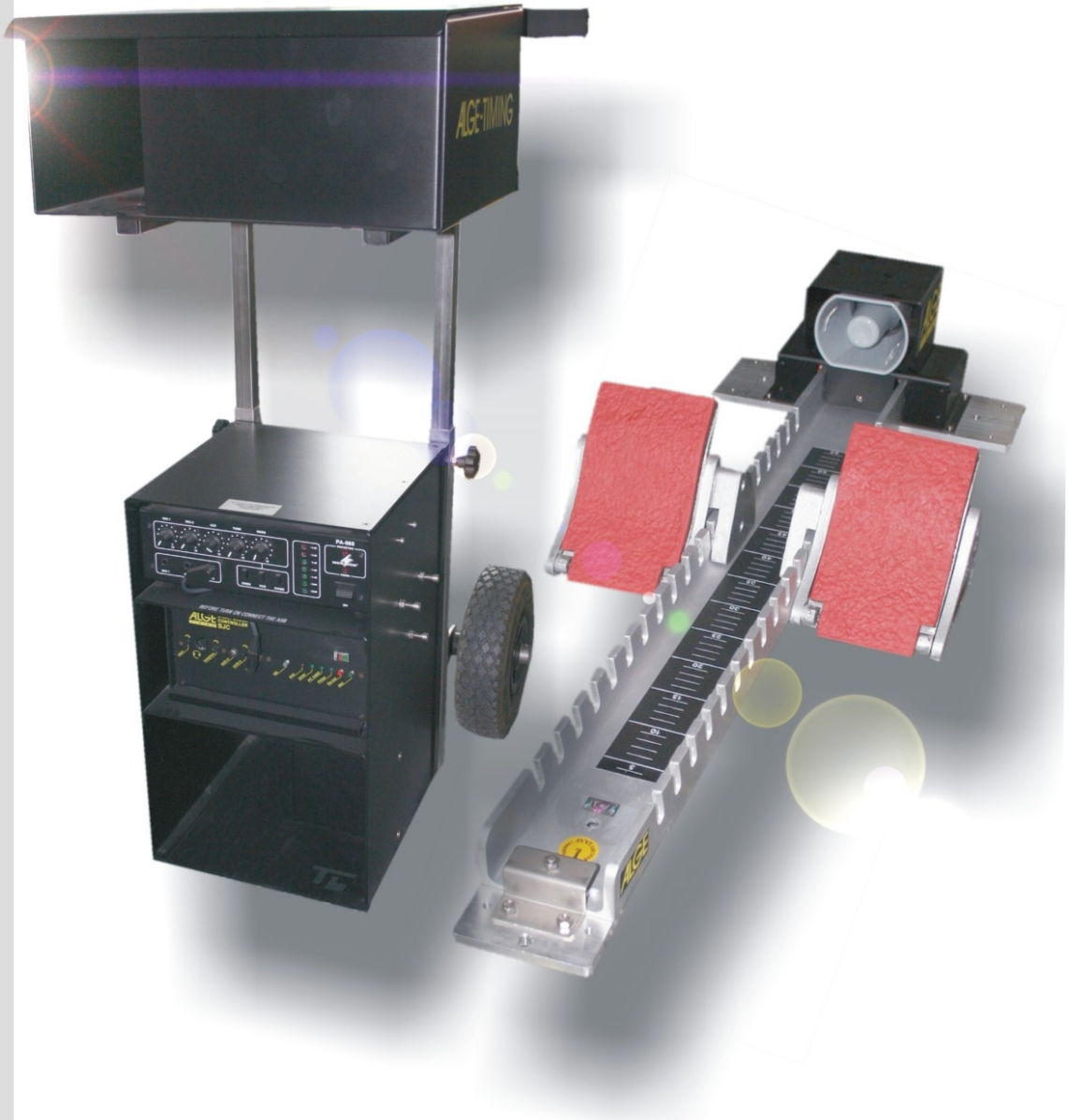
ALGE-TIMING

Version-E101007

SJCC



Manual

1	MIC1	Input Microphone 1
2	MIC1	Volume Microphone 1
3	MIC2	Input Microphone 2
4	MIC2	Volume Microphone 2
5	AUX	Connection to StartJugde Controller SJC
6	AUX	Volume Starter and Startsound
7	TONE	Tone control attenuates high frequencies for all sources in common
8	HORN	Volume of built-in horns (position 9)
9	SIREN - FOG – CHIME	three different built-in horns
10		7-way LED chain indicated the output power
11	ON	ON-switch
12	PROTECTION	Lights up, if protection circuit has responsed
13	POWER	Must be on when device is on (ON-switch 11 is on)
a	micro	Volume for microphone of headset
b	headset	Connector for Headset at device
c	headphone	Volume for headphone of headset
d	audio in	Connector for external sound source (about 600 mW eff)
e	audio in	Volume for external sound source
f	audio out	Connection to amplifier PA-888 (about 600 mW eff)
g	talk	To use the headset microphone for the speakers
h	error	Error LED - device does not work properly
I	powerPower	LED - device is switched on
j	ext. supply	External Supply LED - device has external supply
k	charge	Charge LED - indicates that battery is charging
l	line test	Test of start line (shortcut, resistance)
m	start	Start Impulse button
n		Meter - for battery voltage and line test

A	printer1	Printer with DIN-plug (5-pin), e.g. Printer P5-5
B	printer2	Printer with DIN-plug (8-pin), e.g. Printer P5-8
C	PC	RS 232 interface for PC
D	amplifier	connection for amplifier PA-888 to SJC
E	power	On-Switch for Start Judge Controller SJC
F	100 - 240 VAC	main connector (100 - 240 VAC, 50/60 Hz)
G	battery	connection with 12 V battery (built in cart)
H	athletic	connection to the starting blocks
I	start	connection for start line (to the timing device, e.g. OPTIc)
J	SU	connection for the Start Unit

Table of contents

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.

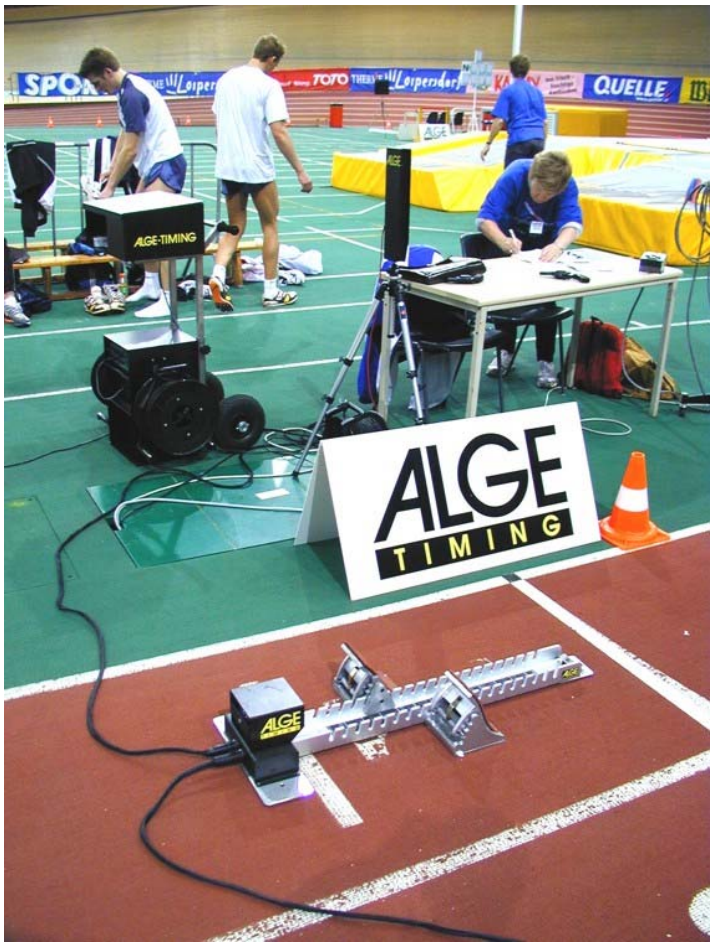
Disposal

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!

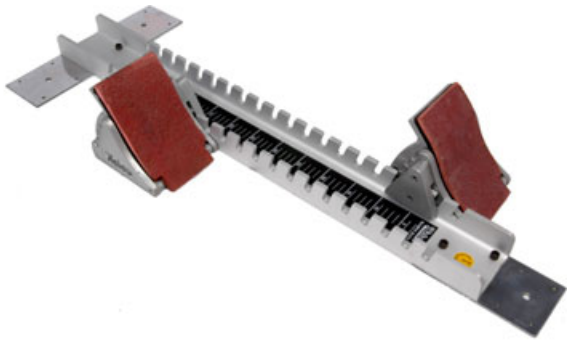
1 General

The Start Judge SJ is a system to control the start of short distance track races (up to 400 m). The system consists of a Start Judge Cart and a Starting Block for each lane. The Start Judge system has a built-in speaker system. This allows the starter to give commands to the athletes through the loudspeakers built into the starting blocks. Also the start command goes through these loudspeakers. This has the advantage for the athletes that every athlete can hear the start tone at the same time without any delay.

Stast Judge Cart SJT



Starting block STAMA



Each athlete has a starting block with a built-in contact. As soon as the athlete starts, he triggers this contact and the system checks the start impulse of the starter against each individual start time. If an athlete starts faster than a 1/10 of a second after the start, he causes a false start. There are two modes of the Start Judge to report a false start:

- Automatically false start tone of the Start Judge system to call the athletes back.
- False start tone in the head set of the starter and recaller informs about a false start, measured by the Start Judge system. Now it is up to the starter and recaller to call the athletes back.

At the Start Unit SU it is possible to connect a head set. The Headset Q34 is used for the communication between the starter and the timing operator, but also for the announcement for the athletes through the loudspeakers.

Also the Startmicrophone SM8 is connected to the Start Unit SU. The Startmicrophone SM8 is mounted on top of the Startgun (6 or 9 mm).

In the Start Judge Cart SJC we have all necessary components built-in like Start Judge Controller, printer, amplifier, charger, and battery. The Printer P4 records all start times. On this document the starter can detect the lane that caused the false start.

2 Components of the System

A complete false-start-system „StartJudge SJ“ for 8 lanes includes the following components:

START JUDGE SJ

1	1	Start Judge Controller Athletic*	SJC
2	8	Startblock STAMA	STAMA
3	1	Cable Reel with 150 m cable	KT150
4	1	Cable Reel with 30 m cable	KT139-30
5	1	Cable between SJ and SU	202-20
6	7	Cable between Startblock (10 m)	139-12
7	1	Amplifier PA-888*	PA-888
8	1	Startunit SU2	SU2
9	2	Headset HS2-2	HS2-2
10	1	Headset HS2-1	HS2-1
11	1	Speech Amplifier	SV4/SM
12	1	Startmicrophone SM8	SM8
13	2	Startgun Arminius 9mm STP	STP
14	5	Cartridge 9 mm (50 Stk.)	MUN
15	1	Printer P5	P5-5
16	1	12 V Rechargeable Battery*	SJ-12V
17	1	Start Judge Transport Cart SJT	SJT

All components that are marked with a star (*) are fixed built into the StartJudge Transport Cart SJT.

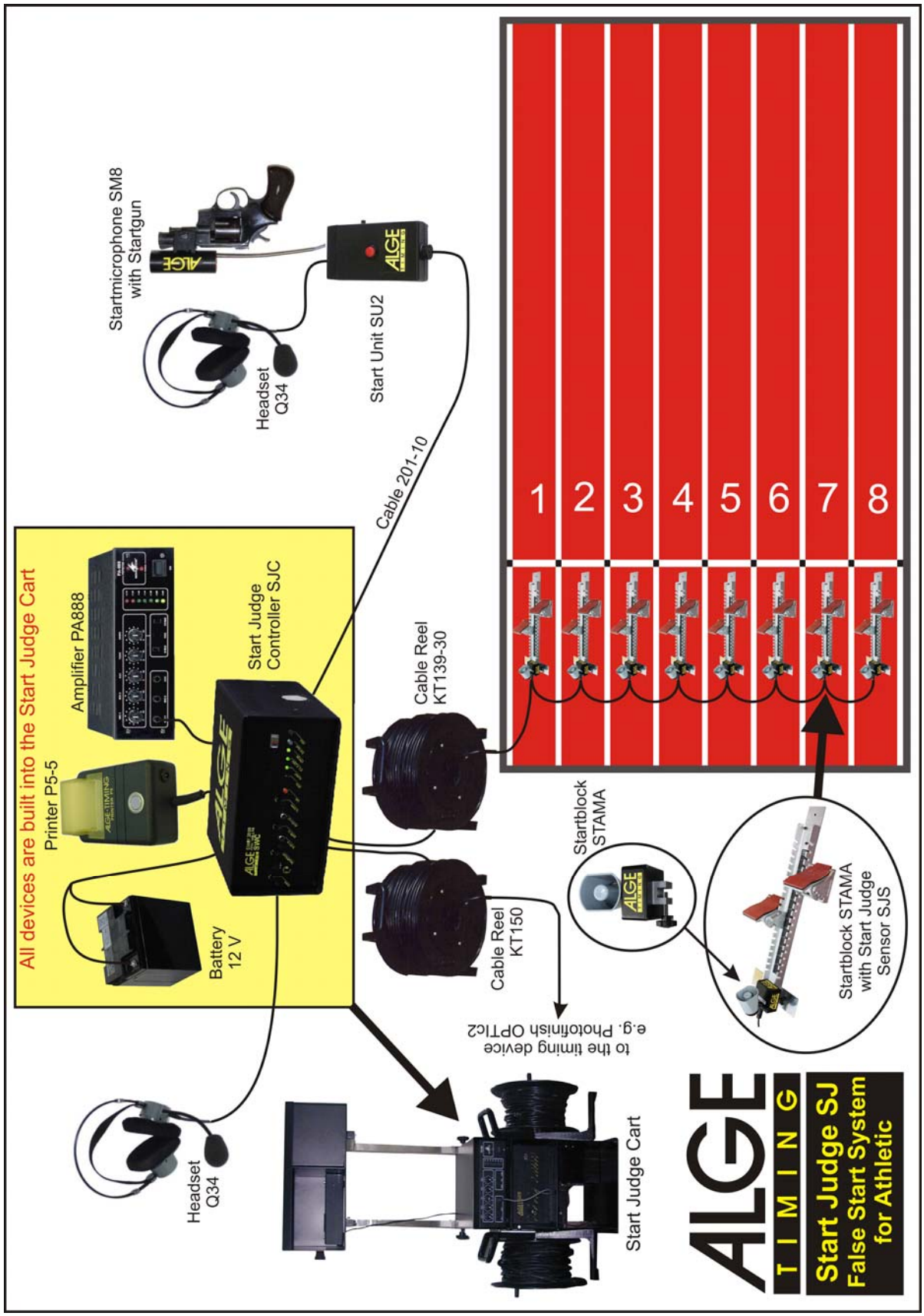
3 Connection Plan

Before you can use the StartJudge system you have to connect all components:

1) Connection between StartJudge Cart and closed Starting Block ASB with cable reel KT139-30
2) Connection from one starting block to the next with cable 139-12
3) At the last starting block the SWC-END must be plugged
4) Connection between Start Judge Cart and StartUnit SU with cable 202-20
5) Connect the headset Q34 at the StartUnit SU
6) Connect the startmicrophone SM8 at the StartUnit SU
7) Connection between timing device (e.g. OPTI1c) and StartJudge Cart SJCC with cable reel KT150 or through fix stadium cabling.

Permanent Connections on the StartJudge Cart:

8) Connection from StartJudge Controller SJC (AUDIO OUT - position f) to Amplifier PA888 (AUX - position 5).
9) Connection from StartJudge Controller SJC (amplifier - position G) to Amplifier PA888 (position D).


Start Judge SJ
False Start System
for Athletic
ALGE
TIMING
Start Judge Cart
Headset
Q34
to the timing device
e.g. Photofinish OPTIC2
Cable Reel
KT150
Cable Reel
KT139-30
Startblock
STAMA
Startblock STAMA
with Start Judge
Sensor SJS
1 2 3 4 5 6 7 8
All devices are built into the Start Judge Cart
Printer P5-5
Amplifier PA888
Start Judge
Controller SJC
Battery
12 V
Cable 201-10
Start Unit SU2
Headset
Q34
Startmicrophone SM8
with Startgun

4 Operation of Start Judge

4.1 Switching the StartJudge on

1) Connect all cables before you turn the devices on. If you turn the amplifier on without plugged speakers, it could damage the amplifier.
2) Switch on the Amplifier PA-888 (position 11 - front side)
3) Switch on the StartJudge Controller SJC (position E - back side)

4.2 Settings

4.2.1 Setting the day time

After you switched the Start Judge Controller SJC on, you can do the following adjustments:

```
ALGE TIMING
START JUDGE
V 02.C1

SETINGS:
Starttone Headset:
OFF
Falsestarttone Speaker:
ON
_____________________
TIME OF DAY:
Press START to set
time of day

?0:00:00
1?:00:00
14:?0:00
14:3?:00
14:35:?0
14:35:0?
14:35:00

Press START for
SYNC-SIGNAL

READY FOR START
8 Startblocks connected
```

The start tone in the headset is automatically off.
If you want to turn it on, please act as decribed 4.2.2.
The false start tone in the speakers is automatically off.
If you want to turn it on, you have to it as decribed 4.2.3.

The printing goes automatically until here.
If you press now the green start button (m), it is possible to set the time of day.

Input the hours (tens) by pressing the start button (m)
Input the hours (singles) by pressing the start button (m)
Input the minutes (tens) by pressing the start button (m)
Input the minutes (singles) by pressing the start button (m)
Input the seconds (tens) by pressing the start button (m)
Input the seconds (singles) by pressing the start button (m)

Adjusted synchron time that starts when pressing start button (m) or through external start signal.

The system informs you about the amount of starting blocks that it has dedected.

4.2.2 Setting the ready tone in the headset

This function is activating a signal which is showing the Starter that all athletes are in position. As long as he can hear a beeb tone in the headset it signalize that an athlete is still moving!
You can only adjust the Ready Tone in the Headset when the system is running (after the synchronization). After turning the Start Judge on the Ready Tone is automatically switched

off. To turn the external tone for the headset on you have to press the green start button (m) till the SJC makes a beep signal (ca.3 sec.).

4.2.3 Setting the false start tone in the speaker

You can only adjust the False Start Tone when the system is running (after the synchronization). After turning the Start Judge on the False Start Tone is automatically on the speakers. To turn the external tone on the speakers off you have to press the green start button (m) till the SJC makes a double beep-tone (ca.5 sec.).

4.2.4 Setting the Negative Time-Frame

The ALGE Startjudge System is working with a variable timing-window before and after the Startimpulse. The standard setting is from -0,2 up to +1,0 Seconds.
The negative Window can be adjusted between -0,3 and minus 0,05 seconds with 0,05 second steps.
To adjust the negative time-frame you have to press the green start button (m) till the SJC is printing the desired value (7 seconds or more).

4.3 False start measuring operation

The false start system measures (outputs) only impulses which happen 0.3 seconds before and after the start. All other impulses are not registered.

If a athlete makes too much pressure on the starting block before the race begins, the starter will hear three beeps, a pause, again three beeps, etc. If the starter hears this signal, he should stop the start and tell the athlete to use the starting block correctly; otherwise he won't have a reaction time of this athlete.

Some examples of the printout:

Start with impulses from all lanes and without false start:

```
READY FOR START
-----------------------------------

READY FOR START
-----------------------------------

START INT 00:08:45.6488
  01 LANE    +0.162
  02 LANE    +0.126
  03 LANE    +0.110
  04 LANE    +0.121
  05 LANE    +0.139
  06 LANE    +0.144
  07 LANE    +0.129
  08 LANE    +0.139

 -----------------------------------
```

Further examples:

START INT 00:01:52.8168	6
*01 LANE +0.0976	2
**02 LANE +0.0975	1
03 LANE +0.115	6
04 LANE NO IMPULSE	3
05 LANE +0.123	5
06 LANE +0.101	5
07 LANE CONTINUOUS	4
*08 LANE +0.099	2
START INT 00:02:45.2668	6
*01 LANE +0.098	2
*02 LANE +0.074	2
*03 LANE +0.087	2
04 LANE NO IMPULSE	3
**05 LANE +0.0719	1
*06 LANE +0.077	2
*07 LANE +0.0719	2
*08 LANE +0.0720	2
START INT 00:04:05.0981	6
*01 LANE +0.092	2
**02 LANE +0.091	1
03 LANE +0.101	5
04 LANE +0.129	5
*05 LANE +0.098	2
*06 LANE +0.098	2
*07 LANE +0.098	2
08 LANE +0.100	5

1 False start, time below the allowed 0,1 seconds reaction time
2 False start, time below the allowed 0,1 seconds reaction time, marked with two stars because he made the first false start
3 No starting time for this lane (e.g. if lane is empty or if the athlete has his feet not on the starting block).
4 Continuous start impulse, e.g. if the athlet gives to much pressure on the starting block
5 Valid start
6 Actual Start Time (Time of Day)