

List of Contents

GENERAL.....	2
Entering skitest program	3
Input of slope conditions	4
TIME MEASUREMENT	5
Time measurement without speed	6
Time and speed measurement	8
INTERFACE DATA	10
RS 232c interface	10
Data record	10
ADJUSTMENT OF THE DISPLAY BOARD	11
CABLE	11

***GENERAL**

The COMET with the program „SKITEST“ is the ideal timer for ski-and wax testing.

Enter all important air- and snow-data at the beginning. These data can be brought up to date at any time. They are stored together with time and date and can be transferred to a PC. Up to 150 slope condition data can be stored in the Comet.

All start- and stop-times are viewed in the display and are stored. Up to 750 times can be stored (3750 with large RAM). All times and speeds can be displayed on an ALGE display-board as well.

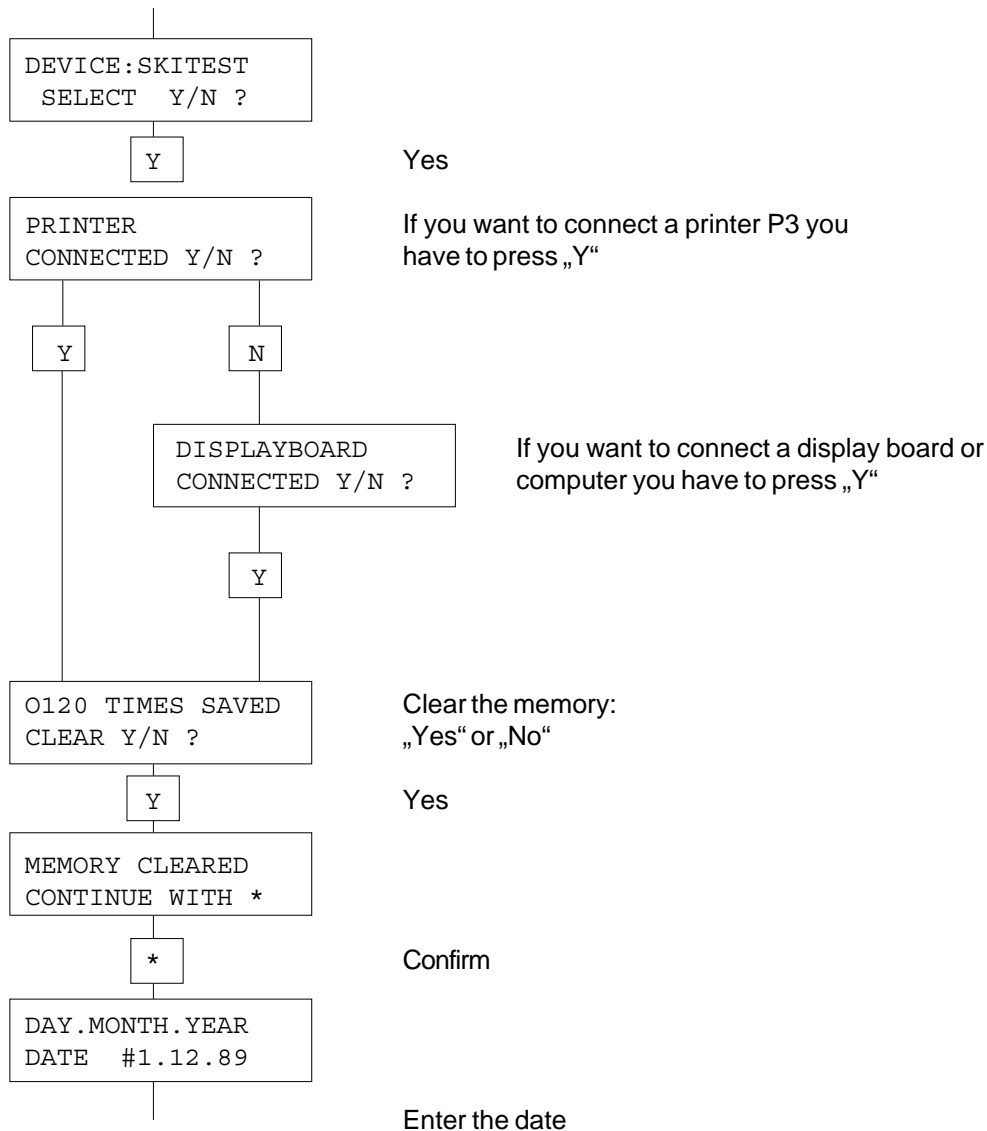
Just one competitor can be on the course with skitest mode. An observation-time guarantees, that in the case of a competitor falling the time will be cleared again.

The number of measuring spots (photocell, startgate) is optional.

If you enter the distances between the photocells, the speed in the specific sections will be viewed.

ENTERING THE SKITEST PROGRAM:

You can receive the data from the RS 232 interface on a display-board, Printer P4, or Computer. If you want to connect a display-board or computer choose the display-board, if you use a printer choose the printer. If you do not use the serial interface, you can choose either one.



Now the comet is ready for piste conditions.

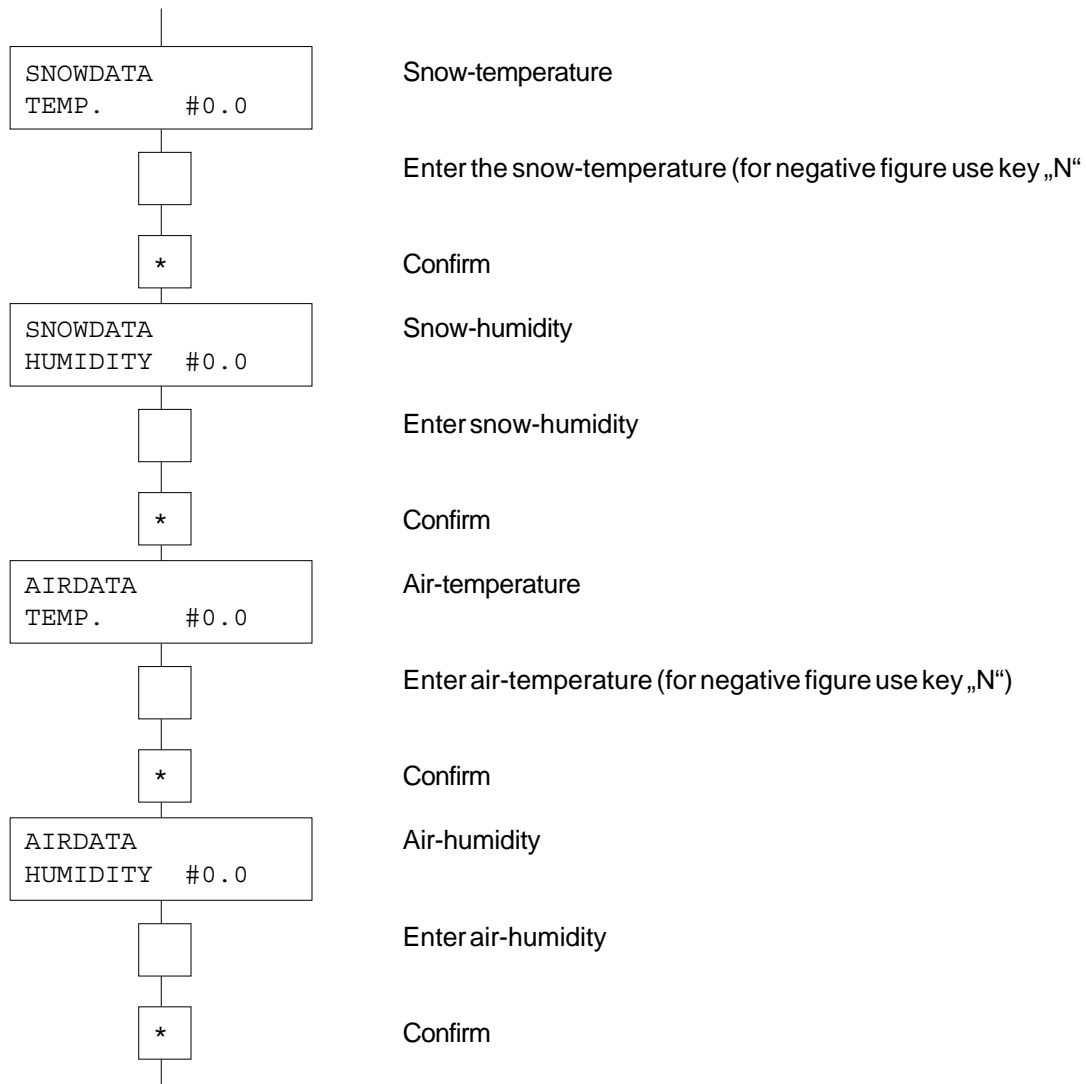
INPUT OF SLOPE CONDITIONS:

There are four criteria for slope conditions:

- snow-temperature
- snow-humidity
- air-temperature
- air-humidity

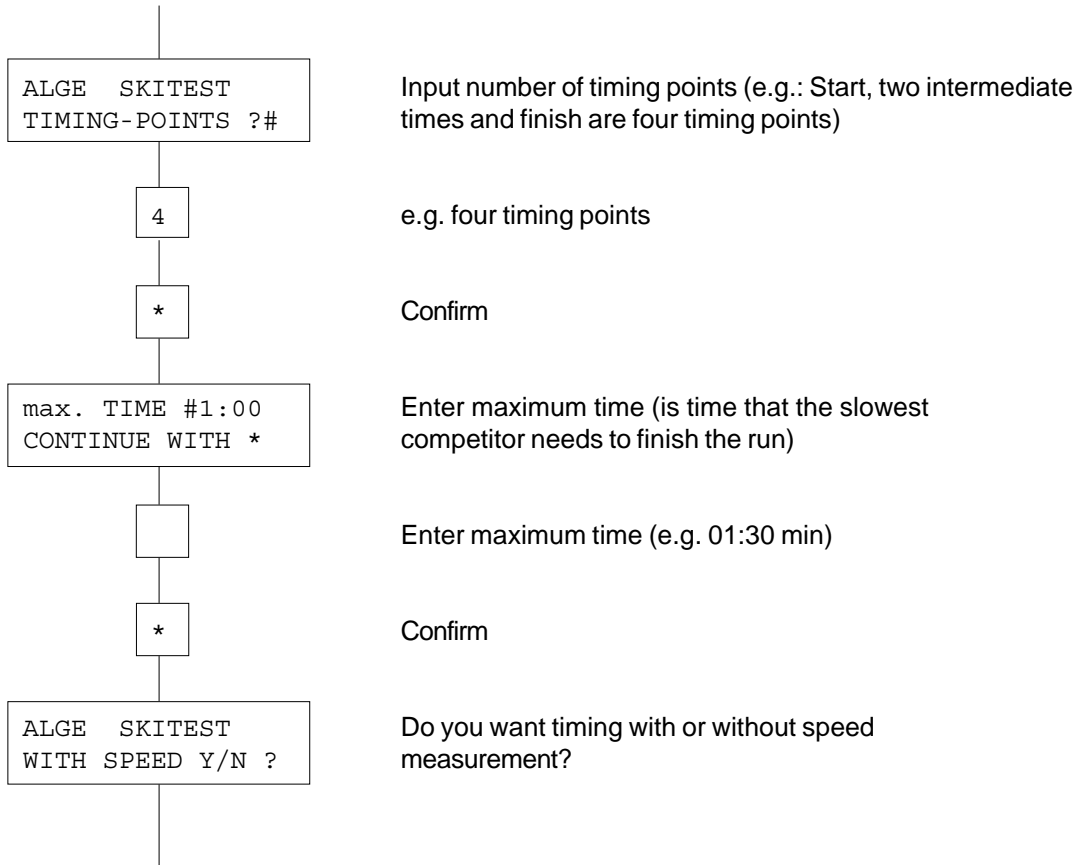
Slope conditions must be entered before the skitest starts. These data can be brought up to date at any time during the testing by pressing key „B“. All data will be stored together with the time of day.

To enter a negative figure use key „N“.



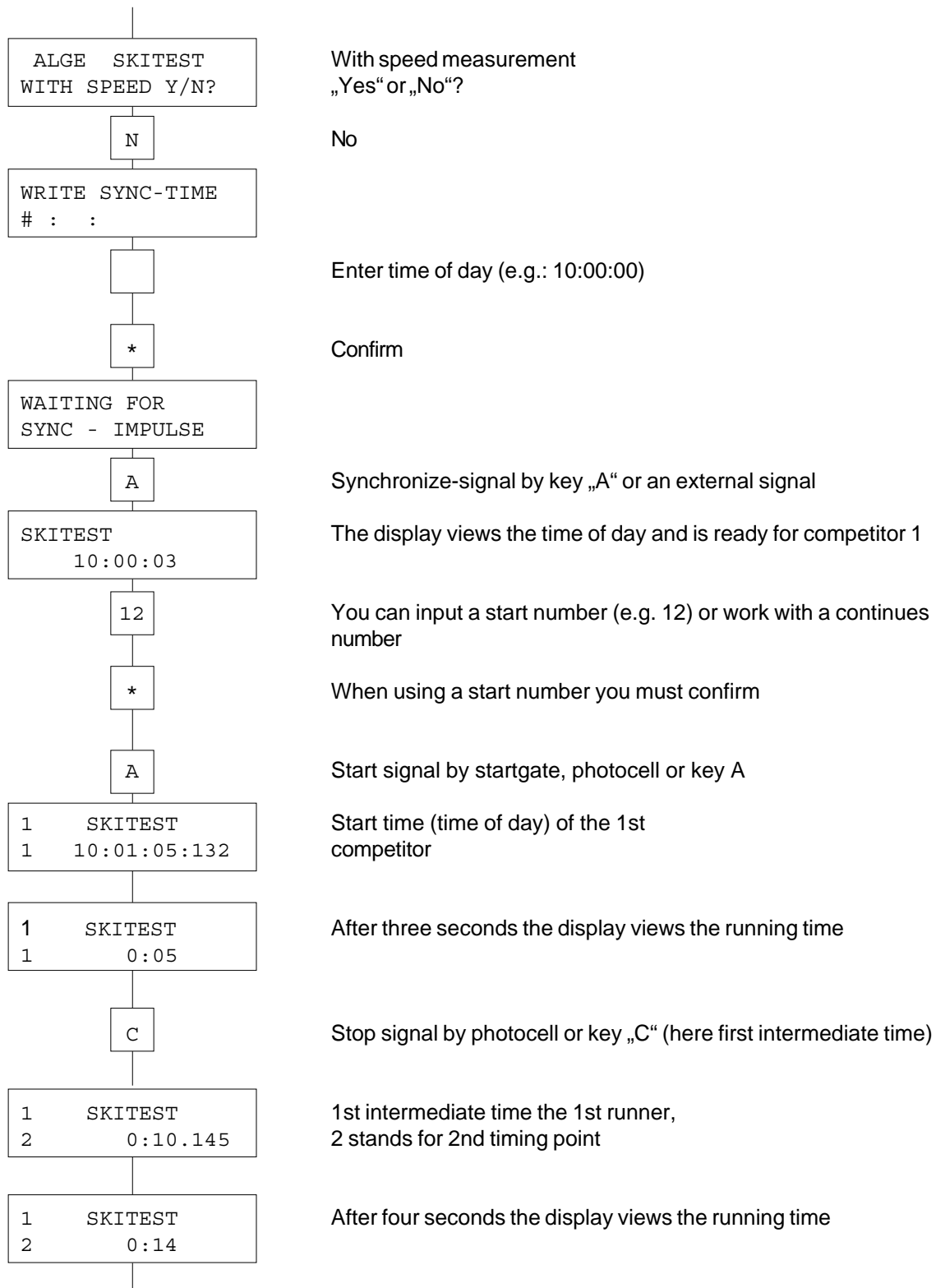
New data can be entered any time by pressing key „N“.

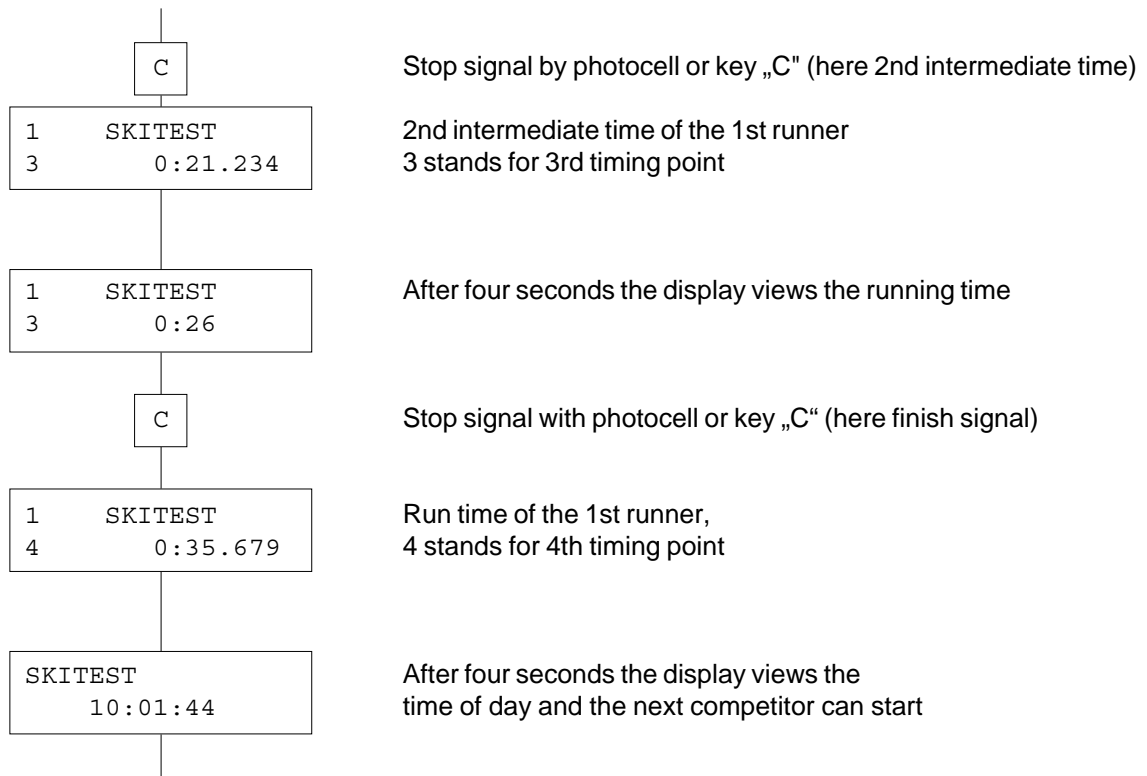
TIME MEASUREMENT



TIME MEASUREMENT WITHOUT SPEED:

All times are stored and can be displayed on an ALGE display-board.

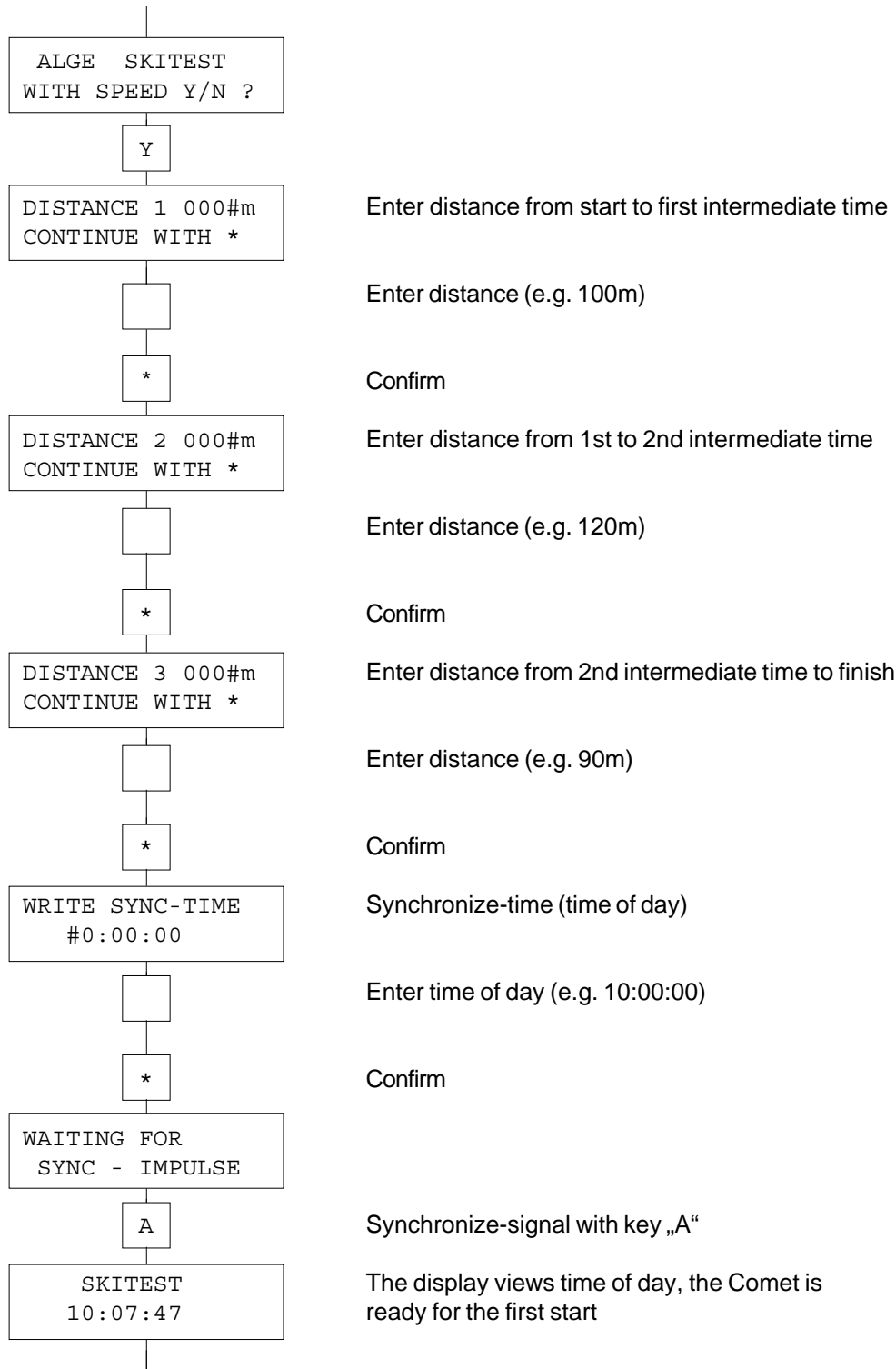


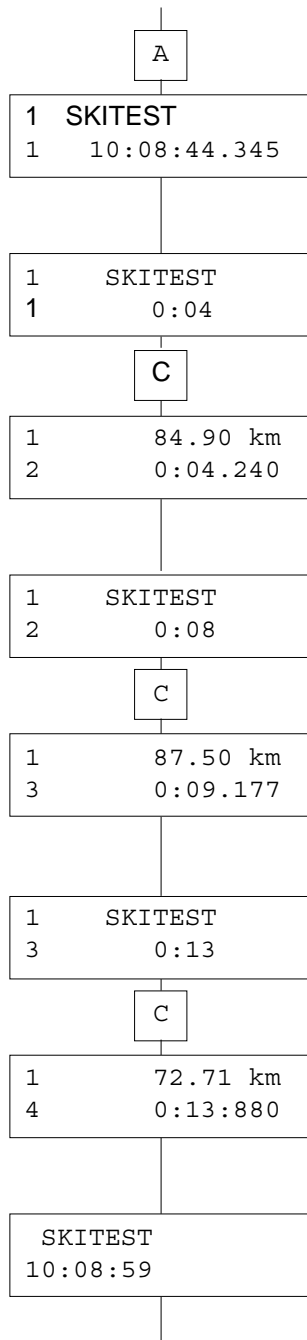


If a competitor does not reach the finish or misses a photocell, the next competitor has to wait until the maximum-time has elapsed.

TIME AND SPEED MEASUREMENT:

In this mode all times and speeds can be viewed on an ALGE scoreboard and in the display. All times will be stored, speeds however will not be stored in the Comet.





Start signal with startgate, photocell, or key „A“

Start time (time of day) for the 1st runner

Display switches to running time after three seconds, 1 stands for 1st timing point

Stop impulse by photocell or key „C“

Speed and time from start of 1st intermediate time, 2 stands for 2nd timing point, 1 for 1st runner

Display views running time after four seconds

Stop-signal by photocell or key „C“

Speed and time from 1st to 2nd intermediate time of the 1st runner, 3 stands for 3rd timing point

Display views running time after four seconds

Stop-signal by photocell or key „C“

Speed and time from 2nd intermediate time to finish, 4 stands for 4rd timing point

Display views time of day after four seconds, next competitor can start now

INTERFACE DATA

RS 232c interface:

2400 baud, 1 start bit, 8 data bit, no parity bit, 1 stop bit
ASCII, duplex, hardware handshake

DATA RECORD:

Computer to Comet:

ALGE#T(CR) order to transfer times stored in the Comet to the Computer
ALGE#B(CR) order to transfer slope data from the Comet to the computer

Comet to Computer:

1234#K##HH:MM:SS.zht(CR) Time

123#TT.XX.YY#HH:MM(LF)(CR) Data of the slope
####TS#-12.3(LF)(CR) Snow temperate
####HS##50.3(LF)(CR) Snow humidity
####TA#-17.6(LF)(CR) Air temperature
####HA##70.9(LG)(CR) Air humidity

(LF) line feed
(CR) carriage return
K chanal (1, 2 = start; 4, 8 = stop)
HH hours
MM minutes
SS seconds
z tenths of a second
h hundredths of a second
t thousandths of a second
1234 continous run number
TT day
XX month
YY year
TS snow-temperature
HS snow-humidity
TA air-temperature
HA air-humidity
..... space bar

ADJUSTMENT OF THE DISPLAY BOARD

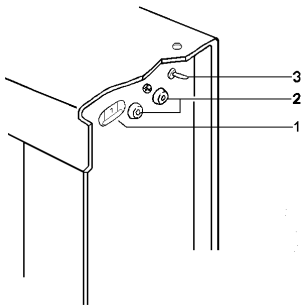
All stopped times and speeds can be displayed on ALGE display-boards GAZc.

Display-board for time:

thumb wheel switch on position 0
toggle switch in middle position

Display-board for speed:

thumb wheel switch on position 1
toggle switch in middle position



- 1 thumb wheel switch
- 2 banana psockets for data input
- 3 toggle switch

Data cabel from the Comet to the display board:

- 030-10 (with power supply form the display board)
- 060-10 (2 line cable without power supply)

CABLE

Comet - Start:	Cable 000-xx Cable 002-xx
Comet - Intermediate Time:	Cable 001-xx
Comet - Finish:	Cable 001-xx
Comet - Display Board:	Cable 030-10 (2 lines, without power supply for Comet) Cable 060-10 (with power supply for Comet)
Comet - PC:	Cable 066-03 (25 pin computer cable) Cable 067-02 (9 pin computer cable)