

ALGE SWIMMING SYSTEM

TIMER S4:

The Timer S4 is a high precise timing device with sockets to plug other devices:

- Multi Channel Outlet to plug the S4-SWIM
- Socket to plug the Printer P4
- Socket to connect display boards GAZc
- RS 232c interface to connect a computer
- Socket to connect a headset (speech connection to the start)

The Timer S4 has built in rechargeable batteries and is able to supply the complete system for about four hours. Normally is the Timer S4 connected to a 12 Volt car battery or with the net charging set NLG4.

S4-SWIM:

The S4-SWIM is connected with a 25 pin plug at the Timer S4. The S4-SWIM has eight outlets to connect the cable to the Finish-Adapter (touch pad and handswitch). Built into the S4-SWIM are all switches to turn the touch pads on or off, as well as the socket for the Start Acoustic SA1.

FINISH-ADAPTER FIN1:

One finish adapter is needed for two lanes. From the S4-SWIM to the Finish-Adapter is a 5-core cable necessary. At each Finish Adapter you connect two touch pads and handswitch.

TOUCH PAD TP24:

It is a reliable mechanical system. Tape switches are inside the touch pad to make an impulse for each touch of a swimmer. This construction makes an error free use possible. Waves or splashing water will not effect the system and do not cause false impulses.

mechanical dimensions: 2450 x 945 mm

active area: 2406 x 921

START ACOUSTIC SA1:

It consists of a central unit on which you can connect four horns, a headset and a handswitch. By using the headset it is possible to talk with the operator of the timing device.

By pressing the handswitch the time of the S4 starts to run and the horns give the start signal. If you press the handswitch within the next five seconds again it sends a false start signal.

DISPLAY BOARD GAZc:

You can connect up to eight display boards at the Timer S4 (one board for each lane). The display board is controlled in order of finish arrival and shows rank, lane and time.

Installation of the ALGE Swimming System

Description of the installation:

For a swimming system you need the following devices (this system can have certain upgrades):

- 1 Timer S4
- 1 Printer P4
- 1 Net Charging Set NLG4
- 1 S4-SWIM
- x Finish Adapter FIN1
- x Touch Pad TP24
- x Handswitch (manual times)
- 1 Start Acoustic SA1
- x Start Loudspeaker
- 2 Headset Q34
- 1 Start Handswitch
- Cable Set
- x Display Board GAZc

x Amount depending on the amount of lanes and if installed single sided or double sided.

Timer S4 - Printer P4:

Plug 5-pin plug from Printer P4 at Timer S4 (socket "printer")

Timer S4 - S4-SWIM:

Connect 25-pin plug at socket "multi channel" (22) at Timer S4

S4-SWIM - Start autistic SA1:

Connect S4-SWIM (socket "start") and Start Acoustic SA1 (socket "A" or "B") with cable 004.

S4-SWIM - Finish-Adapter FIN1:

Connect S4-SWIM and Finish-Adapter with cable 078. Cable 078 has after the cable number always the cable length written. All four cables have a different length. You have to take care that the shortest cable is connected with the closest FIN1, and so on. At the S4-SWIM you have to connect the cable 078 that the numbers 1 + 2, 3 + 4, 5 + 6, 7 + 8 agree with the actual lanes.

Finish-Adapter FIN1:

Connect touch pad at finish adapter (red banana socket "TOUCH PAD").

Connect handswitch at finish adapter (blue banana socket "TOUCH PAD").

Attention: Connect on the left side only touch pads and handswitches of lane 1, 3, 5 and 7, and on the right side only for lane 2, 4, 6 and 8.

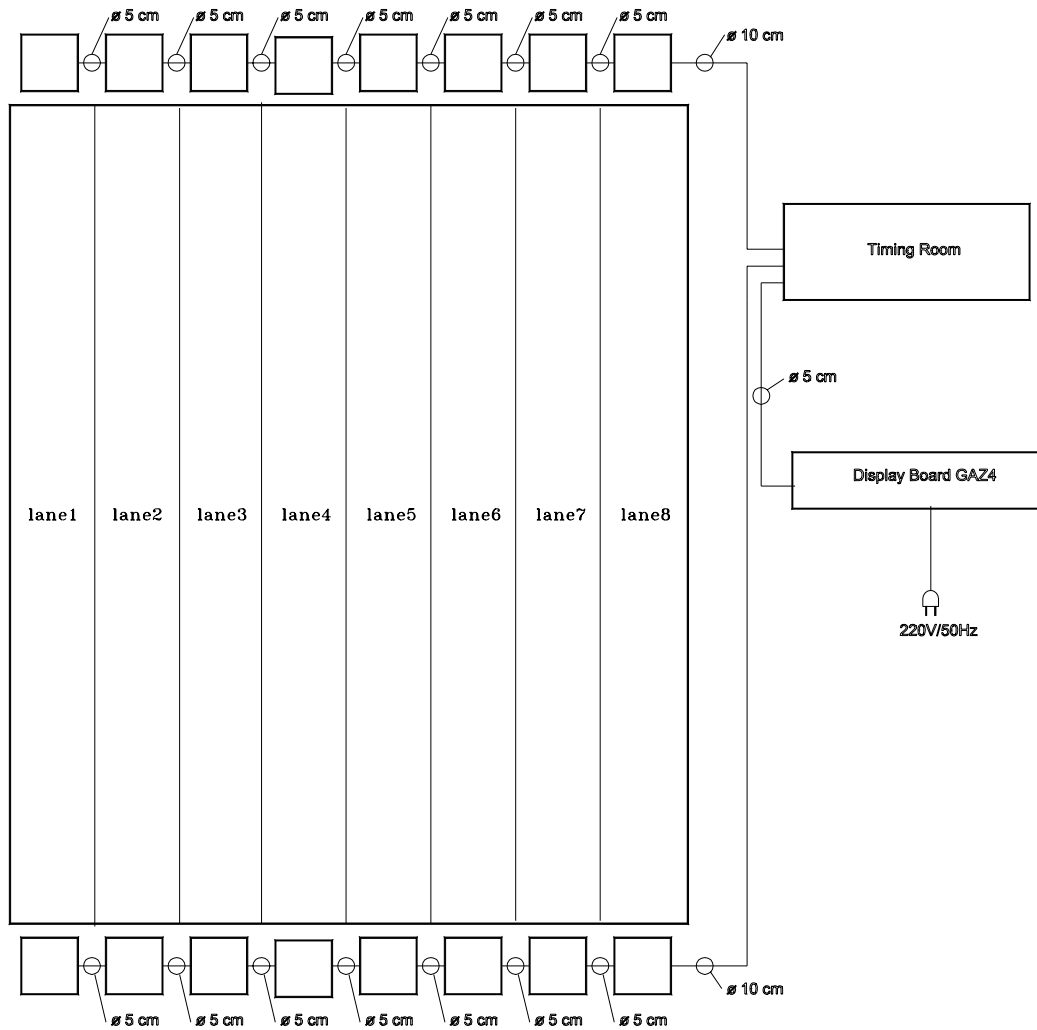
Start acoustic SA1:

Connect a loudspeaker at the SA1 (socket "SPEAKER"). The second loudspeaker is connected on the first, etc.

Connect the start handswitch on one of the green/black banana sockets.

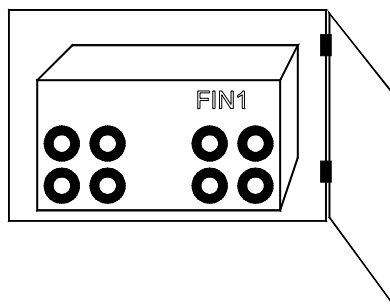
Connect the headset on the socket with the headset symbol.

If there is a fix cable installation with ALGE-starting blocks we recommend the following conduces for the cables:



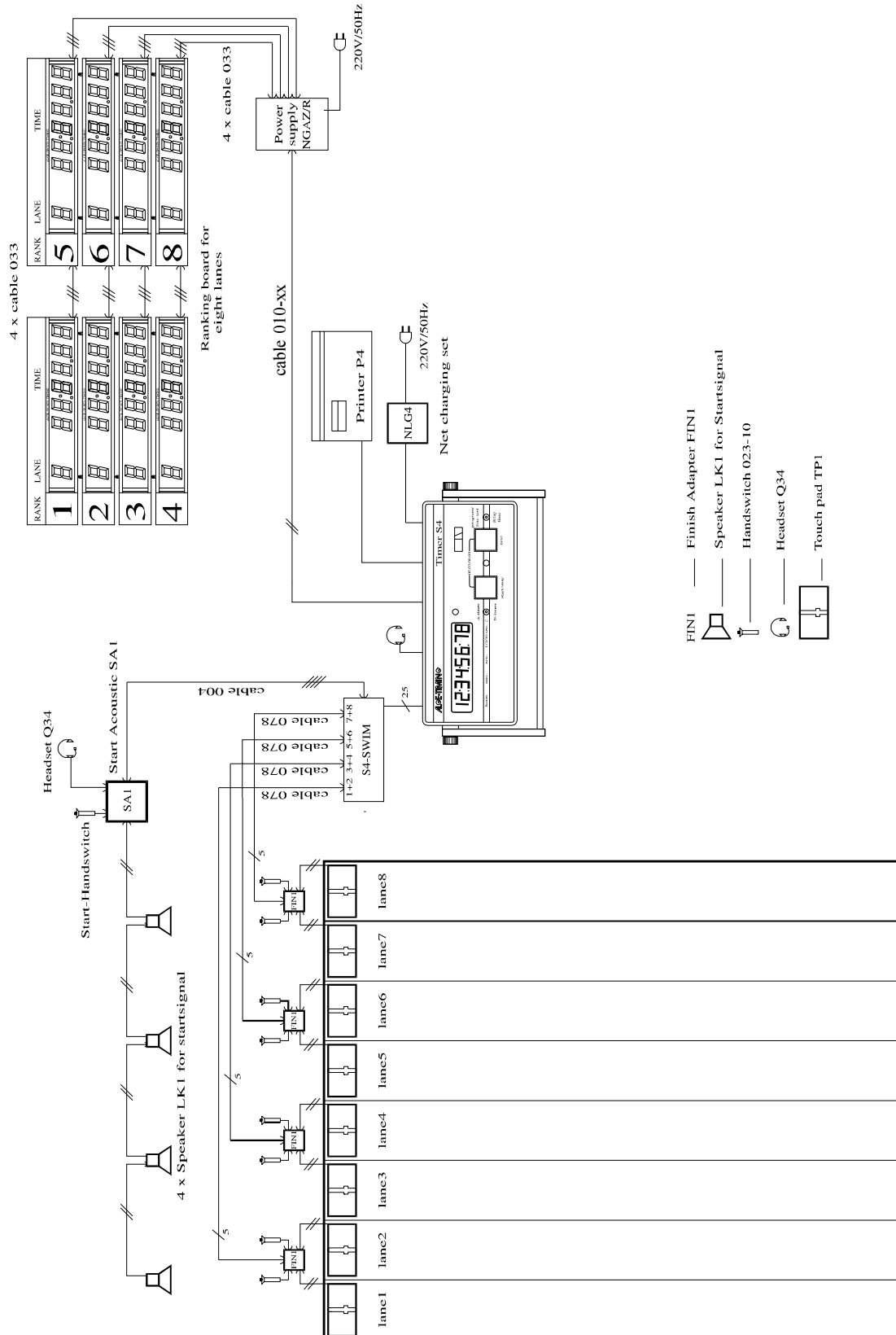
- Diameter of conduces between starting blocks: 5 cm
- Diameter of conduces between Timing Room and starting blocks: 10 cm
- Diameter of conduces between Timing Room and display board: 5 cm

If you do not use ALGE starting blocks you need for the fix installation FIN1. We recomend to mount the FIN1 in a box that you can lock. You need always one FIN1 for two lanes.

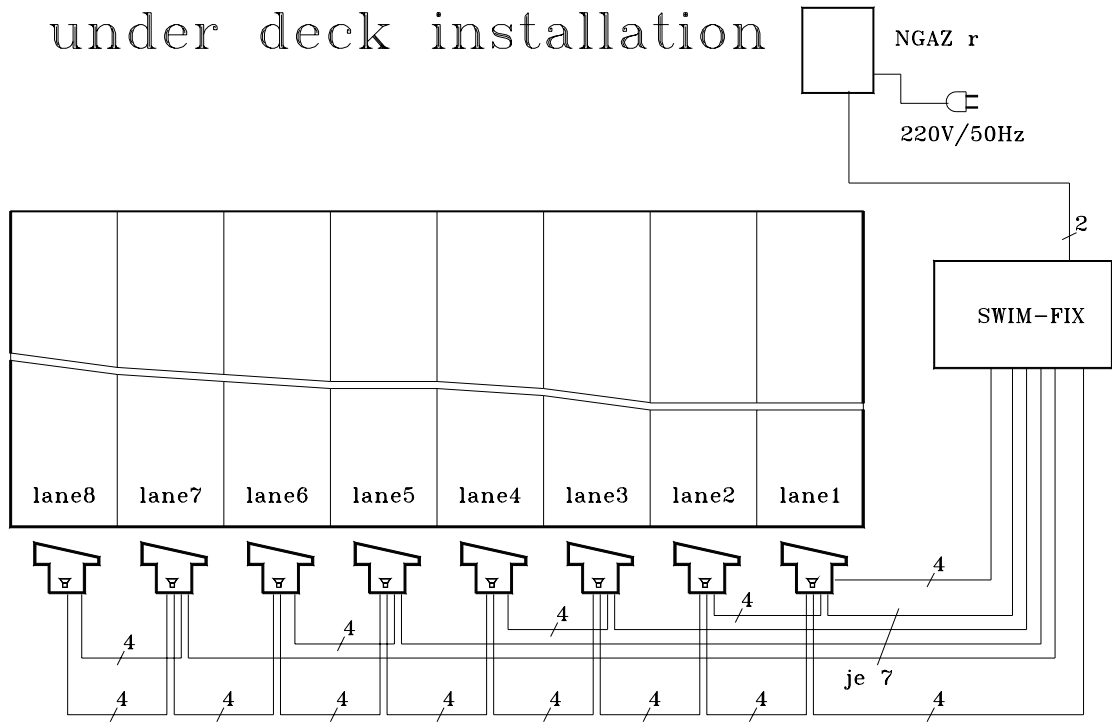


Wiring Diagrams:

Without False Start System:



Under Deck Installation:



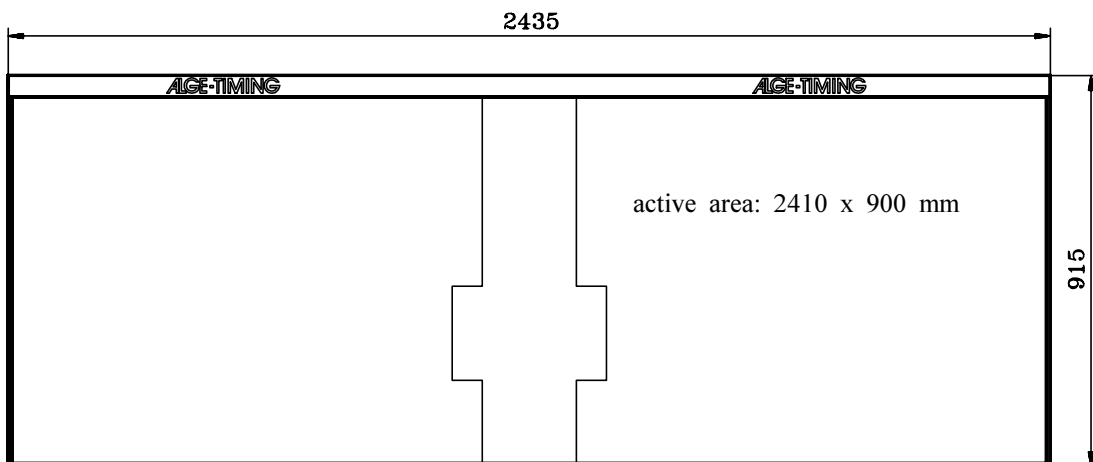
Touch Pad TP24:

A touch pad is necessary for each lane. The whole yellow and black area is active as well as the black rubber on the top, which protects the athletes from injuries.

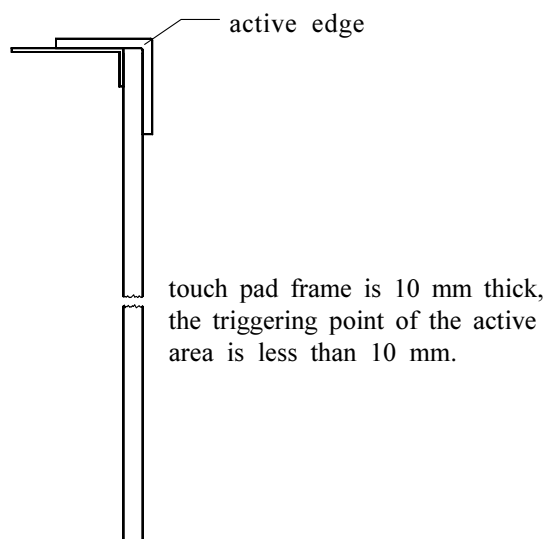
The frame and the backside of the touch pad is made of stainless steel. The active area is a synthetic material which gives the pressure of a touch to the tape switch below it. A pulse is caused by a pressure of about 3 kg.

The touch pad should be only in the water during the events. During the regular recreation swimming you must remove the touch pads. Use the ALGE touch pad cart to store them.

mechanical dimensions: 2444x910mm
active area: 2410 x 900 mm and active top
mounting: with fastening holder or customer made
weight: about 30 kg

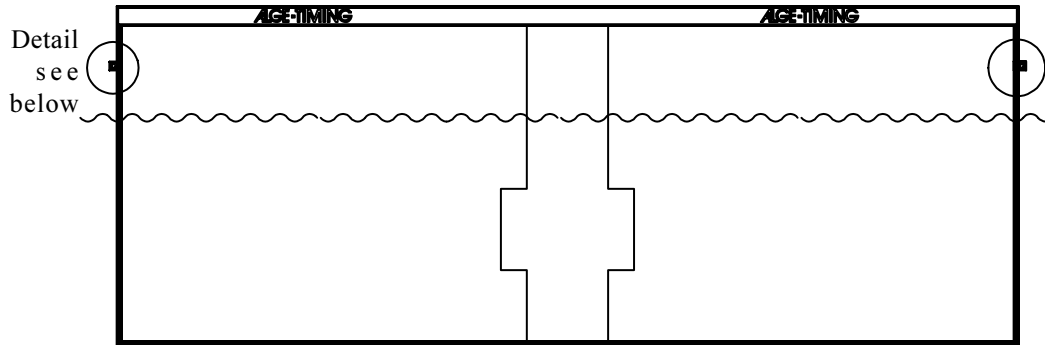


Side view of the touch pad:



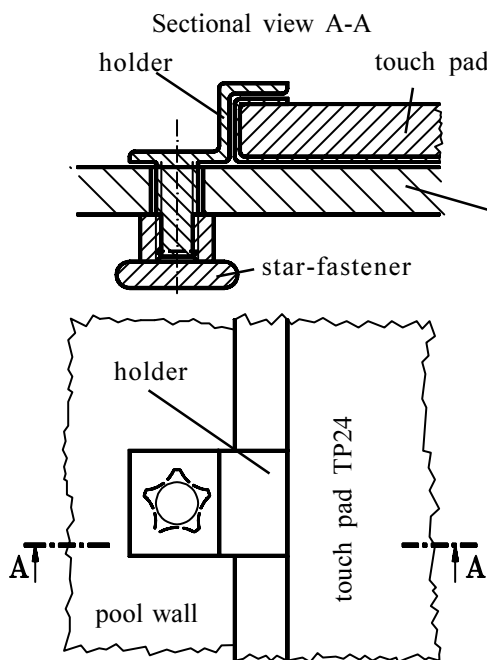
Mounting of the touch pad TP24:

Standard holder is the angle at the top of the touch pad. On request we can deliver the following mounting solutions:



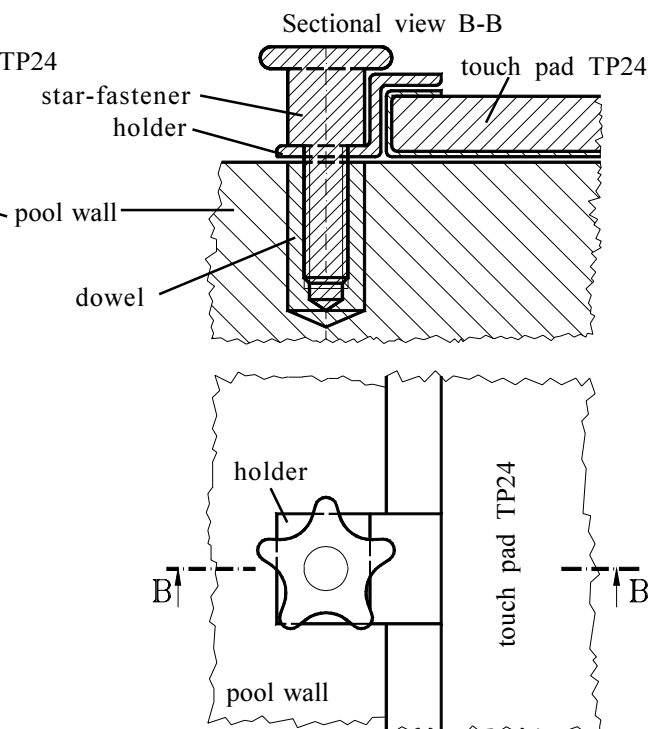
The touch pad holder of the touch pad has a M6 screw, which is fixed on both sides just above the water level. You have to attach the touch pad to the pool wall that it is 30 cm above the water and 60 cm below the water.

Chrome steel pool:



You need an attachment to fasten the touch pad. Ask your pool supplier.

Concrete pool or tile pool:



Dowel type: Hilti HIS-R M8
Bore-hole: Ø 12 mm

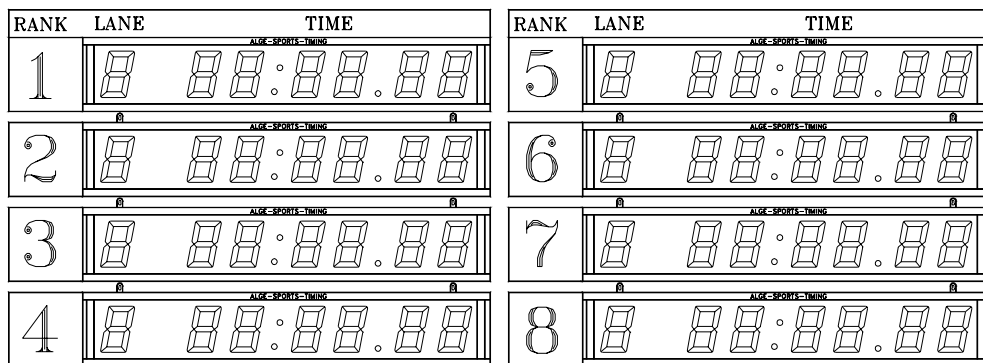
If you use the touch pad TP24 in a swimming pool with a lane width of 2.5 m it is possible to fix two touch pad with one holder and one star-fastener.

Display Board GAZc

The display board shows the running time as well as the run time. You can use the display board the following way:

- one display board for each lane (ranking board)
- all times are shown on the same display board

Separate display board for each lane:



A display board is for each lane necessary. The boards show the intermediate time and final time of each competitor as well as the lane in order of arrival (ranking).

Timer S4 adjustments: select with toggle switch (5) position "A-timer" or "B-timer"

Display board adjustments:

Thumb Wheel Switch:

| | | |
|--------|------------|----------------------------|
| rank 1 | position 1 | top board, shows rank 1 |
| rank 2 | position 2 | shows rank 2 |
| rank 3 | position 3 | shows rank 3 |
| rank 4 | position 4 | shows rank 4 |
| rank 5 | position 5 | shows rank 5 |
| rank 6 | position 6 | shows rank 6 |
| rank 7 | position 7 | shows rank 7 |
| rank 8 | position 8 | lowest board, shows rank 8 |

Shift Switch: middle position

Power Supply:

As power supply you need the NGAZ/R, which is connected to the mains. The voltage has to be 220 V (also available NGAZ/R for 110 V). Each board is connected to the NGAZ/R with the cable 033 (Amphenol cable).

All times are shown on the same display board:

Adjustments when using one display board:

Timer S4: select with toggle switch (5) position "C-timer"

Display board:

Thumb Wheel Switch: position 0
Shift Switch: middle position

Display all times:

- the display board shows automatically the winners time
- if you want to show the time of the 2nd place press the yellow button (7)
- if you want to show the next time press the yellow button (7) again
- when displaying the last time it starts to print the complete protocol on the printer
- if you press the yellow button again it shows the winner timer
- press the yellow and red button together to reset the clock

If you do not want to display all times:

- the display board shows automatically the winners time
- if you want to show the time of the 2nd place press the yellow button (7)
- if you want to show the next time press the yellow button (7) again
- if you want to print the protocol move toggle switch (5) to position "A-timer" and press the yellow button
- press the yellow and red button together to reset the clock
- move the toggle switch (5) to position "C-timer"

Power Supply:

If you use a display board with built in power pack you need no external power supply. With fully recharged power pack it is possible to work all day without recharging. Charging time is about 14 hours.

If you have no built in powerpack inside the display board you need to use an external power supply (e.g. NGAZc or NGAZ/R).

