

*THE SPECIALIST FOR
SPORTS TIMING
START DEVICES FOR
TRACK AND FIELD*



ALGE
TIMING

V1510.1

START DEVICES

Electronic Startgun e-Start

The electronic Startgun e-Start provides absolute accuracy and synchronization of the start signal, visible flash, and start tone. It replaces traditional starting guns with smoke, blank cartridges, and possible human error. Problems due to transporting firearms are history as well.

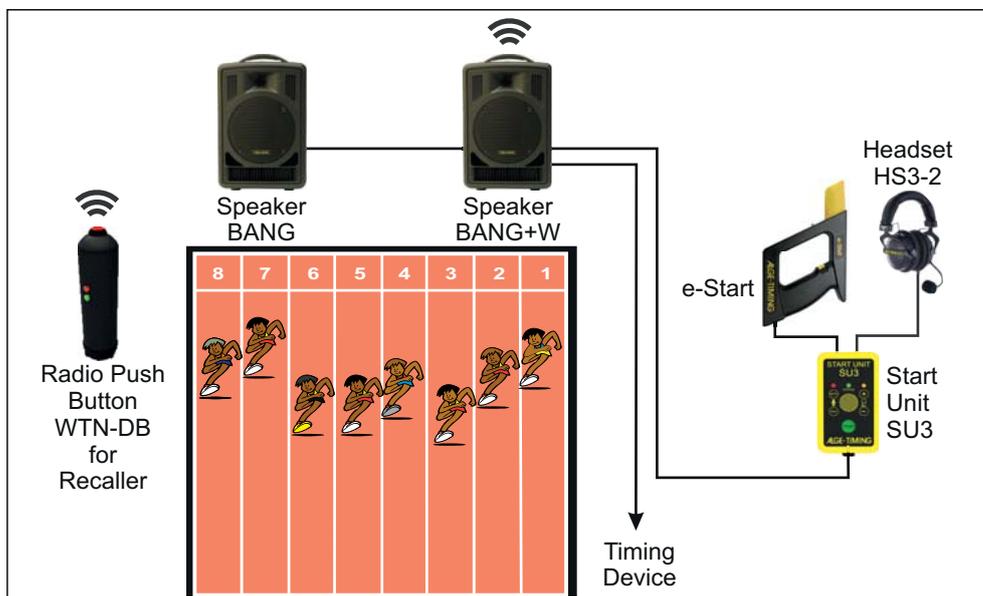
The e-Start interfaces directly with other **ALGE-TIMING** devices like the speaker system BANG or the false start system for athletics Start Judge SJ. It has a trigger (push button) that activates a start impulse and a built-in electronic flash. The trigger signal is distributed by cable to other devices of the system.

Why use the electronic start gun e-Start:

- Fair start conditions for all athletes
- Highly visible strobe light shows start and false start
- No further costs for blank cartridges
- No problems with the start because of defective ammunition or not loaded start guns
- No weapon license is necessary
- No problems to transport start guns at borders

Technical Specification

Flash: 4 x LED (Ultra Bright Power LED)
 Operating Temperature: -20 to 45°C (-4 to 113 F)
 Measurements: 265 x 150 x 35 mm
 Weight: ca. 0.3 kg (0.66 lb)
 Connection: fix cable with 2 m length and DIN-plug



Compatible ALGE-Devices:

- BANG
- False Start System Start Judge SJ
- Start Unit SU3
- Photo Finish OPT1c2
- TdC8001 / TdC8000
- Timy3 WP
- Timy3 W
- Time Manager TM
- Timer S4

START DEVICES

Electronic Startgun e-Start W

The electronic Startgun e-Start W provides absolute accuracy and synchronization of the start signal, visible flash, and start tone. It replaces traditional starting guns. Problems by transporting firearms are history as well.

The e-Start W interfaces directly with other ALGE-TIMING devices like the speaker system BANG W, Wireless Timing Network WTN, or Timy3 WP. It has a trigger (push button) that activates a start impulse and a built-in electronic flash. The trigger signal is distributed by radio to other devices of the system.

Why use the electronic start gun e-Start W:

- Fair start conditions for all athletes
- Highly visible strobe light shows start and false start
- No cables that the starter has to take care of
- No further costs for blank cartridges
- No problems with the start because of defective ammunition or unloaded start guns
- No weapon license is necessary
- No problems to transport start guns at borders

Technical Data

Flash: 4 x LED (Ultra Bright Power LED)

Connection: Socket for charger PS12A

Operating Temperature: -20°C to 45°C (-4°F to 113°F)

Measurements: 265 x 150 x 35 mm

Weight: ca. 0.5 kg (1.1 lb)

Radio Modem:

Frequency: 2.4 GHz Band, 16 adjustable frequencies

Power Output: 10 mW or 10 to 100 mW (adjustable)

Timing Channels: 5 different channels (c0 (start), c1 (finish), c2,c3, c4)

Range: about 350 m at free sight

Battery:

Battery: Li-Ion rechargeable battery 3.6 V / 10.4 Wh (integrated)

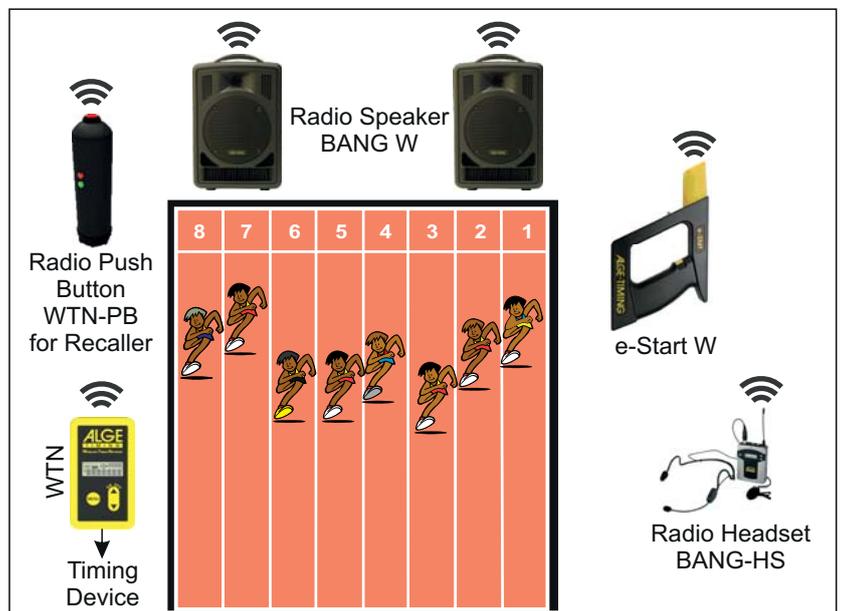
Charging Duration: about 4 hours (loading temperature 0°C to +45°C (32°F to 113°F))

Operating Duration: about 45 hours at 22°C (72°F) and one impulse per minute
about 23 hours at -20°C (-4°F) and one impulse per minute



Compatible ALGE Devices:

- BANG W
- WTN with photo finish OPTIc2
- WTN with ALGE timing device
- Timy3 WP
- Timy3 W
- Radio Push Button WTN-PB
- Radio Headset BANG-HS



START DEVICES

Electronic Start System BANG

The electronic start system BANG allows a simple, unproblematic start. It consists of a transportable amplifier speaker box (active speaker with 80 W_{max}). The timing system gets the start impulse from the BANG. When the BANG is activated a start sound (imitated gun shot) is activated. If the BANG is triggered a second time within 5 seconds, a false start sound is generated.

The starter can speak through a radio microphone BANG-HS using the amplifier speaker system BANG (e.g. starting commands for athletes).

The start sound is triggered by a push button (closing contact). If a flash is needed for disabled competitors or to have a more precise manual timing, a start impulse trigger e-Start can be used. This electronic startgun has an integrated flash.

Advantages of the Start System BANG:

- Start system is always ready, no reloading of a gun necessary.
- No starting problems due to unloaded startguns or bad blanks.
- No costs for expensive blanks.
- There is no cleaning of guns necessary after the end of a race day.
- No legal problems with the use of the start system (in many countries a gun license is necessary for a startgun).
- No problems to transport the start system BANG (in many countries the gun and ammunition must be transported in separate vehicles).
- When using the "StartUnit3", it is possible to communicate with the time keeper and to make announcements over the speakers of the start system (e.g. StartJudge SJ) and the BANG.



Different versions of the electronic start system are available:

Cabled System BANG: The BANG receives a start impulse through a cable from an impulse trigger device. With the radio headset BANG-HS it is possible to speak by radio over the BANG.

Radio System BANG W: The BANG W gets a start impulse through a radio from an impulse trigger device. The BANG W has a built-in radio module of the series Wireless Timing Network WTN. It is not possible to connect an impulse trigger device at the BANG W by cable.

Cable and Radio BANG CW: The BANG CW receives the start impulse by cable from an impulse device (e.g. e-Start). Additionally it has a built in radio receiver (WTN) that receives the false start impulse (e.g. from a radio push button WTN-PB). The false start impulse can be received as well by cable. The radio headset BANG-HS can not be used with this model.

Accessories:

BANG-HS: Headset to speak over the BANG or BANG W

BANG-TRI: Tripod for BANG-series with an adjustable height between 107 and 157 cm

BANG-BAG: Splashproof protective bag for BANG-series with a sound transparent front

BANG-SPK: Passive Horn Speaker to connect at the BANG-series (connect up to 4 BANG SPK)

e-Start: Start impulse trigger (startgun replacement for starter) with built-in flash to connect by cable with the BANG or BANG CW and timing system

e-Start W: Start impulse trigger (startgun replacement for starter) with built-in flash to connect by radio with the BANG W and timing system with WTN system

Start Unit SU3: Amplifier for communication headset

Headset HS3-2: Headset to communicate with timing operator and to give oral commands. Usable with SU3 and BANG and BANG CW.

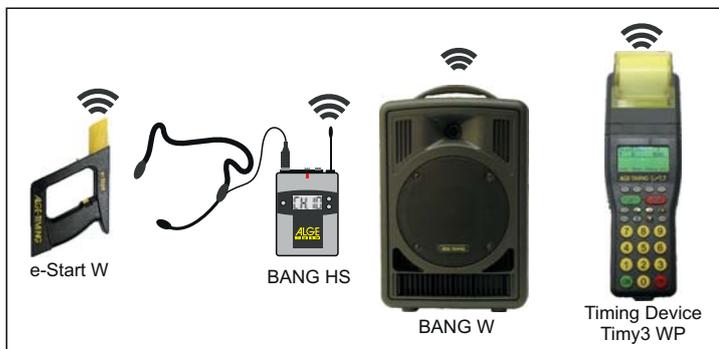
FLASH: Start flash (LED with integrated batteries) e.g. for hearing impaired athletes



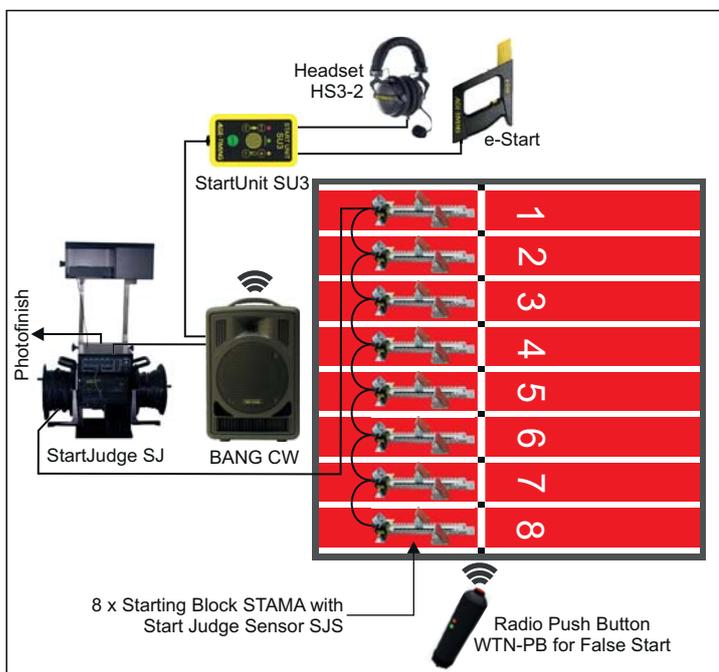
START DEVICES

Electronic Start System BANG

The start system BANG is ideal to combine with existing ALGE-TIMING devices. It is possible to use one or more BANG speakers in a start system.



The picture to the left shows a BANG W connected by radio with the electronic start impulse device e-Start W. The e-Start W replaces a traditional startgun. If you trigger it, the start impulse is transmitted by radio to the BANG W and the BANG W outputs the start sound (imitated gun shot). At the same time the start impulse is transmitted to the timing device (e.g. Timy3 WP). The starter can give oral commands (e.g. ready, take your marks) to the competitors using the wireless headset BANG HS.



The start system BANG CW can also be implemented into an athletic false start system. When the impulse device e-Start is triggered the BANG CW and the speakers of the false start system StartJudge SJ imitate a gun shot. If the starter triggers the e-Start again within 5 seconds the speakers release a false start sound. With the radio push button WTN-PB the recaller can activate a false start signal (no start impulse).



- 1Receiver for wireless headset WTN-HS
- 2Cable connection for BANG to timing devices
- 3Wireless Timing Network WTN for BANG W
- 4On/Off switch
- 5Amplifier for Speaker (connection and adjustments)
- 6Power supply for mains (90-265 V)

Technical Data:

| | |
|-------------------------------|---|
| <i>Output Power:</i> | 80 W _{max} / 50 W _{RMS} |
| <i>Speaker System:</i> | 2-way speaker system 20 cm bass speaker (8"), 2.5 cm tweeter(1") |
| <i>Frequency Range:</i> | 20 – 20,000 Hz |
| <i>Mic-Input:</i> | 6 mV |
| <i>Line-Input:</i> | 800 mV |
| <i>Timing Input/Output:</i> | 2 x LTW-socket (7-pin, male) 1 x DIN-socket (5-pin, female) 1 x banana socket (green and black) |
| <i>Equalizer, Bass:</i> | ±15 dB/100 Hz |
| <i>Equalizer, Treble:</i> | ±10 dB/10 kHz |
| <i>Power Supply:</i> | Mains: 90-265 V~ / 47-63 Hz / 150 VA Battery: 2 x 12 V/3 Ah (built in) |
| <i>Operating Temperature:</i> | 0°C to +40°C |
| <i>Measurements:</i> | 300 x 470 x 230 mm (L x H x W) |
| <i>Weight:</i> | 11.2 kg |

Receiver for headset BANG-HS:

| | |
|---------------------------|--|
| <i>Receiver Module:</i> | PLL multifrequency receiver in diversity technique |
| <i>Carrier Frequency:</i> | 863.1 - 864.9 MHz, divided in 16 frequencies |
| <i>Operating Range:</i> | about 30 m |

START DEVICES

Startmicrophone SM8

The Startmicrophone SM8 is used for all sports that are started with a start gun (e.g. athletics, triathlon, cycling, speed skating, short track, cross country).

The startgun works with 9 mm blanks. When triggering the startgun a loud start shoot is the sign for all athletes to start.

The Startmicrophone SM8 is fastened on the startgun and the sound of the startgun triggers an electric impulse that will start the timing system (start impulse).

The Startmicrophone SM8 is connected to the Speech Amplifier SV4/SM. From there a two core cable (banana plugs) goes to the timing device. Further you can connect at the Speech Amplifier SV4/SM a headset to communicate between starter and timing operator. For this voice communication the same two-wire cable is used as for the start impulse.



Startgun STP with Startmicrophone SM8



Headset HS3-2



Startmicrophone SM8



Startgun STP



Speech Amplifier SV4/SM

Timina Device



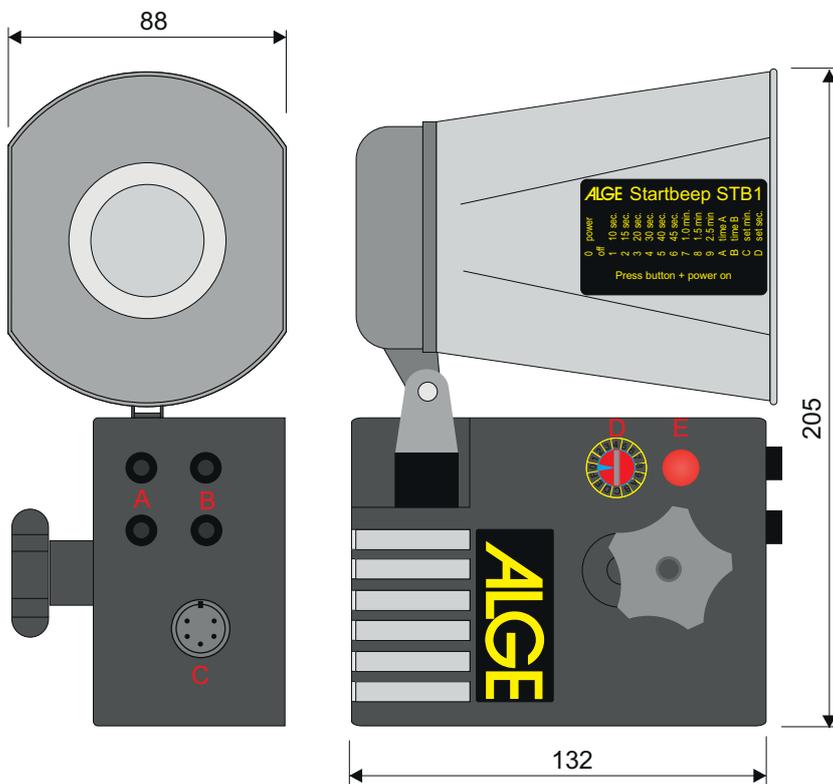
START DEVICES

Startbeep STB1

Microprocessor controlled acoustical starting command transmitter:

Universal, low in price, rugged and handy!

- 9 programmed start intervals
- selectable with a multiple contact switch
- 10 / 15 / 20 / 30 / 40 / 45 / 60 / 90 / 150 second)
- 2 freely programmable start intervals between 6 sec. and 99 min. 59 sec., selectable by a multiple contact switch
- Countdown triggering also by internal or external key
- Countdown triggering with or without standby signal (10 sec. before start)
- With the operation mode "Hupe" (horn) the startbeep can be used as a substitute for the startgun. Triggering by internal or external key
- Synchronizable with other timing devices
- Start output, potential-free closed contact (i.e. for triggering a timing device)



Technical Data

| | |
|--|--|
| Electronics: | µP-controlled in CMOS technique |
| Quartz frequency: | 4,608 Mhz |
| Operation temperature: | -25 until + 45°C |
| Powersupply: | 9V alkaline battery (alternatively 9V NiMh battery) or external 12V battery |
| Connections: | A = potential free closed contact for synchronous triggering (starting) of a timing device B = external key C = external supply D = On/Off function E = internal key |
| Echo transducer: | horn loudspeaker, rotatable |
| Housing: | Polyamide, glass fortified (Impact strength) |
| Fastening: | chain fastening for mounting on a post etc. |
| Weight: | 1 kg |
| Dimensions: | 132 x 205 x 88 mm 5.2 x 8.1 x 3.5 inch |
| Operation time with alkaline battery at 30 sec. start interval: | |
| Without warning signal: | 80 hours |
| With warning signal: | 10 hours |

ALGE

T I M I N G

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