

The electronic start system BANG makes a simple, unproblematic start possible. 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 is able to 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 because of a not loaded startgun 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 separated 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.

Two 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 microphone 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. At the BANG W it is not possible to connect an impulse trigger device by cable.

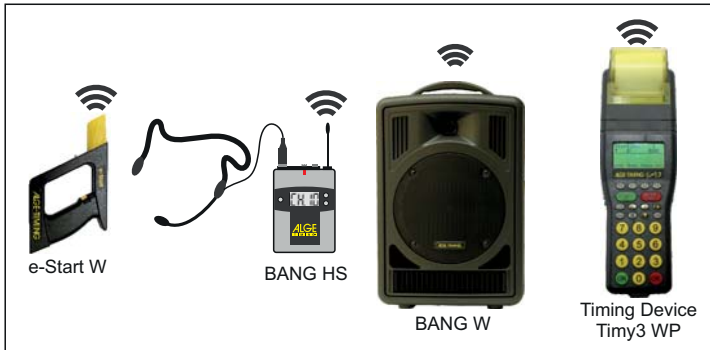
Cable and Radio BANG CW: The BANG CW receives the start impulse by cable from a impulse device (e.g e-Start). Additional it has a built in radio receiver (WTN) that will receive the false start impulse (e.g. from a radio push button WTN-PB). The false start impulse can be received as well by cable. The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

Accessories:

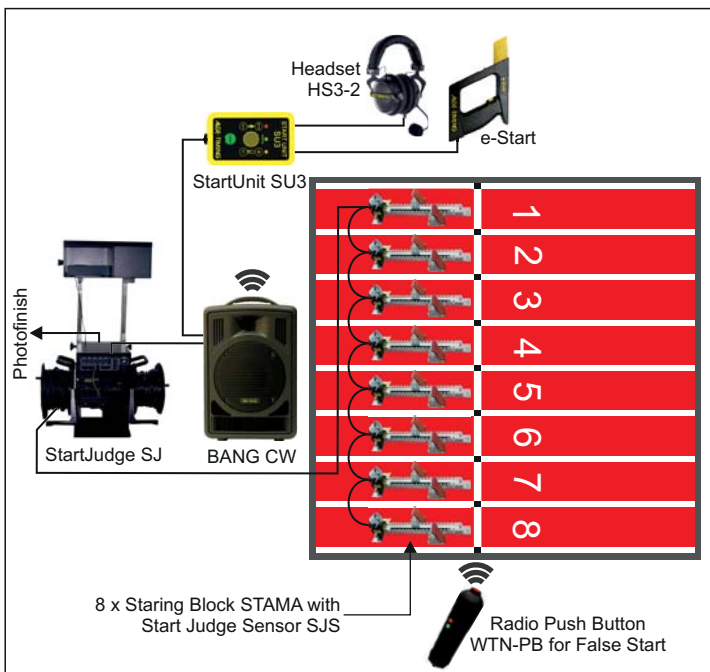
- BANG HS:** Headband microphone to speak over the BANG or BANG W
- BANG TRI:** Tripod for BANG or BANG W with an adjustable height between 107 and 157 cm
- BANG BAG:** Splashproof protective bag for BANG or BANG W with a sound transparent front
- BANG SPK:** Passive Horn Speaker to connect at the BANG or BANG W (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 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 Headset for communication
- Headset HS3-2:** Headset to communicate with timing operator and to give oral commands for cable system
- FLASH:** Startflash (LED with integrated batteries) e.g. for hearing impaired athletes



The start system BANG is ideal to combine with existing ALGE-TIMING devices. It is possible to use one or more speakers BANG 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. read, 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 will give a false start sound. With the radio push button WTN-PB the recaller can activate a false start signal (no start impulse).



- 1Receiver for Radio Microphone
- 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:

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

Receiver for Radio Microphone:

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