horn. If automatic horn is selected, the horn signals when match time run out.

4.1.4 Change player score

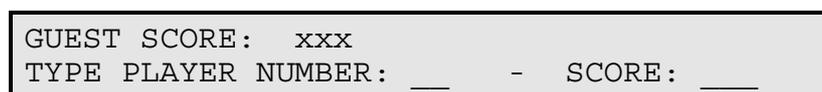
RIGHT DISPLAY



EXIT: Press **A** or **MENU** to return to basketball setup-menu.

Edit Score: Press **G** or **H** to change player score for Guest or Home team.

RIGHT DISPLAY



Select player: Type player number on the numeric keypad. (4-15)
The actual score of the player is shown just after; "SCORE: ___".
Press **CLEAR** to delete last typed number.
Press **ENTER** to select which player score to change.
Press **MENU** to return without changes.

Change score: Type the new score of the selected player on the numeric keypad.
The value can be between 0 and a value that not make the total team score exceed 199.
Press **ENTER** to change score and return to select a player.
Press **MENU** to return to select a player without changes of score.

More changes: More changes can be made and the total change of the team score in relation to the score on the board, is shown beside "GUEST SCORE:" in the display.

Accept changes: Press **RESULT** to accept all changes and return. The board is then updated.



4.2 Side console for player fouls and scores

DISPLAY																										
GUEST			4 :xx	6 :xx	8 :xx	10 :xx	12 :xx	14 :xx																		
SCORE			5 :xx	7 :xx	9 :xx	11 :xx	13 :xx	15 :xx																		
FOUL			SCORE			TEAM			FOUL			SCORE			TEAM											
4			5			6			÷			4			5			6								
7			8			9			H			1			G			7			8			9		
10			11			12			2			10			11			12								
13			14			15			3			13			14			15								

Buttons at consoles left side are home players, and right side are guest players.

Player numbers for home or guest team are shown in display.

xx in display tells how many fouls or scores each player has on guest or home team.

Give foul: Press a number (**4-15**) to give one player foul.
Then board is updated and team which is given a foul is shown in display (Player fouls).
Press  before number to cancel one player foul.

Give score: Press score count (**1-3**) and then press the number of the player (**4-15**).
Then board is updated and team which is given a score is shown in display (Player scores).
Press  before score count to decrease player score.
If board has not individual player score then score has to be given in the main console.

FOUL: Press **FOUL** to see player fouls for home or guest team.

SCORE: Press **SCORE** to see player scores for home or guest team.

TEAM: Press **TEAM** to see total scores and fouls for home or guest team.

DISPLAY	
HOME	TOTAL SCORES : XXX
TEAM	TOTAL FOULS : XX

RESET: Side console resets when Master Reset is pressed in main console.



5. Volleyball setup menu

RIGHT DISPLAY

VOLLEYBALL	TEAMNAME	T.TO.	RULES	HORN
SAVE EXIT	H	G	AUTO	INTERNAT. AUTO

A **B** **C** **D** **E** **F** **G** **H**

Play menu: Press **MENU** or give points to go to play menu.

SAVE: Press **A** to save the adjusted data.
(Save adjustments)

EXIT: Press **B** to return to main menu.
(Main menu) Is only accepted if match is not running.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT !

NAME: Press **C** or **D** to change the name of **H**ome- or **G**uest team.
(Team name) Change name ref. 9.1

TeamColor: Press **C** or **D** to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.

T.TO.: Press **E** to change between automatic or manual technical time out.
If automatic technical time out is chosen, then time out is started at 8 and 16 points in the 1., 2., 3. and 4. set.
Change the tech. timeout time: see section 11. Service menu.

INTERNAT.: Press **F** or **G** choose between international rules or Danish elite-series rules.
(Rules)

AUTO: Press **H** to change between automatic or manual time-out horn.
(Horn)



5.1.1 Volleyball play menu

RIGHT DISPLAY							
SERVE	SET	SUB	TECH.	TIME-OUT	0:00		
H	H/1	G/3	MENU	0	H/G	G/1	÷
A	B	C	D	E	F	G	H

Setup menu: Press **MENU** to go to setup menu.

SERVE: To change serve indication press **A** (H or G), and it shows on the board with a dash (-). Serve indication automatically changes to the team who won the last point.

SET: Press **B** or **C** to count sets for home or guests. Is only possible if the present team lead by points. By counting the sets the points are being reset. Press **H** before **B** or **C** to cancel the last set. By cancelling the set, the points stays the same as in the previous set.

SUB MENU: Press **D** to go to the substitution menu for home or guest team. Exit sub menu by pressing **A**.

Press **B** or **C** in the sub menu to count-up the no. of substitutions. When **H** is pressed first, pressing **B** or **C** works as minus-function. The ÷ flashes, as long as the minus function is active. If no key is pressed for 10 sec. the minus function is deactivated.

TECH.: Press **E** to start a technical time out. Press **H** before **E** to subtract (cancel) one technical time out.

TIME-OUT: Press **F** or **G** to start Home or Guest time out. (30 sec.) Press **H** before **F** or **G** to subtract (cancel) one time out. Press **STOP** or **START** to stop a time-out. Number of time outs is shown in display (H/x or G/x) and as dots on the scoreboard. Number of time outs is reset when match time runs out and reset is activated. The time out time is shown in the display above ÷ and in the middle section of the board or instead of the match time. If automatic horn has been selected the horn signals when time runs out.

÷ : Press **H** to activate minus function for keys **B** to **C** & **E** til **G**. The ÷ is flashing in the display, as long the minus operation is active. If no key is pressed within 10 sec. the minus operation is de-activated.

Points: With **+** and **-** the points in the left hand side of the console is adjustable - both up- and downwards. The points are updated on the board by pressing **RESULT**. The LED over **RESULT** illuminates, when the points in the console differ from the points on the board. The sets are automatically updated when one team has enough points to win a set according to the international rules. When a set is won, display in console is immediately updated, while scoreboard is updated after 15 seconds or when **RESULT** is activated again.

Reset match: Press **MASTER RESET** simultaneously to reset results.



6. Tennis setup menu

RIGHT DISPLAY

TENNIS	TEAMNAME	TIE-BREAK
SAVE EXIT	H G	AUTO

A **B** **C** **D** **E** **F** **G** **H**

Play menu: Press **MENU** or give points to go to the play menu.

SAVE: Press **A** to save changes.
(Save adjustments)

EXIT: Press **B** to return to main menu.
(Main menu) Is only accepted if match is not running.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT !

TEAMNAME: Press **C** or **D** to change the name of **H**ome- or **G**uest player.
(Team name) Change name ref. 9.1

TeamColor: Press **C** or **D** to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.

TIE-BREAK: with **G** or **H** one changes between automatic and manual tie-break.

When using manual tie-break a choice may occur when the situation appears.
Answer Yes or NO to change.



6.1 Tennis play menu

RIGHT DISPLAY

SERVE	GAMES	SET	H: X	X	X	X	X		
H	H/4	G/3	H/0	G/1	G: X	X	X	X	÷

A **B** **C** **D** **E** **F** **G** **H**

Setup menu: Go to set menu by pressing **MENU**.

SERVE: Select serve indication with **A** (**H** or **G**), which will be shown on the score board with a dash (-).
Serve indication changes automatically after each game.

GAMES: Press **B** or **C** to count **Home** or **Guests** games.
Press **H** before **B** or **C** for count down of games.
The games are updated automatically.

SET: Press **D** or **E** to count set of **Home** or **Guests**.
Press **H** before **D** or **E** to cancel pervious set.
The sets are up-dated automatically and the results of the sets are written over **F** and **G**.

÷ : Press **H** to activate minus function; the keys from **B** to **E** function as a minus operation. The ÷ is flashing in the display, as long as the minus operation is active. If no key is pressed within 10 sec. the minus operation is de-activated.

Points: With **+** and **-** the points in the left hand side of the console is adjustable - both up- and downwards (0-15-30-40-A-G). The points are updated on the board by pressing **RESULT**. The LED over **RESULT** illuminates, when the points in the console are different from the points on the board.
By changing points from 40 or A40 to G (game won) the games are counted automatically.
When one player has won enough games to win the set, the sets are counted and the games are reset after 10 seconds.
If the score is equal 6-6 in games TIE-BREAK is activated if automatic TIE-BREAK is selected.

TIE BREAK: 2 dots are illuminated on the score board to indicate TIE-BREAK.
With **+** and **-** the points in the left hand side of the console are adjustable up- or downwards by 1 point. The points are updated on the board by pressing **RESULT**. The LED over **RESULT** illuminates, when the points in the console are different from the points on the board

Reset match: Press **MASTER RESET** simultaneously to reset both results.



7. Ice hockey / floorball / minihockey setup menu

RIGHT DISPLAY

ICEHOCKEY	TEAMNAME	30:00	15:00	TIME	HORN
SAVE	EXIT	H	G	TIME	BREAK UP
					AUTO

A **B** **C** **D** **E** **F** **G** **H**

- Play menu:** Press **MENU** or start the game to go to the play menu,
- SAVE:** Press **A** to save changes.
(Save adjustments)
- EXIT:** Press **B** to return to main menu.
(Main menu) Is only accepted if match is not running.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT !
- TEAMNAME:** Press **C** or **D** to change the name of **H**ome- or **G**uest team.
(Team name) Change name ref. 9.1
- TeamColor:** Press **C** or **D** to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.
- TIME:** Press **E** to change the time of the game.
(Changing time of game) If match is running, then it is the running time which can be changed.
Time is set with the numeric pads.
With **CLEAR** the last typed number is erased.
Accept with **ENTER** or regret changing the time with **MENU** .
- BREAK:** Press **F** to change break time.
(Change break time) Type new time on the numeric keypad.
Press **CLEAR** to delete last typed number.
Press **ENTER** to accept or press **MENU** to return without changes .
- In minihockey break time is equal to the time between each automatic stop of time and horn signal.
- UP:** With **G** is selected whether the time counts upwards or downwards.
(count up / down)
- AUTO:** With **H** is changed between automatic or manual horn.
(Horn)



7.1.1 Ice hockey / floor ball / mini hockey play menu

RIGHT DISPLAY

PENALTY:	2:00	5:00	PER	TIME-OUT	0:00
EDIT	H:xx	G:xx	1	H/0	G/2 ÷

A **B** **C** **D** **E** **F** **G** **H**

Setup menu: Press **MENU** to go to setup menu.

EDIT Press **A** to edit the value for 2, 5 and 10 minutes penalties

PENALTY: Press **C** or **D** to give **Home** or **Guests** a penalty.
 Press **H** before **C** or **D** to reset the shortest 2 minutes penalty.
 The shortest penalty time is shown in the display and in the middle section of the score board. Furthermore the number of the player with the shortest penalty is shown on the display (**H:xx** and **G:xx**).
 When the penalty runs out the number of the player is flashing on the board.

PER: Press **E** for next period. Press **H** before **E** to go to the previous period.
 (Period) The period is counted automatically upwards, as the time runs out, and the reset button is activated.

TIME-OUT: Press **F** or **G** to start **Home** or **Guest** time out. (30 sec.)
 Press **H** before **F** or **G** to subtract (cancel) one time out.
 Press **STOP** to stop time out without starting match time.
 Press **START** to stop time out and start match time.
 No. of time outs is shown in display (H/x or G/x) and as dots on the board.
 Number of time outs is reset when match time runs out and reset is activated.
 The time out time is shown in the display above ÷ and in the middle section of the board or instead of the match time.
 The horn signals when the time-out time is 0.

÷ : Press **H** to activate minus function; the keys from **C** to **G** functions as minus operation. The ÷ is flashing in the display, as long the minus operation is active. If no key is pressed within 10 sec. the minus operation is deactivated.

Match-/ break time: The time is started and stopped with **START** and **STOP**.
 If the time is stopped it may be reset with **RESET**.
 If time is stopped during a period then press **RESET** 2-3 seconds to reset time.
 When game time stops, the time changes automatically to break-time.

Points: With **+** and **-** the points in the left hand side of the console is adjustable (both up & down). The points in the board is updated when **RESULT** is activated. The LED over **RESULT** is illuminated when the points in the console are different from the points in the board.

Reset match: Press the two **MASTER RESET** simultaneously to reset the results and the time.

Horn: By pressing **☑** the horn signals.
 When selecting automatic horn, the horn signals when the match time ends.



7.1.2 Penalties

RIGHT DISPLAY

HOME PENALTIES:	14:2+2+	85:2+10	54:5+2
TYPE PLAYER NO:	—	37:2+5	03:10

A **B** **C** **D** **E** **F** **G** **H**

Select player: The penalties belonging to the team is shown in the first display line;
 Home Penalties: (Player no. : penalty).
 A + after 2 penalties means the player also has a 10 min. penalty.
 A players number is entered on the numeric keys.
 With **CLEAR** the last typed number is erased.
 Go to registration of penalty time by pressing **ENTER**.
 To return without any changes press **MENU**.

Penalty time:

RIGHT DISPLAY

PLAYER NO.:	xx	ACTUAL PENALTY:	2+5+10
2	5	10	2+2 2+5 2+10 RESET EXIT

A **B** **C** **D** **E** **F** **G** **H**

The number and penalties of the chosen player is shown in the first line.

Registration of penalties:

Press a button from **A** to **F** to activate a penalty.
 In Ice hockey and mini hockey the penalties can be combined other ways.

RESET: Press **G** to reset the penalties of the player.

EXIT: Press **H** or **ENTER** to accept changes and return to play menu.
 Press **MENU** to return without changes.

7.1.3 Reset of 2 min. penalty after score

RIGHT DISPLAY

RESET HOME PENALTY:
14:2 85:2+2 37:2+5

A **B** **C** **D** **E** **F** **G** **H**

When a team scores, it is possible to delete one 2 min. penalty from the opposite team.
 The available players are shown in display above **A**, **C**, **E** and **G**. The player with the shortest penalty time left, is shown to the left in display.
 Press **A**, **C**, **E**, or **G** to reset a 2 min. penalty.
 Press **MENU** to return to play menu without resetting a 2 min. penalty.



7.1.4 Shot statistics

SHOT STATISTICS:

Extra handheld control unit is plugged into the side of the main console.
Press **H**+ or **G**+ every time the Home-team or Guest-team shoots to score.
The number of attempts to score is increased by 1 in the scoreboard.

If pressing in a wrong number the attempts to score can be decreased by 1 by pressing **H**- or **G**-.

Ball possession is not used in ice hockey.



8. Waterpolo setup menu

RIGHT DISPLAY

WATERPOLO	TEAMNAME	8 : 00	2 : 00	TIME	HORN
SAVE	EXIT	H	G	TIME	BREAK DOWN AUTO

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

Play menu: Press **MENU** or give points to go to the play menu.

SAVE: Press **A** to save changes.
(Save adjustments)

EXIT: Press **B** to return to main menu.
(Main menu) Is only accepted if match not running.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT !

TEAMNAME: Press **C** or **D** to change the name of **H**ome- or **G**uest team.
(Team name) Change name ref. 9.1

TeamColor: Press **C** or **D** to change the color of **H**ome or **G**uest team
Only available if no team text display is installed and color marking is installed.

TIME/Break: Press **E** or **F** to change the time of the game and break time.
(Changing time of game and break time) Time is set with the numeric pads.
With **CLEAR** the last typed number is erased.
Accept with **ENTER** or cancel changing the time with **MENU** .

Matchtime for periode 1-4: TIMER1

Matchtime for periode 5-n: TIMER2

Breaktime between 1-2, 3-4, 5-n: BREAK1

Breaktime between 2-3 & 4-5: BREAK2

RIGHT DISPLAY

SET	TIMER1	TIMER2	BREAK1	BREAK2
EXIT	08 : 00	03 : 00	02 : 00	05 : 00

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

Changes are automatically saved as new DEFAULTS.
If match is running, then it is the running time which can be changed.

UP: With **G** is selected whether the time counts upwards or downwards.
(count up / down)

AUTO: Press **H** to choose between automatic or manual horn.
(Horn)



8.1 Waterpolo play menu

RIGHT DISPLAY

PENAL=	0 : 30	PER. 30S	TIME-OUT
ResSC H/0	G/2	1 30	H/0 G/0 ÷

A **B** **C** **D** **E** **F** **G** **H**

Setup menu: Press **MENU** to go to setup menu.

PENALTY: Press **B** or **C** to give **Home** or **Guests** a penalty. (30 sec.)
 Press **H** before **B** or **C** to cancel a penalty.
 Maximum of 3 penalties on each team at a time.
 Number of penalties is shown in the display (H/x or G/x) and as dots on the scoreboard.
 The shortest penalty time is shown in the display and in the middle section of the board.

ResSC: Press **A** for reset shot clocks. (Same function as the handle " reset " button).

PER: Press **D** to increase period number.
 Press **H** before **E** to decrease period number.
 (Period) The period is automatically increased, when time runs out and the reset button is activated.

30S.: Press **E** to change "30 sec." time.
 (Change 30sec.time) If match time has not been running, then "30 sec." Pre-set time is changed.
 Else "30 sec." start time is only adjusted for the next count down.
 Type time in seconds on the numeric pads.
 Press **CLEAR** to delete last typed number.
 Press **ENTER** to accept or press **MENU** to return without changes.

TIME-OUT: Press **F** or **G** to start **Home** or **Guest** time out. (1 min.)
 Press **H** before **F** or **G** to subtract (cancel) one time out.
 Press **STOP** to stop time out without starting match time.
 Press **START** to stop time out and start match time.
 No. of time outs is shown in display (H/x or G/x) and as dots on the board.
 Number of time outs is reset when match time runs out and reset is activated.
 The time out time is shown in the display above ÷ and in the middle section of the board or instead of the match time.
 The horn signals when the time-out time is 0.

+ : Press **H** to activate minus function; the keys from **B** to **E** & **F** to **G** function as a minus operation. The ÷ is flashing in the display, as long as the minus operation is active. If no key is pressed within 10 sec. the minus operation is de-activated.

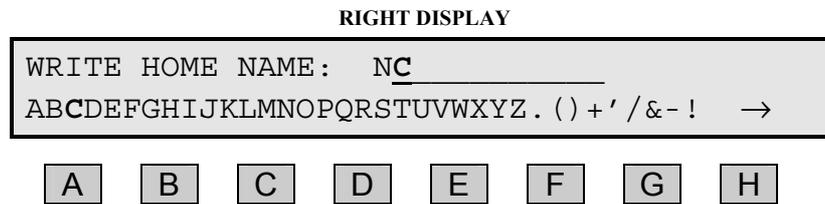


Match-/ break time:	<p>The time is started and stopped with START and STOP. If the time is stopped it may be reset with RESET. If time is stopped during a period then press RESET 2-3 seconds to reset time.</p> <p>When the match time runs out, the break time starts automatically.</p> <p>Game time - break time- game time:</p> <table><tr><td>1.period:</td><td>8 min.</td><td>- 2 min.</td></tr><tr><td>2.period:</td><td>8 min.</td><td>- 5min.</td></tr><tr><td>3.period:</td><td>8min.</td><td>- 2min</td></tr><tr><td>4.period:</td><td>8min.</td><td>- 5min.</td></tr><tr><td>Extra time:</td><td>3min.</td><td>- 2min. - 3min.</td></tr></table> <p>For start a new period or extra time after a break, press START .</p>	1.period:	8 min.	- 2 min.	2.period:	8 min.	- 5min.	3.period:	8min.	- 2min	4.period:	8min.	- 5min.	Extra time:	3min.	- 2min. - 3min.
1.period:	8 min.	- 2 min.														
2.period:	8 min.	- 5min.														
3.period:	8min.	- 2min														
4.period:	8min.	- 5min.														
Extra time:	3min.	- 2min. - 3min.														
Points:	<p>With + and - the points in the left hand side of the console is adjustable (both up & down). The points in the board is updated when RESULT is activated. The LED over RESULT is illuminated when the points in the console are different from the points in the board.</p>															
Reset match:	<p>Press the two MASTER RESET simultaneously to reset the results and the time.</p>															
Horn:	<p>By pressing 🔊 the horn signals. When selecting automatic horn, the horn signals when the match time ends.</p>															



9. Text display

9.1 Name registration



Letters are available either using external keyboard, if installed,
or with consolekeys from **A** to **F**.

Using pads from **A** to **F**.

With **A** one write letters from A to E.

With **B** one write letters from F to J.

Etc.

-> over **H** equals space.

With the numeric keyboard a number is chosen and the cursor moves one step right.

The last selected letter is written in the line.

Press **H** to select the actual character, and the cursor moves one step right.

Press **G** to move the cursor one step left.

Press **CLEAR** to delete the actual character.

Press **ENTER** to accept the name.

Press **MENU** to cancel changing a name.



9.2 Player registration

RIGHT DISPLAY

HOME	98 .	CAMILLA	HANSEN				
PLAYERS	INSERT	DELETE	↑	xx	↓	EXIT	

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

Type player no.:

Type in number with the consoles numeric keys or with the external keyboard. Press **ENTER** to accept number and after that the player name can be typed either on the console or on the external keyboard.

Type player name:

The name is written with the external keyboard.

If a name exists, then it is erased if a letter is pressed.

If instead the left or right arrow is pressed, then the name can be edited.

Press **ENTER** to accept name, and afterwards the next player can be registered.

INSERT:

Press **C** to insert a new player. This is only possible if one of the player numbers are equal to 0.

DELETE:

Press **E** to delete the actual player.

View new player:

Press **F** or **G** on the console or use up and down arrow on the external keyboard to toggle between all the players. Between the arrow in the display (xx) the actual line no. is shown. (1-14 in handball and 4-15 in basketball)

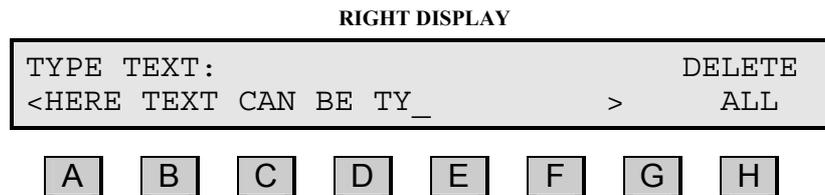
If **ENTER** is not used to step to next player, then any changes in the actual player no. and name are not stored.

EXIT:

Press **H** or **MENU** to finish registration of players.



9.3 Type text



How to control text:

If **F1** is pressed while match time is running, then team name/ team setup (F1 light off) or the advertising text (F1 light on) is shown in the scoreboards text display.

The F1 light will flash while scoreboard is being updated with new text or is switched between advertising text and team names/team setup.

TYPE TEXT: By pressing "F2" on the external keyboard the advertisement text can be edited (please see illustration above).

The light beside the **T** symbol in the middle of the console is on when the text is edited.

The text is entered on the external keyboard (max. 800 characters). Use left and right arrow keys to scroll around in the text, "Page up" and "Page down" jumps respectively one screen ahead and back.

The shift-function do not work while typing in text.

Every time the text have been edited press **F1** twice to complete the update to the text display in the scoreboard.

Exit text typing: Press **MENU** on the control console or "ESC" on the external keyboard to cancel changes in the text and leave the text editing.

Press **ENTER** to update the text changes in the control console and leave the text editing.

The text display will function in all the sports covered by the scoreboard.

DELETE ALL: Press **H** to delete all the advertisement text followed by "ENTER" on external keyboard.



10. Futsal setup menu

RIGHT DISPLAY

FUTSAL	SUB	#	20:00	PEN.	TIME	HORN
SAVE	EXIT	MENU	ON	TIME	1	UP
						AUTO

A **B** **C** **D** **E** **F** **G** **H**

Play menu: Press **MENU** or start the game to go to the play menu,

SAVE: Press **A** to save changes.
(Save adjustments)

EXIT: Press **B** to return to main menu.
(Main menu) Is only accepted if a match is not running.
Possible error message: MATCH IS RUNNING...
PRESS MASTER RESET BEFORE EXIT!

SUBMENU: Press **C** to change the name of team/player names.
(Team name) Change name ref. 9.1

#ON: Press **D** to show side panels. ON/OFF.

TeamColor: Press **C** or **D** to change the colour of **H**ome or **G**uest team. Only available if no team text display is installed and colour marking is installed.

TIME/Break: Press **E** or **F** to change the time of the game and break time. Time is set
(Changing time of game and break time) with the numeric pads. With **CLEAR** the last typed number is erased.
Accept with **ENTER** or cancel changing the time with **MENU**.

Matchtime for periode 1-2: TIMER1

Matchtime for periode 3-n: TIMER2

Breaktime between periode 1 & 2: BREAK1

Breaktime between periode 2 & n: BREAK2

SET	TIMER1	TIMER2	BREAK1	BREAK2
EXIT	20:00	05:00	15:00	01:00

A **B** **C** **D** **E** **F** **G** **H**

Changes are automatically saved as new DEFAULTS.
If match is running, then it is the running time which can be changed.
Press **A** for returning to the setup- menu.

PEN.: Change penalty time between 1min (1) and 2min (2).

UP: With **G** is selected whether the time counts upwards or downwards.
(count up / down)

AUTO (Horn): With **H** is changed between automatic or manual horn.



10.1 Futsal play menu

RIGHT DISPLAY

PENALTIES=		PER.		TIME-OUT			
FOUL:H/0	G/0	H/0	G/2	1	H/0	G/0	÷

A **B** **C** **D** **E** **F** **G** **H**

Setup-menu: Press **MENU** to go to setup menu.

PENALTIES: Press **C** or **D** to give **H**ome or **G**uests a penalty. (2min.)
 Press **H** before **C** or **D** to cancel a penalty.
 Maximum of 3 penalties on each team at a time.
 Number of penalties is shown in the display (H/x or G/x) and as dots on the scoreboard.
 The shortest penalty time is shown in the display and in the middle section of the board.

PER: Press **E** to increase period number.
 (Period) Press **H** before **E** to decrease period number.
 The period is automatically increased, when time runs out and reset is pressed.

TIME-OUT: Press **F** or **G** to start **H**ome or **G**uest time out. (1 min.)
 Press **H** before **F** or **G** to subtract (Cancel) one time out..
 Press **STOP** to stop time out without starting match time.
 Press **START** to stop time out and start match time.
 No. of time outs is shown in display (H/x or G/x) and as dots on the board.
 Number of time-outs is reset, when match time runs out and **RESET** is activated. The time out time is shown in the display above ÷ and in the middle section of the board or instead of the match time.
 The horn signals when the time-out time is 0.

÷ : Press **H** to activate minus function; the keys from **C** to **E** & **F** to **G** function as a minus operation. The ÷ is flashing in the display, as long as the minus operation is activate. If no key is pressed within 10 sec. the minus operation is de-activated.



Match-/break time: The time is started and stopped with **START** and **STOP**.
If the time is stopped it may be reset with **RESET**.
If the time is stopped during a period then press **RESET** 2-3 seconds to reset time. When the match time runs out, the break time starts automatically.

	Game time	Break time
1. Period:	20min	15min
2. Period:	20min	1min
3.+4+E Per:	5min	1min

Press **START** for starting a new periode

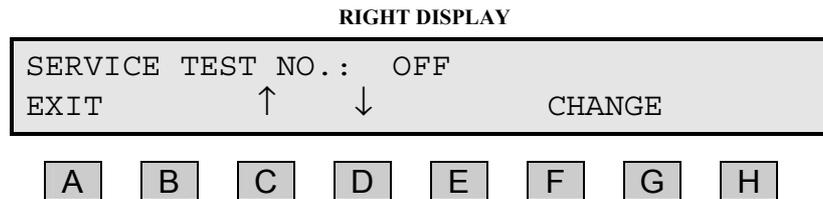
Point: With **+** and **-** the points in the left hand side of the console is adjustable (both up & down). The points in the board is updated when **RESULT** is activated. The LED over **RESULT** is illuminated when the points in the console are different from the points in the board.

Reset match: Press the two **MASTER RESET** simultaneously to reset the results and the time.

Horn: By pressing **HORN** the horn signals.
When selecting automatic horn, the horn signals when the match time ends.



11. Service menu



EXIT: Press **A** to exit the service menu.
Before returning to the setup menu, one must confirm whether to save the set up or not.

With **C** and **D** one can choose between the following items in the menu:

Test: With **F** or **G** choose between Test=off, Test=1, Test=2 & Test=3
In test 1 all the LED's in the scoreboard will illuminate.
In test 2 the figures will illuminate one at a time. The printed value equals the 1'es in the figure addresses. Furthermore any matching dot will illuminate.
Test3 counts from 0-9 & illuminates all dots in the boards.

Soft dip: Software dipswitch :

00000:
Standard

00002:
Special icehockey program (Icehockey period:0 + dressingroom clock with signal)

00004:
Home score align on the left hand side. For scoreboards without frame around score and max. 199 score.

00016:
RedTeamFouls with NS265: The team fouls (4-9) will first be shown by pressing the handle button for NS265 (see page 11).

Ishockey 2+2->4 MIN =
Use **F** or **G** to change display of 2+2 to 4 min display..
ON: 2+2 displayed as 4 min.
OFF: 2+2 displayed as 2+2.

Shot - Clock match horn=
For NB740 which has no horn installed.
ON: The shot clock horn is redirected to the match horn.
OFF: The shot clock horn is not redirected to the match horn.

Shot-Clock Stop =
Use **F** or **G** to change control of shot-clock.
ON: Console may stop shot-clock time. OFF: Shot-clock is independent of console.

**Basketball break time 2 =**

Use **F** or **G** to change the time.

Basketball break time 1 =

Use **F** or **G** to change the time.

Shot clock horn time (sec) =

Use **F** or **G** to change the time between 1-4 sec.

Timeout horn time (sec) =

Use **F** or **G** to change the time between 1-4 sec.

Match horn time (sec) =

Use **F** or **G** to change the time between 1-4 sec.

Middle section: **F** or **G** indicates if the scoreboard has a middle section.

This determines where the time-out time is shown.

Color-mark:

Use **F** or **G** to indicate if the scoreboard includes colour indication.

This determines if it is possible to choose team colours in the setup menu of the sports activity.

Side board:

Use **F** or **G** to indicate if the scoreboard has side boards and also if the side board contain individual player score.

This determines whether a score in basketball calls for a player number or not.

Player numbers:

Use **F** or **G** to indicate if the side board includes player numbers. If not the numbers from 4 to 15 is used.

Team text display:

Press **F** or **G** to indicate if the scoreboard has a team text display.

This determines the possibility of name registration in the setup menu of the sport activity.

At the same you have to select the number of characters in the text display (5,10,16,21,16-1,21-1). 16-1 or 21-1 means only one text display in board.

Player text display:

Press **F** or **G** to indicate if the scoreboard has player text displays.

This determines the possibility of name registration in the setup menu of the sport activity.

Also select the number of characters in the text display (5,10,16,21).

Time-out horn: Use **F** or **G** to indicate whether the scoreboard contains a time-out horn or not. If not the normal horn will be used.

If Time-out horn is ON, the match horn will sound on the horn connected OUT-2 instead of the normal on OUT-1.

**Communication info:**

Press **F** or **G** to see which units (addresses) are connected to the console. Furthermore it is possible to see number of re-transmissions and fault answers on the NauNet. If the scoreboard system includes more than 8 units press **H** to see further addresses (units).

Test of handles:

Test for attached handles.
Use **D** to **H** for test of LED's and buzzers in the handle.
Press **A** for exit.

Clock calibration=0:

With **F** or **G** the speed of the clock is changed (default = 0).
The value is changeable from -31 to +31. One minus value indicates number of seconds the clock will slow down within 6 days.
A plus value indicates number of seconds the clock speeds up within 3 days.

Clock module:

If a radio controlled clock module is installed on the NauNet the 24-hour clock will be automatically controlled by the clock module.

Total reset:

Press **F** or **G** to reset all setup data for the default values.
Accept before the function is executed.
Remark: After a total reset the control panel loses its setup. Therefore we recommend to write down the scoreboard setup before an total reset.

Change service-code:

Press **F** or **G** to change the service code.
The code is typed on the numeric keyboard.
With **CLEAR** the last typed number is erased.
Accept with **ENTER** or cancel changing the code with **MENU**.

Time in use:

This is to inform how long time the console has been in use.
The value is only to be re-started the first time the console is turned on.
A total re-start does not reset this value.

Software version:

This is an information about the software version and the date of the console.

Waterpolo timeout-time:

Press **F** or **G** to change the timeout time.
The time is changed on the numeric keyboard.
Press **CLEAR** to erase the last typed number.
Accept with **ENTER** or cancel changing the time with **MENU**.

Waterpolo penalty-time:

Press **F** or **G** to change the penalty time.
The time is changed on the numeric keyboard.
Press **CLEAR** to erase the last typed number.
Accept with **ENTER** or cancel changing the time with **MENU**.

**FUTSAL Timeout-time:**

Press **F** or **G** to change the penalty time.

The time is changes on the numeric keyboard.

Press **CLEAR** to erase the last typed number.

Accept with **ENTER** or cancel changing the time with **MENU** .

**Volleyball time-out 5.set, Volleyball tech-timeout,
Floorball time-out, Icehockey time-out, Volleyball time-out,
Basketball time-out, Handball time-out:**

Press **F** or **G** to change the time-out time.

The time is changes on the numeric keyboard.

Press **CLEAR** to erase the last typed number.

Accept with **ENTER** or cancel changing the time with **MENU** .



12. Trouble shooting

In the bottom of the scoreboard 5 LED's are installed, they have the following functions:



230VAC LED:

GREEN 1 (F1)

If it is not illuminated, then check:

- 230VAC connection
- 230VAC fuse (F1).

24VAC LED:

GREEN 2 (F2)

If it does not illuminate and the 230VAC LED illuminates, then check;

- Fuse (F2).

18VDC LED:

GREEN 3 (F3)

Illuminates if the connection to the console and the controller in the scoreboard are intact.

If it does not illuminate then check;

- Fuse (F3).
- If the fuse blows again it may be due to a short-circuit or wrong connection in the cable between scoreboard and console. Alternatively a short-circuit in the console itself.

NauNet LED:

RED

Flashes when communicating with the console. If the three green LED's illuminates, and the red one does not flash, there is a fault in the communication between the console and the scoreboard.

Possible faults;

- Console not connected.
- Breakage or short-circuit in the NET cable.
- Switched wires in the NET cable.
- Fault in NT-CONSOLE.
- Fault in NC. (Board controller)

NauLink LED:

YELLOW

Flashes to indicate that the controller in the scoreboard (NC) is active, and that the internal communication to the figures is running. If the three green LED's are illuminating, and the yellow does not flash, there is a fault in the controller (NC).



LED in the console:

Illuminates when the supply to the console are OK.

If it is not illuminated:

- Check F3 fuse.
- Possible breakage on NET cable.

If it is illuminated but the displays in the console does not show anything:

- Internal fault in the NT-console.

If all LED's in the scoreboard illuminates and flashes as they are supposed to do and the console works - but the scoreboard nothing shows when a sport activity is selected, then check if the wires from pin 2 and 3 in the NET IN is connected correctly to the console.



13. Installation

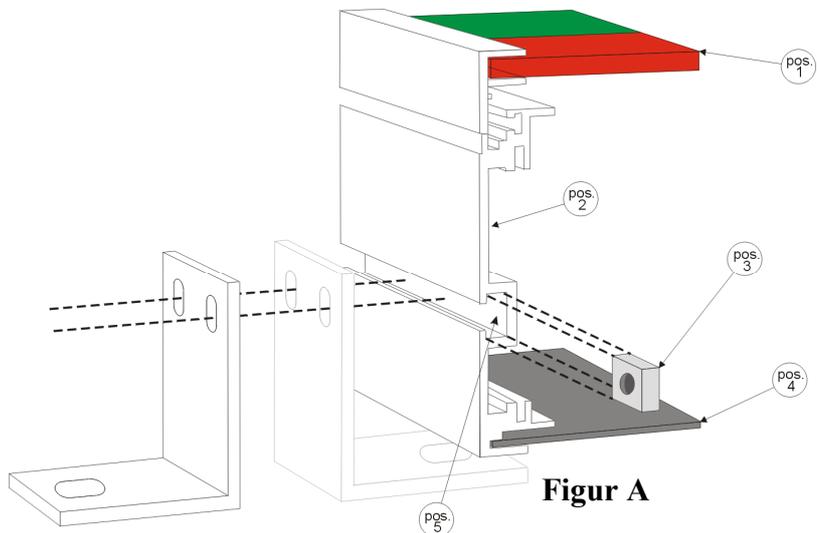
The following parts come with standard scoreboard:

4 stk.	Mountings (Appendix I - figure 1)
8 stk.	Square nuts (Appendix I - figure 2)
8 stk.	Bolts (Appendix I - figure 3)
8 stk.	Washers (Appendix I - figure 4)
1 stk.	230V cable with connector (Appendix I - figure 5)
1 stk.	Console cable with XLR plug (Appendix I - figure 6) (Only with radio)
1 stk.	Wall socket, NT112 (Appendix I - figure 7) (Only with radio)
1 stk.	NT Console (Appendix I - figure 8)

Place the 4 mountings with keyholes (figure A) on the wall with a distance matching the scoreboard height and length. The placement of mountings is optional, they can be placed in top/bottom, right/left side or a combination of these. However, the mountings can be mounted as an external installation where a part of the mountings will be visible or as a “hidden” installation where most of the mounting will be hidden by the scoreboard.

The enclosed square nuts (Appendix I - figure) is pushed into the slit (figure A, pos. 5). This is possible from all 4 corners in the frame.

Then the scoreboard is lifted up and placed between the angles (mountings) which supports it while the mountings are fastened to the square nuts by the enclosed bolts (Appendix I - figure 3) and washers (Appendix I - figure 4).



Now, install the wall socket (Appendix I - figure 7) in the wall near the NT console. Connect screw connector from the box on top of the scoreboard marked “NET IN” (figure B) with the screw connectors in the wall socket (figure C).

Use 4 x 0,6mm² twisted pairs with pair#1 for 2/3 & pair#2 for 1/4.

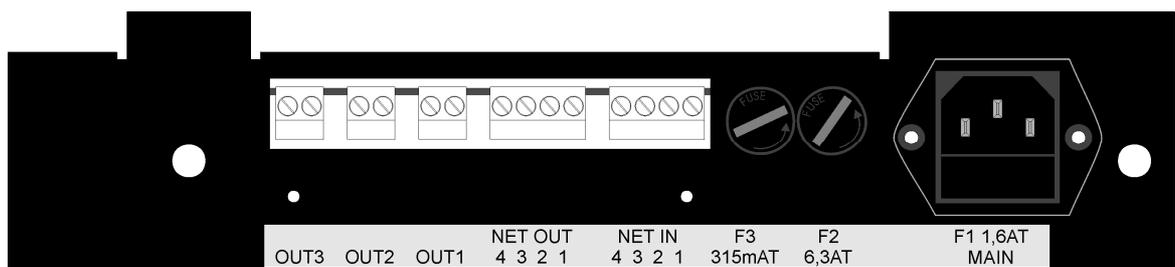


Figure B



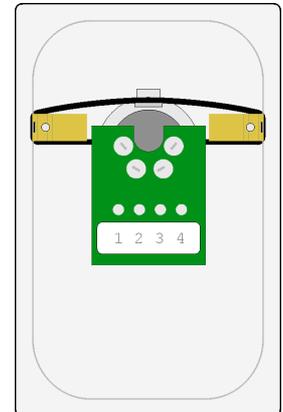
The connection connector 1 in the box on the scoreboard, to connector 1 in the wall socket (figure C) by the NT console and connector 2 to 2, 3 to 3 and 4 to 4. Then connect the enclosed or corresponding 230VAC cable (Appendix I – figure 5) to the scoreboards 230V entrance marked "MAIN".

Attach cable (Appendix I - figure 6) from control console (Appendix I - figure 8) to wall socket. Control that the fuses **F1**, **F2** and **F3** (see figure B) are in place and correctly installed.

Switch on the power and control the Service LEDS (figure D) which are placed in the bottom of the frame so they are visible when standing beneath the scoreboards and looking up at the bottom. The Service LEDS are placed in the right side of the scoreboard.

Note:

- that the yellow LED flashes slowly
- that the red LED flashes when the NT Console is switched on
- that all 3 green LEDS are giving out light



Figur C



Figure D

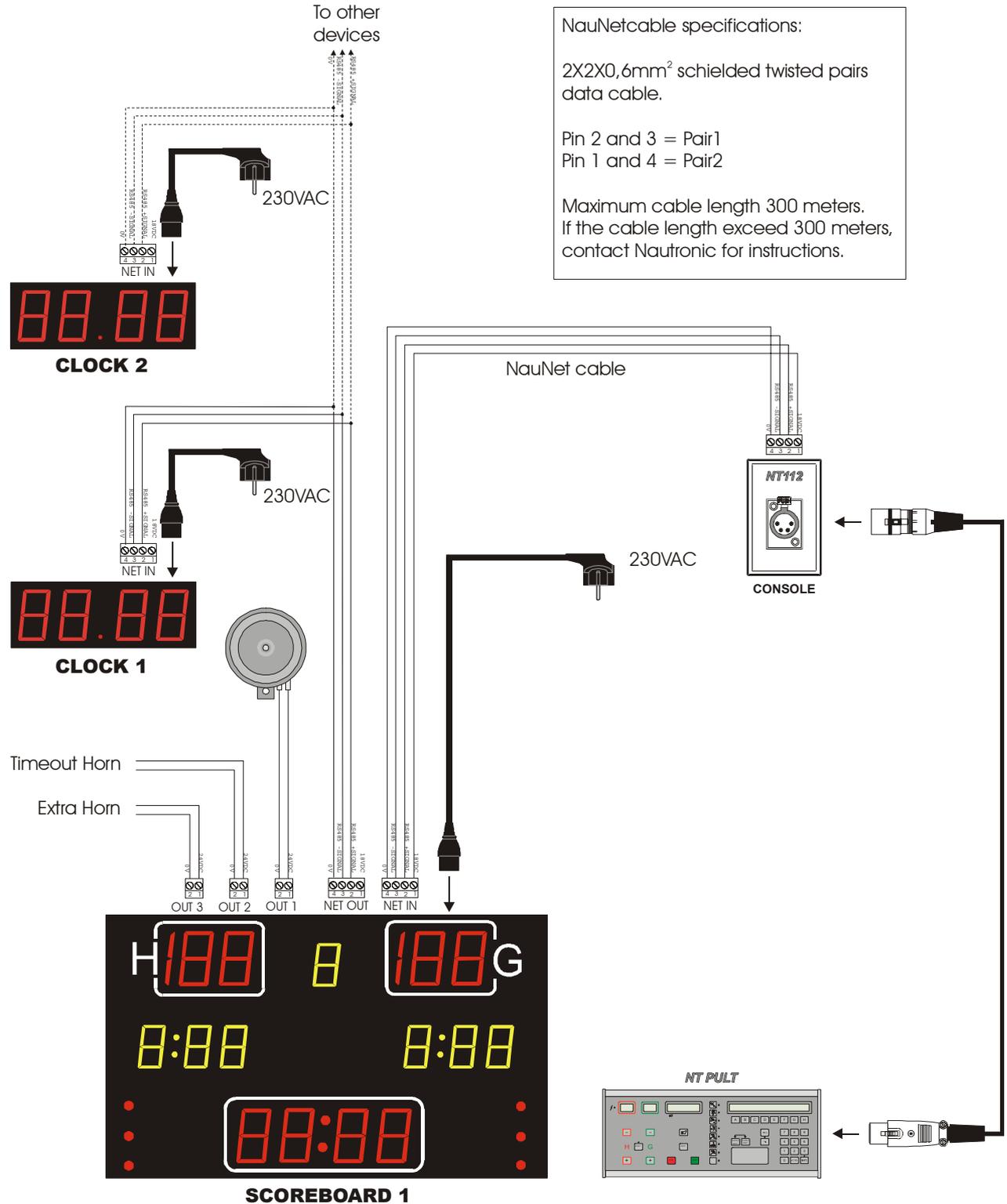
If the scoreboard does not work we recommend that the section "Trouble shooting" in the User Manual is being read or a service technician is being contacted.

Installation is now complete and the scoreboard is ready for use.



14. How to connect scoreboards

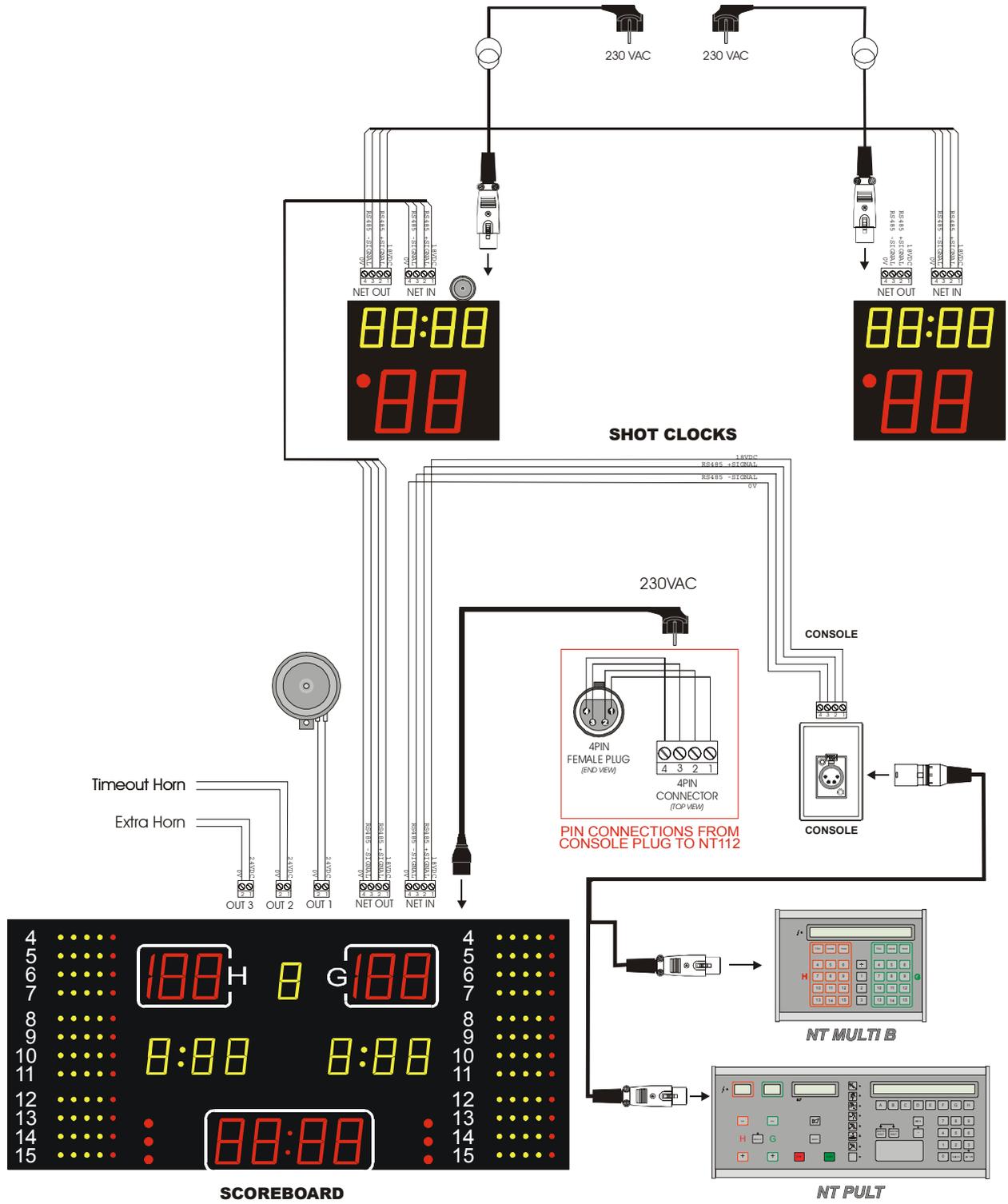
14.1.1 Standard system



NauNetcable specifications:
 2X2X0,6mm² shielded twisted pairs data cable.
 Pin 2 and 3 = Pair1
 Pin 1 and 4 = Pair2
 Maximum cable length 300 meters.
 If the cable length exceed 300 meters, contact Nautronic for instructions.



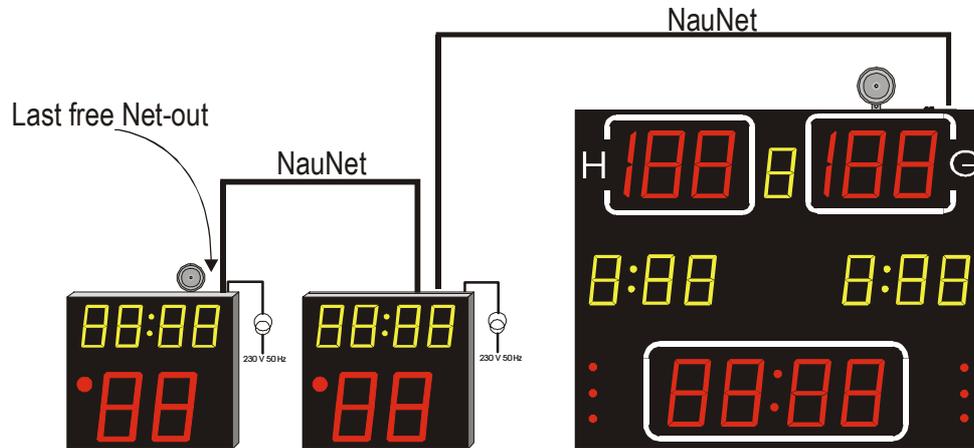
14.1.2 Scoreboard with shot clocks





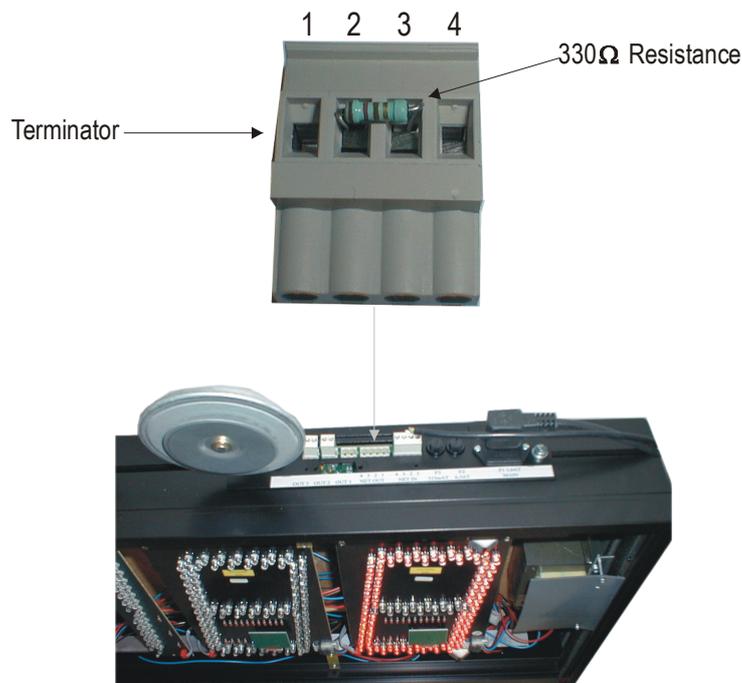
14.1.3 Where to place the terminator

Always place the terminator at the last free “Net Out” connector, as shown below. As standard there is always mounted one terminator in the main scoreboard. When some extra scoreboards are added to the system, move the terminator to the last free “Net Out”.



14.1.4 How to plug in the terminator

- 1) Disconnect 230VAC power cable.
- 2) Remove the old connector in Net Out.
- 3) Plug in the termination connector in Net Out.
- 4) Reconnect 230VAC power cable.





Appendix I



Figure 1

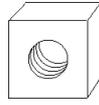


Figure 2

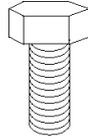


Figure 3

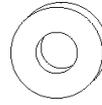


Figure 4

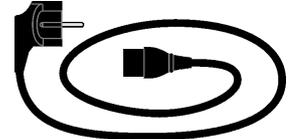


Figure 5

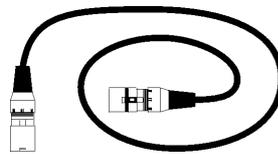


Figure 6
92031000

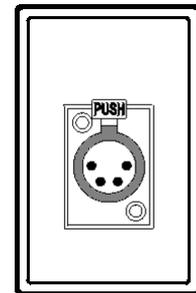


Figure 7
92031030

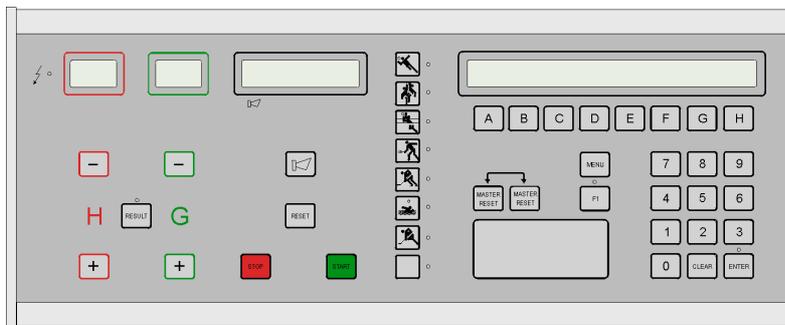


Figure 8

Figure 6 and figure 7 are shown with their respective spare part number.