

# COMET

## Training



**ALGE**  
**TIMING**

English

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# 1. General

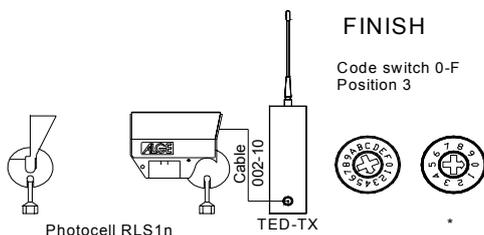
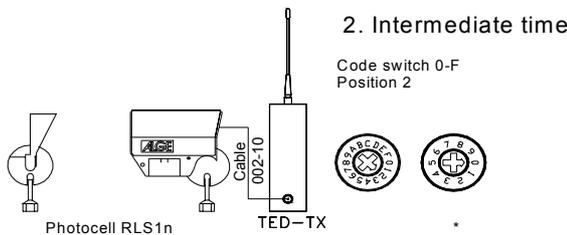
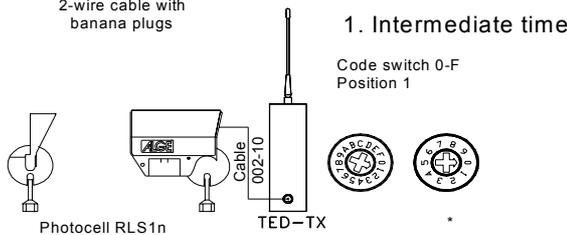
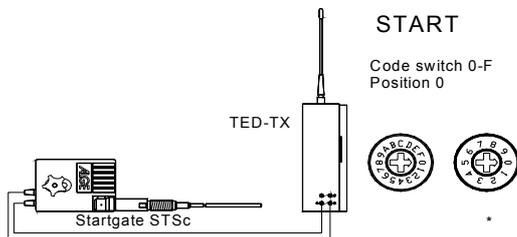
The program "Training" has the following characteristics:

- ♦ all competitors must have similar run times
- ♦ timing with as many as 4 competitors who are at the same time on the course
- ♦ timing with as many as 4 timing points (start, intermediate time 1, intermediate time 2, finish)
- ♦ at each timing point you can take the speed
- ♦ for each timing point you will use a separate timing channel
- ♦ you can fill in the starting number for each competitor or the starting number will be counted up automatically
- ♦ you can show the run times on the display board GAZ 4
- ♦ you can connect a printer and you can print the run times immediately
- ♦ you can store all run times and you can print the run times later or you can put the run times into a PC

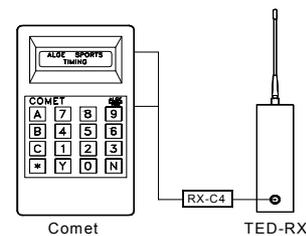
# 2. Connecting of the system among use from TED-transmitter-systems (without speed measurement)

Each TED-TX must have an own address from 0 to 3. For this you will use the 10-wire switch on the bottom of the TED. In this example we do this with 0 (= start) to 3 (= finish). But you can change the channel like you want, that means the start can have channel 2 and the finish can have channel 1.

The only important thing is that the channels are always the same (already at the reference running).



\* If there are more teams you can choose and address with this switch. (See TED operating instructions.)

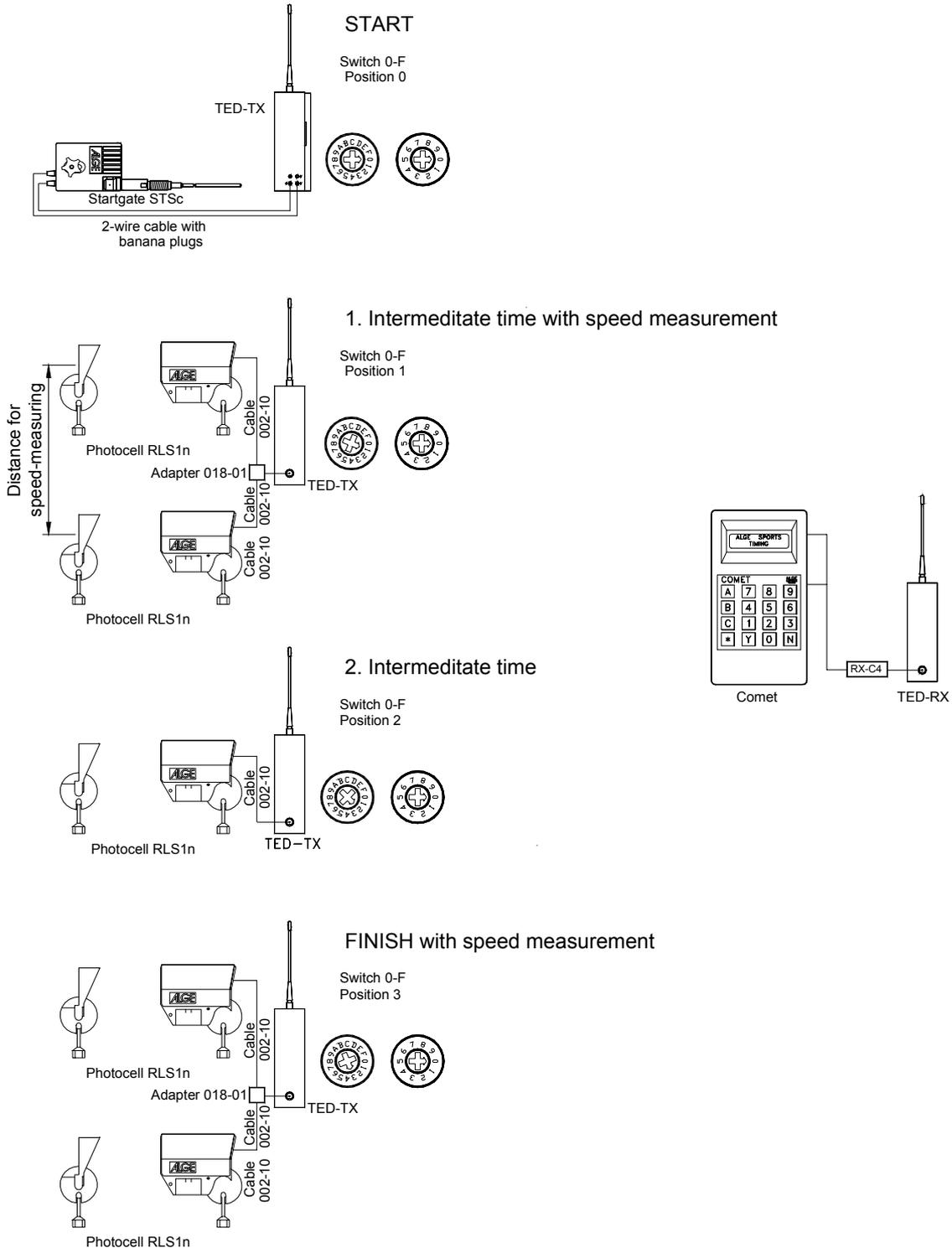


With this channel you must use the green cable 002-10 (or banana cable 000-05). If you use the red cable 001-10 the other channel (0,2,3 and 4) have to be closed.

For TED-RX you have to use the adapter RX-C4. The adapter evaluate the software which is transferred from the channel and the adapter give this information in a right hardware way to the ALGE Comet.

### 3. Connecting of the system among use from TED-transmitter-systems (with speed measurement)

You can make the speed measurement at any timing point. You will need for each speed measurement a further photocell.

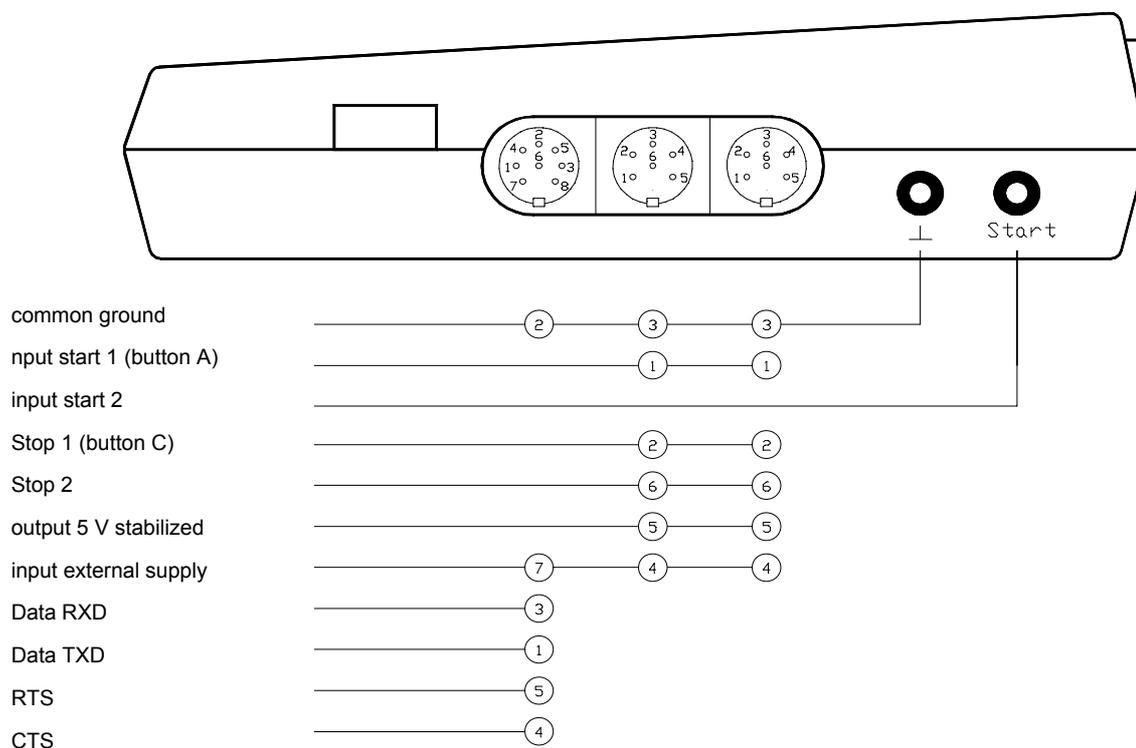


## 4. Channels for the impulse

For the **ALGE** Comet you have to use for each timing point another channel. The **ALGE** Comet has altogether 4 channels and so you can work up in 4 timing points (start, intermediate time 1, intermediate time 2, finish).

Will you take the speed at any timing point you have to use for both photocell the same channel.

### 4.1. Banana socket arrangement



### 4.2. Channel arrangement

Banana socket	Channel 1
DIN-plug PIN 1	Channel 2
DIN-plug PIN 2	Channel 3
DIN-plug PIN 6	Channel 4

## 5. Order of events

☛ Switch on the ALGE Comet.

☛ Wait until the display shows the following:

```
Ref-Running  
clear Y/N
```

☛ If there has not been any reference running push the button . The display shows following:

```
ALGE TRAINING  
TIMING POINTS ? #
```

☛ Fill in the number of the timing points. If you want e.g. one start, two intermediate times and one finish you have to fill in 4 (minimal number = 2; maximum number = 4) and confirm the input with .

```
Tolerance:  
+/-05s
```

☛ Fill in the tolerance between the competitors and the reference runner. The reference runner should not be the fastest or the slowest competitor. The best thing is you take an average runner. The tolerance time shows how many seconds the other competitors are allowed to be faster or slower. Fill in e.g. 5 seconds (05) and confirm the input with . The display shows following:

```
PRINTER  
CONNECTED Y/N ?
```

or

```
DISPLAYBOARD  
CONNECTED Y/N ?
```

☛ With  you can confirm the respective display. With  you can change to the other one. If there is connected a printer you have to choose a printer if there is connected a display board you have to choose the display board. If there is nothing from both connected you can continue with .

☛ Set display time:

```
DISPLAYTIME 03  
CONTINUE WITH *
```

☛ Set the time during which the display and the display board should show a result.

```
0125 TIMES  
CLEAR Y/N?
```

☛ Delete the old times with the button .

```
MEMORY EMPTY  
CONTINUE WITH *
```

- ☛ Confirm with the button \*, that you want to delete the times.

WITH SPEED Y/N?

- ☛ If you want to take the speed at one or more timing points push the button Y. The details we will explain in the chapter 5.3. If you do not want a speed measurement push the button N.

WRITE SYNC-TIME  
# : :

- ☛ Set the day time in hours, minutes and seconds and confirm with the button \*.

WAITING FOR  
SYNC - IMPULSE

- ☛ Start the day time with the button A or with the channel with the banana socket.

COMET IS READY

- ☛ Start the reference running, that means a representative competitor set an index time for each impulse. During the time when the reference runner is on the course it is not allowed for any other competitor to start. For the reference runner you can fill in a start number. If you do not want to fill in a start number the Comet take automatically the start number 1. It is important that you make the reference running correctly.

1 0:01

- ☛ The reference running has been started. The reference runner has the start number 1.

1 RE\* 1:10.323

- ☛ The reference running from the start number 1 is finished in 1:10:323.

Comet is ready

- ☛ Start of the next competitor (Start number 2, continuous, automatic numbers)

2 \* 0:01

- ☛ The star shows that no competitor is allowed to start. The starting interval result in the double and a half fold tolerance time ( 5 seconds tolerance time = 12,5 seconds starting interval).

2 0:01

- ☛ If the star is going out you will hear a "Piep" tone. Now the next competitor can start.

2	*	0:14
3		0:01

- ☛ The intermediate time from the competitors will be shown only on the display. After further 12,5 seconds, after the start from start number 3 the next competitor can start. Maximum 4 competitors are allowed to be on the course.

- ☛ The competitor with the start number 2 is coming into the finish. The time will be shown for circa 3 seconds.

2	1:10.250
3	0:57

- ☛ and so on.

## 5.1. Fill in the start number

Fill in the start number of the competitor who is the next starter with the keyboard and confirm this input with .

## 5.2. New reference running

- ☛ You can start at any time a new reference running. This is necessary if the first reference running was e.g. too slow or the course has been changed.

- ☛ Push the button .

Reference running clear Y/N
--------------------------------

- ☛ Push the button  to start the new reference running.

- ☛ Now you have to fill in the same data as like you have already done after switching on the ALGE Comet. The old times are stored.

## 5.3. Speed measurement

WITH SPEED Y/N?
--------------------

- ☛ Push the button  to make the speed measurement ready.

DISTANCE 10 m
------------------

- ☛ Fill in the distance between the photocell and confirm with . This distance have to be always the same at each timing point.

Start: 1	Zw1: 1
Zw2:	End: 1

- ☛ Start means timing point 1, Zw1 means timing point 2, and so on. If you will take the speed at the timing point 1 and at the timing point 3 you have to confirm at start "1", Zw1 "0", Zw2 "1" and End "0".
- ☛ The input will be done with the button  (=1) and  (=0). To come to the next timing point push the button .
- ☛ To come to the next menu point push the button .

## 5.4. Show memory times on the display

- ☛ You can show at any time the memory times on the display. Normally only the running time is shown on the display. Push the button  and you can also see the day time.
- ☛ Push the button  to show the memory time.

VIEW TIME FROM MEMORY Y/N ?
--------------------------------

- ☛ Push the button  to look at the memory time.

4 Str
----------

- ☛ "Str" means start time if there is no other time on the display. If you want to show the day time of the start time you have to push the button . The 4 shows the start number.

4 Str 10:52:04.342
-----------------------

- ☛ With the button  you can go forward (direction lowest day time), with the button  you can go back (direction higher day time).

3	1:10.451
End	10:45:15.587

- ☛ If you see "End" on the display that means it is an end time (finish time). The above time shows the run time and the lower time is the day time (only if you have switched on the day time with the button .
- ☛ To finish the memory-mode push any number.

## 5.5. Show the memory time on the printer or PC

By pressing the button  you can show at any time the memory times on a printer or a PC.

Send times to printer?

➡ Push the button  and the times will be printed, push the button  and the datas will not be printed.

## 6. Interface data

### 6.1. RS 232c Interface

2400 Baud, 1 start bit, 8 daten bit, no parity bit, 1 stop bit  
ASCII, Duplex, Hardwarehandshaking

### 6.2. Data protocol

**PC to Comet:**

ALGE#T(CR) Request on the Comet to transmit the time memory

**Comet to PC:**

#####	start nummer (max. four digits)
Str	start time
#####xStrR(CR)	Zw1 intermediate time 1
#####xZw1RxxMM:SS.zht(CR)	Zw2 intermediate time 2
#####xZw2RxxMM:SS.zht(CR)	End run time (total time)
#####xEndRxxMM:SS.zht(CR)	R reference running
#####xStr(CR)	x blank
#####xZw1xxxMM:SS.zht(CR)	HH hours
#####xZw2xxxMM:SS.zht(CR)	MM minutes
#####xEndxxxMM:SS.zht(CR)	SS seconds
AAAAxALGE	z tenth seconds
	h hundredth seconds
	t thousandths seconds
	AAAA numbers of the transmitted times
	ALGE code for end of data transfer
	(CR) carriage return

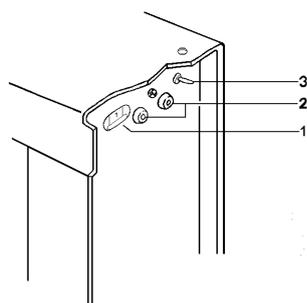
## 7. Setting of the display board GAZ 4

The end times could be shown on the ALGE display board GAZ4.

**Setting of the display board:**

time:

Set the thumb wheel switch (1) of the GAZ4 at 0  
Shift-switch (3) in middle position



- 1 Thumb wheel switch
- 2 Data input
- 3 Shift-switch

**Data cable from Comet to display board:**

- 030-10 (with Comet power supply from GAZ)
- 060-10 (2-wire, without Comet power supply)

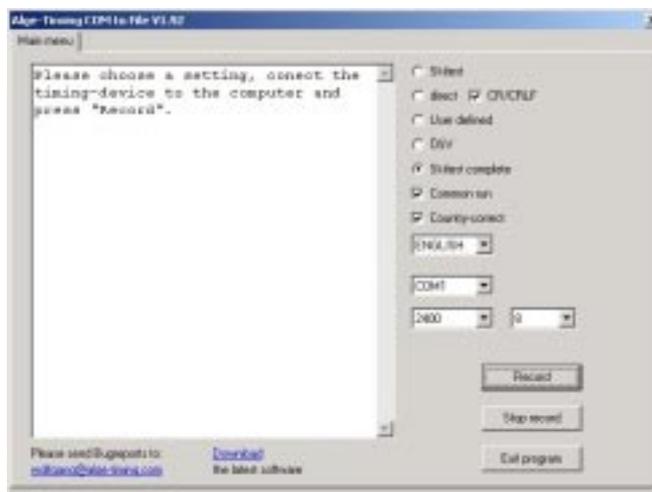
## 8. Evaluation with the PC

For the evaluation with the PC has **ALGE** a special software: ComToFile. With this program you can transfer data from the interface to the PC. To make the data transfer connect the Comet with the PC and the cable 067-02 to the interface of the PC.

### 8.1. Install of the CD

**Tip:** If you install the program „C:\Eigene Dateien“ you can work with the excel-model.

### 8.2. Work with: ComToFile.exe



Choose on the right side the setting (e.g. skitest complete) push „Record“ to choose the right file. The setting from the factory is „Tabelle.txt“. If you do not change this setting you can use the available models.

### 8.3 Data transfer

To start the data transfer push two times the button . You can see the received data at the monitor.

If the data transfer is finished push „Stop record“ to close the file.

### 8.4. Import data in EXCEL

Start Excel. Choose with file/open/Textfile: Tabelle.txt, Push finish.

If you want use the available models you can open: e.g.: C:\Eigene Dateien\Skitest komplett 4 Messtellen.xls

With this table you have connection with the file Tabelle.txt. If you open this file the tables are made topical automatically.

Details you will find: C:\Eigene Dateien\read me.txt. This program you will find at the **ALGE**-CD. You can also download this program from the internet. [http:// www.alge-timing.com](http://www.alge-timing.com)