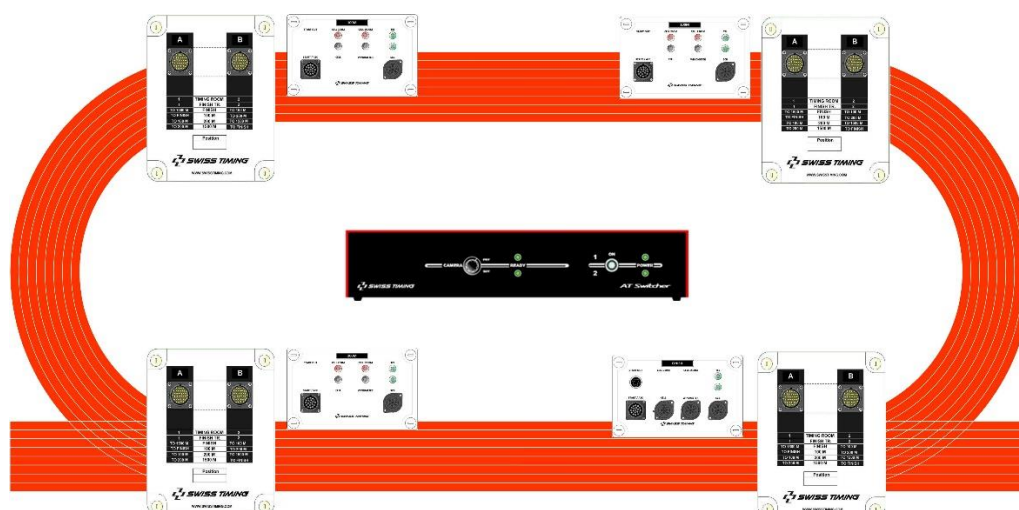




ATHLETICS – FIX CABLING OUTDOOR

USER'S MANUAL

3373.531.02 | Version 1.0 |



Caution and safety precautions

- Never use any other charger than the supplied or a type approved by Swiss Timing. This could destroy the battery, cause damage to unit, and possibly cause personal injury due to fire or/and electrical shock.
- Never bypass a power cord ground lead by breaking off the ground pin, or by using inappropriate extension cords or adapters.
- Never plug a power cord into the AC power source until you have made sure that all installation, cabling and power levels, are proper, and that the applicable procedures in this manual have been followed.
- Protect the equipment against splashing, rain and excessive sun rays.
- Never use the device if it is damaged or insecure.
- Verify the selection of the power distribution.
- Verify that the voltage quoted on the rating plate is the same as your voltage. Connect the appliance only to power sockets with protective earth. The use of incorrect connection voids warranty.
- This program may be modified at any time without prior notification.
- Do not open the case; there is nothing that needs servicing inside it. Nevertheless, if the case must be opened, you must call for some qualified personnel. The power supply cable must be disconnected before opening the case.
- During the transport of all Swiss Timing equipment delivered with a reusable carry case, the said case should be used at all times. This is imperative to limit the damage, such as shocks or vibration that can be caused to the units during transport.
- The same cases should also be used when returning equipment to Swiss Timing for repair. Swiss Timing reserves the right to refuse all guarantees if this condition is not fulfilled.
- If the installation includes a horn, be sure to maintain a sufficient security distance from the public.

Documentation Updates

Swiss Timing SA reserves the right to make improvements in the products described in this documentation at any time without prior notice. Furthermore, Swiss Timing SA reserves the right to revise this documentation in its content at any time and without any obligation to notify any person or organization of such revision.

Disclaimer

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Environment



This symbol indicates that this product should not be disposed with household waste. It has to be returned to a local authorized collection system. By following this procedure you will contribute to the protection of the environment and human health. The recycling of the materials will help to conserve natural resources.

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1 INTRODUCTION

Swiss Timing's fixed athletics cabling allows the control room to be connected to the track using underground cables. It is compatible with the new ASC3 false start units and the Athletics Switcher Outdoor (ASO) when using several cameras.

Connections are possible in pits situated at the 4 corners of the track, namely FINISH, 100M, 200M and 1500M.

All timing devices can be connected to it, such as:

- Photoelectric cells (FINISH, 200M and 1500M)
- Running time display board
- Wind measurement for the sprint
- Start system
- False start unit
- Telephone
- Infield camera (Start and Finish)

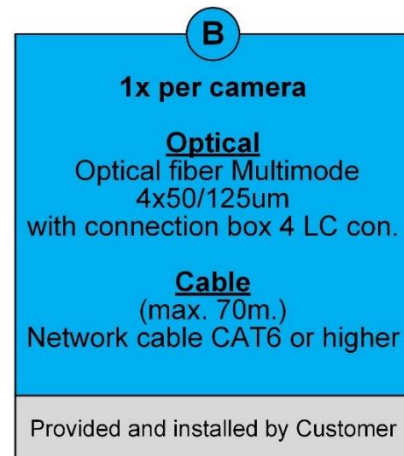
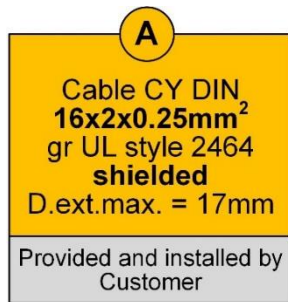
This manual offers the most frequently used versions by our customers, nevertheless there are a multitude of other possibilities that can be perfectly adapted to your needs.

2 CONNECTIONS

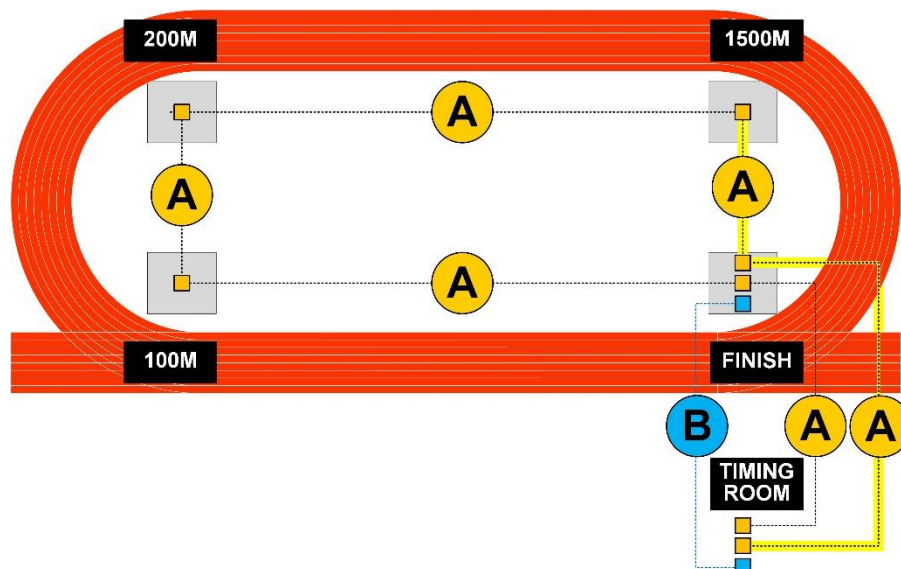
2.1 Cable and optical fiber

The fix cabling is connected through a copper cable from the timing room to the track and around the track.

The Myria Infield camera and Scaider camera are connected through a copper cable or an optical fiber from the timing room to the track.



The figure below shows the Pro line cabling.



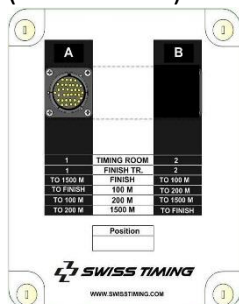
2.2 Pit

At each corner of the track (FINISH / 100M / 200M / 1500M) a pit is installed (Standard & Pro lines).

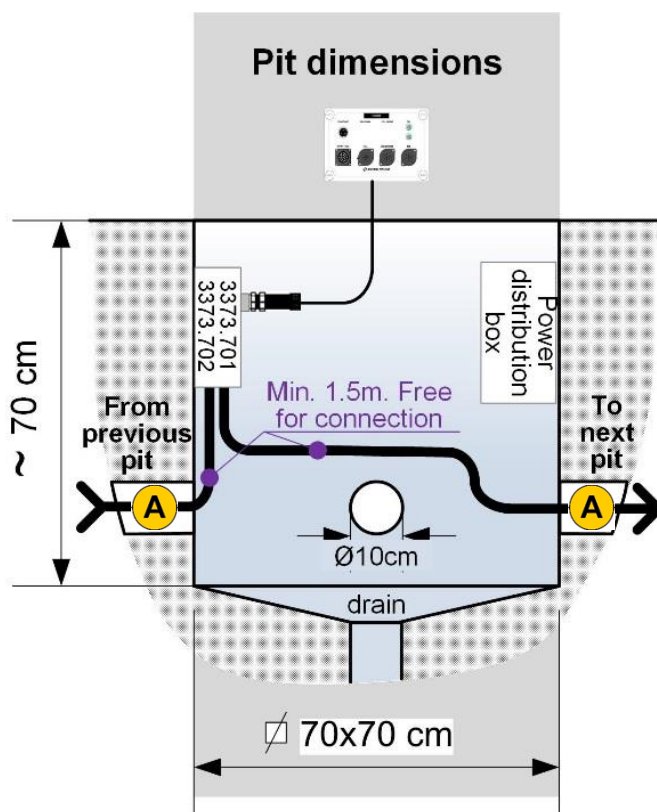
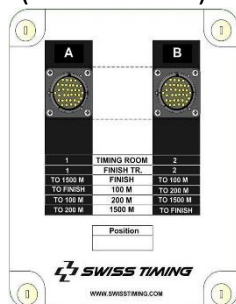
For the basic line, only the FINISH pit is necessary.

A fix box is installed in each pit, there are 2 different models depending on the cabling line :

Basic & Standard 3373.701 (1 connector)



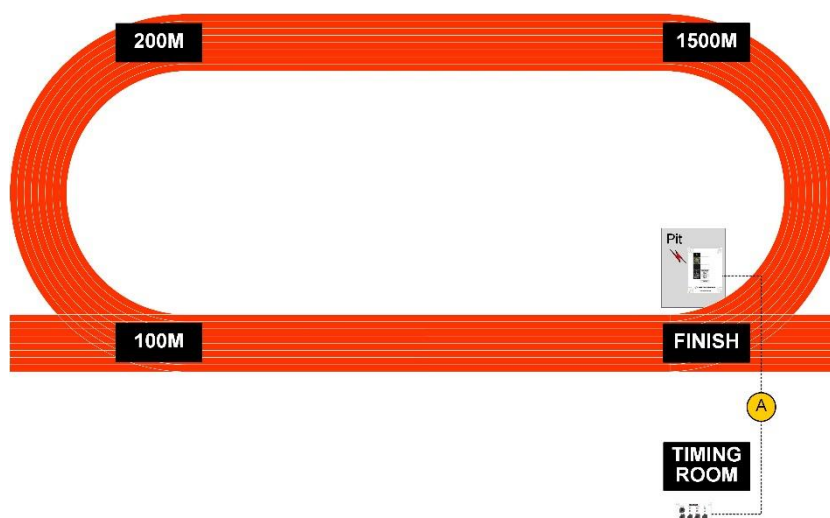
Pro 3373.702 (2 connectors)



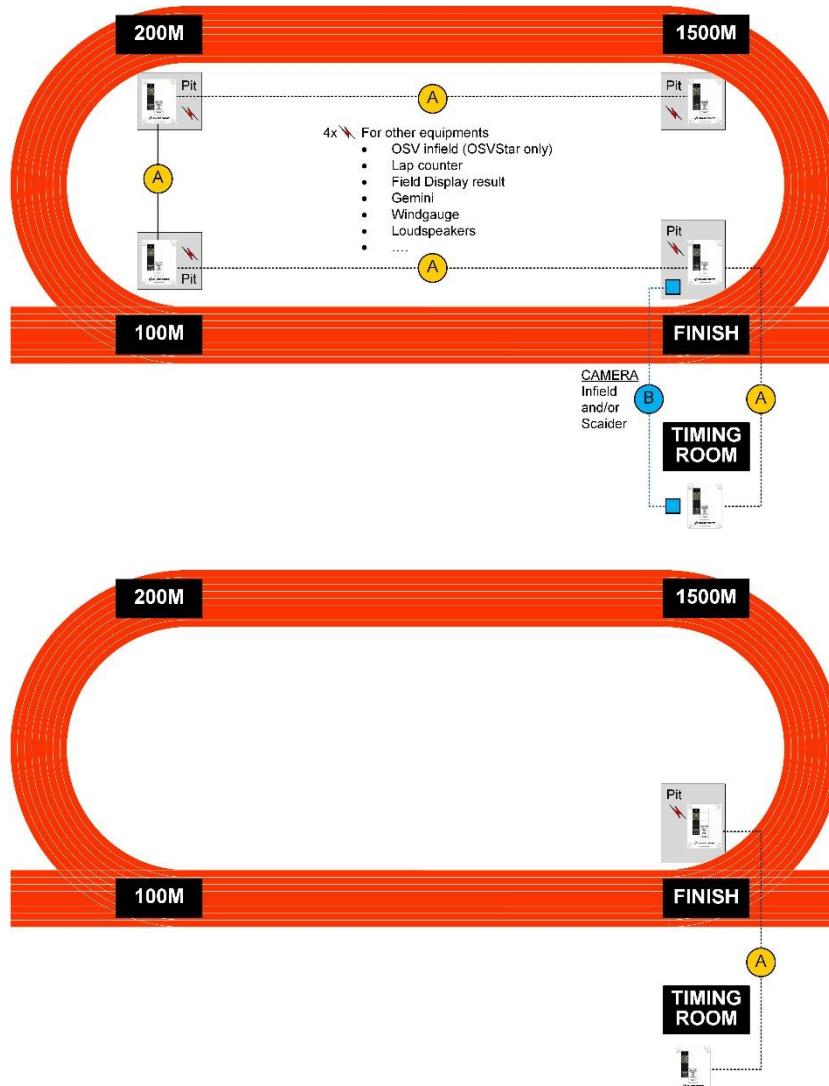
The copper cables **A** are connected to the fix boxes.

2.3 General cabling

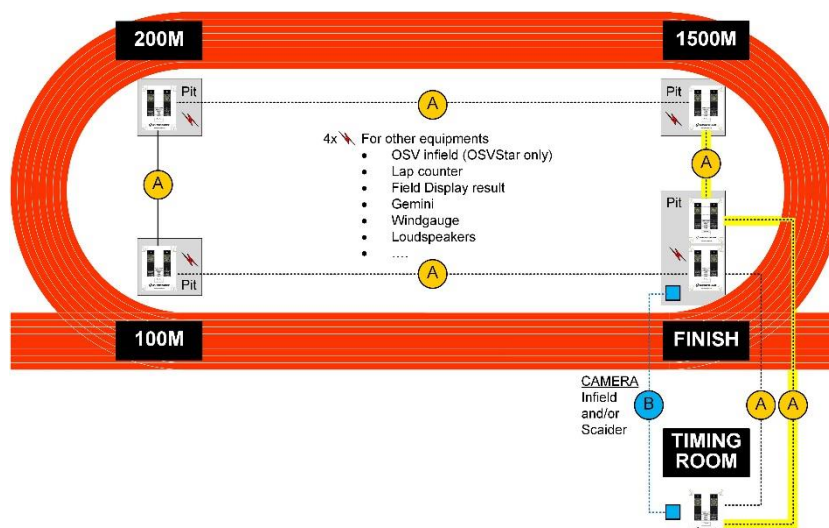
2.3.1 Basic line (without Athletics Switcher)



2.3.2 Standard line



2.3.3 Pro line (Swiss Timing Service Operation)



2.4 Timing room

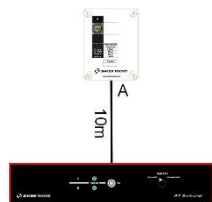
2.4.1 With Athletics Switcher (Standard & Pro)

In the timing room, a fix box connected with a cable to the Athletics Switcher is installed.

Standard

3373.701

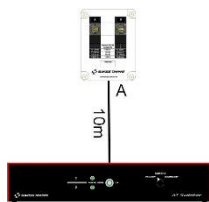
(1 connector)



Pro

3373.702

(2 connectors)

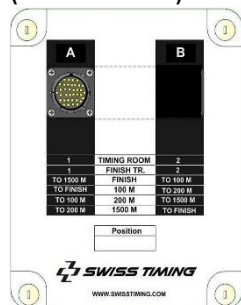


Pro : B connector is used only by Swiss Timing Service Operation

Standard

3373.701

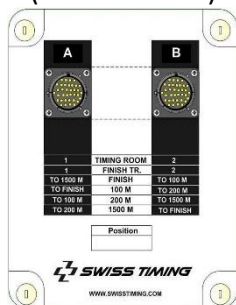
(1 connector)



Pro

3373.702

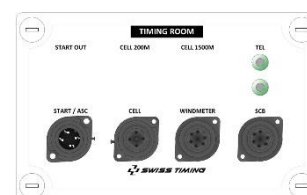
(2 connectors)



2.4.2 Without Athletics Switcher (Basic)

The fix box distributes the information through several connectors.

The **A** cable is directly connected inside the box.

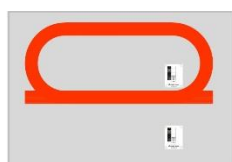


3 CONFIGURATIONS

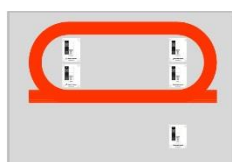
Several configurations are available but we can offer other possibilities on request.

3373.951	Standard athletics fix cabling (Finish)
3373.952	Pro athletics fix cabling (Finish) compatible Swiss Timing
3373.953	Standard athletics fix cabling (Track)
3373.954	Pro athletics fix cabling (Track) compatible Swiss Timing
3373.960	Basic athletics fix & mobile cabling (Finish)
3373.961	Standard athletics fix & mobile cabling (Finish) for switcher
3373.962	Standard athletics fix & mobile cabling (Finish)
3373.963	Standard athletics fix & mobile cabling (Track)
3373.964	Pro athletics fix & mobile cabling (Track) compatible Swiss Timing

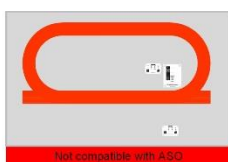
	Boxes	Sets							
		3373.964	3373.963	3373.962	3373.961	3373.960	3373.954	3373.953	3373.952
Compatible with Athletics switcher									
Not compatible with Athletics switcher									
Swiss Timing Service Operation									
	3373.701	5	2	2	1		5		2
	3373.702	6					6		2
	3373.741	1	1	1	1				
	3373.742	1							
	3373.743		1						
	3373.744	1							
	3373.745		1						
	3373.746	1							
	3373.747	1	1						
	3373.748			1					
	3373.749					1			
	3373.620 cable		1	1	1				



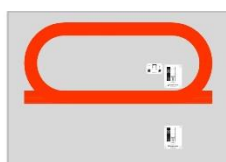
3373.951



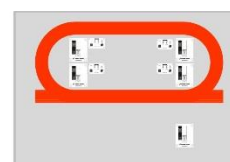
3373.953



3373.960



3373.961



3373.963



3373.952



3373.954

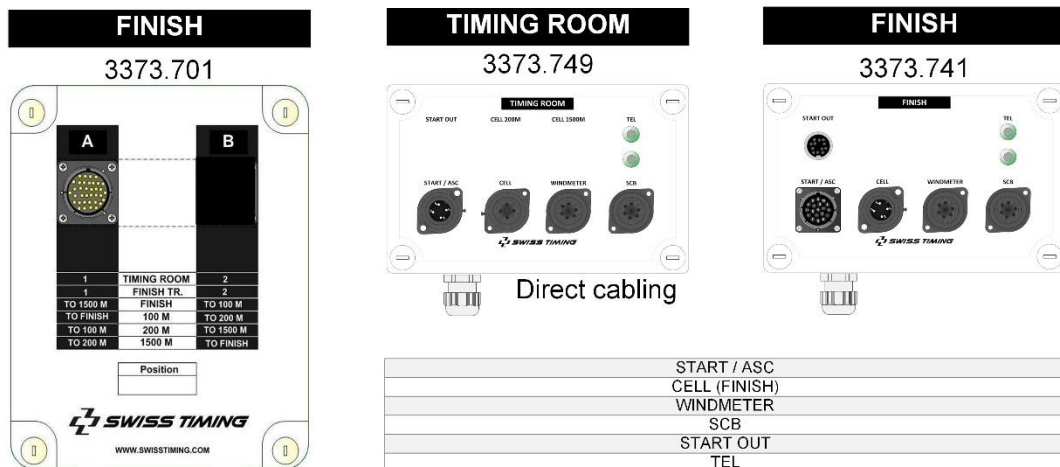


3373.962



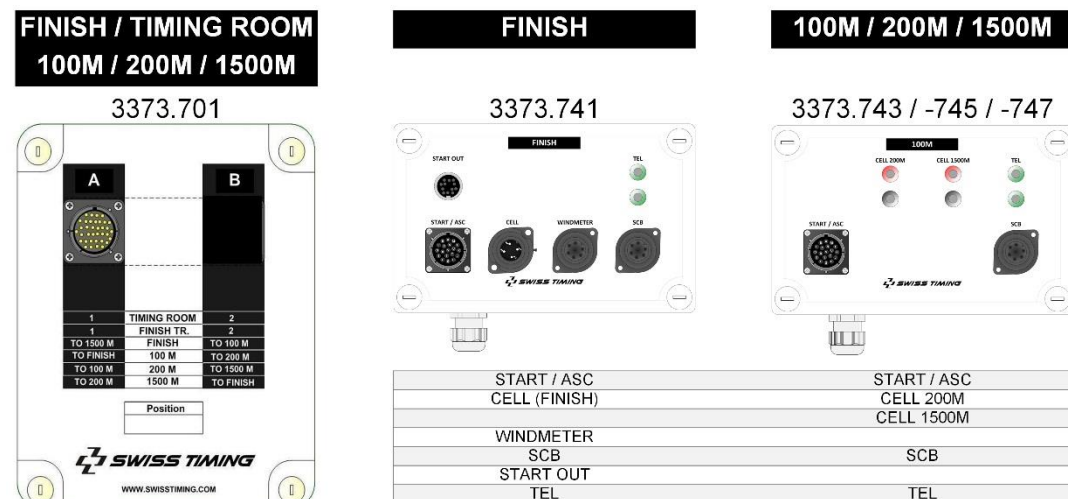
3373.964

3.1 Boxes - Basic

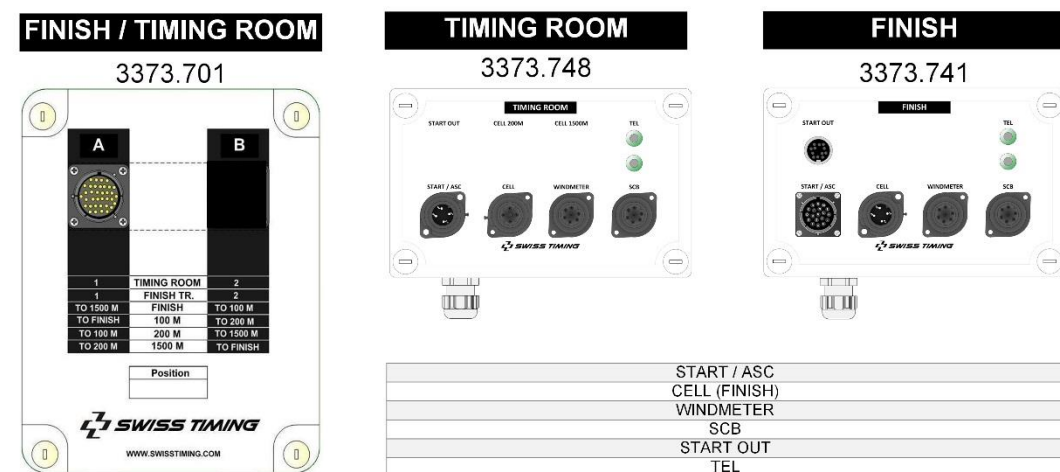


Not compatible with Athletics Switcher

3.2 Boxes - Standard



OR

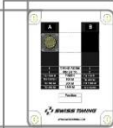


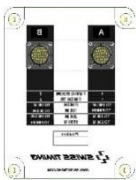
Compatible with Athletics Switcher

3.3 Boxes - Pro



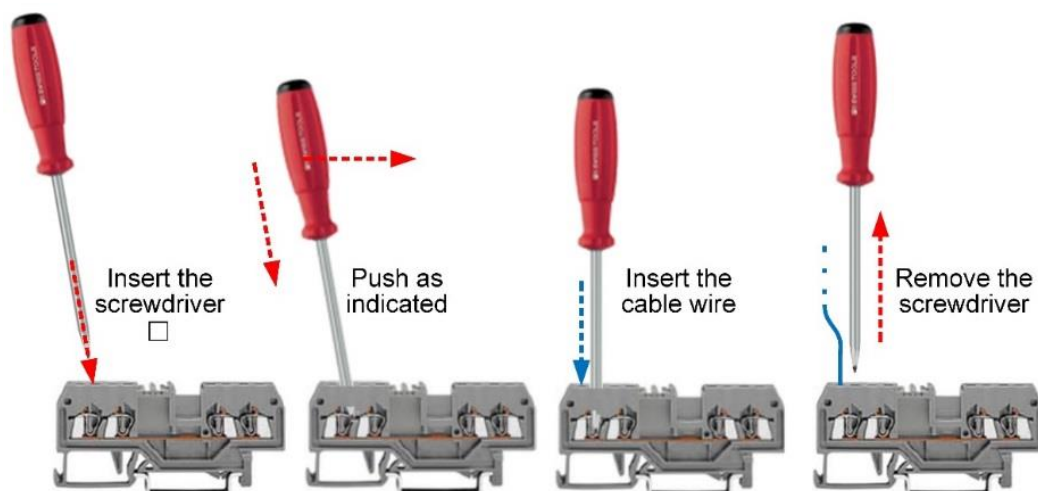
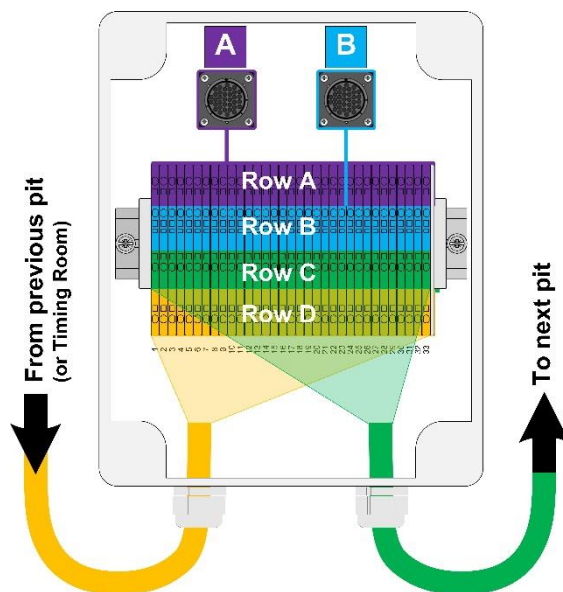
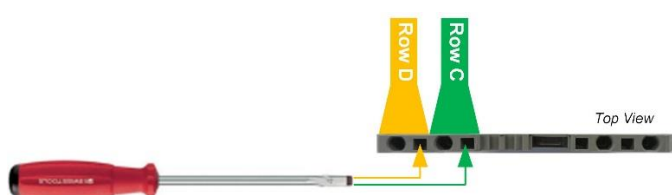
3.4 Boxes dimensions

				Height	Length	Width	Cables
				cm			
H				25	20	10	10
				14	20	10	8

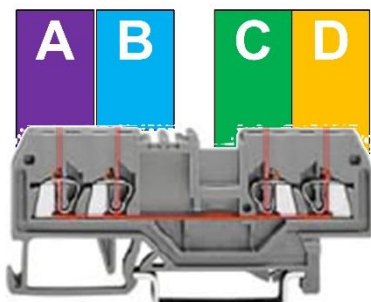
Model	Weight (kg)
	1.2 – 1.4
	0.2 – 0.4 Including cable L=2.5m.

4 WIRING **A** CABLE

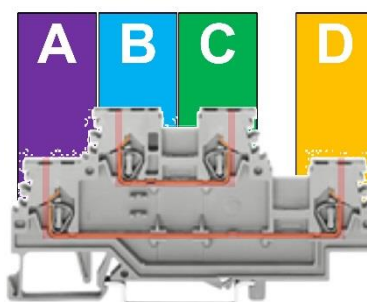
- Open the cover box
- Connect cable **A** from previous pit to Row D
- Connect cable **A** to next pit to Row C
- Insert the screwdriver 00 in the square of the corresponding row



Basic and Standard



Pro



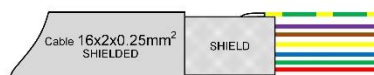
4.1 Standard (Fix box 3373.701)

UTG 35pFT	Terminals	Wire colour	Direction	Description
A	1	Wt	←	ASC -
B	2	Bn	←	ASC +
C	3	Gn		
D	4	Yl		
E	5	Gy	←	WG RS422 +
F	6	Pk	←	WG RS422 -
G	7	Bl	→	SCB RS422 +
H	8	Rd	→	SCB RS422 -
J	9	Bk	←	1500M +
K	10	Vt	←	1500M -
L	11	Gy-Pk	←	200M +
M	12	Rd-Bl	←	200M -
N	13	Wt-Gn	→	WG Power +
P	14	Bn-Gn	→	WG GND
R	15	Wt-Yl	→	WG RS422 +
S	16	Yl-Bn	→	WG RS422 -
T	17	Wt-Gy		
U	18	Gy-Bn		
V	19	Wt-Pk	←	FINISH +
W	20	Pk-Bn	←	FINISH -
X	21	Wt-Bl	→	Infield FINISH +
Y	22	Bn-Bl	→	Infield FINISH -
Z	23	Wt-Rd	←	Infield READY +
a	24	Bn-Rd	←	Infield READY -
b	25	Wt-Bk	→	Infield START +
c	26	Bn-Bk	→	Infield START -
d	27	Gy-Gn	→	READY +
e	28	Yl-Gy	→	READY -
f	29	Pk-Gn	←	START +
g	30	Yl-Pk	←	START -
h	31	Gn-Bl	→	TEL Line a
i	32	Yl-Bl	→	TEL Line b
j				
k				
m	33	Yl-Gn		SHIELD

Solder Yellow-Green wire to the shield and connect it to terminal 33

→	From Timing Room to TRACK
←	From TRACK to Timing Room

SCB	Scoreboard
WG	WindGauge



TIMING ROOM		Twisted wires		FINISH		100M		200M		1500M	
Row D	Terminals	Row C	Terminals	Row D	Terminals	Row C	Terminals	Row D	Terminals	Row C	Terminals
1	1			1	1			1	1		
2	2			2	2			2	2		
3	3			3	3			3	3		
4	4			4	4			4	4		
5	5			5	5			5	5		
6	6			6	6			6	6		
7	7			7	7			7	7		
8	8			8	8			8	8		
9	9			9	9			9	9		
10	10			10	10			10	10		
11	11			11	11			11	11		
12	12			12	12			12	12		
13	13			13	13			13	13		
14	14			14	14			14	14		
15	15			15	15			15	15		
16	16			16	16			16	16		
17	17			17	17			17	17		
18	18			18	18			18	18		
19	19			19	19			19	19		
20	20			20	20			20	20		
21	21			21	21			21	21		
22	22			22	22			22	22		
23	23			23	23			23	23		
24	24			24	24			24	24		
25	25			25	25			25	25		
26	26			26	26			26	26		
27	27			27	27			27	27		
28	28			28	28			28	28		
29	29			29	29			29	29		
30	30			30	30			30	30		
31	31			31	31			31	31		
32	32			32	32			32	32		
33	33			33	33			33	33		

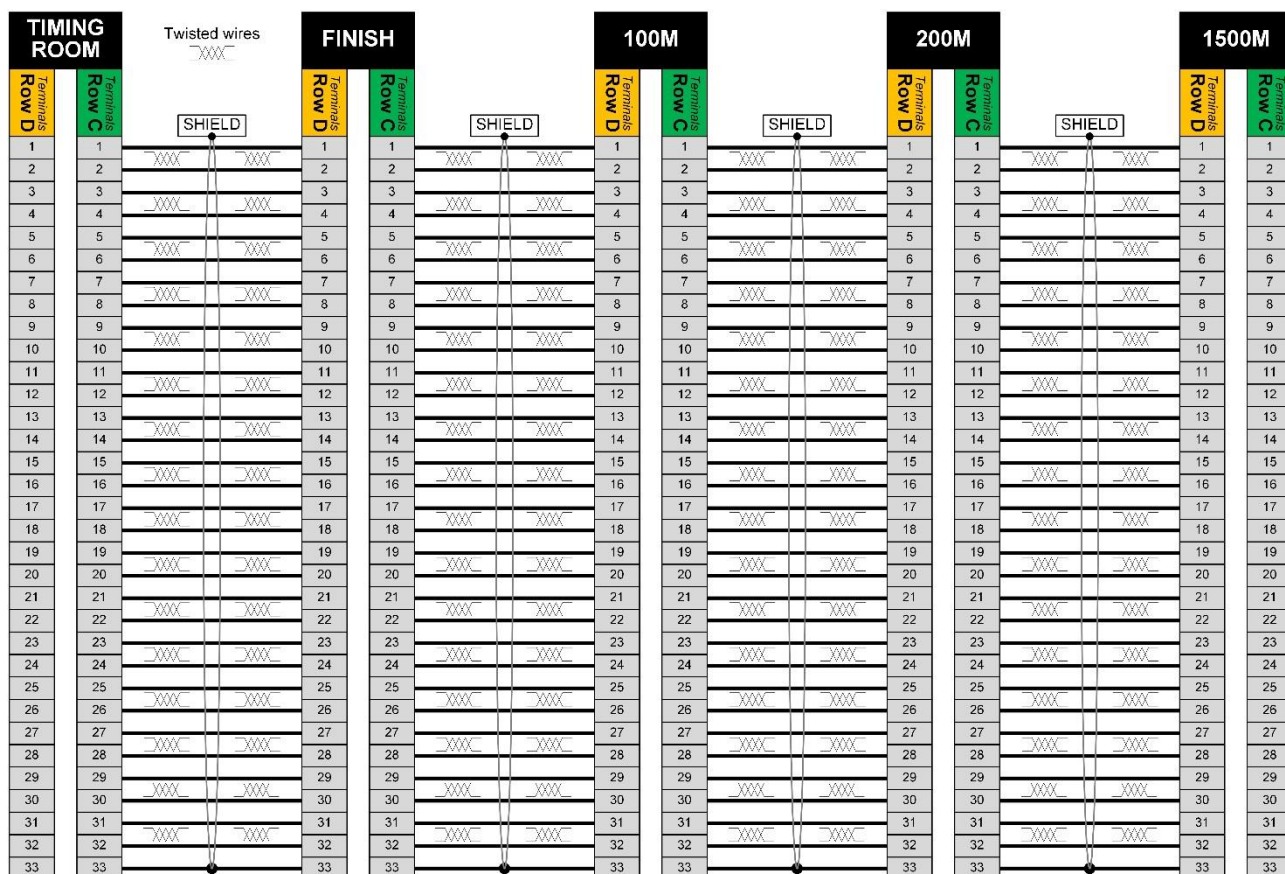
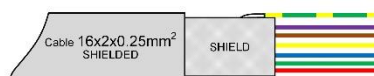
4.2 Pro (Fix box 3373.702)

UTG 390FT	Terminals	Wire colour	Direction	Description																	
A	1	Wt	←	ASC -	L	11	Gy-Pk	←	200M +	X	21	Wt-BI	→	Infield FINISH +	h	31	Gn-BI	→	TEL Line a		
B	2	Bn	←	ASC +	M	12	Rd-BI	←	200M -	Y	22	Bn-BI	→	Infield FINISH -	i	32	YI-BI	→	TEL Line b		
C	3	Gn			N	13	Wt-Gn	→	WG Power +	Z	23	Wt-Rd	←	Infield READY +	j						
D	4	YI			P	14	Bn-Gn	→	WG GND	a	24	Bn-Rd	←	Infield READY -	k						
E	5	Gy	←	WG RS422 +	R	15	Wt-YI	→	WG RS422 +	b	25	Wt-Bk	→	Infield START +	m	33	YI-Gn		SHIELD		
F	6	Pk	←	WG RS422 -	S	16	YI-Bn	→	WG RS422 -	c	26	Bn-Bk	→	Infield START -	 Solder Yellow-Green wire to the shield and connect it to terminal 33						
G	7	BI	→	SCB RS422 +	T	17	Wt-Gy			d	27	Gy-Gn	→	READY +							
H	8	Rd	→	SCB RS422 -	U	18	Gy-Bn			e	28	YI-Gy	→	READY -							
J	9	Bk	←	1500M +	V	19	Wt-Pk			←	FINISH +	f	29	Pk-Gn						→	START +
K	10	Vt	←	1500M -	W	20	Pk-Bn			←	FINISH -	g	30	YI-Pk						←	START -

Solder Yellow-Green wire to the shield and connect it to terminal 33

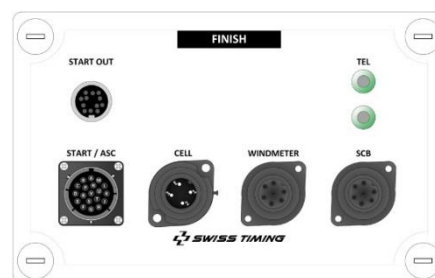


SCB	Scoreboard
WG	WindGauge

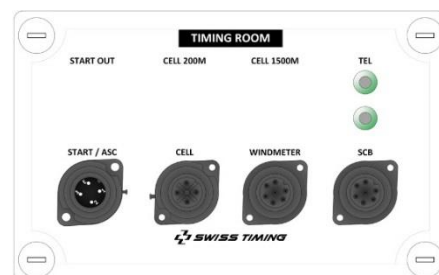


5 CONNECTORS DESCRIPTION

TRACK									
START OUT		START / ASC		CELL		WINDMETER		SCB	
Contacts		Contacts		Contacts		RS422		RS422	
DIN 12pFT		UTG 19pFT		Tuchel 4pMT		Tuchel 7pFT		Tuchel 7pFT	
A		A	RS422- from ASC	1		1	POWER+ to WG	1	
B	READY +	B	RS422+ from ASC	2	From CELL-	2		2	
C	FINISH +	C		3	From CELL+	3	RS422- to WG	3	RS422- to SCB
D	FINSH -	D		4		4	RS422+ to WG	4	RS422+ to SCB
E	START +	E	READY- to ASC			5	RS422- from WG	5	
F	START -	F	START+ from ASC			6	RS422+ from WG	6	
G		G	START- from ASC			E	GND	E	
H		H	READY+ to ASC						
J		J							
K		K							
L	READY -	L							
M		M							
		N							
		P							
		R							
		S							
		T							
		U	Tel Line a						
		V	Tel Line b						



TIMING ROOM							
BASIC							
STANDARD (compatible with Athletics Switcher)							
START / ASC		CELL		WINDMETER		SCB	
RS422		Contacts		RS422		RS422	
Tuchel 4pMT		Tuchel 4pFT		Tuchel 7pFT		Tuchel 7pFT	
1	READY-	1		1	POWER+ to WG	1	
2	START+	2	From CELL-	2		2	
3	START-	3	From CELL+	3	RS422- from WG	3	
4	READY+	4		4	RS422+ from WG	4	
				5	RS422- to WG	5	RS422- to SCB
				6	RS422+ to WG	6	RS422+ to SCB
					GND	E	



6 TECHNICAL SPECIFICATIONS

<i>Dimensions:</i>	See chapter 3.4
<i>Weight:</i>	
<i>Protection:</i>	IP45 (outdoor use)
<i>Working temperature:</i>	0°C to 50° C
<i>Temperature range storage:</i>	-30 to 85°C
<i>CE Standards:</i>	CE

7 APPENDICE

7.1 Index figures

No table of figures entries found.

7.2 Version history

Version	Modifications since last version
1.0	Initial version

NOTES

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