

GAZ4

ALGE-TIMING

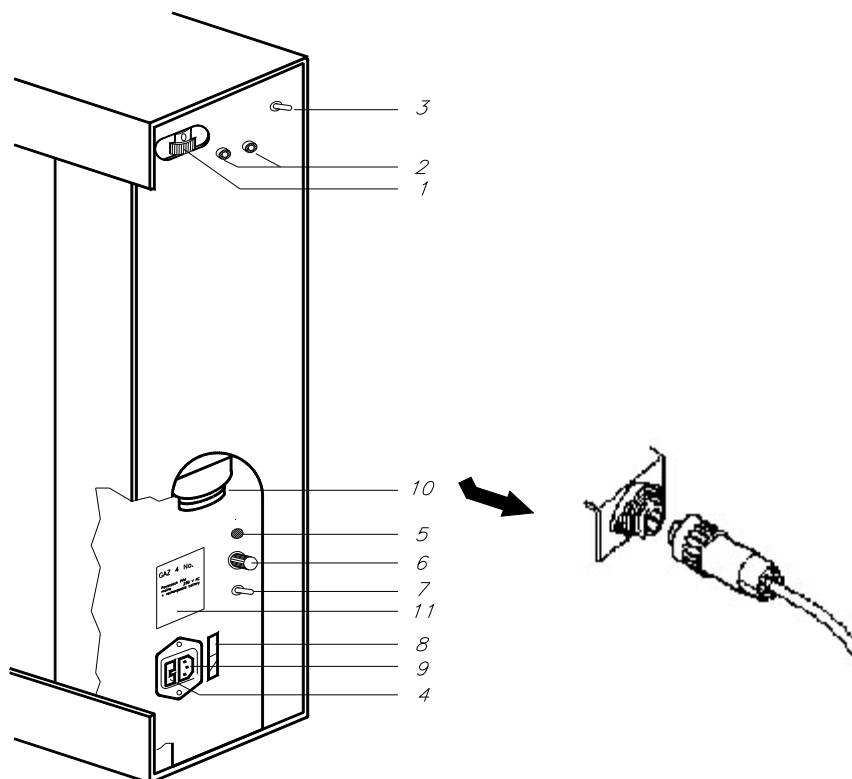


Manual

- 1 Switch
- 2 Data input (Banana plug yellow and black)
- 3 Toggle switch: (in order to adjust the display board format)
- 4 Alternating current fuse (2 x T0, 5A/220V) **
- 5 Charge pilot lamp **
- 6 Battery fuse (T2A/220V) *
- 7 On/off switch *
- 8 Battery display (green =ready, red = low voltage) *
- 9 Connection for line cord (220 V / 50 Hz) **
- 10 Amphenol connection (double-sided)
- 11 Label

* Only display boards with built-in powerpack PP4

** Only display boards with built-in powerpack PP4 or power supply unit PS4



Important Information

General

Before using your **ALGE-TIMING** device read the complete manual carefully. It is part of the device and contains important information about installation, safety and its intended use. This manual cannot cover all conceivable applications. For further information or in case of problems that are mentioned not at all or not sufficiently detailed, please contact your **ALGE-TIMING** representative. You can find contact details on our homepage www.alge-timing.com

Safety

Apart from the information of this manual all general safety and accident prevention regulations of the legislator must be taken into account.

The device must only be used by trained persons. The setting-up and installation must only be executed according to the manufacturer's data.

Intended Use

The device must only be used for its intended applications. Technical modifications and any misuse are prohibited because of the risks involved! **ALGE-TIMING** is not liable for damages that are caused by improper use or incorrect operation.

Power supply

The stated voltage on the type plate must correspond to voltage of the power source. Check all connections and plugs before usage. Damaged connection wires must be replaced immediately by an authorized electrician. The device must only be connected to an electric supply that has been installed by an electrician according to IEC 60364-1. Never touch the mains plug with wet hands! Never touch live parts!

Cleaning

Please clean the outside of the device only with a smooth cloth. Detergents can cause damage. Never submerge in water, never open or clean with wet cloth. The cleaning must not be carried out by hose or high-pressure (risk of short circuits or other damage).

Liability Limitations

All technical information, data and information for installation and operation correspond to the latest status at time of printing and are made in all conscience considering our past experience and knowledge. Information, pictures and description do not entitle to base any claims. The manufacturer is not liable for damage due to failure to observe the manual, improper use, incorrect repairs, technical modifications, use of unauthorized spare parts. Translations are made in all conscience. We assume no liability for translation mistakes, even if the translation is carried out by us or on our behalf.

Disposal

If a label is placed on the device showing a crossed out dustbin on wheels (see drawing), the European directive 2002/96/EG applies for this device.

Please get informed about the applicable regulations for separate collection of electrical and electronical waste in your country and do not dispose of the old devices as household waste. Correct disposal of old equipment protects the environment and humans against negative consequences!



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Technological changes expected.

ALGE display board GAZ4 Manual: **ALGE-TIMING AUSTRIA**

1 DEVICE DESCRIPTION

The ALGE-display boards of the fourth generation feature state-of-the-art techniques (C-MOS, micro processor, watchdog).

In a shapely, plastic coated aluminum casing are 7-segment digits integrated to form the scoreboard. Available in 15, 25 or 45cm digit height, the digits guarantee a perfect readability.

Due to the low energy consumption, an operation with built-in rechargeable batteries is possible – on request, we built-in the PP1 into the display board.

ALGE-display boards are ideal for far viewable displays of numerical data like time, speeds, width, height, laps, valuation, weights, prices, temperatures, winning figures, exchange rates, etc...

The display board can be used as data receiver (e.g. of ALGE timing devices or of the handy-terminal ALGE Comet or Timy) or as autonomous clock.

ATTENTION!!

If the display board is often or currently used outdoor, we recommend doing the digit-test more often than by indoor usage. So you can avoid segments-dysfunction.

2 POWER SUPPLY

There are different possibilities for the power supply of the display board GAZ4. The power supply is carried out by power pack (PP4), power supply (PS4) or an external supply.

2.1 Power pack PP4

The power pack PP4 is built-in on request. The power pack consists of a NiCd-batteries (12V, 2Ah) and a 220V, 50Hz charger. A mains operation is even possible with empty batteries!

Charging of the NiCd-batteries:

- Switch-off the display board with the switcher (7), if no operation is necessary during the charging process.
- Connect provided line cord on the right side of the GAZ (9) and on 220V Net.
- Charge pilot lamp (5) lights up.
- The charging time for full charging is approx. 14 hours (the charger is guarded by an charging protection).

Operation time after full charging by regular clock:

GAZ with 15 cm digit height: approx. 40 hours

GAZ with 25 cm digit height: approx. 20 hours

GAZ with 45 cm digit height: approx. 10 hours

At low temperatures, the operating time will decrease (e.g. at -20°C = 20% less performance).

2.2 Battery voltage „END“

If the display shows “End”, it means that the battery voltage is too low. The micro processor switches off and the display board must be loaded. If you connect the display board to the net, the display board will automatically switch on.

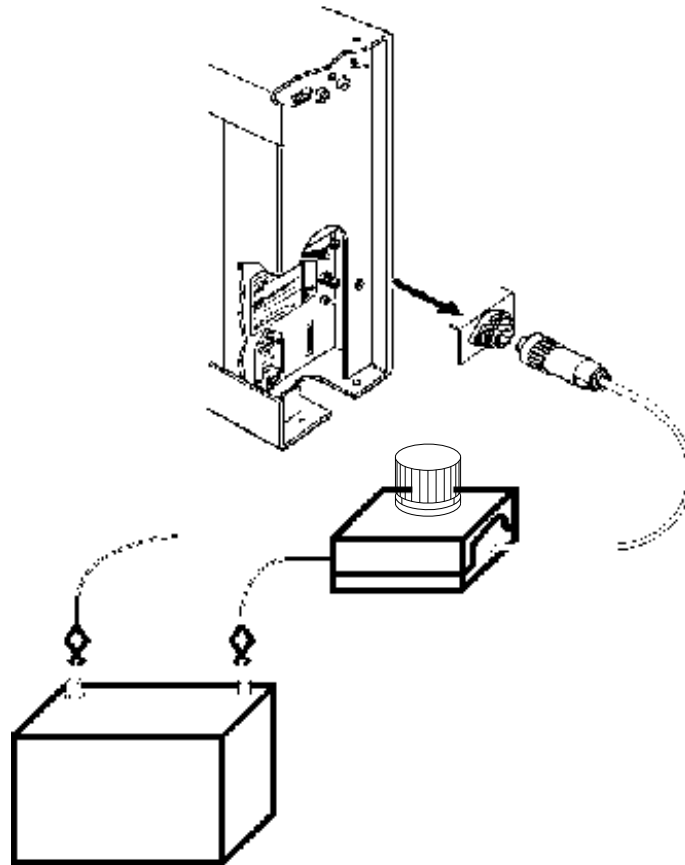
Previous adjustments like Refresh will be stored und continue functioning.

2.3 Power supply PS4

A power supply unit will be built into the display board on request. With a special plug, you can connect the display board directly to a 220V net.

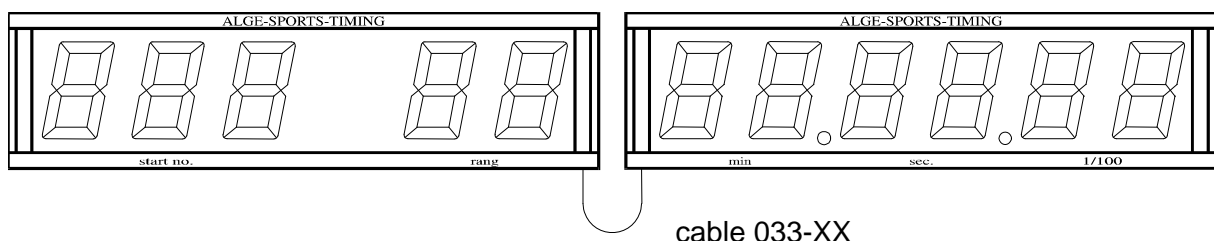
2.4 External battery

A 12V battery (car battery) with at least 2Ah must be connected to the display board. Please pay attention to the fact that the polarity of the battery clips is right [connect (+) with (+) and (-) with (-)].



2.5 Interconnection of display boards

If two display boards will be interconnected (e.g. rank/bib board and time board), only one display board should be connected to a power pack, a power supply or to a battery. Please use the cable 033-01.



3 OPERATING METHODS AND SWITCH SETTINGS

3.1 Operating methods

The display board can be used as data receiver or as an autonomous (independent) clock.

Data receiver of:

- | | |
|-----------------|-----------------------|
| - ALGE TdC 8001 | - ALGE Timy |
| - ALGE TdC 8000 | - ALGE Videotimer VT2 |
| - ALGE TdC 4000 | - ALGE Comet |
| - ALGE Timer S4 | - ALGE Timer S3 |
| - ALGE OPTIc | - ALGE Self Timer SF2 |
| - ALGE OPTI 1sw | - Computer |

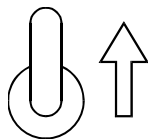
Autonomous clock:

- Clock, counting up from 0:00.00 on
- Clock with time allowed
- Countdown with Timeout

3.2 Switch settings

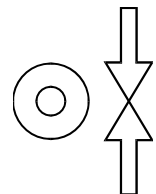
The toggle switch (3) controls the output format. The above mentioned data correspond to a 6-digit standard display board.

Toggle switch (3) up:



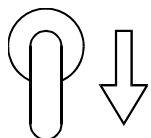
- Switch (1) at 0:
display of start number (3-digit) and rank (2-digit)
if ALGE TDC is connected.
- Switch (1) at 13:
display of start number (3-digit) and hours (2-digit)
if ALGE TDC is connected.

Toggle switch (3) in middle position:



- Switch (1) at 0:
display of time in minutes, seconds, tenth and hundredth
- Switch (1) at 13:
display of time in minutes (1-digit), seconds, hundredth seconds.

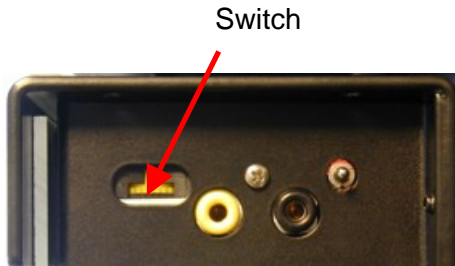
Toggle switch (3) down:



- Switch (1) at 0:
display of time in seconds, minutes and seconds.
- Switch (1) at 13:
display of time in hours (1-digit), minutes, seconds and tenth.

3.3 Thumbwheel Switch (1)

That switch (1) has 16 different types of settings. Used as data receiver, you will work in position 0 or 13 (all outputs will be shifted for one position to the left side.)
The functions for the autonomous clock will be active in position 14 and 15



0	Standard
1 - 10	GAZ address
11	Test
12	Refresh
13	Shift left
14	Count down
15	Clock

STANDARD 0

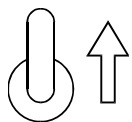
If the GAZ works as data receiver of ALGE TdC, Timer S3, Comet Commander or Timy, the switch will be set to position 0.

GAZ ADDRESS 1 – 10

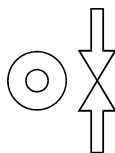
Settings 1 to 10 are used for addressing at operations with ALGE SelfTimer or interconnected display boards.

TEST 11

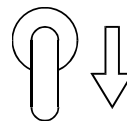
Setting 11 contains a test program, with which you can proof every single digit. With the toggle switch (3) you can chose different kinds of testing programs.



Test switch and signal input DL ... short-circuited.
DH... Open



All digits will count up, one by one.



All digits change between the display of 8888 and blank

REFRESH 12

Setting 12 is responsible for the refresh. The refresh causes that the GAZ will write all figures new every 10 seconds. This feature is used for GAZ e.g. mounted on a car-top. There it may happen, that the figures will not be written correctly, due to vibrations of the car. After switching-on of Refresh, the display will show „r on“. Adjust the shift switch to the requested position.

SHIFT 13

Setting 13 shifts all digits for one position to the left side. Apart from that, it has the same function as setting 0. Shift is necessary if tenth or thousandth seconds must be shown at the last digit of the display board (e.g. car sports, speed skating, cross country skiing, skeleton ...)

COUNT DOWN 14

Setting 14 is responsible for the Count-Down operation (see chapter 6).

CLOCK 15

3.4 Shift output format for one digit

It is possible to shift the output format of the GAZ for one digit to the left side. Set the switch (1) to position 13. This is required for sports, where tenth or thousandth seconds must be show (e.g. motor sports, speed skating, and skeleton)

Digit 6	Digit 5	Digit 4	Digit 3	Digit 2	Digit 1	Schalterstellung des Kippschalters	Schalterstellung des Daumenradschalters
Nh	Nz	Ne		Rz	Re	oben	0
M	M	S	S	z	h	mitte	0
H	H	M	M	S	S	unten	0
Nh	Nz	Ne		H	H	oben	13
M	S	S	z	h	t	mitte	13
H	M	M	S	S	z	unten	13

Nh Start number (hundredth-digit)
 Nz Start number (tenth-digit)
 Ne Start number (1-digit)
 Rz Rank (tenth-digit)
 Re Rank (1-digit)
 H Hour
 M Minute
 S Second
 z 1/10 Seconds
 h 1/100 Seconds
 t 1/1000 Seconds

4 DISPLAY BOARD GAZ4 CONTROLLED BY ALGE TDC

- Connect data line 010-10 to ALGE TdC and attach the GAZ (2) with the aid of a 2-wired cable. Pay attention to the polarity of the GAZ-plugs (2), black banana plug to black socket and yellow banana plug to yellow socket.
- Place switch (1) at „0“ or „13“.
- Adjust requested display configurations with toggle switch (3) (see point 4).

Start number / rank

Minutes, seconds, hundredth, (thousandth)

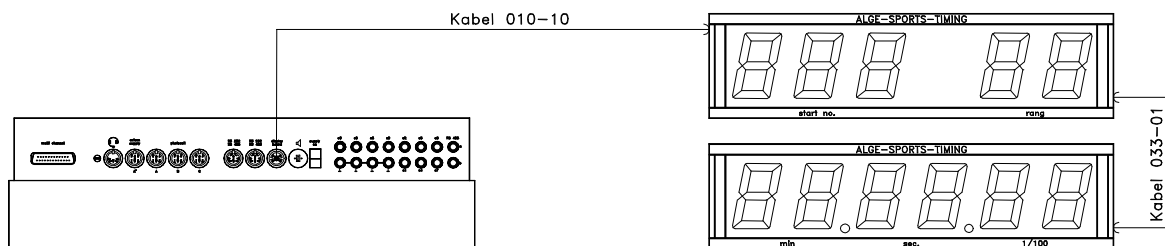
Hours, minutes, seconds (tenth)

- Switch-on/off the power supply

With aid of toggle switch (7) when GAZ includes an integrated power pack.

When display board has no power pack, with external supply as described in chapter 2. Power supply (e.g. external 12V battery).

- The display board signals the program version and enclosed with display of „ALGE“ the operational readiness.
- Switch-on ALGE TdC 4000, display board switches to „blank“.
- Arrange program pre-selection at ALGE TDC8000 and begin with the timing. As soon as the display of the ALGE TDC8000 shows a running time, the GAZ will also show it (otherwise twist the connection plug at ALGE TDC4000 for 180° degrees).



Alternatively, you can also connect the GAZ to the ALGE TDC8000 with a banana plug cable (e.g. 000-10) directly to the banana plugs rightmost at the TDC.

4.1 GAZ4 controlled by ALGE Timer S4

- Connect data line 010-10 to Timer S4 and attach the GAZ (2) at the banana-connectors. Pay attention to the polarity of the GAZ-plugs (2), black banana plug to black socket and yellow banana plug to yellow socket.

- Place switch (1) at „0“ or „13“.

- Adjust requested display configurations with toggle switch (3) (see point 4).

Minutes, seconds, hundredth, (thousandth)

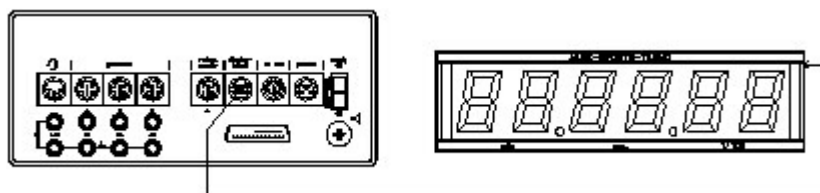
Hours, minutes, seconds (tenth)

- Switch-on/off the power supply

With aid of toggle switch (7) when GAZ includes an integrated power pack.

When display board has no power pack, with external supply as described in chapter 2. Power supply (e.g. external 12V battery).

- The display board signalizes the program version and enclosed with display of „ALGE“ the operational readiness.
- Select requested program of Timer S4, display board shows „blank“.
- Start with the timing. As soon as the display of the ALGE Timer S4 shows a running time, the GAZ will also show it.



Cable 010-10 from ALGE Timer S4 to the display board can be lengthened with a 2-wired cable (for approx. 1km). You can also use ALGE cable reels KT300 (300m) or KT500 (500m) as extension.

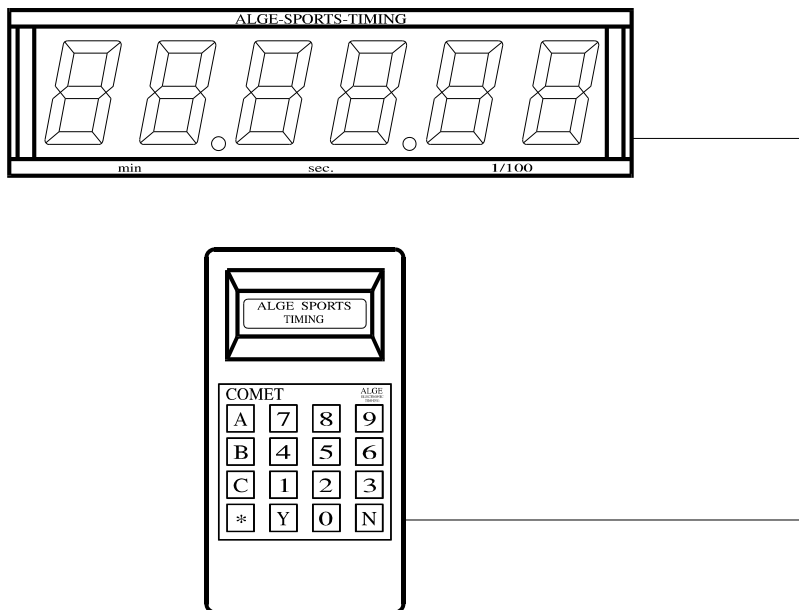
4.2 GAZ4 controlled by Comet

- Connect data line 030-10 or 060-10 to ALGE Comet and GAZ.
- Place switch (1) at „0“.
- Toggle switch (3) must be in middle position.
- Switch-on/off the power supply

With aid of toggle switch (7) when GAZ includes an integrated power pack.

When display board has no power pack, with external supply as described in chapter 2. Power supply (e.g. external 12V battery).

- The display board signals the program version and enclosed with display of „ALGE“the operational readiness.
- Switch-on ALGE Comet (e.g. program Commander), GAZ4 is ready for receiving.



Cable 030-10 is a 3-wired cable, which supplies the ALGE Comet from the display board.

Cable 060-10 is a 2-wired cable, which is particularly used in connection with cable reels KT300 or KT500. With these cables, ALGE Comet is not supplied from the display board.

4.3 GAZ4 controlled by Timy

- Connect data line 037-10 or 206-10 to ALGE Timy and GAZ.
- Place switch (1) at „0“.
- Toggle switch (3) must be in middle position.
- Switch-on/off the power supply

With aid of toggle switch (7) when GAZ includes an integrated power pack.

When display board has no power pack, with external supply as described in chapter 2. Power supply (e.g. external 12V battery).

- The display board signalizes the program version and enclosed with display of „ALGE“the operational readiness.
- Switch-on Timy (e.g. program Stopwatch) and select the requested program. GAZ4 is ready.



Cable 206-10 is a 3-wired cable, which supplies Timy from the display board.

Cable 037-10 is a 2-wired cable, which is particularly used in connection with cable reels KT300 or KT500. With these cables, ALGE Timy is not supplied from the display board.

5 CLOCK

5.1 *Start stopwatch from 0:00:00.00 on*

- Place switch at position 15.
- Put shift switch in middle position or push it down.
- Connect hand switch 023-02 to GAZ4 banana plugs (2).
- Switch-on GAZ and wait until it shows 0:00.00.
- Push hand switch shortly, clock starts.
- Afresh pushing of the hand switch stops the clock (intermediate time).
- By pushing the hand switch continues the clock running.
- Reset the clock to 0:00.00 by pushing the hand switch, until „ALGE“appears.

5.2 *Clock with time allowed*

- Place switch at position 15.
- Put shift switch in middle position or push it down.
- Connect hand switch 023-02 to GAZ4.
- Switch-on GAZ.
- If 0:00.00 appears, press hand switch until the front two digits appears.
- By shortly pressing of the hand switch you can now adjust the hours, minutes or second-digits (depending on setting of shift switch (3) and digits of the display board.)
- If you have indicated the right quantity of hours (max. 24 hours), of minutes (max. 60 minutes) or of seconds (max. 60 seconds), maintain to press the push button (don't let loose!) until the next two digits appears for adjusting or the indicated time of day is shown.
- If the time of day is displayed (all digits will be shown), you can start the time by shortly pressing the push button.
- By afresh pressing of the hand switch the time will stop, after the next impulse the clock will continue to run like after an intermediate time.
- A RESET you can achieve by longer pressing of the hand switch. Now you can adjust the clock as in the beginning.

6 COUNTDOWN WITH TIMEOUT

As countdown time, you can maximum indicate 99 hours, 59 minutes and 59 seconds. The count-down starts at the pre-adjusted time and ends at zero.

- Place switch (1) at position 14.
- Put shift switch in middle position or push it down.
- Connect hand switch 023-02 to GAZ4 banana plugs (2).
- Switch-on GAZ (7).
- If 0:00.00 appears, press hand switch until the front two digits appears.
- By shortly pressing of the hand switch you can now adjust the hours, minutes or second-digits (depending on setting of shift switch (3) and digits of the display board.)
- If you have indicated the two first digits, maintain to press the push button (don't let loose!) until the next two digits appears for adjusting or the indicated time of day is shown.
- Now you can start the countdown by shortly pressing of the push button.
- If the countdown reaches 0:00.00, the display will pause for three seconds. Afterwards hat return to the pre-adjusted countdown value.
- The countdown can be started new by pressing the push button.
- If the display board should be reset to the pre-adjusted time while the countdown runs, press the push button until the display board shows "ALGE".
If you let loose, the display board will change back to the pre-adjusted time.

7 TECHNICAL DATA OF GAZ4

7.1 Control system

State-of-the-art micro processor technology (80C31) in CMOS-techniques.

7.2 Display elements

Bistable 7-segment digits, yellow on black ground, minor electric power consumption, best readability, great operating safety

7.3 Casing

Aluminum casing, plastics coated (black) with plexi cover, for outdoor usage designed.

7.4 Time basis

Quartz oscillator with 9.2160 MHz.

7.5 Electric power consumption

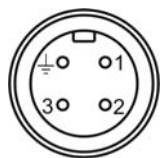
Standby Current: 10 mA

Surge current per segment in operating moment (every second at running clock).

Digit height	Surge current	Impuls duration
150	123	120
250	360	120
450	360	150

7.6 Connections

Two Amphenol plugs (left and right on every side of the display board)



- 1 +11 to 20 Volt
- 2 0 Volt
- 3 no connection
- E Data

Two data plugs: o Data line (RXD) yellow
 o mass black

7.7 Fuses

- 2 x T 0, 5 A / 220 V altering current fuse
- 1 x T 2 A / 220 V battery fuse

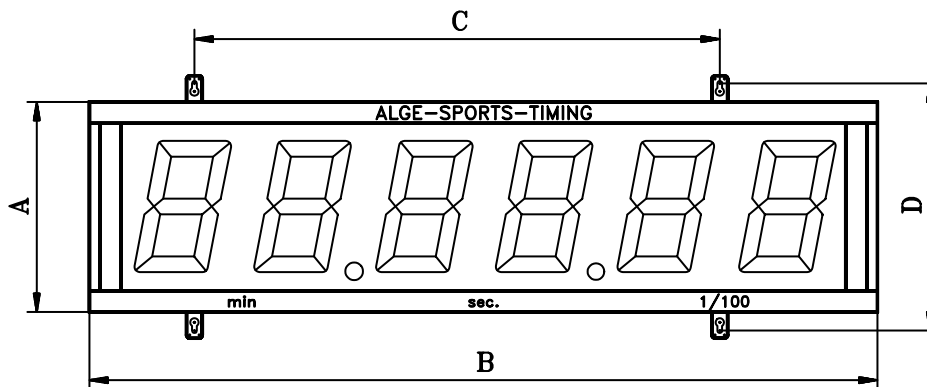
7.8 Power supply

- external: 11 - 20 V DC, 2 A
- On request with integrated power pack PP4 (rechargeables and charger for mains supply are built-in).
 - Rechargeable Battery:* NiCad batteries
 - Capacity:* 2.2 Ah / 12 V
 - Charging time:* 14 hours
 - Operating duration:* approx. 20 hours (25 cm digit height)
 - Charging connection:* 230 V or 110 V (built-in high voltage protection)
- On request with integrated power supply PS4 (built-in charger).
 - Mains supply:* 230 V or 110 V

7.9 Temperature range

-25 to 50°C

7.10 Dimensions and weights



Typ	kg	A (mm)	B (mm)	C (mm)	D (mm)	Depth (mm)	Readability appx. m	Operation time appx. h*
GAZ4 515	12	290	956	556	375	100	75	60
GAZ4 615	13	290	956	556	375	100	75	60
GAZ4 525	20	393	1493	1093	480	100	125	20
GAZ4 625	21	393	1493	1093	480	100	125	20
GAZ4 545	45	664	2490	2090	738	120	225	11
GAZ4 645	48	664	2490	2090	738	120	225	11

* At temperatures below 0°C, the operating duration decreases (at -20°C = approx. 20%)

7.11 Interface format

7.11.1 Serial Interface:

Signal compatible with RS232C Interface, serial, no handshake operation.

7.11.1.1 Standard Settings

2400 Baud
 1 Startbit
 8 Data ASCII-Bit
 1 Stopbit
 No Paritybit

7.11.1.2 Interface protocol

On the following side are the protocols indicated, which can be sent of the ALGE timing devices to the display boards.

J Identifier for interconnected display board A to J (A = board 1, B = board 2, C = board 3... J = board 10)
 Nt Start number (thousandth-digit)
 Nh Start number (hundredth-digit)
 Nz Start number (tenth-digit)
 Ne Start number (1-digit)
 H Hours
 M Minutes
 S Seconds
 z 1/10 Seconds
 h 1/100 Seconds
 t 1/1000 Seconds
 Rz Rank (tenth-digit)
 Re Rank (1-digit)
 X Carriage Return (0D Hex.) or Line Feed (0A Hex.) and Carriage Return (0D Hex.)
 . Identifier for running time if dot on fourth digit.
 A ALGE TdC 4000: Identifier for intermediate time 1 (at fourth digit)
 B ALGE TdC 4000: Identifier for intermediate time 2 (at fourth digit)
 C ALGE TdC 4000: Identifier for ending time (at fourth digit)
 D ALGE TdC 4000: Identifier for total time (at fourth digit)
 K Comet: 1 = Start channel, 2 = Start channel, 4 = Stop channel or 8 = Stop channel
 Tc Timer identification at the Comet (Timer A or B)
 Tt Timer S4 Split and 3-Parcours: Identification Parcours A, B or C
 Pr Identification for Timer S4 Parcours
 PZ Timer S4 Show Jumping: fault points (tenth-digit)
 PE Timer S4 Show Jumping: fault points (1-digit)
 Pz Timer S4 Show Jumping: fault points (1/10 points)
 Ph Timer S4 Show Jumping: fault points (1/100 points)
 #h Timer S4 18-Channel-Timer: continuously number (hundredth-digit)
 #z Timer S4 18-Channel-Timer: continuously number (tenth-digit)
 #e Timer S4 18-Channel-Timer: continuously number (1-digit)
 Pp Timer S4 Parallel slalom: Identification for show jumping
 r Timer S4 Parallel slalom: Identification for red parcours (ASCII r)

 b Timer S4 Parallel slalom: Identification for blue parcours (ASCII b)
 S Timer S4 Speed: Identification for speed timing
 § Timer S4 Speed: Identifier for measurement (01Hex=km/h, 02Hex=m/s or 03Hex=mph)
 Z Timer S4 Speed: Speed
 F Timer S4 Swim: Identifier for interconnected display board A to H (A=Tafel1, B=Tafel2... H=Tafel8)

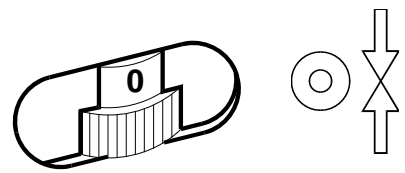
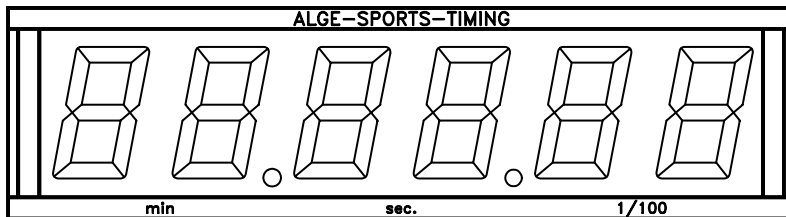
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
J	Nh	Nz	Ne						H	H	:	M	M	:	S	S	.	z	h	t	Rz	Re	X	ranking board
J	Nh	Nz	Ne						H	H	:	M	M	:	S	S	.						X	ranking board
Nh	Nz	Ne	.					H	H	:	M	M	:	S	S	.						X		TDC 4000
Nh	Nz	Ne	A					H	H	:	M	M	:	S	S	.	z	h	t	Rz	Re	X		TDC 4000
Nh	Nz	Ne	B					H	H	:	M	M	:	S	S	.	z	h	t	Rz	Re	X		TDC 4000
Nh	Nz	Ne	C					H	H	:	M	M	:	S	S	.	z	h	t	Rz	Re	X		TDC 4000
Nh	Nz	Ne	D					H	H	:	M	M	:	S	S	.	z	h	t	Rz	Re	X		TDC 4000
Nh	Nz	Ne	K	Tc			Nt	H	H	:	M	M	:	S	S	.	z	h	t	X				Comet Stopwatch
		Tt	.					H	H	:	M	M	:	S	S	.					X			Timer S4 / Split
		Tt						H	H	:	M	M	:	S	S	.	z	h	t	X				Timer S4 / Split
	Pr	Tt	.					H	H	:	M	M	:	S	S	.					X			Timer S4 / 3-Parcours
	Pr	Tt						H	H	:	M	M	:	S	S	.	z	h	t	X				Timer S4 / 3-Parcours
Pz	PE		.					H	H	:	M	M	:	S	S	.	z				Pz	Ph	X	Timer S4 / Show Jumping
Pz	PE							H	H	:	M	M	:	S	S	.	z	h	t	Pz	Ph	X		Timer S4 / Show Jumping
#h	#z	#e	.					H	H	:	M	M	:	S	S	.	z				X			Timer S4 / 18-Channel
#h	#z	#e						H	H	:	M	M	:	S	S	.	z	h	t	X				Timer S4 / 18-Channel
			Pp									r	:	S	z	.	h	t	X					Timer S4 / Parallel Slalom 1
			Pp									b	:	S	z	.	h	t	X	X				Timer S4 / Parallel Slalom 1
Pp	r							H	H	:	M	M	:	S	S	.	z				X			Timer S4 / Parallel Slalom 2
Pp	b							H	H	:	M	M	:	S	S	.	z	h	t	X				Timer S4 / Parallel Slalom 2
Pp	r											r	:	S	S	.	z	h	t	h				Timer S4 / Parallel Slalom 3
			S				\$				Z	:	Z	Z	.	Z	Z	X						Timer S4 / Speed
F												M	:	S	S	.	z				X			Timer S4 / Swimming
F												M	:	S	S	.	z	h			X			Timer S4 / Swimming
												M	:	S	S	.	z				X			Timer S4 / Swimming
												M	:	S	S	.	z	h	Re	X				Timer S4 / Swimming
#h	#z	#e	.					H	H	:	M	M	:	S	S	.	z				X			Timer S4 / Automatic
#h	#z	#e						H	H	:	M	M	:	S	S	.	z	h	t	X				Timer S4 / Automatic

8 Settings for GAZ4

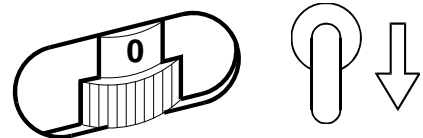
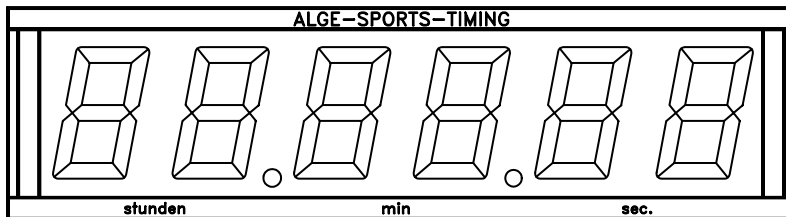
The display board can be adjusted to the requested display format – depending of the usage – with the shift switcher (3) or the switch (1)

The following examples are based on a standard display board GAZ4 with 6 or 5 digits.

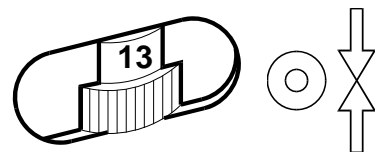
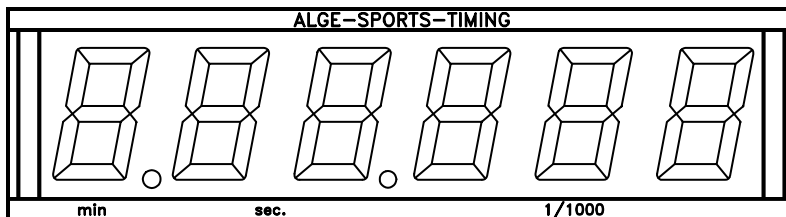
Minutes, seconds, 1/100 seconds:



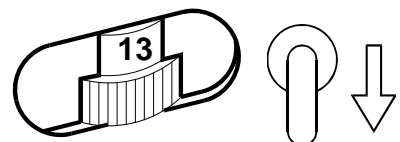
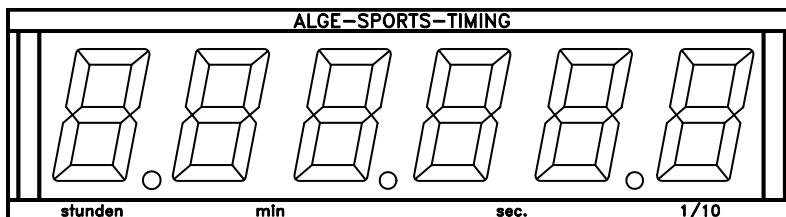
Hours, minutes, seconds:



Minutes, seconds, 1/1000 seconds:

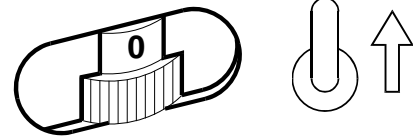
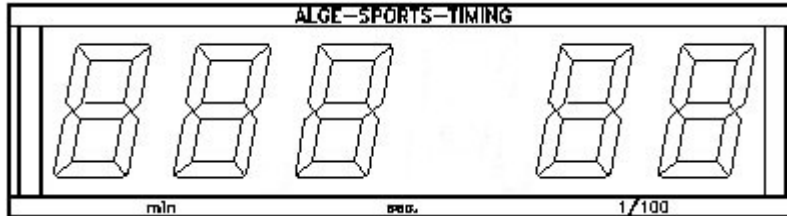


Hours, minutes, seconds, 1/10 seconds:

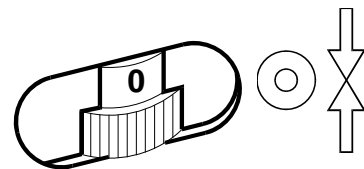
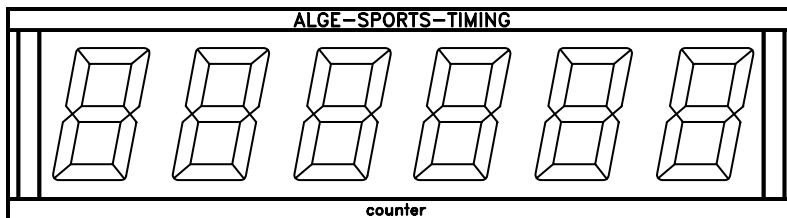


Start number / rank:

You can use a 5-digit or 6-digit display board. At the 6-digit display board, the fourth digit left will always be black (blank).

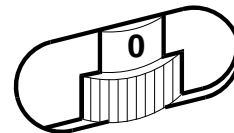
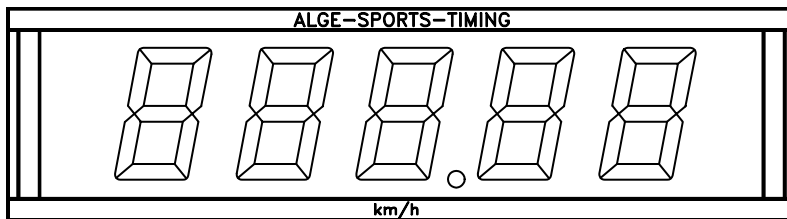


Counter (with Comet program Commander):



Speed measurement:

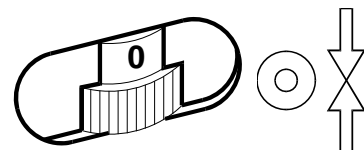
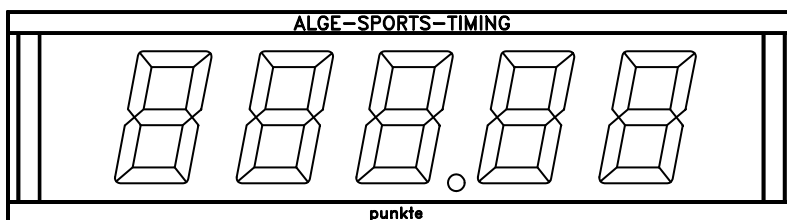
The speed can be displayed – depending on the timing device – in km/h, m/s or mph.



- | | | |
|---|----|-----------|
| Toggle switch middle and thumbwheel switch on | 0 | 1.23 km/h |
| Toggle switch middle and thumbwheel switch on | 13 | 12.3 km/h |
| Toggle switch down and thumbwheel switch on | 0 | 123 km/h |

Points:

Points can be controlled by a Comet (program Commander), Timer S4 (program Equitation) or of a personal computer.



9 RANKING BOARD

What is a ranking display board for?

Displays of 2 to 10 lines with the appropriate start number and rank. It is possible to scroll between the times.

Usage of a ranking board:

At big events for display of the latest intermediate and end results.

What is required for a ranking board?

- 1 ALGE TdC
- 1 Computer
- 1 PC-Software
- 2 to 10 pcs. ALGE GAZ (Start number / rank)
- 2 to 10 pcs. ALGE GAZ (time)
- 1 charger NGAZ/R for all display boards
- 1 x cable reel KT300 or 2-wired cable
- 1 adapter 069-02
- X x cable 033-01
- X x cable 033-10
- 1 x cable 010-01

