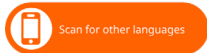
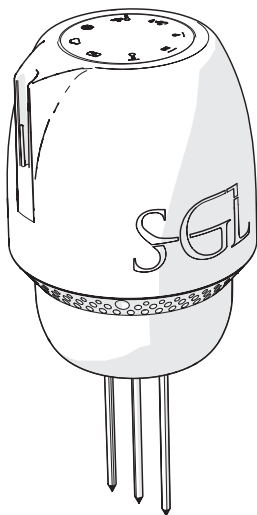


TurfPod

Instruction manual

SGL for the
love of
grass



English – Original Instructions

Preface

Thank you for using TurfPod, an SGL product.

This manual contains all the necessary information for safe and correct installation, use and maintenance of a separate product. Read this manual before you start using the product. Store this manual in an accessible place near the product for future reference.

This manual is intended for groundsmen and greenkeepers of grass sports playing surfaces who must use the product as part of their job.

Read this manual carefully before using the product and keep the manual in an accessible place close to the product.

Used symbols and signal words

This manual includes warnings and notices on safe and effective handling of the product. These notes and warnings are accompanied by the following symbols and signal words. Read them attentively!

 **DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 **WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 **CAUTION**

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

Warranty

SGL warrants that any product delivered by and/or on behalf of SGL will function according to the specifications laid down by SGL for a period of twelve (12) months from the date of delivery. The warranty term shall not recommence in case of replacement and/or repair of the products concerned. The original warranty period shall in all cases remain intact.

Limitation of liability

SGL accepts no liability for damage by:

- Failure to comply with these operating instructions
- Unintended use
- Unauthorised modifications
- Technical changes
- Use of spare parts not recommended by the manufacturer

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Violations will result in liability for damages. We reserve the right to further claims.

Table of Contents

1	Introduction	5
1.1	Product description	5
1.2	Intended use	5
2	Safety	6
2.1	General safety precautions	6
2.2	Transport and storage	6
2.3	Operation	7
3	Product overview	8
3.1	Main parts	8
3.2	Control indicators	9
3.3	Included equipment	9
3.4	Specifications	10
3.5	Agronomical specifications	11
4	Operation	11
4.1	Installing the product	11
4.2	User interface	13
4.3	Indicator light colour explanations	14
4.4	Resetting the product	14
4.5	Charging	15
5	Transport and storage	16
5.1	Transport mode	16
6	Maintenance	16
6.1	Cleaning	17
7	Troubleshooting	17
7.1	No lights come on when you press the button.	17
7.2	The radio/cloud indicator flashes yellow.	17
7.3	The battery indicator flashes red.	17
8	Disposal	18
9	Disclaimer	18

1 Introduction

1.1 Product description

The product requires a good signal to communicate with the SGL portal. The product uses 4GLTEm technology to communicate with SGL systems and does not require additional hardware or support.

The product is compatible with SGL customer portal products and requires a proper set up and configuration to operate correctly. Please read the entire manual before operating the product.

1.2 Intended use

The product is intended to be used by groundsmen and greenkeepers of grass sports playing surfaces.

The product is NOT intended to be used by:

- Persons aged under 18
- Persons with reduced physical, sensory or mental capacity
- Persons who are under the influence of alcohol or drugs

The product was designed to be easy to use. A single button interface allows the user to cycle through the different states of reporting, and also reset the device if needed.

The product is intended to be used in combination with other SGL products. There are no user serviceable parts in the product (including the battery).

Use of the product and the tools provided with it for any purpose other than those described in this manual absolves Stadium Grow Lighting B.V. of all responsibility.

2 Safety

2.1 General safety precautions

⚠ WARNING

- Never open the product to attempt to service. There are no user serviceable parts and doing so can damage the product, and will void the warranty.
- In case of questions or doubts contact SGL via phone +31 79 593 38 01 or email info@sglssystem.com.

NOTICE

- Read this manual carefully before using the product.
 - Keep the manual in an accessible place close to the product.
 - In case of questions or doubts contact SGL via phone +31 79 593 38 01 or email info@sglssystem.com.
-

2.2 Transport and storage

This section concerns the transport of a product to another grass area or to the storage.

NOTICE

- Make sure that the product is completely and correctly stored before transport.
 - To ensure optimal battery life and performance, never leave the product for an extended period of time on a dead battery.
-

⚠ WARNING

- Soil pins are extremely sharp and should be handled with care.

⚠ CAUTION

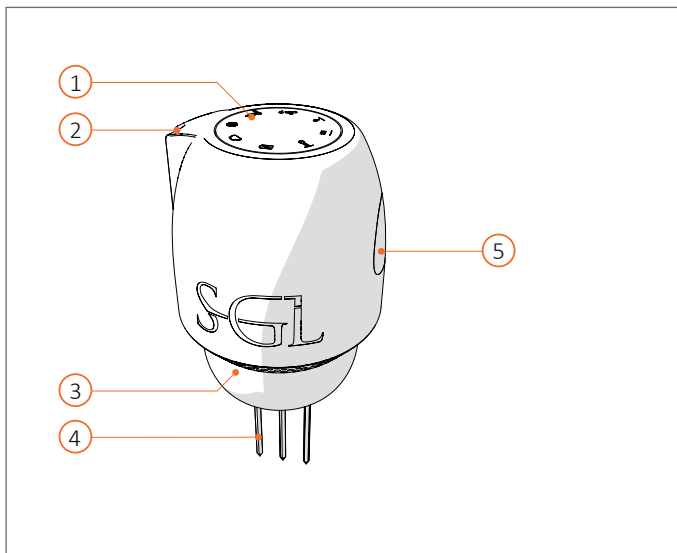
- Never use a tool, your foot or other device to press the product into the pitch, simply press with your hand. If you encounter resistance remove the TurfPod and retry in a different position.
- Do not force the product into overly hard pitch/soil, this may damage the sensor pins.
- Do not submerge the product into water, always ensure that the ventilation holes on the bottom are facing down towards the pitch when installed.

NOTICE

- Always install the product in an upright position as level as possible to insure proper light readings.
- GPS signals can take up to 60 minutes to reach optimal accuracy, we advise that once installed you do not move the product too frequently. This will cause less accurate location reporting and also impact battery life.
- Never leave the product in a fixed location for more than 24 hours, if outdoor temperatures are over 20 degrees they should be moved >10cm every 12 hours or so to maintain optimal pitch conditions and not damage the sample area.
- Do not tamper with the product's SIM card for any reason.
- Make sure the flag pole is facing away from the sun to insure no shadows can impact the PAR readings.

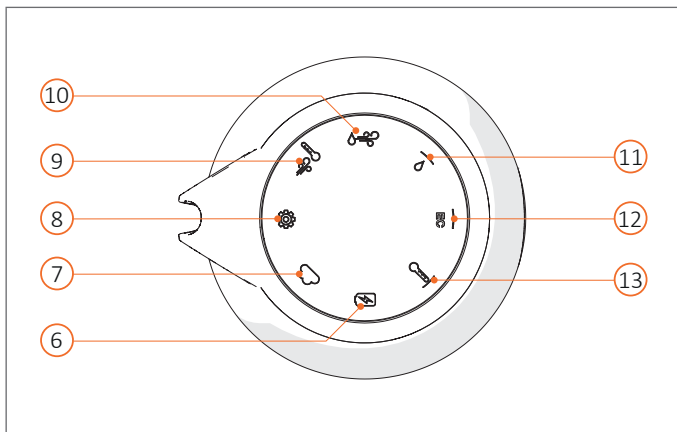
3 Product overview

3.1 Main parts



1. LED indicators
2. Flag slot
3. Wireless charging surface
4. Soil pins
5. Control button

3.2 Control indicators



6. Battery indicator
7. Radio indicator
8. PAR sensor
9. Air temperature sensor
10. Relative humidity sensor
11. Soil moisture sensor
12. Soil EC (pore) sensor
13. Soil temperature sensor

3.3 Included equipment

Your TurfPod comes with the following items:

- Charging station
- USB cable
- Flag
- Manual

3.4 Specifications

Dimensions	189 mm (H) x 87 mm (Dia) (Measurements w/o flag installed) 119 mm (H) (Body height, above the pitch when installed)
Weight	320 g (w/o flag installed)
IP Rating	IP33 - Suitable for outdoor use in rain and irrigation environments
Display	LED multi-status display (8 LEDs)
Interface	Single button interface
Power system	Internal battery (Not user serviceable)
Battery life	> 30 days (based on full charge and proper usage)
Charging	Wireless charging (Using the SGL TurfPod Charging Station)
Data sampling	5 minutes (Day/Night)
Communication	4G LTEm
Auto location	GPS (\pm 5m with open sky and the minimum required satellite locks)
Built-in accelerometer	Event monitoring to improve performance and extend battery life
Low power mode	Reduces transmission intervals on low power and at night to extend battery life
Transport mode	Turns off 4G radio, GPS, and sensors to comply with various transport requirements

3.5 Agronomical specifications

Parameter	Range	Accuracy	Resolution	Units
PAR	0 to 2500	5 %	1.0	uMol/m ² /s
Air temperature	-10 to 70	± 0.2	0.1	Celsius
Relative humidity	10 - 90 (0 - 10, ± 2 90 - 100)	(less than ± 3)	0.1	%
Soil temperature	0 to 30	± 0.5	0.1	Celsius
Soil moisture	0 to 100	± 2.5	1	%
Soil EC (Pore)	0 to 5.0	5 %	0.1	uS/cm

4 Operation

4.1 Installing the product

WARNING

- Soil pins are extremely sharp and should be handled with care.

⚠ CAUTION

- Never use a tool, your foot or other device to press the product into the pitch, simply press with your hand. If you encounter resistance remove the TurfPod and retry in a different position.
- Do not force the product into overly hard pitch/soil, this may damage the sensor pins.
- Do not submerge the product into water, always ensure that the ventilation holes on the bottom are facing down towards the pitch when installed.

NOTICE

- Follow all installation and usage guidelines to ensure proper operation and accurate data.
- Always install as straight upright as possible.
- GPS signals can take up to 60 minutes to reach optimal accuracy, we advise that once installed you do not move the product too frequently. This will cause less accurate location reporting and also impact battery life.
- Never leave the product in a fixed location for more than 24 hours, if outdoor temperatures are over 20 degrees they should be moved >10cm every 12 hours or so to maintain optimal pitch conditions and not damage the sample area.
- Do not tamper with the product's SIM card for any reason.
- Make sure the flag pole is facing away from the sun to insure no shadows can impact the PAR readings.

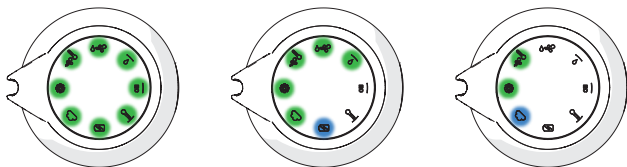
1. Place the product completely vertical. This will insure proper PAR readings.
2. Press the product with your hand into the pitch.
3. Move the product at least 25cm/1ft every 24 hours to minimize any impact of the pitch quality under the product.

4. Place the locating flag in the flag slot (optional).

NOTICE

Make sure the flag pole is facing away from the sun to insure no shadows can impact the PAR readings.

4.2 User interface



Press

Double press

Triple press

NOTICE

In the normal state, all LED indicator lights should be off.

- Press the button to show the status of all the sensors.

After three seconds the indicator lights switch off, the product returns to the normal function.

NOTICE

A green light indicates a good response. A red light indicates an error.

- Double press the button to report the battery life.

After three seconds the indicator lights switch off, the product returns to the normal function.

- The blue light indicates what parameter is being reported. The remaining LED light indicate the general battery life.

After three seconds the indicator lights switch off, the product returns to the normal function.

NOTICE

These status reports are a good indicator of the product state, but more detailed information can be viewed on your customer portal.

4.3 Indicator light colour explanations



- A green indicator light indicates what parameter, or the level of the battery or radio signal is in a good working order.
-



- A red indicator light indicates an error.
 - A blinking red indicator light on the battery icon indicates a low battery.
-



- A blue indicator light indicates what parameter is being reported.
 - A blue indicator light at the battery will pulse slowly during charging.
-



- A flashing yellow indicator light on the cloud or radio icon indicates that the TurfPod is not connected to the cloud.
-

4.4 Resetting the product

NOTICE

- Only reset the product if it is instructed by someone of the SGL Service Team, or by the Troubleshooting guide.
 - A reset clears the memory of the product. This will cause a loss of TurfPod data and may reduce the service team's ability to troubleshoot your issues.
-

1. Press and hold the control button until all indicators start to blink red. A countdown will start.
2. Continue to hold the control button until the countdown is complete and all lights blink red.
3. Release the button and the product will reset all features. When all lights have turned green the reset will be complete.

4.5 Charging

The product is designed to charge via a wireless charging dock provided with your purchase.

- Place the product on the charging dock.

The battery indicator light slowly pulses blue to indicate that the product is charging.

The battery indicator light will become solid green to indicate that the product is fully charged.

NOTICE

- It is not required to fully charge the product to use it. The product can be placed in the charging dock when removed from the pitch during a match or treatment.
- The product is designed to last approximately 2 months on a single full charge. Poor radio connection and GPS signal quality can reduce battery life.
- The battery in the product is not user serviceable. Never attempt to open the product as the components are extremely sensitive.

5 Transport and storage

NOTICE

- Make sure that the product is completely and correctly stored before transport.
 - To ensure optimal battery life and performance, never leave the product for an extended period of time on a dead battery.
-

5.1 Transport mode

1. The TurfPod enters Transport Mode when the product is not placed in solid ground and there is no light detected (similar to being in the product box). Place the product into the product box, or turn it upside down on a flat surface, to enter Transport Mode.
-

NOTICE

There is no On / Off switch for the product. The product is active and ready to use if you remove the product from the product box. Always insure there is some charge on the battery by pressing the user button. If there is no battery level indicated, place the TurfPod in the charging station until the battery is fully charged.

6 Maintenance

If you are unable to solve issues, please contact SGL via phone +31 79 593 38 01, email service@sglssystem.com, or create a service request.

Never attempt to service the product. Doing so will void all warranty/service options and could cause you to incur additional costs for damage.

6.1 Cleaning

Clean the product regularly with a damp cloth. Never use running water directly on the TurfPod.

Do not use detergents, abrasives or other aggressive chemical cleaning agents when cleaning the product.

To insure proper light reading always give the top surface a gentle wipe when you place the product. If water has built up on the top surface, simply wipe it away with your hand/finger to help avoid the water collecting dust/dirt.

7 Troubleshooting

7.1 No lights come on when you press the button.

The battery is likely low or dead.

Place the product on the charging dock for an extended period of time until the battery indicator slowly pulses blue. When charging is complete the battery indicator will stay green.

7.2 The radio/cloud indicator flashes yellow.

There is no radio connection to the cloud or cellular service.

If you are in a closed space, take the product to an open area and give it up to 30 minutes to connect.

7.3 The battery indicator flashes red.

Place the product on the charging dock to recharge the battery.

8 Disposal

Never dispose of the product. Please return the product to SGL for proper disposal.

9 Disclaimer

Despite the care and attention devoted to putting this manual together, it is possible that the information presented may be incorrect or incomplete. SGL B.V. reserves the right to make changes to the manual without notification beforehand.

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