

 Tweneer
PLAY BETWEEN THE LINES

INSTALLATION GUIDE

6.1 Version - Single & Double

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IMPORTANT REMINDERS



ALL TYPES OF **ELECTRIC** OR **BATTERY** MACHINES ARE **FORBIDDEN**

It is the installer's responsibility to check the wind resistance of the screen structure.

The electrical connection of TWEENER® must be carried out by a qualified electrician.

Assemble part **LONG BAR TWEENER®** and **SMALL BAR TWEENER®** only with part TWEENER® **POWER BOX**.

I. RECOMMENDED TOOLS

NOT SUPPLIED

Qty	Tools	METRIC	IMPERIAL
1	spirit level		
2	ratchet spanners	13 mm	1/2
1	ratchet socket wrench with extension	13 mm	1/2
1	PZ 2 screwdriver		
1	spanner set		
1	one meter level		
1	decameter		
2	scaffolding		

Optional

Qty	Tools	METRIC	IMPERIAL
1	floor protection for the tennis court surface		
1	pair of gloves per person		
1	marker		
1	line	40 m	131' 2.8"

II. COMPONENTS

A. FASTENERS

LONG SCREW x 52

100 / 120 / 140 mm | 4" / 4" 1/2 / 5" 1/2



SHORT SCREW x 170*



LOCKNUT x 222*

M8 | 5/16

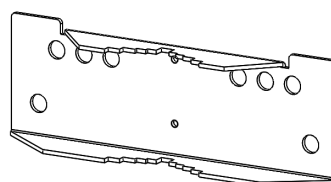


SCREW x 66*

M4 * 30 mm | 8.32 UNC x 1.18"



FASTENING BRACKET x 48*



JUNCTION PLATE x 14*

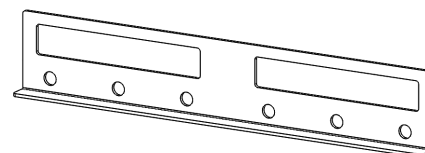


PLATE FOR SMALL BARS x 8



A. ELECTRICAL CONNECTIONS

ELECTRIC EXTENSION x 2

28 m | 98'



POWER SUPPLY BOX x 2

with SCREWS pre-installed x 12

M4 * 12 mm | 8.32 UNC x 1/2



TWEENER

* LIGHT EXTENSION KIT OPTION :

SHORT SCREW	x 220
LOCKNUT	x 270
JUNCTION PLATE	x 22
ELECTRIC EXTENSION 28m 98'	x 2
ELECTRIC EXTENSION 4 m 13'	x 2

* SUPPORT BAR KIT OPTION

LONG SCREW	x 54
SHORT SCREW	x 178
SCREW M4 8.32 UNC	x 54
LOCKNUT	x 232
FASTENING BRACKET	x 15
JUNCTION PLATE	x 15

A. LED LINEAR BARS

LONG BARS x 16

3.80 m | 12' 5.6"

BAR A1 x 2

3 m | 9' 10" + male

35 cm | 11.8" + female



BAR B1 x 2

35 cm | 11.8" + female

3 m | 9' 10" + male



BAR A2 x 4

35 cm | 11.8" + male

35 cm | 11.8" + female



BAR B2 x 4

35 cm | 11.8" + female

35 cm | 11.8" + male



BAR A3 x 2

35 cm | 11.8" + male

5 m | 16.4' + female



BAR B3 x 2

5 m | 16.4' + female

35 cm | 11.8" + male



SMALL BARS x 4

0.95 m | 3' 4.3"

BAR C x 2

35 cm | 11.8" + male

BAR D x

2

35 cm | 11.8" + male



LIGHT EXTENSION OPTION

EXTENSION BAR x 4

2 m | 6' 6.7"

BAR

Aext x 2

35 cm | 11.8" + male

35 cm | 11.8" + female



BAR

Bext x 2

35 cm | 11.8" + female

35 cm | 11.8" + male



SUPPORT BAR OPTION

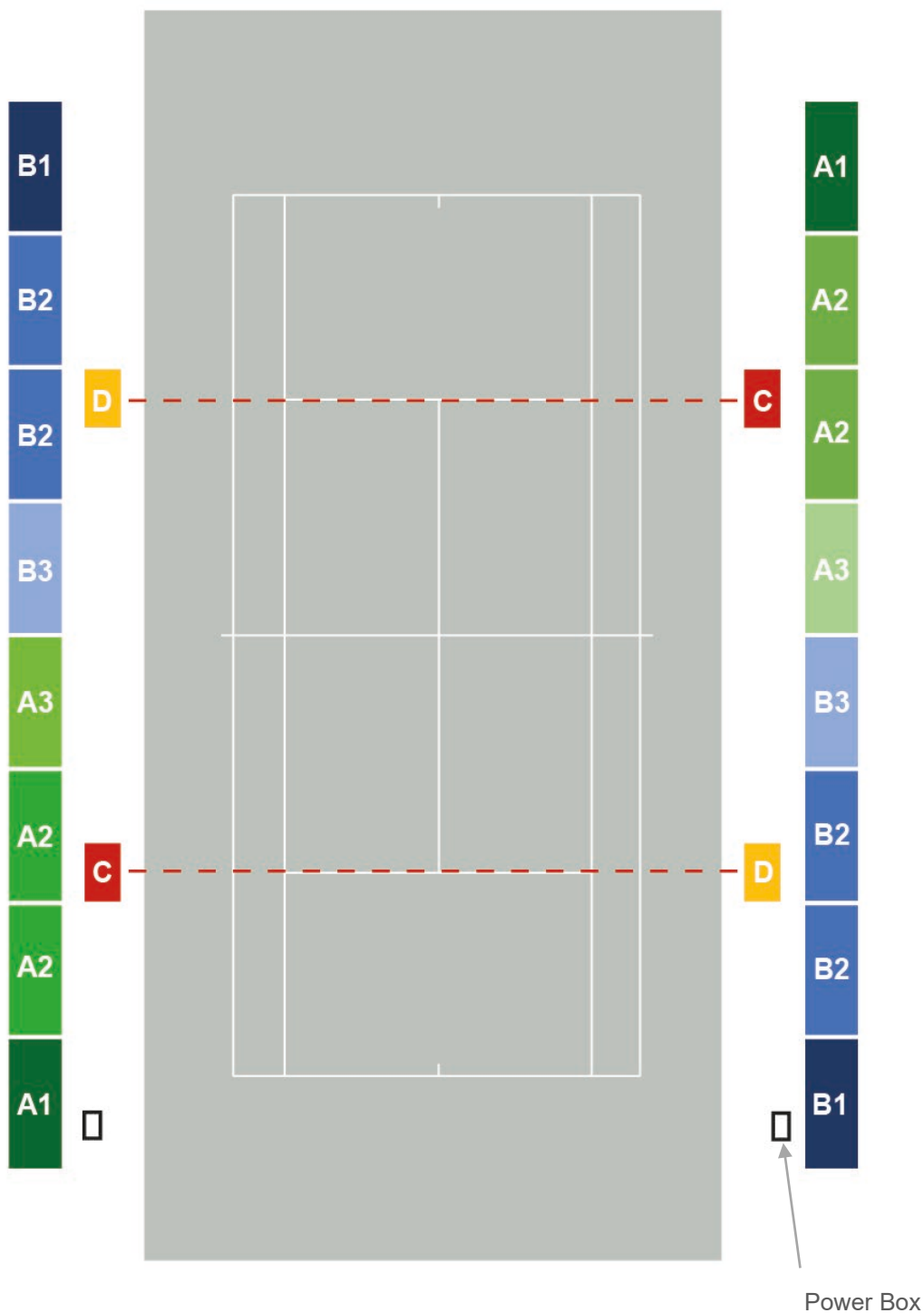
BAR Support bar x 1

Variable Lengths : 0,95 m | 3' 4.3" , 3,8 m | 12' 5.6" or custom lenght



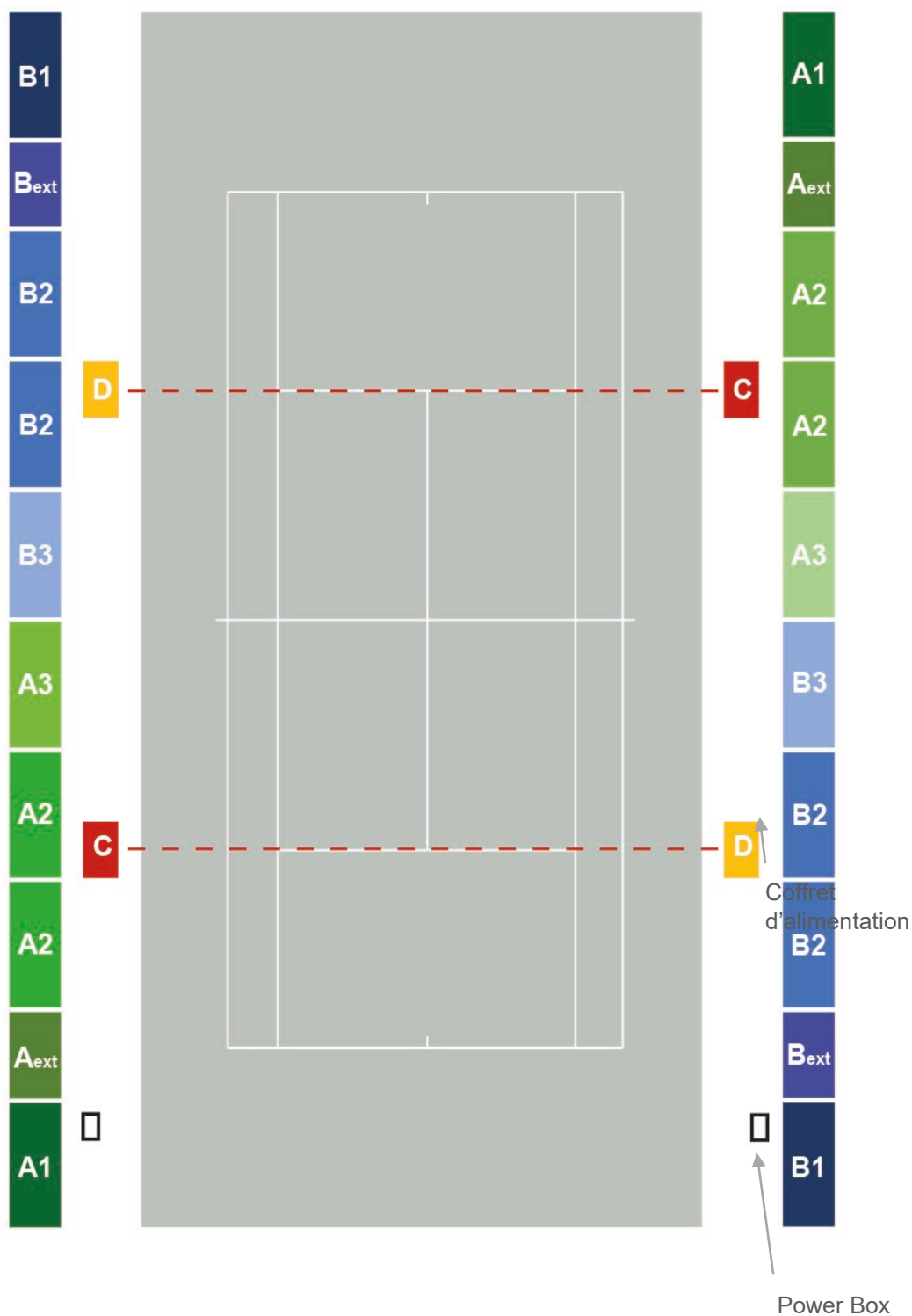
III. DISPOSITION OF A COURT

A. STANDARD COURT



For courts with **SUPPORT BAR OPTION**, see **APPENDIX**.

B. COURT WITH LIGHT EXTENSION



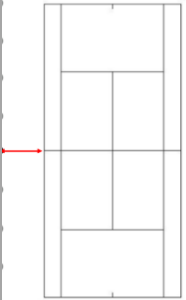
IV. ASSEMBLY STEPS

A. DETERMINE THE INSTALLATION HEIGHT

The installation height of the system varies depending on the **DISTANCE** between the fence and the double line:

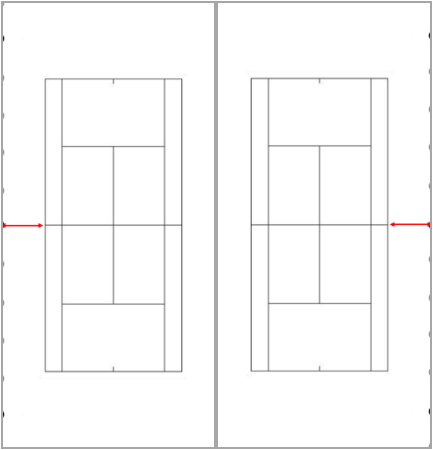
SINGLE TWEENER - TWS UL6.0

For **Ground** measurements (ITF Grid)

Distance between the fence and the double line		Installation Height
	3 m 10' Court 118'x55'	2,5 to 2,6 m 8' 2" to 8' 6"
	3,5 m 11' 6" Court 118'x59'	2,5 to 2,8 m 8' 2" to 9' 2"
	4 to 4,5 m 13' to 14' 9" Court 118'x62' Court 131'x65'	2,5 to 3 m 8' 2" to 10'

DOUBLE TWEENER - TWD UL6.0

For **Ground** measurements (ITF)

Distance between the fence and the double line		Installation Height
		3,5 m 11' 6" Court 118'x118'
		3 m 10'

If you are in an unlisted case, please contact us.

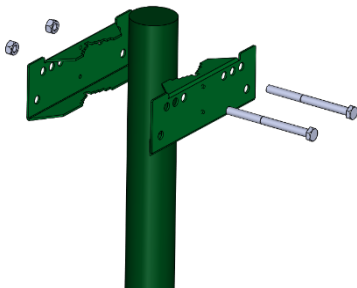
B. NOTE THE INSTALLATION HEIGHT ON EACH POLE

Mark all pole with a marker or a line at the recommended height (Step A).

C. ATTACH THE FASTENING BRACKETS TO THE POLES

❖ FASTENING BRACKETS, **LONG SCREWS** and **LOCKNUTS**

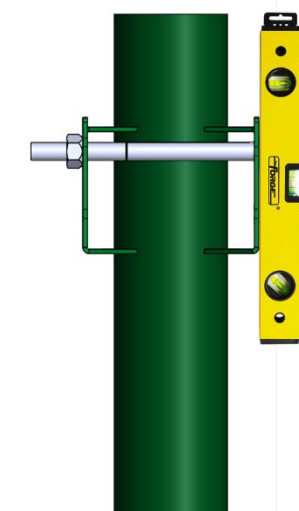
Fix the FASTENING BRACKETS on the pole at the recommended height (Step A).



The top of the FASTENING BRACKET should be on your mark (Step B) and leveled
Screw head → outside of the court

D. MAKE SURE FASTENING BRACKET ARE LEVELED

❖ SPIRIT LEVEL, M4 * 30 mm | 8.32 UNC x 1.18" SCREWS

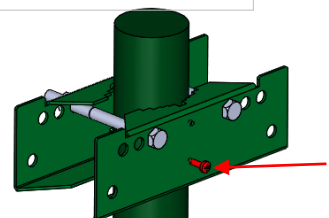
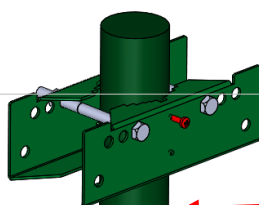


If it's not leveled, use the SCREWS to make it right.

There are 2 positions on the FASTENING BRACKETS

to make level on

them : up and down



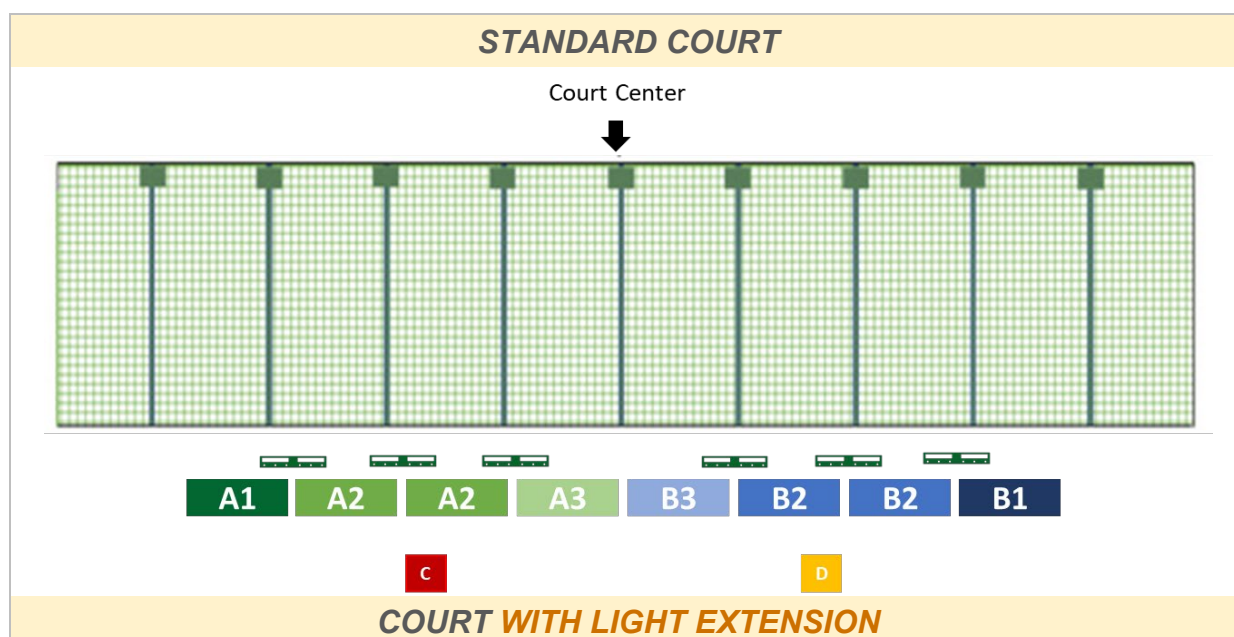
E. MAKE A BLANK INSTALLATION ON GROUND

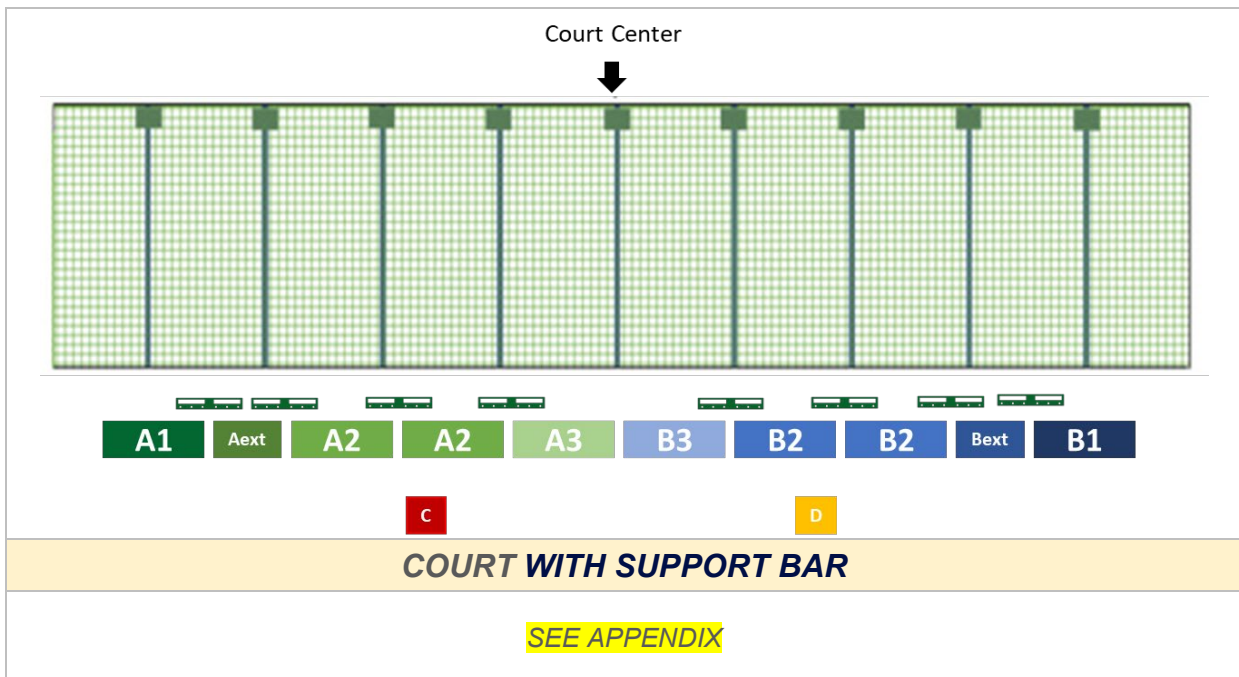
1. INSTALL BARS AND JUNCTION PLATES ON EACH SIDE OF THE COURT

❖ JUNCTION PLATE, **LONG BARS** and **SMALL BARS**

- Lay the bars on ground as shown in the diagram below.
- **Check** that :
 - LONG BARS** A1 and B1 have a 3 m | 9'10" cable at one end and 30cm | 16.4' cable at the other end
 - LONG BARS** A3 and B3 have a 5 m | 9'10" cable at one end and 30cm | 16.4' cable at the other end
 - SMALL BARS** C and D have a 30 cm | 16.4' at one end
 - EXTENSION BARS** Aext et Bext have a 30 cm | 16.4' at both ends (For Light Extension option)
- **Lay** a JUNCTION PLATE at each interval between 2 BARS.

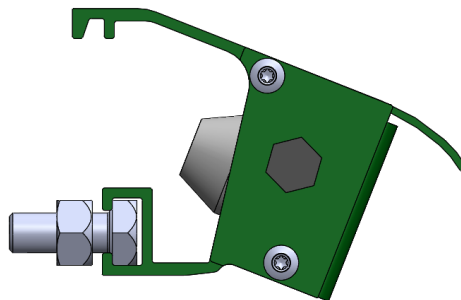
Note : if there is no pole at the center of the court, it will have a junction plate between A3 and B3.





2. INSERT SCREWS IN BARS

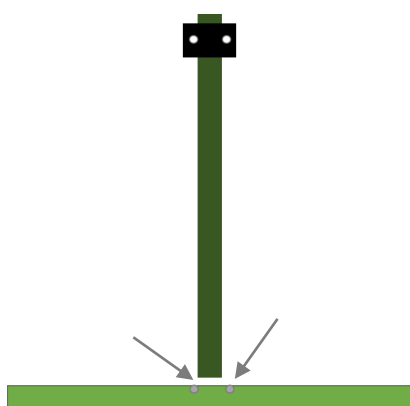
❖ **SHORT SCREW**



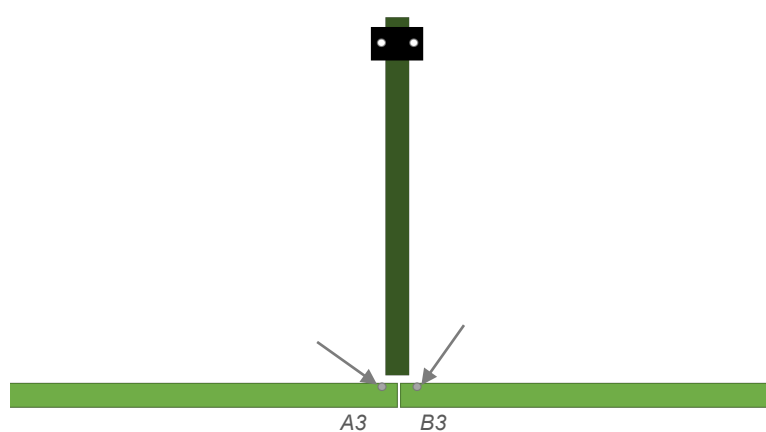
- Insert **SHORT** SCREWS in **LONG** bars so that they are facing a pole
- Fasten the bars on the poles.

Standard Pole

Central Pole

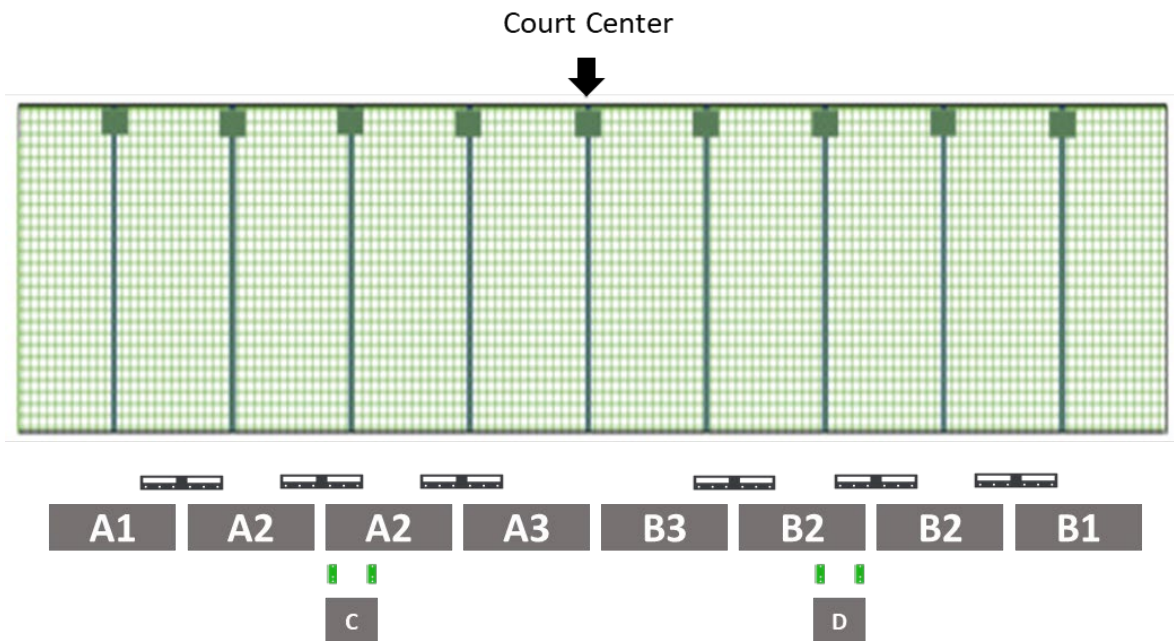


2 SCREW per bar

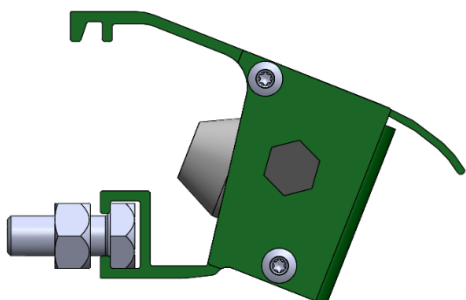
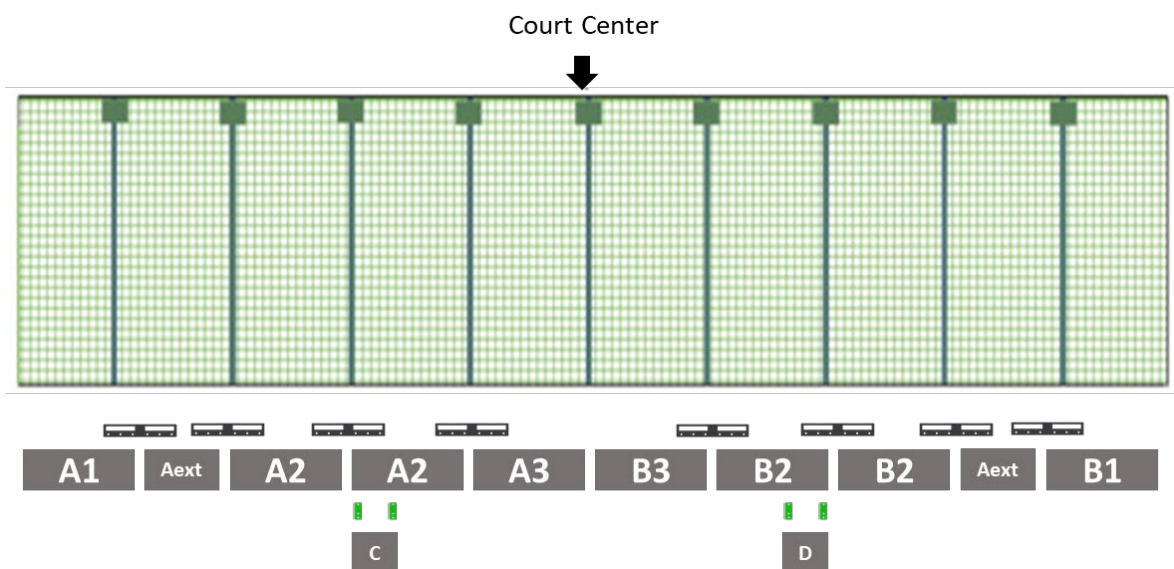


1 SCREW per bar

STANDARD COURT



COURT WITH LIGHT EXTENSION

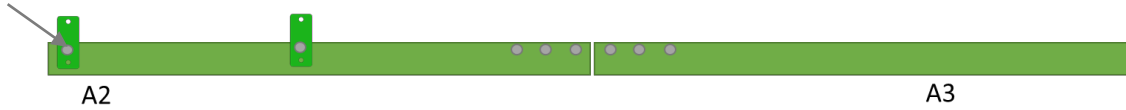


Insert 2 **SHORT** SCREWS in the groove on the **first A2** bar and the **first B2** bar (starting from the center).

3. PRE-SET THE PLATE FOR SMALL BAR IN LONG BARS

❖ **SHORT SCREWS and PLATE FOR SMALL BARS**

Put the PLATES for **SMALL** bar on the **SHORT** SCREWS you have just put on the first A2 and B2 bars



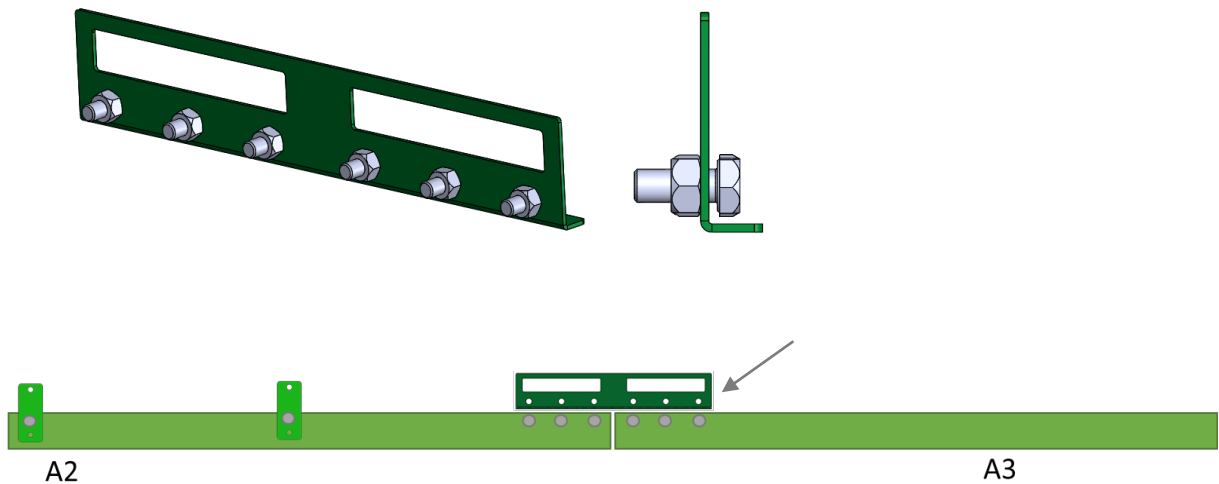
1 SCREW per plate

Apply the same instructions for B2 bar.

4. PRE-SET SCREWS ON JUNCTION PLATE

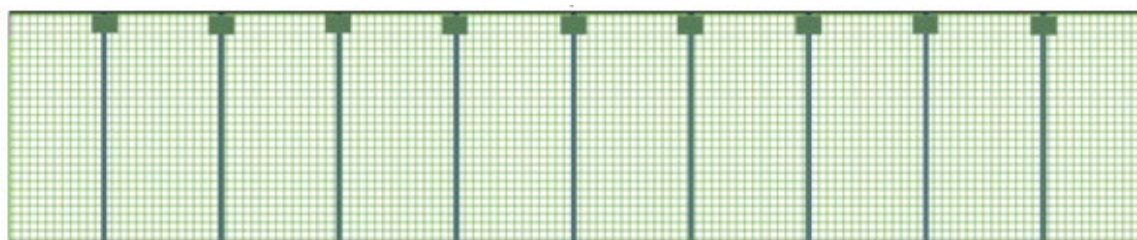
❖ **SHORT SCREWS and LOCKNUTS**

- Insert 6 SCREWS and 6 LOCKNUTS into the JUNCTION PLATE holes
Head SCREW inside the "L" plate
- Pre lock the nuts (**by hand only**)

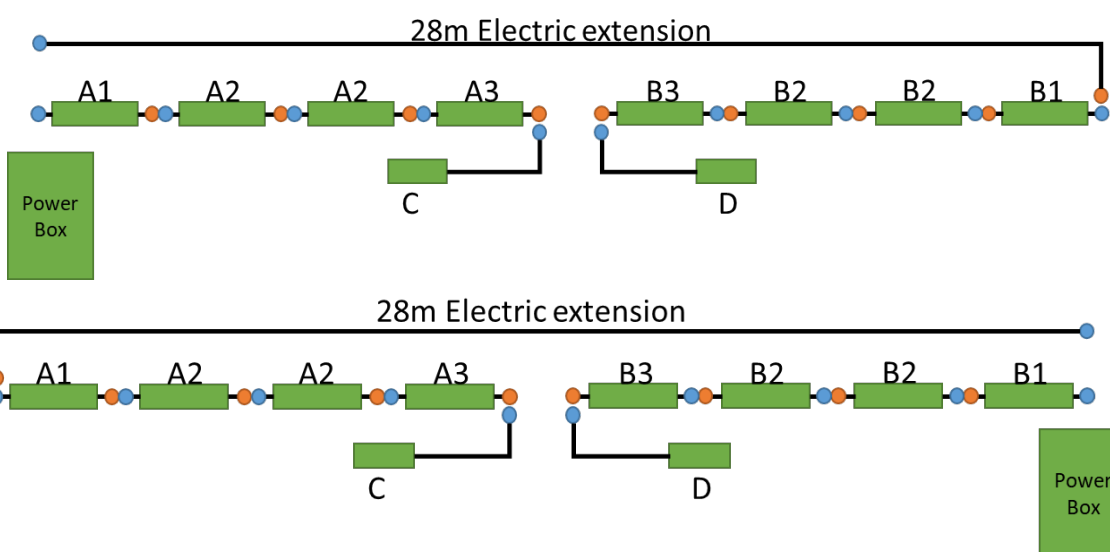


Pre-installation of the junction plate

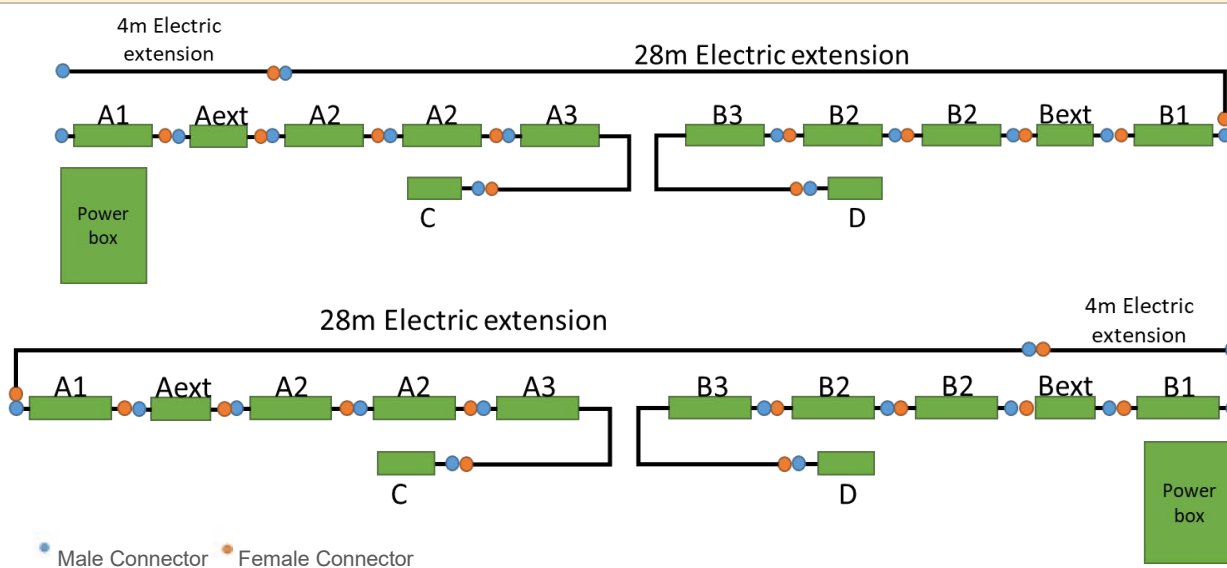
5. INSTALL POWER SUPPLY BOX AND ELECTRIC EXTENSION



STANDARD COURT



COURT WITH LIGHT EXTENSION



Drivers box shall be installed **on last pole** at the end of the court **near to power source.**



Male connector of electric extension shall be **next to power supply box.**



BLANK INSTALLATION IS COMPLETED

F. INSTALL BARS

1. INSTALL LONG BARS ON FASTENING BRACKETS

❖ **SHORT SCREW and LOCKNUT**

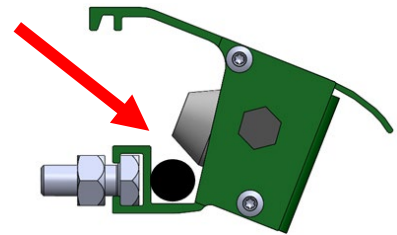


Start with bars in the **center** of the court (net line) on the opposite side of the power supply.
Example : If the power supply is on the left side, start with bars on the right side

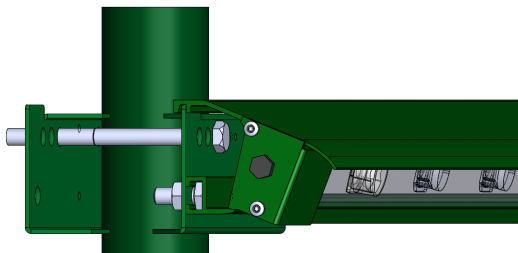
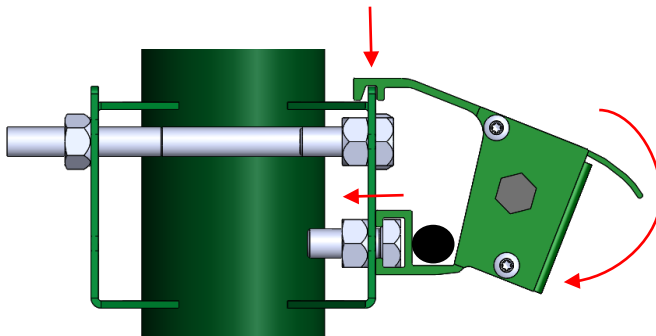


As the installation progresses :

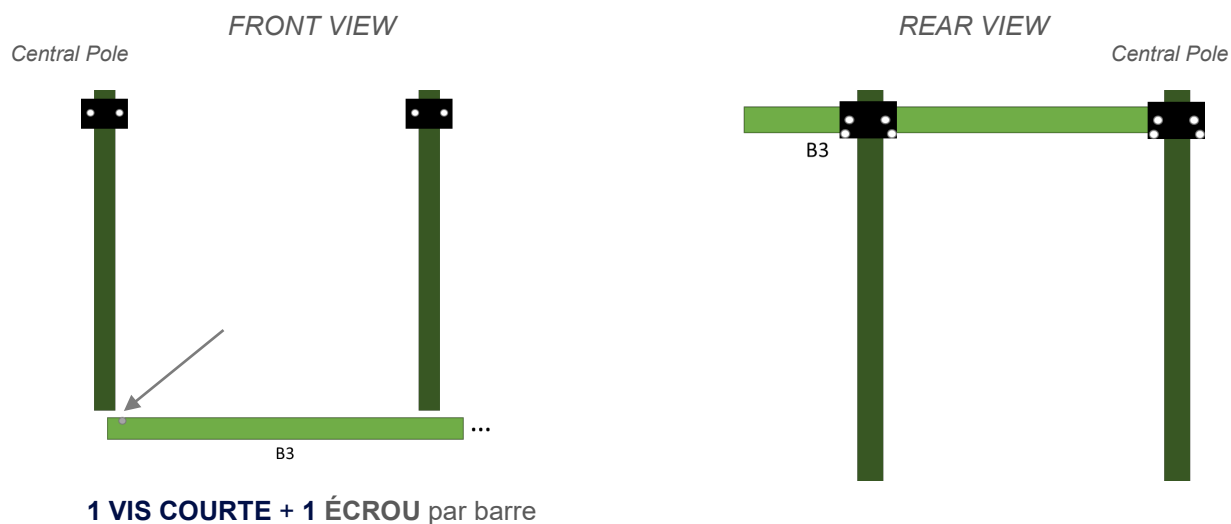
Place the **ELECTRIC EXTENSION** in the groove behind the **BARS** especially when fastening on **BRACKETS** and when positioning **JUNCTION PLATES**.



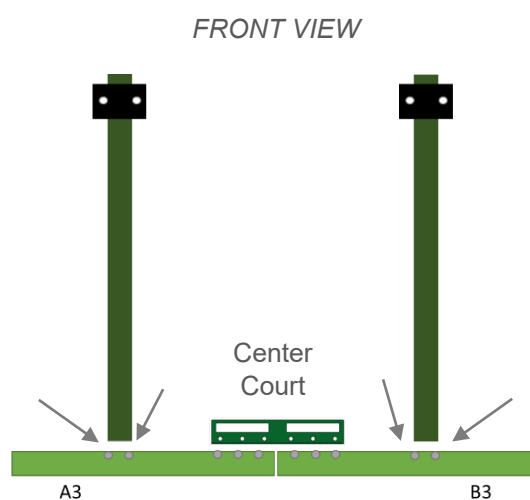
- **Set profile ON TOP** of the **BRACKET**
- **Insert screws inside the BOTTOM** holes of the **BRACKET**
- **Fix with LOCKNUT**



CASE 1 : **CENTRAL POLE**



CASE 2 : **NO CENTRAL POLE**



ADD a JUNCTION PLATE between A3 and B3 bars with **6 SHORT SCREWS (3 per bar)**



Don't forget the ELECTRIC EXTENSION

2 SHORT SCREWS + 2 LOCKNUTS per bar

Go on with other bars on each side.

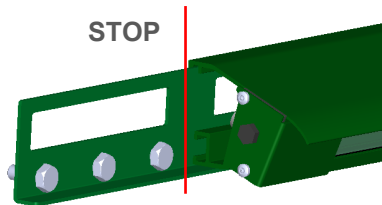
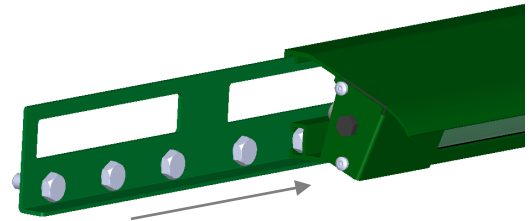
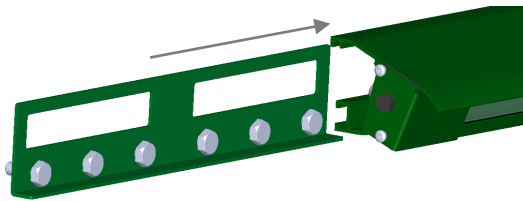
Note : During installation, if a bar finish on a FASTENING BRACKET and the next one start on that same FASTENING BRACKET, there is no need to put a JUNCTION PLATE.

One screw of FASTENING BRACKET will be on one bar and the other screw on the next bar (*same configuration like the CASE 1 : Central pole*)

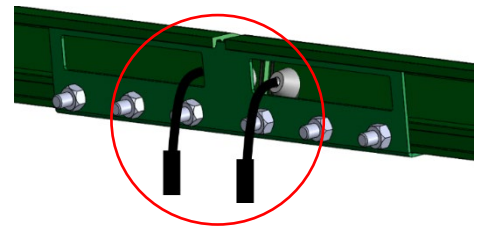
2. PLACE JUNCTION PLATES BETWEEN EACH LONG BARS

❖ **SHORT SCREW and LOCKNUT**

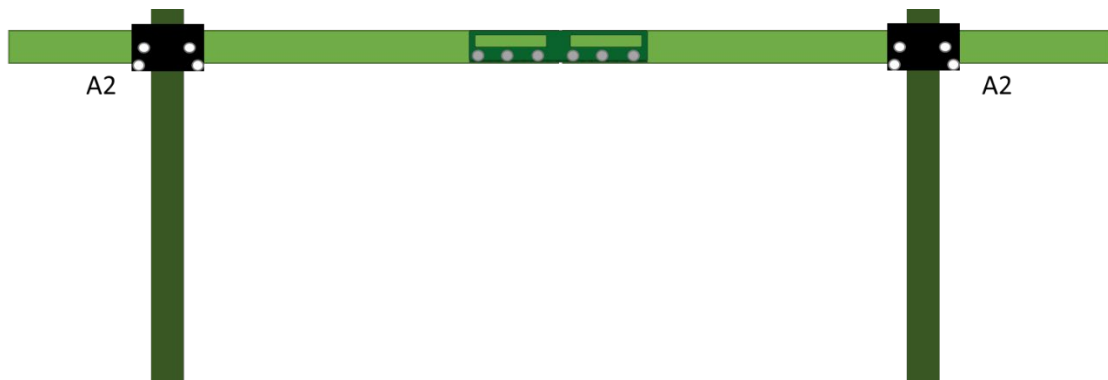
- Slide JUNCTION PLATE into the installed bar. STOP sliding when reaching the middle of the JUNCTION PLATE



- Don't forget the ELECTRIC EXTENSION**
- Put the connector of the bar inside the hole of the JUNCTION PLATE
- Lock the 3 LOCKNUTS on the JUNCTION PLATE
- Add the next bar
- Lock the last 3 LOCKNUTS



REAR VIEW

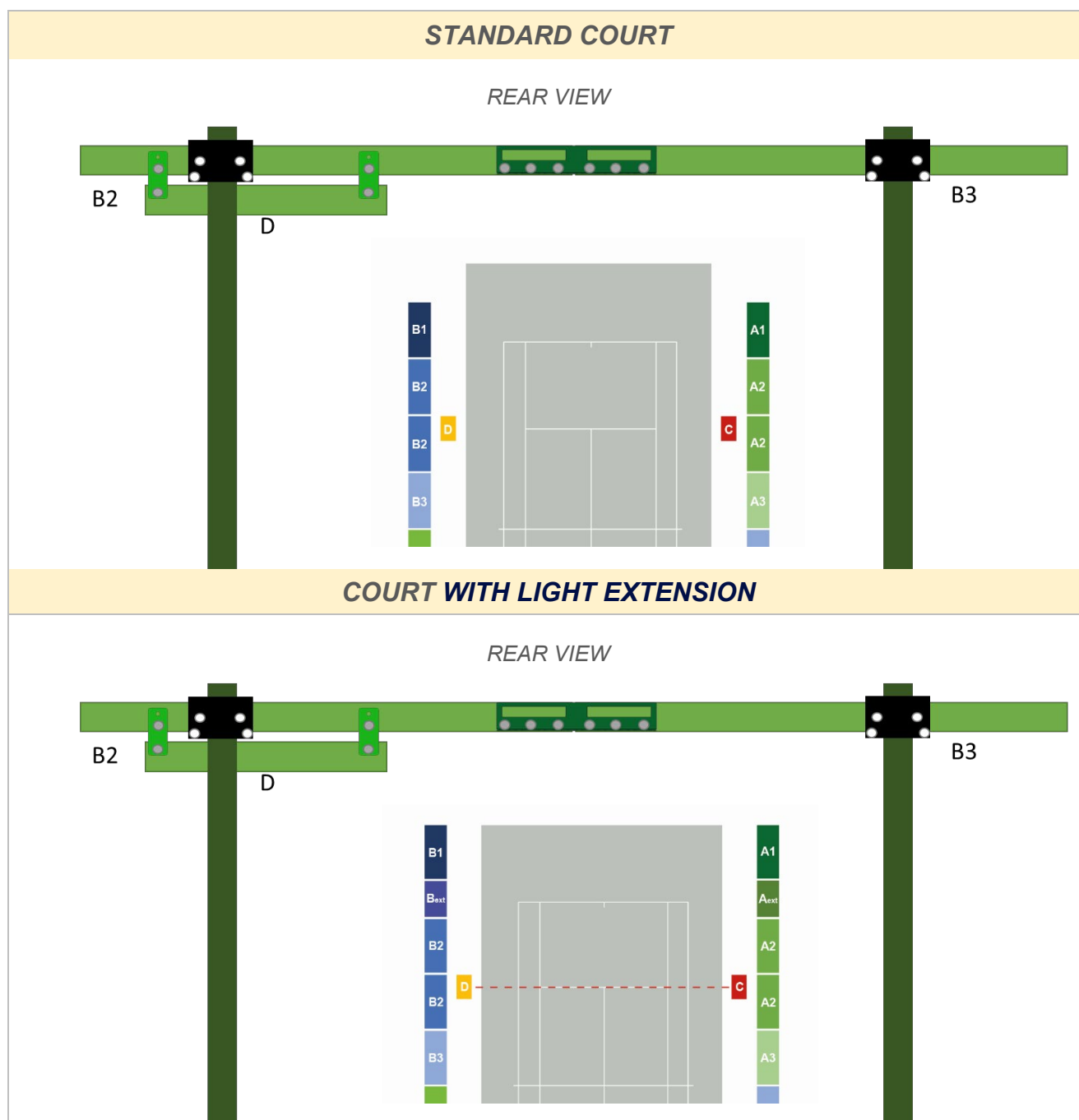


6 SHORT SCREWS (3 per bar)

3. FASTEN SMALL BARS TO LONG BARS

❖ SHORT SCREW and LOCKNUT

Middle of **SMALL** BARS are placed face of the service line.



4. CONNECT BARS ELECTRICALLY



MALE connector



FEMALE connector

G. FASTEN POWER SUPPLY BOX

1. INSTALL BOX ON EACH SIDE OF THE COURT

❖ **FASTENING BRACKETS, LONG SCREWS and LOCKNUT**

Power supply box includes : an equipped plate and a cover.

Install 1 power box on each side of the court and respect the following steps :

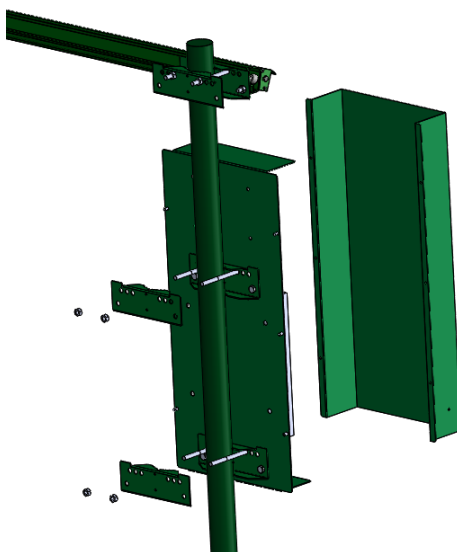
For each drivers box :

- Remove the cover



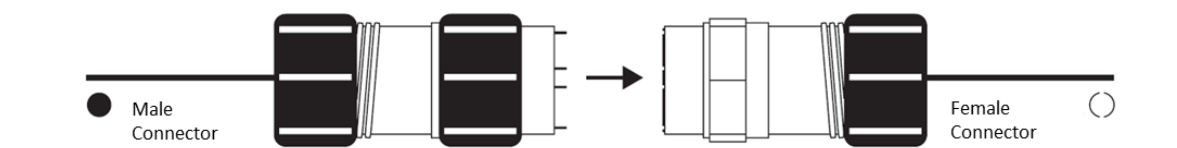
Beware keeping apart M4 * 12 mm | 8.32 UNC x 1/2 SCREWS

- Install supply box plate **15 to 25 cm | 1" to 1.2" below the last bar**
- Fasten the PLATE to pole with the 2 pre-fasten BRACKETS and 2 additionnal FASTENING BRACKETS placed behind the pole (with LONG SCREWS)



2. CONNECT LONG BARS TO THE SUPPLY BOX

CONNECTOR CONNECTION



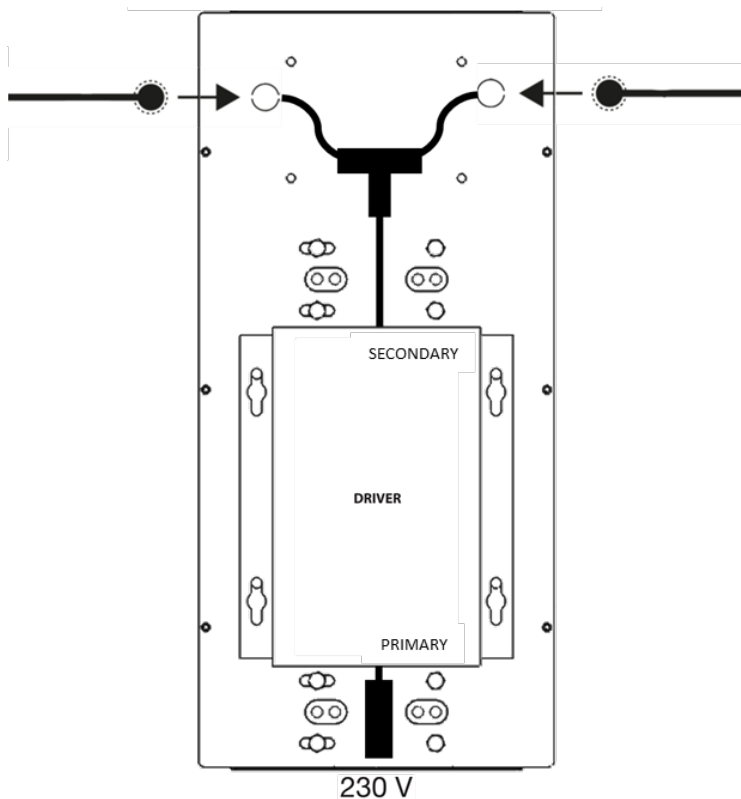
Note : Lock connectors after the connection

Screw connectors

POWER BOX – ELECTRICAL CONNECTION

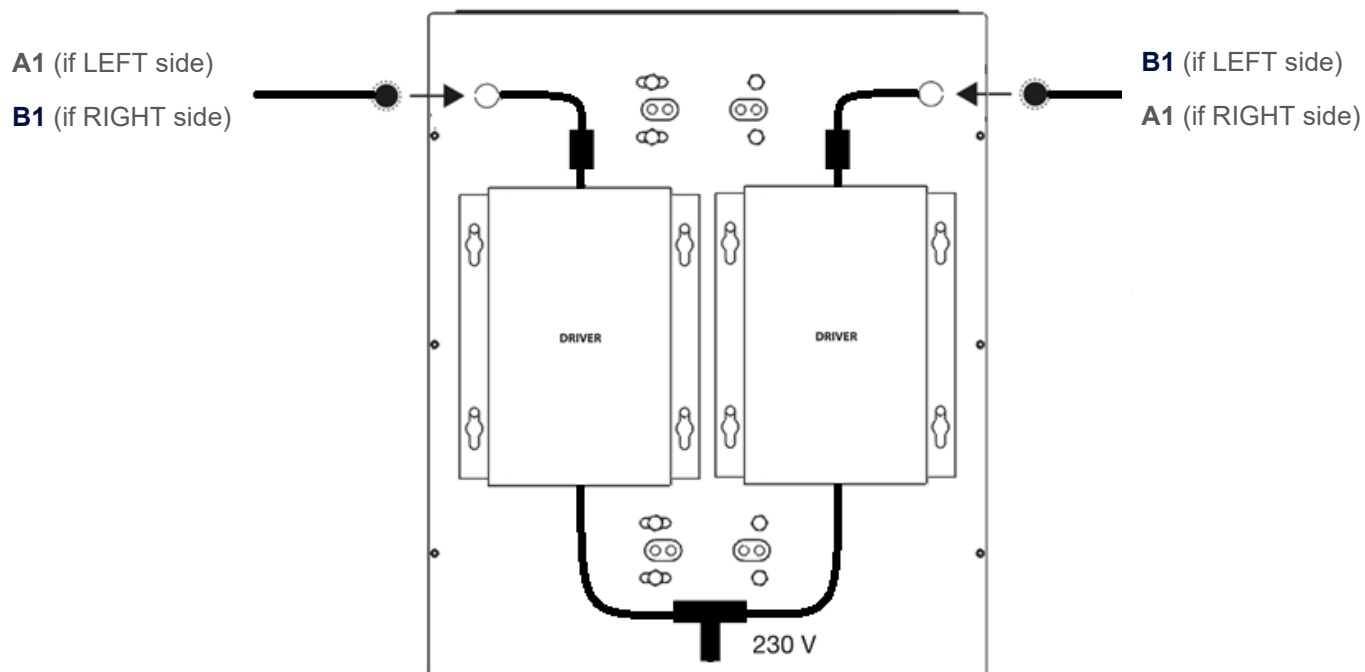
SINGLE TWEENER - TWS UL6.0

A1 (if LEFT side)
B1 (if RIGHT side)



B1 (if LEFT side)
A1 (if RIGHT side)

DOUBLE TWEENER - TWD UL6.0



Connection to 220 VAC electrical source shall be performed by a professional electrician.

(Connector is included)

RECOMMENDATIONS for electrical connection (220 VAC case)

SINGLE TWEENER - TWS UL6.0

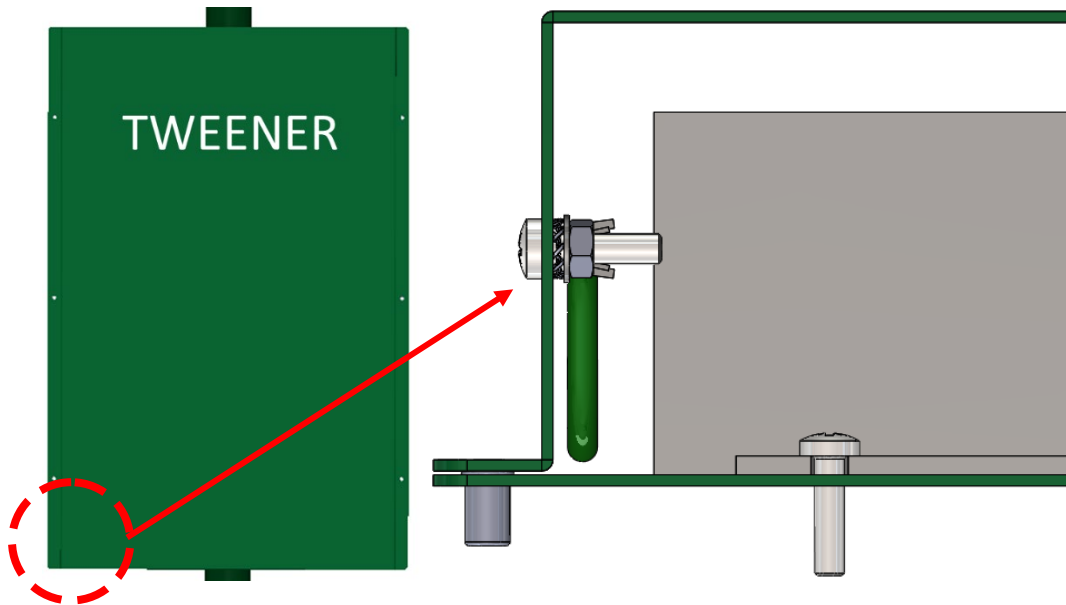
		BREAKER	
		2 electric lines (1 line per court side)	1 electric line (1 line for the court)
		2 BREAKERS C - 16 1 per line	1 BREAKER D - 20 For the court
CABLE SECTION	2,5 mm ² 12-14 AWG	< 60 m per line 196' 10"	< 30 m 98' 5"
	4 mm ² 10-12 AWG	60 < x < 100 m per line 196' 10" < x < 328' 1"	30 < x < 50 m 98' 5" < x < 164'
	6 mm ² 8-10 AWG	> 100 m per line 328' 1"	> 50 m 164'

DOUBLE TWEENER - TWD UL6.0

		BREAKER	
		2 electric lines (1 line per court side)	
		2 BREAKER D - 20 1 per line	
CABLE SECTION	2,5 mm ² 12-14 AWG	< 30 m per line 98' 5"	
	4 mm ² 10-12 AWG	30 < x < 50 m per line 98' 5" < x < 164'	
	6 mm ² 8-10 AWG	> 50 m per line 164'	

3. CONNECT GROUND WIRE ON COVER

- Fasten ground wire to the SUPPLY BOX COVER
- Place serrated tooth LOCK WASHER between ground wire connection and cover.



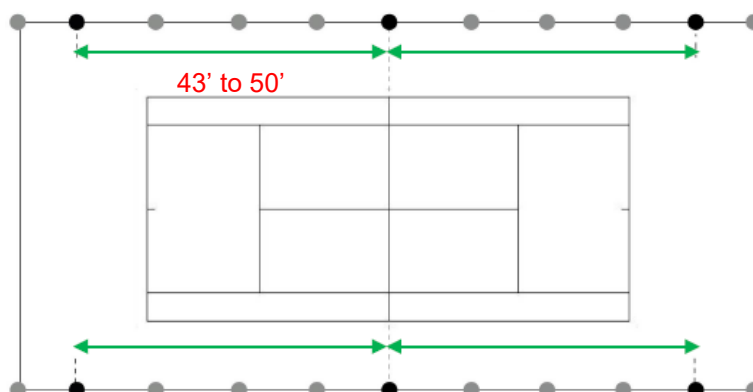
In order: nuts → ground wire connection → external serrated LOCK WASHER → cover → M4 SCREWS

- Place cover with 6 x M4 * 12 mm | 8.32 UNC x 1/2 SCREWS previously removed (Step G.1)

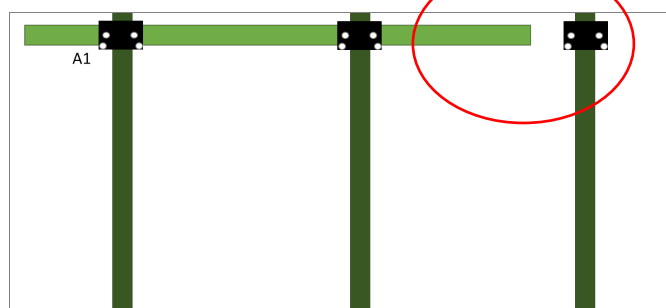
END OF INSTALLATION

APPENDIX 1 – OPTION SUPPORT BAR

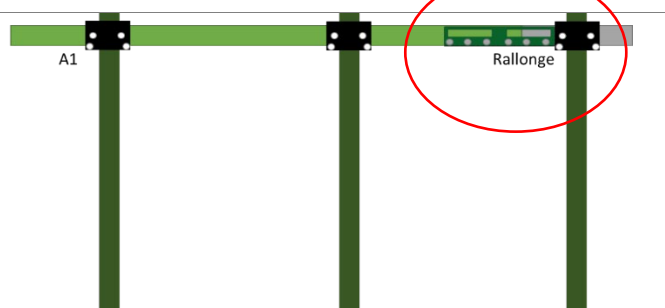
Depending on the configuration of the fence, it may happen that the bar located at the ends of each line (A1 or B1) does not fall in front of a pole, making it impossible to hang on the FASTENING BRACKET. Indeed, a Tweener line is 100' long, so 50' on each quarter of land. To fix the system to the pole, the last bar of the line (A1 or B1) must be able to hook onto a pole located between 43' to 50' from the center of the grid line (usually at the level of the net).



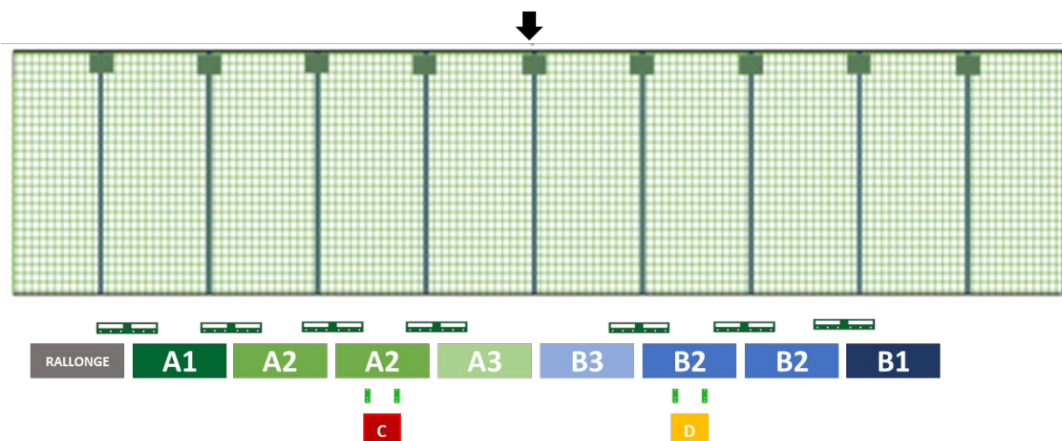
Adding a SUPPORT BAR allows the LONG bar A1 (or B1) to reach the penultimate pole of the line. Note: this bar is "inert": it does not contain LEDs. The SUPPORT BAR bar is installed after bar A1 (or B1). **It attaches exactly the same way as the other bars.** On one side, it is attached to a FASTENING BRACKET (part F.1), on the other side it is connected to bar A1 (or B1) using a JUNCTION PLATE (part F. 2).



Case 1 :
bar A1 can't hang on the FASTENING BRACKET



Case 2 :
bar A1 can hang on the SUPPORT BAR



Example with a Blank Installation, A1 side

A question ?

Contact us at 02 54 51 99 40

or by email sport@nlx.fr