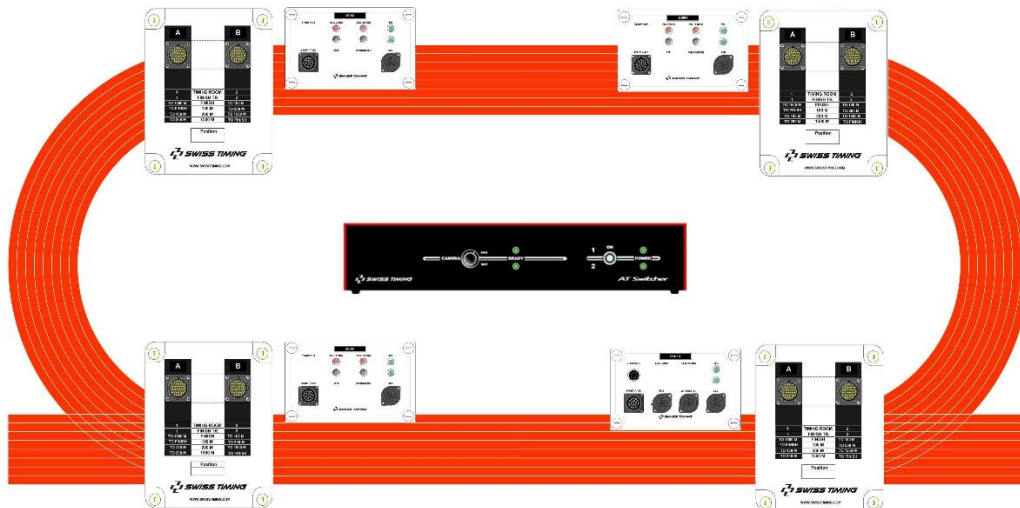




ATHLETICS – FIX CABLING OUTDOOR

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

The information provided in this documentation has been obtained from sources believed to be reliable, accurate and current. However, Swiss Timing SA makes no representation or warranty, express or implied, with respect, but not limited to, the completeness, accuracy, correctness and actuality of the content of this documentation. Swiss Timing SA specifically disclaims any implied warranty of merchantability, quality and/or fitness for any particular purpose. Swiss Timing SA shall not be liable for errors contained in this documentation or for incidental or consequential damages in connection with the supply, performance or use of this documentation.

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)

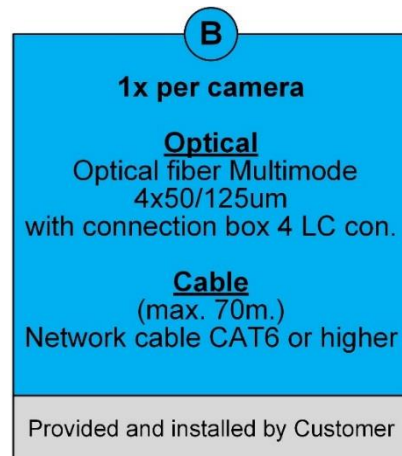
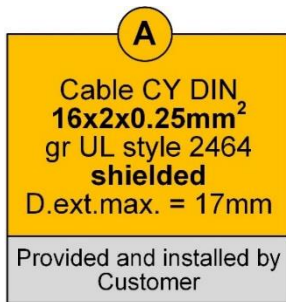
This manual offers the most frequently used versions by our customers, nevertheless there are a multitude of other possibilities that can be perfectly adapted to your needs.

2 CONNECTIONS

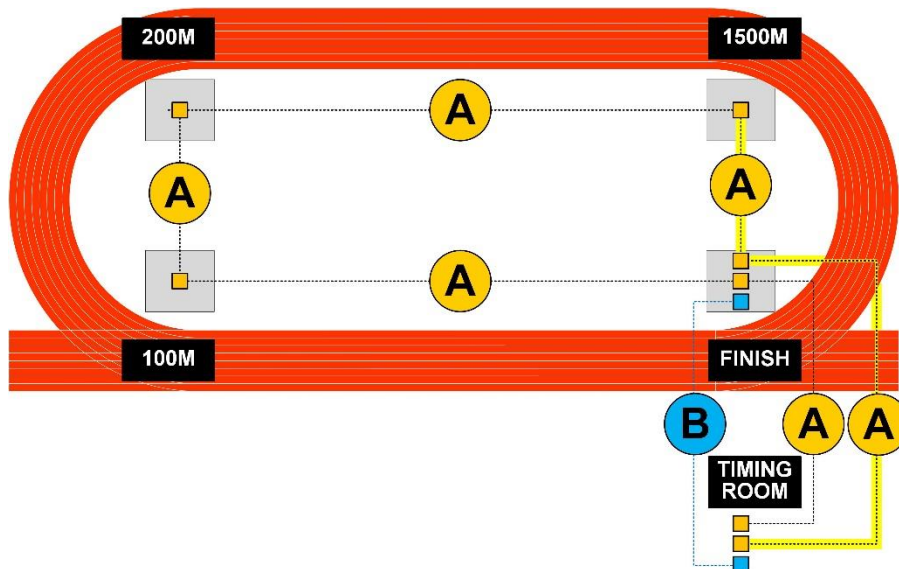
2.1 Cable and optical fiber

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.

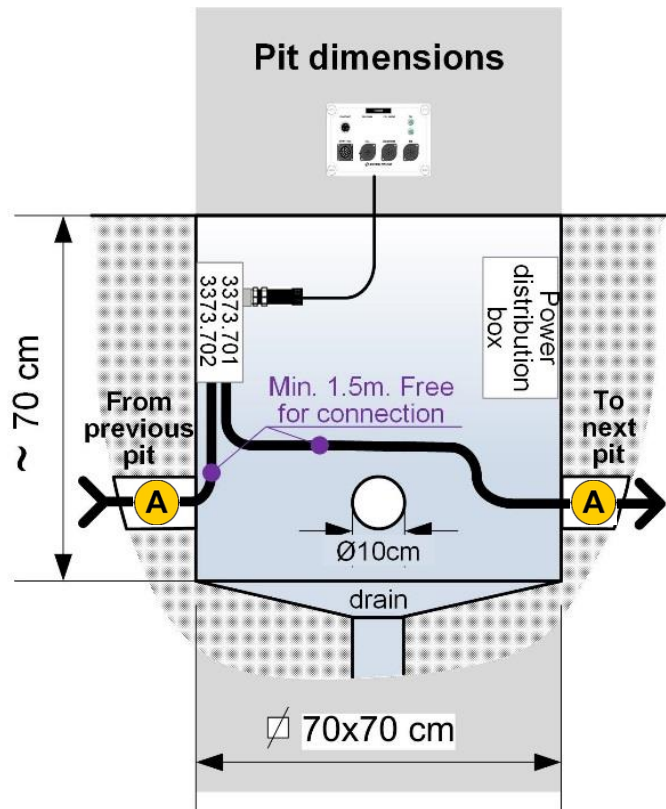


2.2 Pit

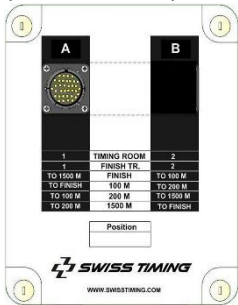
At each corner of the track (FINISH / 100M / 200M / 1500M) a pit is installed (Standard & Pro lines).

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

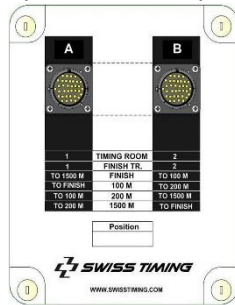
A fix box is installed in each pit, there are 2 different models depending on the cabling line :



Basic & Standard 3373.701 (1 connector)



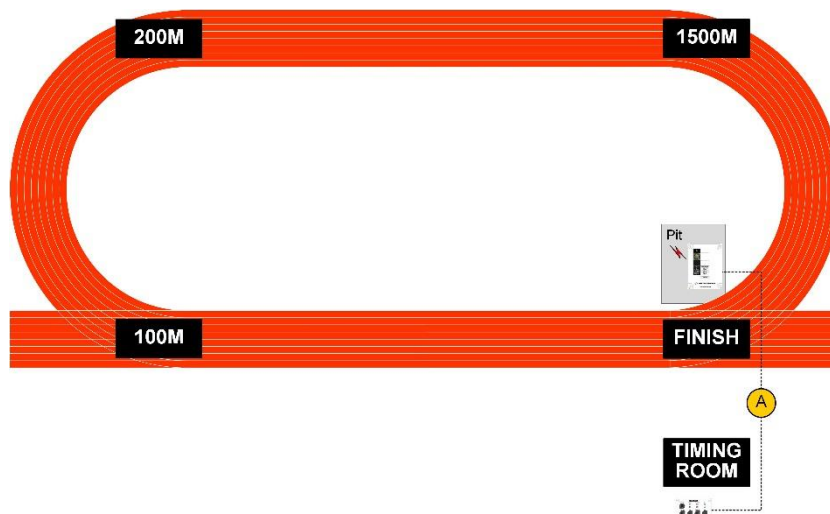
Pro 3373.702 (2 connectors)



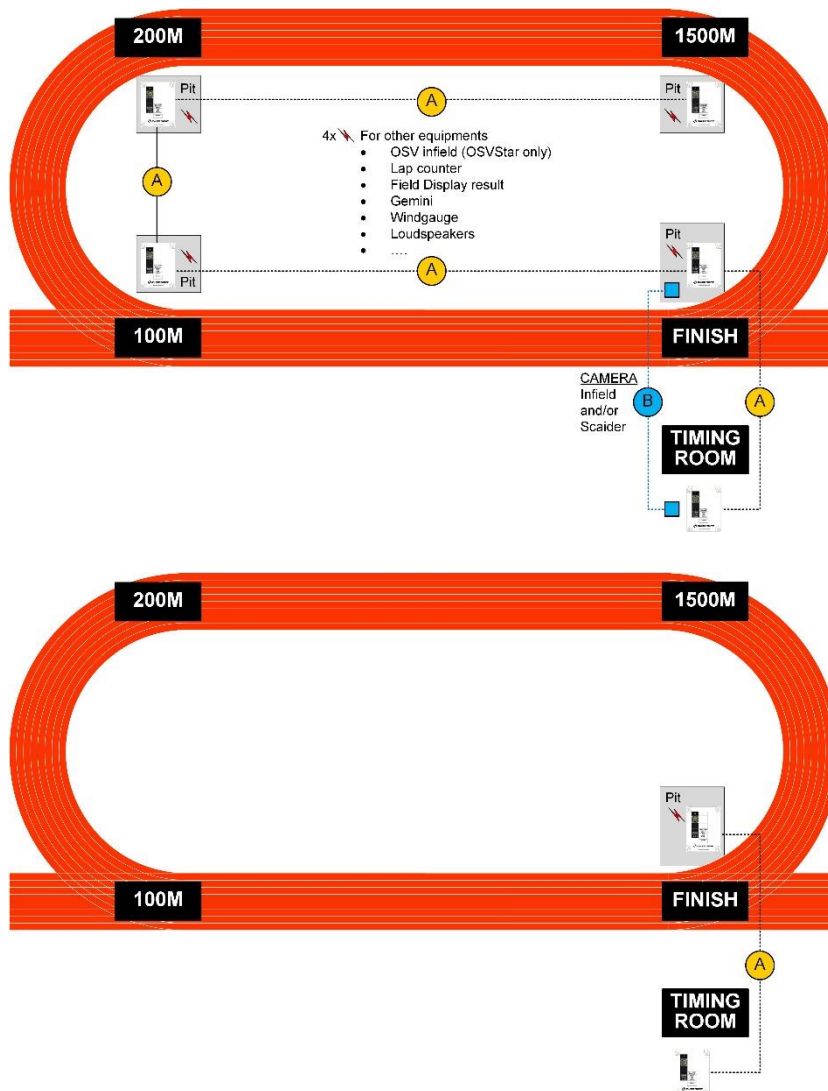
The copper cables **A** are connected to the fix boxes.

2.3 General cabling

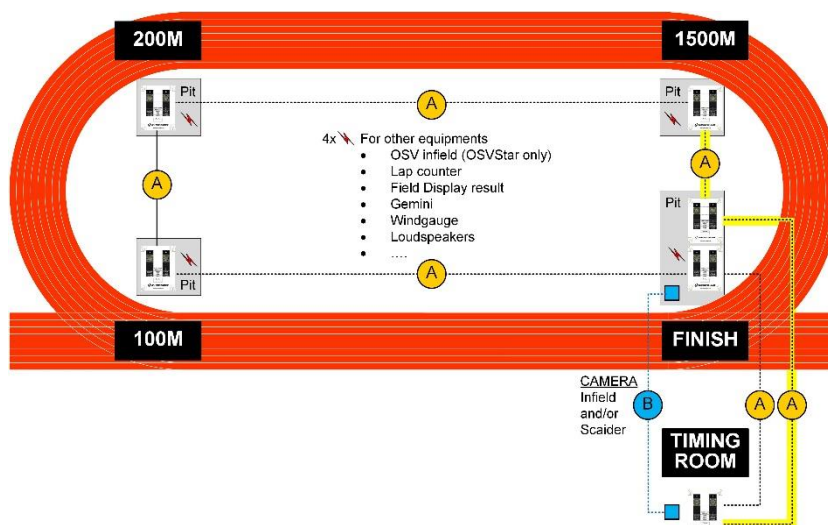
2.3.1 Basic line (without Athletics Switcher)



2.3.2 Standard line



2.3.3 Pro line (Swiss Timing Service Operation)



2.4 Timing room

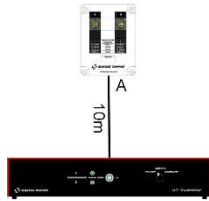
2.4.1 With Athletics Switcher (Standard & Pro)

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

Standard
3373.701
 (1 connector)

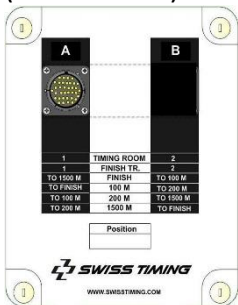


Pro
3373.702
 (2 connectors)

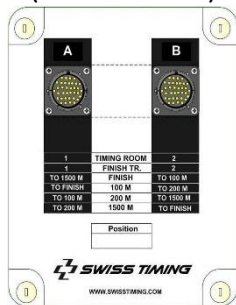


Pro : B connector is used only by **Swiss Timing Service Operation**

Standard
3373.701
 (1 connector)



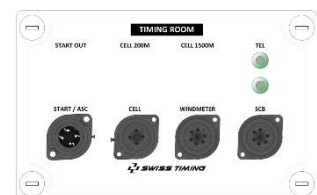
Pro
3373.702
 (2 connectors)



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.

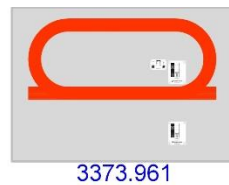
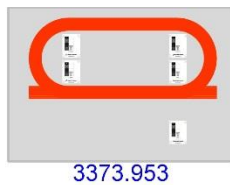
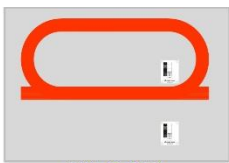


3 CONFIGURATIONS

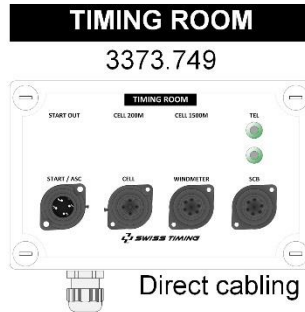
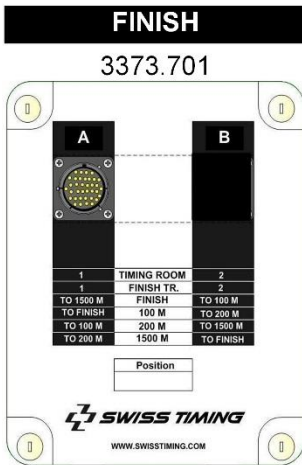
Several configurations are available but we can offer other possibilities on request.

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

	Sets								
	3373.964	3373.963	3373.962	3373.961	3373.960	3373.954	3373.953	3373.952	3373.951
Compatible with Athletics switcher									
Not compatible with Athletics switcher									
Swiss Timing Service Operation									
Boxes									
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				



3.1 Boxes - Basic

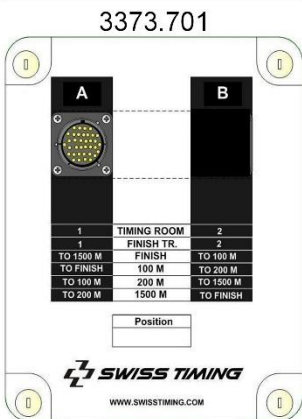


START / ASC
CELL (FINISH)
WINDMETER
SCB
START OUT
TEL

Not compatible with Athletics Switcher

3.2 Boxes - Standard

FINISH / TIMING ROOM
100M / 200M / 1500M

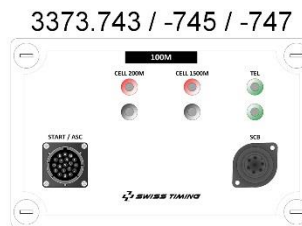


FINISH



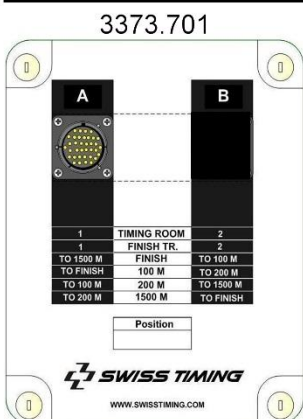
START / ASC	START / ASC
CELL (FINISH)	CELL 200M
	CELL 1500M
WINDMETER	
SCB	SCB
START OUT	
TEL	TEL

100M / 200M / 1500M

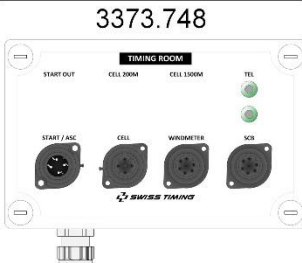


OR

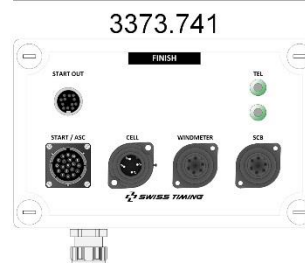
FINISH / TIMING ROOM



TIMING ROOM



FINISH



START / ASC
CELL (FINISH)
WINDMETER
SCB
START OUT
TEL

Compatible with Athletics Switcher

3.3 Boxes - Pro

3373.702 Service Operation



1	TIMING ROOM	2
1	FINISH TR.	2
TO 1500 M	FINISH	TO 100 M
TO FINISH	100 M	TO 200 M
TO 100 M	200 M	TO 1500 M
TO 200 M	1500 M	TO FINISH

Position



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3373.742 Service Operation



START / ASC	START / ASC	START / ASC
CELL (FINISH)	CELL 200M	CELL 200M
WINDMETER	CELL 1500M	CELL 1500M
SCB	SCB	SCB
START OUT	TEL	TEL
TEL		

3373.744 / -746 Service Operation



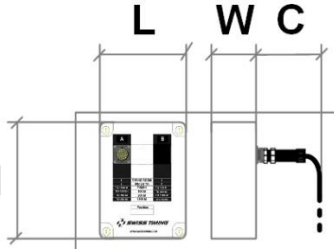
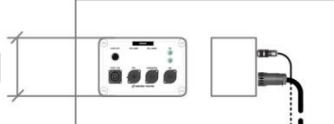
START / ASC	START / ASC	START / ASC
CELL 200M	CELL 200M	CELL 200M
CELL 1500M	CELL 1500M	CELL 1500M
TEL	TEL	TEL
SCB	SCB	SCB

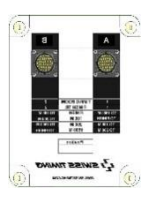

3373.747



START / ASC	START / ASC	START / ASC
CELL 200M	CELL 200M	CELL 200M
CELL 1500M	CELL 1500M	CELL 1500M
TEL	TEL	TEL
SCB	SCB	SCB

3.4 Boxes dimensions

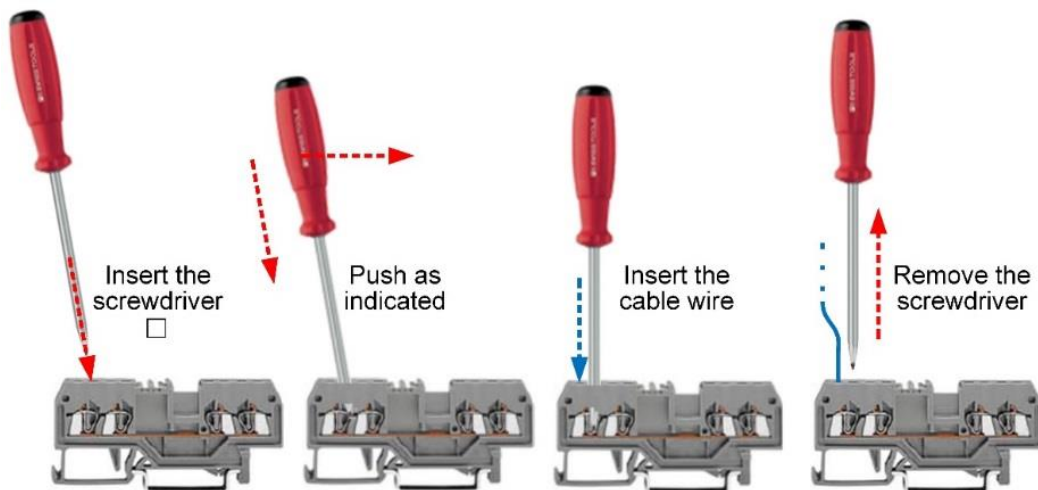
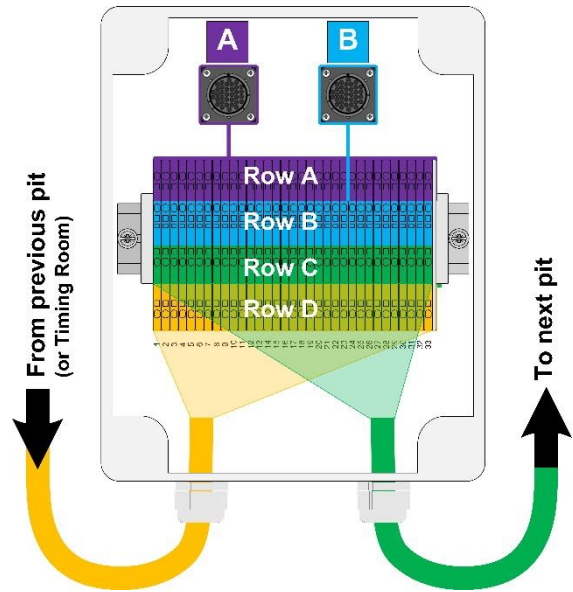
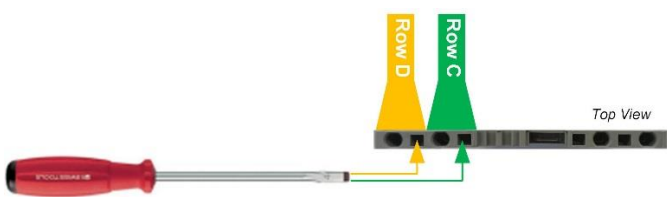
		L	W	C	Height	Length	Width	Cables
		cm						
H					25	20	10	10
H					14	20	10	8

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

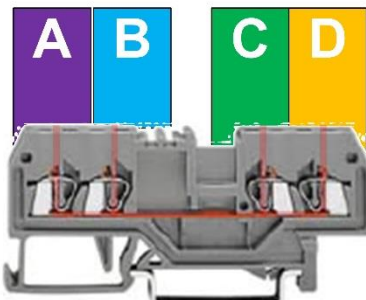
4 WIRING **A** CABLE

- Open the cover box
- Connect cable **A** from previous pit to Row D
- Connect cable **A** to next pit to Row C

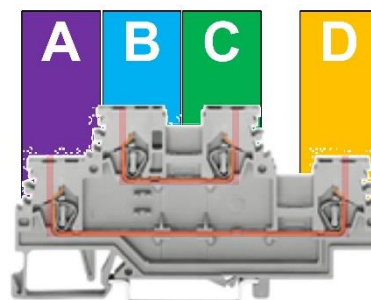
- Insert the screwdriver 00 in the square of the corresponding row



Basic and Standard



Pro



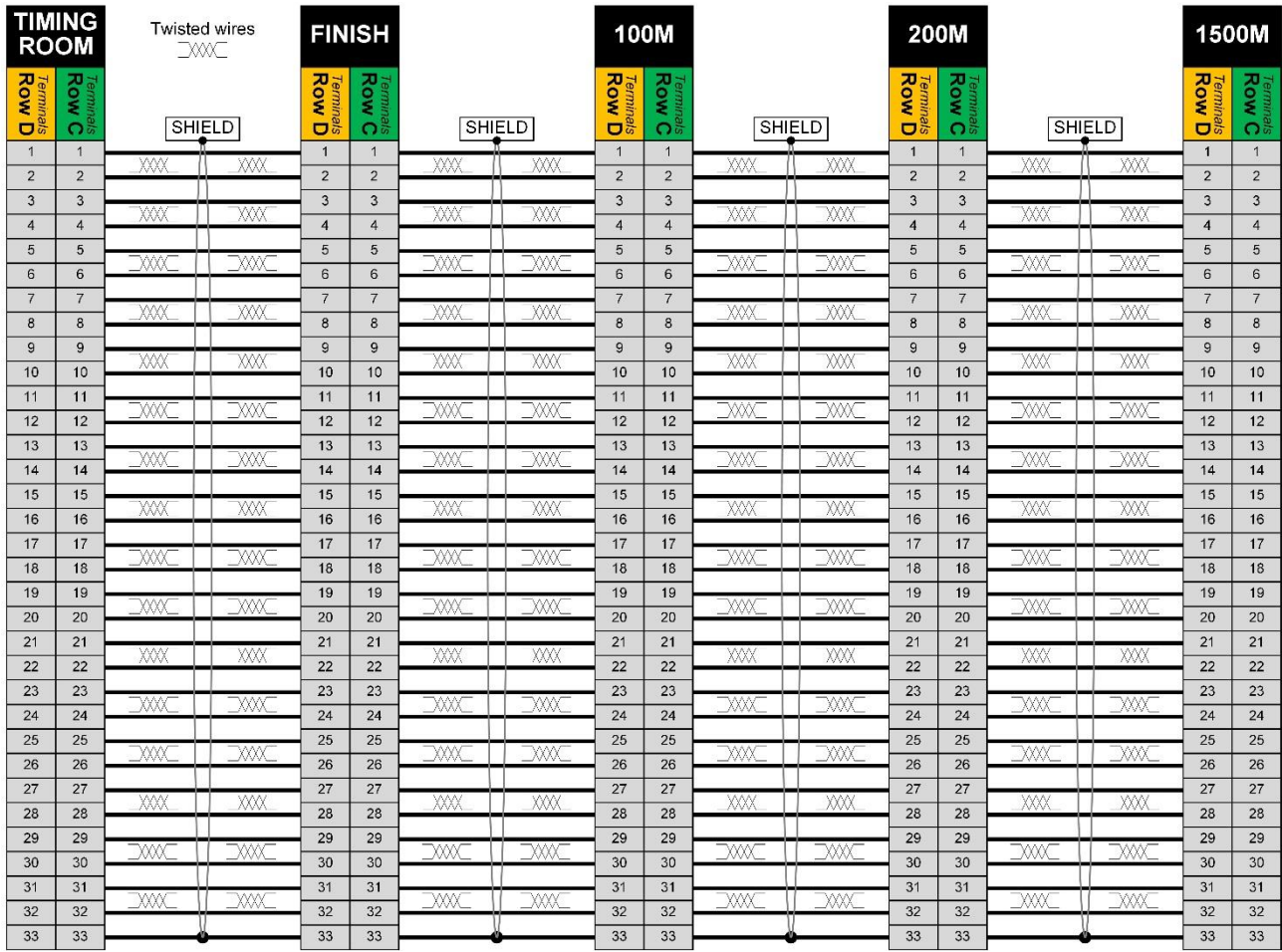
4.1 Standard (Fix box 3373.701)

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	SCB	Scoreboard
←	From TRACK to Timing Room	WG	WindGauge

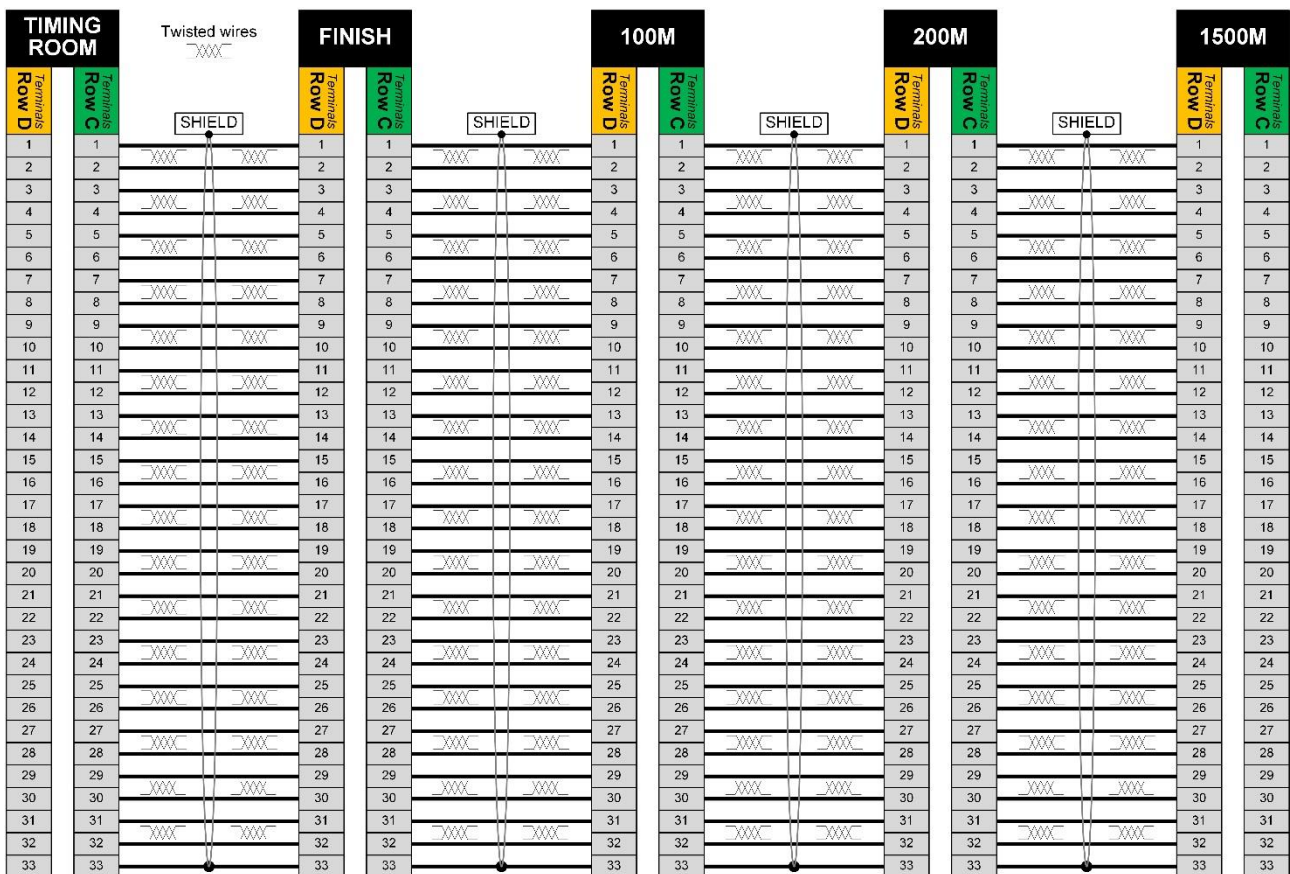


4.2 Pro (Fix box 3373.702)

UTS 359FT	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

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

SCB	Scoreboard
WG	WindGauge



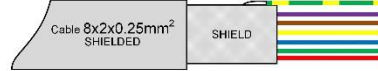
4.3 Basic (not compatible with Athletics Switcher)

A	1	Wt		N	13	Wt-Gn	→	WG Power +	...	...			...	...	Yl-Gn		
...	...			P	14	Bn-Gn	→	WG GND	d	27	Gy-Gn	→	READY +	m	33		SHIELD
E	5	Gy	←	WG RS422 +	R	15	Wt-Yl	→	WG RS422 +	e	28	Yl-Gy	→	READY -			
F	6	Pk	←	WG RS422 -	S	16	Yl-Bn	→	WG RS422 -	f	29	Pk-Gn	←	START +			
G	7	Bl	→	SCB RS422 +	...	...				g	30	Yl-Pk	←	START -			
H	8	Rd	→	SCB RS422 -	V	19	Wt-Pk		FINISH +	h	31	Gn-Bl		TEL Line a			
...	...			W	20	Pk-Bn		FINISH -	i	32	Yl-Bl	←	TEL Line b				

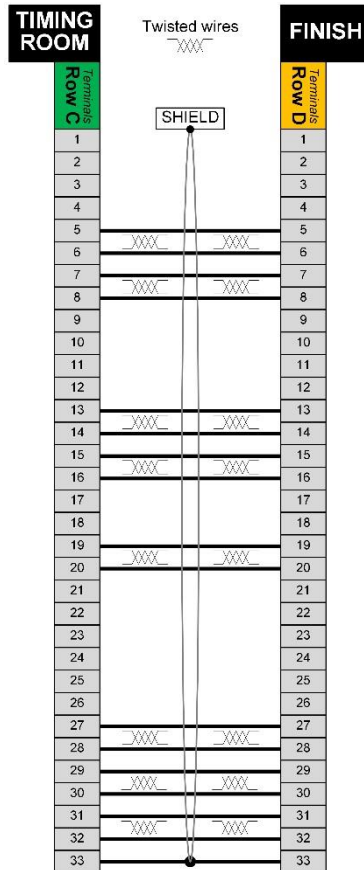
Solder Yellow-Green wire to the shield and connect it to terminal 33

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

SCB	Scoreboard
WG	WindGauge

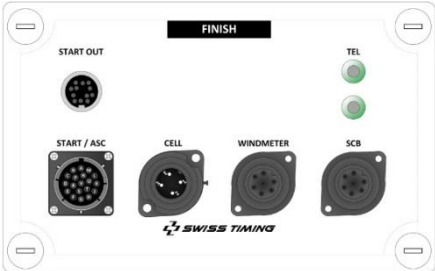


A If Basic version is needed, you can install a smaller cable 8x2x0.25mm² from Timing Room to Finish.

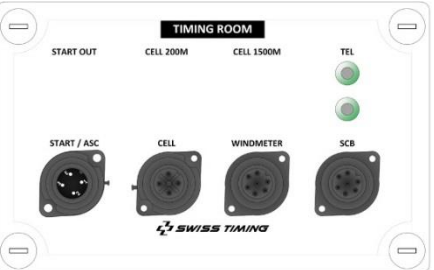


5 CONNECTORS DESCRIPTION

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
		E 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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