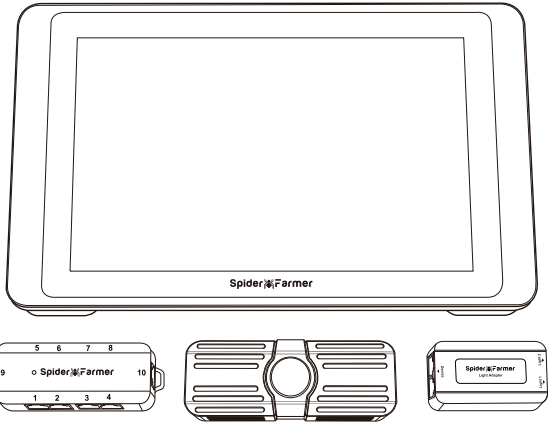
Spider Farmer

USER MANUAL

GGS SYSTEM

Grow Smarter with the Grow Genius System



SF-GGS-Pro-Controller-Kits-01

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SAFETY PRECAUTIONS

1. By using the product, you acknowledge that you have understood and accepted all information provided.

2. Interruptions during operation may cause data loss or equipment damage.

3. Always unplug the power cord by holding the plug itself and never pull on the cord directly.

4. Do not place it in areas exposed to high temperatures, humidity, direct sunlight, or strong light. Keep the device away from heat sources to ensure proper heat dissipation.

5. Avoid installing or using the device in areas with strong vibrations, high dust levels, or electromagnetic interference, as these may affect proper performance.

6. Follow proper wiring practices and keep the system away from potential sources of signal interference.

7. Regularly check connection cables for looseness, wear, or damage to maintain safe and stable operation.

8. Do not disassemble, modify, or repair the device yourself. There are no user-service-able parts inside. Unauthorized tampering will void the warranty.

9. Only use original or compatible power adapters and accessories supplied or recommended by the manufacturer. The use of non-original or incompatible parts may cause malfunctions or safety hazards.

10. This product cannot be operated during a power outage and does not contain a backup power supply.

11. The display screen is fragile. Do not apply pressure, scratch, strike, or place heavy objects on it. Handle with care at all times.

12. Clean the screen only with a soft, dry cloth. Do not use corrosive, alcohol-based, or chemical cleaners.

13. The SF-SensorPro5 5-in-1 sensor must be kept clean and dry. Do not expose it to condensation, submersion, or liquid spray. Keep foreign materials away from the sensor.

14. Firmware updates may be released periodically. We recommend registering your device via the app and visiting the Spider Farmer website for the latest updates.

15. Installation and use must comply with local electrical safety regulations. The user is responsible for any damage or accidents resulting from non-compliance.

16. Damage caused by incorrect installation, overloading, unsuitable environments, unauthorized repairs, or use of incompatible accessories is not covered under warranty.

17. Spider Farmer is not liable for any personal injury, property damage, or equipment failure resulting from failure to follow the safety guidelines provided in this manual.

18. When removing the wall-mounted unit, handle it carefully to avoid dropping or damaging the device.

SICHERHEITSVORKEHRUNGEN

1. Durch die Nutzung des Produkts erkennen Sie an, dass Sie alle bereitgestellten Informationen verstanden haben und akzeptieren.

2. Unterbrechungen während des Betriebs können zu Datenverlust oder Geräteschäden führen.

3. Ziehen Sie immer das Netzkabel am Stecker und ziehen Sie niemals direkt am Kabel.

4. Stellen Sie das Gerät nicht in Bereichen auf, die hohen Temperaturen, Feuchtigkeit, direkter Sonneneinstrahlung oder starkem Licht ausgesetzt sind. Halten Sie das Gerät von Wärmequellen fern, um eine ordnungsgemäße Wärmeableitung zu gewährleisten.

5. Vermeiden Sie die Installation oder Nutzung des Geräts in Bereichen mit starken Vibrationen, hoher Staubbelastung oder elektromagnetischen Störungen, da diese die ordnungsgemäße Leistung beeinträchtigen können.

6. Befolgen Sie korrekte Verkabelungspraktiken und halten Sie das System von potenziellen Störquellen fern.

7. Überprüfen Sie regelmäßig die Verbindungskabel auf Lockerung, Abnutzung oder Beschädigung, um einen sicheren und stabilen Betrieb zu gewährleisten.

8. Demontieren, modifizieren oder reparieren Sie das Gerät nicht selbst. Es gibt keine vom Benutzer wartbaren Teile im Inneren. Unbefugte Manipulationen führen zum Verlust der Garantie.

9. Verwenden Sie nur originale oder kompatible Netzadapter und Zubehörteile, die vom Hersteller geliefert oder empfohlen werden. Die Verwendung von nicht-originalen oder inkompatiblen Teilen kann zu Fehlfunktionen oder Sicherheitsrisiken führen.

10. Dieses Produkt kann während eines Stromausfalls nicht betrieben werden und verfügt über keine Notstromversorgung.

11. Der Bildschirm ist zerbrechlich. Üben Sie keinen Druck aus, kratzen, schlagen oder stellen Sie keine schweren Objekte darauf ab. Behandeln Sie ihn jederzeit mit Sorgfalt.

12. Reinigen Sie den Bildschirm nur mit einem weichen, trockenen Tuch. Verwenden Sie keine korrosiven, alkoholhaltigen oder chemischen Reinigungsmittel.

13. Der SF-SensorPro5 5-in-1 Sensor muss sauber und trocken gehalten werden. Setzen Sie ihn nicht Kondensation, Untertauchen oder Flüssigkeitssprühen aus. Halten Sie Fremdmaterialien vom Sensor fern.

14. Firmware-Updates können regelmäßig veröffentlicht werden. Wir empfehlen, Ihr Gerät über die App zu registrieren und die Spider Farmer-Website für die neuesten Updates zu besuchen.

15. Installation und Nutzung müssen den lokalen elektrischen Sicherheitsvorschriften entsprechen. Der Benutzer ist für Schäden oder Unfälle verantwortlich, die durch Nichteinhaltung entstehen.

16. Schäden, die durch falsche Installation, Überlastung, ungeeignete Umgebungen, unbefugte Reparaturen oder die Verwendung inkompatibler Zubehörteile entstehen, sind nicht durch die Garantie abgedeckt.

17. Spider Farmer haftet nicht für Personenschäden, Sachschäden oder Geräteschäden, die durch die Nichtbeachtung der Sicherheitsrichtlinien in diesem Handbuch entstehen.

18. Beim Entfernen des wandmontierten Geräts behandeln Sie es vorsichtig, um das Gerät nicht fallen zu lassen oder zu beschädigen.

PRÉCAUTIONS DE SÉCURITÉ

1. En utilisant le produit, vous reconnaissez avoir compris et accepté toutes les informations fournies.

2. Les interruptions pendant l'opération peuvent entraîner une perte de données ou des dommages matériels.

3. Débranchez toujours le cordon d'alimentation en tenant la fiche elle-même et ne tirez jamais directement sur le cordon.

4. Ne placez pas l'appareil dans des zones exposées à des températures élevées, à l'humidité, à la lumière directe du soleil ou à une lumière forte. Gardez l'appareil éloigné des sources de chaleur pour assurer une dissipation thermique adéquate.

5. Évitez d'installer ou d'utiliser l'appareil dans des zones soumises à des vibrations fortes, des niveaux élevés de poussière ou des interférences électromagnétiques, car cela pourrait affecter la performance correcte.

6. Suivez les bonnes pratiques de câblage et éloignez le système des sources potentielles d'interférences de signal.

7. Vérifiez régulièrement les câbles de connexion pour détecter toute desserrée, usure ou dommage, afin de maintenir un fonctionnement sûr et stable.

8. Ne démontez, modifiez ni ne réparez l'appareil vous-même. Il n'y a pas de pièces réparables par l'utilisateur à l'intérieur. Toute altération non autorisée annulera la garantie.

9. Utilisez uniquement les adaptateurs et accessoires d'alimentation d'origine ou compatibles fournis ou recommandés par le fabricant. L'utilisation de pièces non d'origine ou incompatibles peut entraîner des dysfonctionnements ou des risques de sécurité.

10. Ce produit ne peut pas être utilisé pendant une panne de courant et ne dispose pas de batterie de secours.

11. L'écran est fragile. Ne faites pas pression, ne grattez pas, ne frappez pas et ne placez pas d'objets lourds dessus. Manipulez-le toujours avec soin.

12. Nettoyez l'écran uniquement avec un chiffon doux et sec. N'utilisez pas de nettoyants corrosifs, à base d'alcool ou chimiques.

13. Le capteur SF-SensorPro5 5-en-1 doit être maintenu propre et sec. Ne l'exposez pas à la condensation, à l'immersion ou aux projections de liquide. Évitez que des matériaux étrangers n'entrent en contact avec le capteur.

14. Des mises à jour du firmware peuvent être publiées périodiquement. Nous vous recommandons d'enregistrer votre appareil via l'application et de visiter le site web de Spider Farmer pour les dernières mises à jour.

15. L'installation et l'utilisation doivent respecter les réglementations locales de sécurité électrique. L'utilisateur est responsable des dommages ou accidents résultant du non-respect de ces règles.

16. Les dommages causés par une installation incorrecte, une surcharge, un environnement inapproprié, des réparations non autorisées ou l'utilisation d'accessoires incompatibles ne sont pas couverts par la garantie.

17. Spider Farmer décline toute responsabilité en cas de blessure corporelle, de dommage matériel ou de défaillance de l'équipement résultant du non-respect des consignes de sécurité fournies dans ce manuel.

18. Lorsque vous retirez l'unité murale, manipulez-la avec précaution pour éviter de la faire tomber ou de l'endommager.

PRECAUCIONES DE SEGURIDAD

1. Al utilizar el producto, reconoce que ha comprendido y aceptado toda la información proporcionada.

2. Las interrupciones durante el funcionamiento pueden causar pérdida de datos o daños al equipo.

3. Siempre desenchufe el cable de alimentación sujetando el enchufe y nunca tire directamente del cable.

4. No coloque el dispositivo en áreas expuestas a altas temperaturas, humedad, luz solar directa o luz fuerte. Mantenga el dispositivo alejado de fuentes de calor para asegurar una adecuada disipación térmica.

5. Evite instalar o usar el dispositivo en áreas con vibraciones fuertes, altos niveles de polvo o interferencias electromagnéticas, ya que estos pueden afectar el rendimiento adecuado.

6. Siga las prácticas adecuadas de cableado y mantenga el sistema alejado de posibles fuentes de interferencia de señal.

7. Verifique regularmente los cables de conexión en busca de aflojamiento, desgaste o daños para mantener un funcionamiento seguro y estable.

8. No desmonte, modifique ni repare el dispositivo por su cuenta. No hay partes reparables por el usuario en su interior. La alteración no autorizada anulará la garantía.

9. Use solo adaptadores de corriente y accesorios originales o compatibles suministrados o recomendados por el fabricante. El uso de piezas no originales o incompatibles puede causar fallos o riesgos de seguridad.

10. Este producto no puede operarse durante un corte de energía y no tiene una fuente de alimentación de respaldo.

11. La pantalla es frágil. No aplique presión, no rasque, no golpee ni coloque objetos pesados sobre ella. Maneje con cuidado en todo momento.

12. Limpie la pantalla solo con un paño suave y seco. No use limpiadores corrosivos, a base de alcohol o productos químicos.

13. El sensor SF-SensorPro5 5-en-1 debe mantenerse limpio y seco. No lo exponga a condensación, inmersión o rociado de líquidos. Mantenga los materiales extraños alejados del sensor.

14. Se pueden lanzar actualizaciones de firmware periódicamente. Le recomendamos registrar su dispositivo a través de la aplicación y visitar el sitio web de Spider Farmer para las últimas actualizaciones.

15. La instalación y el uso deben cumplir con las regulaciones locales de seguridad eléctrica. El usuario es responsable de cualquier daño o accidente que resulte del incumplimiento de estas regulaciones.

16. Los daños causados por una instalación incorrecta, sobrecarga, entornos no adecuados, reparaciones no autorizadas o el uso de accesorios incompatibles no están cubiertos por la garantía.

17. Spider Farmer no se hace responsable de ningún daño personal, material o fallo del equipo resultante de no seguir las pautas de seguridad proporcionadas en este manual.

18. Al retirar la unidad montada en la pared, manipúlela con cuidado para evitar que se caiga o dañe.

PRECAUZIONI DI SICUREZZA

1. Utilizzando il prodotto, riconosci di aver compreso e accettato tutte le informazioni fornite.

2. Le interruzioni durante l'operazione possono causare la perdita di dati o danni all'apparecchiatura.

3. Scollega sempre il cavo di alimentazione tenendo la spina stessa e non tirando mai direttamente sul cavo.

4. Non posizionare il dispositivo in aree esposte a temperature elevate, umidità, luce solare diretta o luce intensa. Tieni il dispositivo lontano dalle fonti di calore per garantire una corretta dissipazione del calore.

5. Evita di installare o utilizzare il dispositivo in aree con vibrazioni forti, alti livelli di polvere o interferenze elettromagnetiche, poiché potrebbero compromettere il funzionamento corretto.

6. Segui le corrette pratiche di cablaggio e tieni il sistema lontano da potenziali fonti di interferenze del segnale.

7. Controlla regolarmente i cavi di connessione per allentamenti, usura o danni per mantenere un funzionamento sicuro e stabile.

8. Non smontare, modificare o riparare il dispositivo da solo. Non ci sono parti riparabili dall'utente all'interno. La manomissione non autorizzata annulla la garanzia.

9. Utilizzare solo adattatori di alimentazione e accessori originali o compatibili forniti o consigliati dal produttore. L'uso di pezzi non originali o incompatibili può causare malfunzionamenti o rischi di sicurezza.

10. Questo prodotto non può essere utilizzato durante un'interruzione di corrente e non ha una fonte di alimentazione di backup.

11. Il display è fragile. Non applicare pressione, graffiare, colpire o posizionare oggetti pesanti sopra di esso. Maneggiare con cura in ogni momento.

12. Pulire lo schermo solo con un panno morbido e asciutto. Non utilizzare detergenti corrosivi, a base di alcol o chimici.

13. Il sensore SF-SensorPro5 5-in-1 deve essere mantenuto pulito e asciutto. Non esporlo alla condensazione, immersione o spruzzi di liquido. Tieni materiali estranei lontano dal sensore.

14. Potrebbero essere rilasciati aggiornamenti del firmware periodicamente. Ti consigliamo di registrare il tuo dispositivo tramite l'app e visitare il sito Web di Spider Farmer per gli ultimi aggiornamenti.

15. L'installazione e l'uso devono essere conformi alle normative locali sulla sicurezza elettrica. L'utente è responsabile per danni o incidenti derivanti dal mancato rispetto.

16. I danni causati da una installazione errata, sovraccarico, ambienti non adatti, riparazioni non autorizzate o l'uso di accessori incompatibili non sono coperti dalla garanzia.

17. Spider Farmer non è responsabile per danni personali, danni a proprietà o guasti dell'apparecchiatura derivanti dal mancato rispetto delle linee guida di sicurezza fornite in questo manuale.

18. Quando rimuovi l'unità a parete, maneggiala con attenzione per evitare di farla cadere o danneggiarla.

VEILIGHEIDSMAATREGELEN

1. Door het product te gebruiken, erkent u dat u alle verstrekte informatie hebt begrepen en geaccepteerd.

2. Onderbrekingen tijdens de werking kunnen gegevensverlies of schade aan het apparaat veroorzaken.

3. Trek altijd de stekker uit het stopcontact door de stekker zelf vast te houden en trek nooit direct aan het snoer.

4. Plaats het apparaat niet in gebieden die blootgesteld worden aan hoge temperaturen, vochtigheid, direct zonlicht of fel licht. Houd het apparaat uit de buurt van warmtebronnen om een goede warmteafvoer te garanderen.

5. Vermijd het installeren of gebruiken van het apparaat in gebieden met sterke trillingen, hoge stofniveaus of elektromagnetische interferentie, aangezien deze de juiste werking kunnen beïnvloeden.

6. Volg de juiste bedradingstechnieken en houd het systeem uit de buurt van mogelijke signaalinterferentiebronnen.

7. Controleer regelmatig de verbindingskabels op losraken, slijtage of schade om een veilige en stabiele werking te waarborgen.

8. Demonteer, wijzig of repareer het apparaat niet zelf. Er zijn geen door de gebruiker te onderhouden onderdelen aan de binnenkant. Ongeautoriseerde wijzigingen maken de garantie ongeldig.

9. Gebruik alleen originele of compatibele stroomadapters en accessoires die door de fabrikant worden geleverd of aanbevolen. Het gebruik van niet-originele of incompatibele onderdelen kan storingen of veiligheidsrisico's veroorzaken.

10. Dit product kan niet worden bediend tijdens een stroomstoring en bevat geen back-upstroomvoorziening.

11. Het display is kwetsbaar. Druk niet uit, krab niet, sla niet en zet geen zware objecten erop. Behandel het altijd voorzichtig.

12. Maak het scherm alleen schoon met een zacht, droog doekje. Gebruik geen bijtende, op alcohol gebaseerde of chemische reinigingsmiddelen.

13. De SF-SensorPro5 5-in-1 sensor moet schoon en droog worden gehouden. Stel het niet bloot aan condensatie, onderdompeling of vloeistofspuit. Houd vreemde materialen uit de buurt van de sensor.

14. Firmware-updates kunnen periodiek worden uitgebracht. We raden aan om uw apparaat via de app te registreren en de Spider Farmer-website te bezoeken voor de laatste updates.

15. Installatie en gebruik moeten voldoen aan de lokale elektrische veiligheidsvoorschriften. De gebruiker is verantwoordelijk voor schade of ongelukken die voortkomen uit het niet naleven van deze voorschriften.

16. Schade door onjuiste installatie, overbelasting, ongeschikte omgevingen, ongeautoriseerde reparaties of het gebruik van incompatibel accessoires wordt niet gedekt door de garantie.

17. Spider Farmer is niet aansprakelijk voor persoonlijk letsel, schade aan eigendommen of apparatuurstoringen als gevolg van het niet naleven van de veiligheidsrichtlijnen in dit handboek.

18. Bij het verwijderen van het wandmontage-apparaat, handel voorzichtig om te voorkomen dat het apparaat valt of beschadigd raakt.

PRODUCT OVERVIEW

The GGS Pro Controller is one of the most advanced and powerful environmental control systems on the market, designed for high-precision indoor cultivation.

Each controller supports centralized management of up to 8 independent zones (e.g., grow rooms). Within each zone, it can control up to 20 Spider Farmer devices, such as circulation fans and GGS environmental sensors, as well as (up to) 500 Spider Farmer LED grow lights.

The system features an intuitive LCD touchscreen interface that provides real-time monitoring of critical environmental parameters, including light intensity (PPFD), temperature, humidity, VPD (Vapor Pressure Deficit), and CO_2 levels. With the optional GGS 3-in-1 Soil Sensor (sold separately), the controller can also measure substrate temperature, moisture content, and EC (electrical conductivity) levels.

Equipped with intelligent algorithms, the controller can automatically adjust light intensity, temperature, humidity, and CO_2 concentration to simulate optimal growing conditions, delivering precise control tailored to every stage of plant growth.

In addition, the system can be accessed and managed remotely through the dedicated mobile app, which offers customizable grow plans and preset cultivation modes, enabling efficient, flexible, and precision-controlled plant management.

Product Packaging Contents

Product Sketch Example	Items	Quantity	Usage
	GGS Pro Controller (with Mounting Rail)	x 1	Collects data from sensors and controls connected devices such as grow lights
	GGS Light Adapter	x 1	Converts the controller's digital signal to a 0-10V signal for controlling grow lights.
	GGS Sensor pro	x 1	Monitors temperature, humidity, VPD, PPFD, and CO_2 levels.
	GGS Pro Adapter	x 1	Connects to the controller and allows multiple sensors and devices to be linked via RJ12 cables.
	RJ12 Cable (98.43" / 2.5m)	x 3	Used to connect sensors, adapters, and devices.
	RJ12 Cable with Waterproof Cap (98.43" / 2.5m)	x 1	Used to connect the 5-in-1 Sensor Pro. Plug the waterproof end into the sensor.
	User Manual	x 1	Provides setup and operating instructions.
	Controller Power Adapter	x 1	Supplies power to the controller. (Note: The plug may vary by country or region.)

Product Specifications

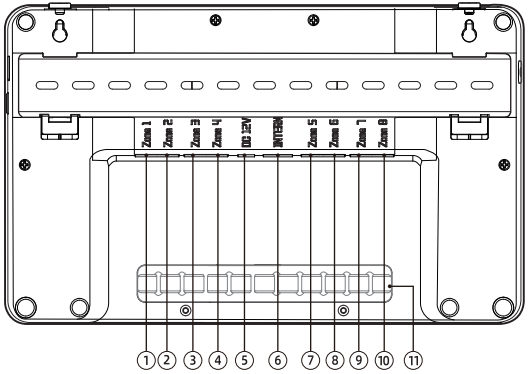
Product	GGS Pro Controller	**Material**	ABS + PC
Flammability Rating	UL V-0	**Enclosure Protection Rating**	UL V-0
Color	Black	**Net Weight**	909 g (2.0 lbs)
Dimensions	11.26 × 6.98 × 1.26 in (286 × 177.3 × 32 mm)	**Adapter Input**	100–240V~ 50/60Hz, 1.2A
Controller Input	12V DC, 4A	**Temperature Range**	32–122°F (0–50°C)
Humidity	≤ 90% RH (non-condensing)		

Product	GGS Sensor Pro	**Rated Voltage**	DC 12V
Rated Current	25mA	**Operating Temperature**	32°F to 122°F (0°C to 50°C)
Operating Humidity	0 to 95% RH (non-condensing)	**CO_2 Measurement Range**	0 to 5000 ppm
CO_2 Accuracy	±(50 ppm + 5% of reading)	**Temperature Range**	-4°F to 185°F (-20°C to 85°C)
Temperature Accuracy	±0.5°C	**Humidity Range**	0% to 100% RH
Humidity Accuracy	±3% RH	**PPFD Measurement Range**	0 to 4000 μmol/m^2/s
PPFD Accuracy	±(10 + 5% of reading)	**Housing Material**	PC + ABS (UL94-V0 flame -retardant rating)
Product Dimensions	4.33 × 1.57 × 1.29 in (110 × 40 × 32.75 mm)		

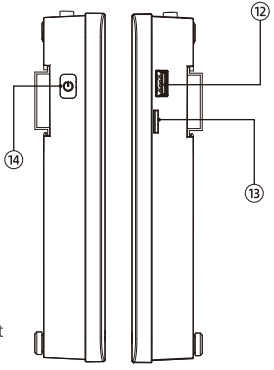
Product	GGS Light Adapter	**Rated Voltage**	DC 12V
Output Method	RJ12 Interface	**Power**	DC 12V / 0.1A
Temperature Range	-20°C ~ 60°C	**Humidity Range**	0 ~ 95% RH (non-condensing)
Net Weight	30g	**Enclosure Material**	PC + ABS
PC + ABS	2.36 × 1.34 × 1.02 in (60 × 34 × 26 mm)		

PRODUCT INSTALLATION & CONNECTION

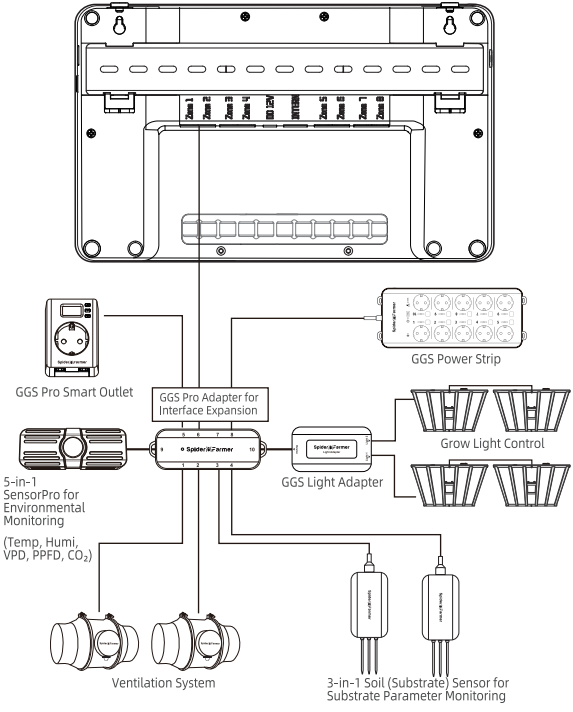
Controller Interface Function Description



① Zone 1 Interface
② Zone 2 Interface
③ Zone 3 Interface
④ Zone 4 Interface
⑤ DC 12V 4A Power Adapter Port
⑥ INTERNET Wired Network Port
⑦ Zone 5 Interface
⑧ Zone 6 Interface
⑨ Zone 7 Interface
⑩ Zone 8 Interface
⑪ Cable Slot
⑫ USB Port
⑬ SD Card Data & Firmware Update Port
⑭ Power Button



System Connection Diagram

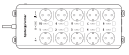


Power plugs from third-party devices, Spider Farmer devices without an RJ12 interface, or devices with RJ12 ports that are not system-compatible can be connected directly to the GGS Power Strip or GGS Pro Smart Outlet.

Once the GGS Power Strip or GGS Pro Smart Outlet is paired with the controller, each outlet can be independently managed based on shared sensor data, enabling customized control logic for every connected device.

For a full list of supported models, please visit the official Spider Farmer website.

Per-zone Device Count Guidelines

	Device Type	Counting Rule
	GGS Day/Night Temp-Humidity-Light Sensor	Counts as 1 device per sensor
	GGS 3-in-1 Soil Sensor	
	GGS 4-in-1 Sensor (Temp, Humidity, VPD, PPFD)	
	GGS CO_2 Sensor	
	GGS 5-in-1 Sensor (Temp, Humidity, VPD, PPFD, CO_2)	
	GGS Light Adapter	Counts as 1 device per adapter; includes two RJ12 ports for connecting two daisy-chained light groups
	Spider Farmer Inline Fan	Counts as 1 device per fan
	Spider Farmer GGS Power Strip	Counts as 1 device per power strip

General Rules

1. Each zone can connect up **to 20 compatible** devices in total (combined from all device types listed above).

2. The list above shows common example – other compatible devices may also count toward the 20-device limit.

3. Visit the official Spider Farmer website for more information.

Special Notes - Light Connection Guidelines (Spider Farmer LED Lights Only)

1. For Spider Farmer light models with a digital display dimmer box: Recommended maximum of **500 lights** per zone.

2. For Spider Farmer light models with a knob-style dimmer box (e.g., SF Series): Recommended maximum of **40 lights** per zone.

SMART GROWING MANAGEMENT SYSTEM

To control a device, you need to select the zone number where the device is actually connected.

Each zone's settings interface includes the following functional modules: Sensor, Light, Device, Environment, Planting Plan, and Room Setup.

Environmental Settings (Temperature, Humidity, CO_2)

Click the Environment tab to enter the settings interface, where you can configure temperature, humidity, and CO_2 parameters for the current zone.

Once the configuration is complete, the system will automatically regulate connected devices to maintain the target conditions.

Each environment type (Temperature / Humidity / CO_2) includes the following common features:

1.Day/Night target values: Set independent targets for daytime and nighttime.

2.Deadband settings: Prevent frequent switching caused by minor fluctuations.

3.Sunrise/Sunset scheduling: Simulating the natural progression of sunrise and sunset.

4.Custom time periods: Add or remove multiple time segments to adjust target values throughout the day, simulating natural rhythms and optimizing plant responses.

You can switch between Temperature, Humidity, and CO_2 settings by selecting the corresponding tabs on the interface.

Planting Plan Settings

Click the Planting Plan tab to access the settings interface. Here, you can predefine light, temperature, humidity, and CO_2 parameters according to different crop growth stages, ensuring optimal environmental conditions for each phase (e.g., seedling, flowering, fruiting).

1. Stage Management

The calendar view displays the full crop cycle in an intuitive format. Click any date to open the Add Planting Stage page.

Click the Add button to create a new stage.

A maximum of 10 stages can be created per plan.

2. Stage Settings

Click on any planting stage tab to open its settings. You can rename, duplicate, save as template, delete, or import a template for that stage.

3. Environmental & Lighting Configuration

For each stage, the following settings are available:

- Environmental Parameters: Temperature, Humidity, CO_2
- Lighting Groups: Supports up to 2 lighting groups
- Time Periods: Define start and end times to allow smooth transitions between stages
- Color Coding: Assign colors to visually distinguish different stages on the calendar

4. Operation Logic

Once a planting plan is activated, all lights in the current zone will automatically follow the parameters defined in the active stage.

If unexpected conditions occur, you can manually override or disable the plan from the Lighting Groups tab.

Note: While the Environment page still allows parameter adjustments, these settings will not take effect when a planting plan is active. The zone will strictly follow the environmental values defined in the planting plan.

Room Configuration & Alarm Settings

Click the Room Setup button to enter the configuration page. Here, you can set the room name, configure alarm parameters, define device operating logic during spraying periods, and perform import/export operations.

1. Alarm Parameter Settings

The system supports alarm settings for the following environmental parameters: temperature, humidity, VPD, PPFD, soil (substrate) temperature (Soil Temp), soil (substrate) moisture (Soil Humi), soil (substrate) electrical conductivity (Soil EC), and carbon dioxide (CO_2).

After checking the corresponding parameters and setting the thresholds, the system will trigger alarms when the readings exceed the set values.

Note: PPFD alarm settings only take effect when grow lights are turned on and PPFD readings are stable.

2. Sprinkler Parameter Settings

You can set the operating status of all devices (except sprayers) during the spraying period, then click Start. After spraying ends, the system will automatically restore all devices to their original state.

During spraying, it is recommended to lower light intensity to prevent chemical ingredients from degrading under strong light. Certain chemicals (such as sulfur-based sprays) may also cause leaf burn under intense light.

Turning off ventilation or circulation devices helps minimize airflow disturbances, ensuring mist spreads evenly across leaf surfaces.

It is also recommended to turn off the indoor A/C unit to prevent mist from entering condenser fins, which could lead to residue buildup, metal corrosion, and reduced cooling efficiency.

Message Center

Tap the Message button to view system alerts. The message page displays alarm notifications by zone (Zone 1–8), allowing you to quickly identify the specific problem area (e.g., Zone 3 over-temperature) and avoid unnecessary system-wide troubleshooting.

System Settings

Tap the System Settings button on the Grow Genius Pro main screen to enter the system configuration page. Settings are divided into three sections: Basic Settings, System Settings, and Planting Template.

1. Basic Settings

- Date/Time: Set the local time, including year, month, day, hour, and minute.
- Time Mode: Choose between 12-hour and 24-hour formats.
- Temperature Unit: Select Fahrenheit (°F) or Celsius (°C).
- Buzzer Sound: Enable or disable button sounds.
- Screen Timeout: Set the display sleep time from 1 to 10 minutes.

2. System Settings

- Firmware Update: View the current firmware version and update via network or local SD card.
- Restore Factory Settings: Reset the controller to its original factory configuration.
- Bind App Account: Bind or unbind the controller from a mobile app account.
- Product Code: View the unique device ID.

3. Planting Template

- Add: Create a new planting template. Templates can be shared across multiple zones, and existing ones can be edited or deleted.
- Import: Import planting templates from another GGS Pro Controller for faster multi-device setup.
- Export: Export the current planting plan to an SD card for use with other GGS Pro Controllers.

DEVICE MANAGEMENT:

SENSOR INTERFACE, LIGHTING & VENTILATION SETUP

Sensor Interface

1. Comprehensive Monitoring

The Sensor Interface displays the average values of all connected sensors, along with historical data charts and real-time readings for each individual sensor.

2. Historical Analysis & Data Export

You can review historical records for each sensor individually and export the data to an SD card. The system stores up to one month of historical data at a time.

3. Device Management & Location

For the GGS Sensor Pro, you can assign custom names, perform calibration, and use the Locate feature. When activated, the corresponding sensor's indicator light will flash, making it easy to identify its physical location within the grow space.

4. Optional Sensor Expansion

The system supports the 3-in-1 Soil Sensor, which measures substrate temperature, moisture content, and electrical conductivity (EC) for precise root-zone management.

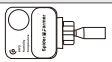
Note:

The 3-in-1 Soil Sensor is an optional accessory. If it is not connected, related information will not appear in this interface.

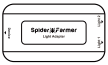
The Locate feature is available only for sensor models that support location identification.

Devices Compatible with Blinking Light Positioning

Note: The table below only indicates which accessories support positioning via blinking light. This does not imply that all of the listed accessories are included in the kit.

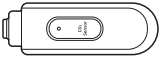
	4-in-1 Sensor (Measures Temperature, Humidity, VPD, and PPFD)
	5-in-1 Sensor (Measures Temperature, Humidity, VPD, PPFD, and CO_2)

GGS Light Adapter, CO_2 Sensor, and Temperature, Humidity & Light Sensor (Light = Day/Night Cycle Detection Based on Grow Light On/Off Status) currently do not support the positioning feature, but it will be available in an upcoming firmware update. Please check the official website for the latest information.



GGS Light Adapter


Temperature, Humidity & Light Sensor


GGS CO_2 Sensor

Lighting Setup

Normal Mode

If two consecutive time points have different brightness values, the system will gradually transition (fade) between them.

If two consecutive time points have the same brightness value, the system will maintain a constant brightness during that period.

The following examples show how the system behaves after setting time points and target brightness values.

Time & Brightness Settings		Behavior
Ex. 1	8:00 AM = 50%, 8:00 PM = 100%	Brightness gradually increases from 50% to 100% between 8:00 AM and 8:00 PM, then gradually decreases back to 50% from 8:00 PM to 8:00 AM. This cycle repeats daily.
Ex. 2	8:00 AM = 50%, 9:00 AM = 100%	Brightness increases quickly from 50% to 100% between 8:00 AM and 9:00 AM, then gradually decreases back to 50% over the rest of the day.
Ex. 3	8:00 AM = 50%, 6:00 PM = 50%	Brightness remains constant at 50% all day with no changes.

PPFD MODE

The system performs smooth transitions (fades) between two consecutive scheduled time points only if their target values are different.

To maintain a constant PPFD value over a period of time, set two consecutive scheduled time points with the same target value.

The following example shows how the system behaves after setting time points and target values

Time	Target PPFD	Behavior
08:00 AM	0	PPFD begins to increase.
12:00 PM	300	PPFD ramps up from 0 to 300 between 8:00 AM and 12:00 PM.
03:00 PM	800	PPFD increases to 800 between 12:00 PM and 3:00 PM.
05:00 PM	800	PPFD remains steady at 800 between 3:00 PM and 5:00 PM.
07:00 PM	500	PPFD decreases to 500 between 5:00 PM and 7:00 PM.
08:00 PM	0	PPFD decreases from 500 to 0 between 7:00 PM and 8:00 PM.
Next Day 8:00 AM	0	PPFD remains off (0) from 8:00 PM until 8:00 AM the following day.

Ventilation Setup

Click the Inline Fan tab to access the fan settings, which include viewing operation logs, locating the device, renaming it, and configuring its operation modes.

1. Timing Settings

The Timing Settings provide two modes: Multi-Stage Timer and Cycle Timer.

Running Speed: Defines the fan speed during active periods.

Standby Speed: Defines the fan speed during inactive periods to maintain gentle air circulation and prevent mold or pests. Standby Speed must always be lower than Running Speed.

CO_2 Supply Off: If the fan is being used as an exhaust fan, this option can be enabled to prevent unnecessary CO_2 loss.

2. Environmental Settings

This section allows you to:

Select the sensor used for environmental control.

Configure Running Speed and Standby Speed.

Define the Trigger Period, which determines the time range during which the fan responds to control logic.

You can also enable one or more environmental functions: Cooling, Exhaust, or Dehumidification.

3. Interlock Function:

When enabled, the fan will only operate if all selected functions' trigger conditions are met, preventing unintended operation or conflicting actions.

When disabled, the fan will run if any one of the selected functions' conditions is satisfied.

Note:

If only one function is selected (e.g., Exhaust), enabling or disabling Interlock has no effect and the fan will run based solely on that function's trigger condition.

WARRANTY INFORMATION

30-Day Return or Exchange Policy:

1. Initiate a return or exchange within 30 days of delivery by providing proof of purchase.

2. The product must be in near-original condition, with no significant signs of use or damage.

2-Year Defect Warranty:

1. Spider Farmer provides a 2-year warranty for free after-sales service on defects.

2. If the product or part returned is ineligible for service, Spider Farmer will charge the authorized

amount to the customer's credit card/PayPal.

Exclusions:

The warranty does not cover misuse, abuse, or normal wear and tear, such as scratches.

Limitation of Liability:

Spider Farmer is not liable for consequential or incidental damages.

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