RSX-6 SWITCH UNIT

-THIS MANUAL CONTAINS IMPORTANT SAFETY INSTRUCTIONS-

CTgrow CONTROL SYSTEMS

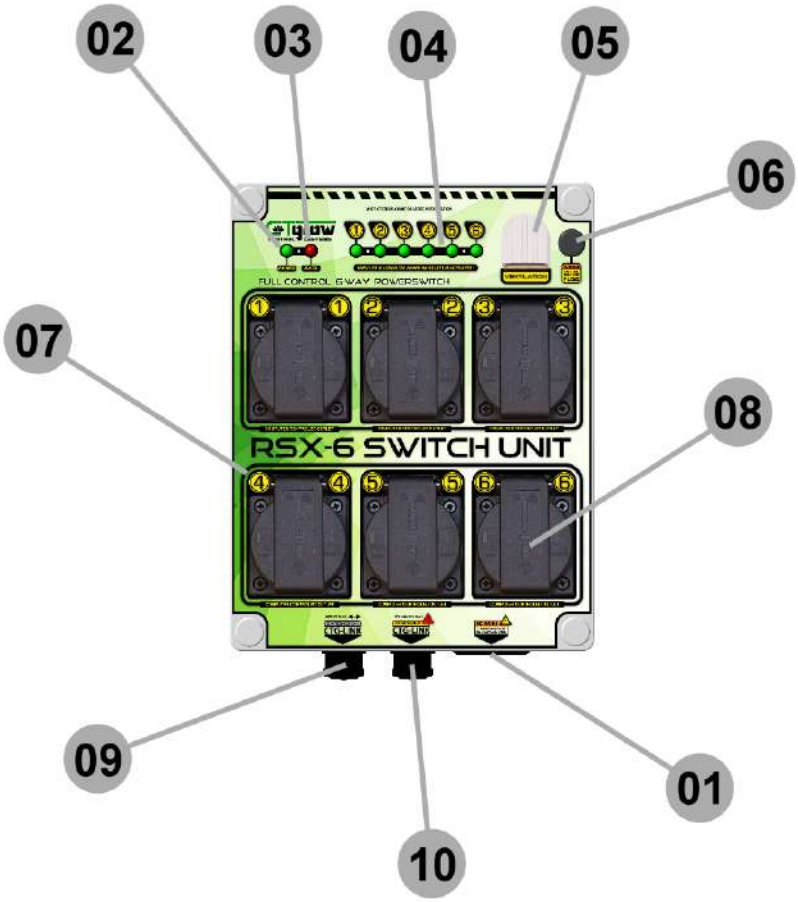
User manual

RSX-6 External Switch Unit

rev 1.0.1

TABLE OF CONTENTS

The RSX-6 Switch Unit explained



01: Power-cable inlet port (universal C-19 standard)
02: Power ON LED light (when “on” the unit has power)
03: Data LED light (indicates connection state with the controller)
04: Outlet ON/OFF indicator LEDS (when lit outlet power is ON)
05: Air ventilation ports (do not cover, keep open)
06: System fuse holder (only for system. NOT FOR OUTLETS)
07: power outlets number indicator
08: Computer controlled power outlets (6x) (max 15A)
09: RSX-6 CTG-LINK port (to connect unit to master controller)
10: Powered CTG-LINK ports (to connect extra sensor units)

⚠ IMPORTANT SAFETY INSTRUCTIONS

General safety precautions for CTgrow products

Retain the safety and operating instructions provided with the product for future reference. Follow all operating and usage instructions. Observe all warnings on the product and in the operating instructions. To reduce the risk of fire, bodily injury, electrical shock and damage to the equipment, observe the following precautions.

Damage requiring service for CTgrow products

Unplug the product from the electrical outlet and take the product to an CTgrow authorized service provider under the following conditions:

- **The power cord, on-board outlets or the systems power inlets are damaged.**
- **Liquid has been spilled or an object has fallen into the product.**
- **The product has been dropped, exposed to water or is damaged in any way.**
- **The product does not operate normally when you follow the operating instructions.**

Servicing

Except as explained elsewhere in the CTgrow documentation, do not service any CTgrow products yourself. Opening or removing covers that are marked with warning symbols or labels may expose you to electric shock. Service needed on components inside these compartments should be done by an CTgrow authorized service provider.

Mounting

Do not use the product on an unstable table, cart, stand, wall, or bracket. The product may fall, causing serious bodily injury and serious damage to the product.

Ventilation

Slots and openings in the product are provided for ventilation and should never be blocked or covered, since these ensure reliable operation of the product and protect it from overheating. The product should not be placed in a built-in apparatus such as a bookcase or rack unless the apparatus has been specifically designed to accommodate the product, proper ventilation is provided for the product, and the product instructions have been followed.

Grounded (earthed) products

Only use ground fault circuit interrupters on all outlets that are being used to power Ctgrow devices. CTgrow products are equipped with a three-wire electrical grounding-type plug that has a third pin for grounding. This plug only fits into a grounded electrical outlet. This is a safety feature. Do not defeat the safety purpose of the grounding-type plug by trying to insert it into a non-grounded outlet. If you cannot insert the plug into the outlet, contact your electrician to replace the obsolete outlet.

Water and moisture

When using Ctgrow electrical equipment while working in damp areas, wear insulated footwear and make sure you are always protected by a GFCI. Keep the Ctgrow equipment clear from direct contact with water to prevent any damage or electrical shock hazards.

⚠ IMPORTANT SAFETY INSTRUCTIONS

Power sources
The product should be operated only from the type of power source indicated on the product's electrical ratings label. If you have questions about the type of power source to use, contact your CTgrow authorized service provider or local power company. For a product that operates from other power sources, the operating instructions are included with the product.

Accessibility
Be sure that the power outlet you plug the power cord into is easily accessible and located as close to the equipment operator as possible. When you need to disconnect power to the equipment, be sure to unplug the power cord from the electrical outlet.

Power cords & controller outlets
If you have not been provided with the correct power cord or outlets that come with your Ctgrow equipment you should only use Ctgrow power cords that are approved for use in your country.

The power cord must be properly rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product. In addition, the diameter of the wire must be a minimum of 0.75 mm2 /18AWG and the cord should be between 5 and 8 feet (1.5 and 2.5 meters) long. If you have questions about the type of power cord to use, contact your CTgrow authorized service provider.

Protective attachment plug
In some countries, the product cord set may be equipped with a wall plug having overload protection. This is a safety feature. If the plug needs to be replaced, be sure the CTgrow authorized service provider uses a replacement plug specified by the manufacturer as having the same overload protection as the original plug.

Extension cord
If an extension cord or power strip is used, make sure that the cord or strip is rated for the product and that the total ampere ratings of all products plugged into the extension cord or power strip do not exceed 80% of the extension cord or strip ampere rating limit.

Overloading
Do not overload any electrical outlets, power strips, or convenience receptacles. The overall system load must not exceed 80% of the branch circuit rating. If power strips are used, the load should not exceed 80% of the power strip input rating.

Cleaning
Unplug the product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Heat, Circulation and cooling
The product should be placed away from radiators, heat registers, stoves, or other pieces of equipment (including amplifiers) that produce heat. Allow sufficient air circulation around the computer during use to ensure adequate cooling of the device. Prevent direct exposure to radiant heat sources.

Replacement parts
When replacement parts are required, be sure the service provider uses replacement parts specified by CTgrow.

Safety check
Upon completion of any service or repairs to the product, have your CTgrow authorized service provider perform any safety checks required by the repair procedure or by local codes to determine that the product is in proper operating condition.

Options and upgrades
To reduce the risk of fire, bodily injury, electrical shock and damage to equipment only use products and upgrades recommended by Ctgrow.

2: Switch unit installation procedure

IMPORTANT INSTALLATION NOTICE !!

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DO NOT PLUG IN ELECTRICAL DEVICES IN TO THE RSX-6 UNIT OUTLETS OR CONNECT ANY EXTERNAL SENSOR OR SWITCHBOXES UNTIL THIS INSTALLATION PROCEDURE IS COMPLETED.

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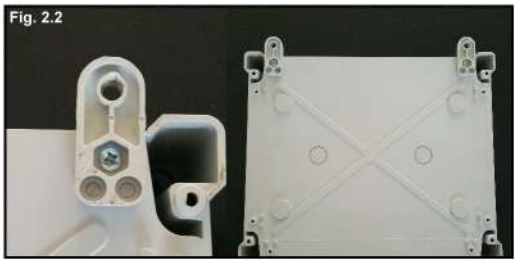
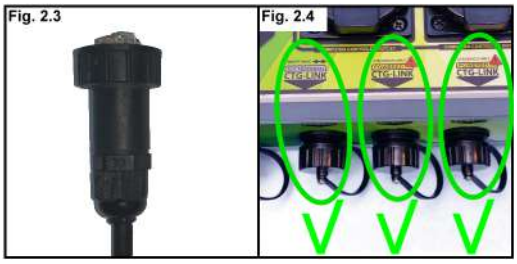
2.1: After unpacking the RSX-6 Switch unit, screw the controllers mounting-tabs on to the controllers back-side. The RSX-6 comes with 4 mounting-tabs and screws included. Use the mounting tabs (top & bottom) to mount the Switch unit to your preferred location. **(see fig. 2.1)** and **(see fig. 2.2)**

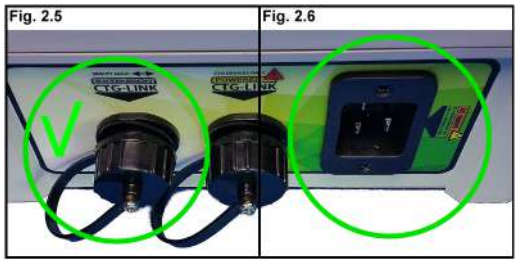


2.2: Mount the Switch unit on a safe and firm location and make sure its close to a cgfi protected mains power outlet. Make sure to select a location thats also close to the devices you want to control otherwise you need to have enough extension cords to reach your electrical devices.

2.4: Make sure that the RSX-6 power outlet covers are closed and the external vent-cover is unobstructed !

2.5: Connect the CTG-LINK cable **(see fig. 2.3)** from the NCR-6 master controller **(see fig. 2.4)** to the EXTENSION CTG-LINK port on your RSX-6 unit **(see fig. 2.5)**





2.6: Plug the mains power connector into the RSX-6 unit's power-inlet on the bottom-right side of the RSX-6 switch unit. **(see fig. 2.6)**

2.7: Plug the RSX-6 unit's mains power plug into a cgfi protected power outlet and make sure it can deliver enough power. As soon as the RSX-6 has AC mains power the green power led will light up. **(see fig. 2.7)** wait for the “DATA”LED light on the controller to turn green to indicate that the RSX-6 unit is ready. (This will take up to 15 seconds) **(see fig. 2.8)** As soon as the DATA led is on, the RSX-6 unit is ready for usage.

3: RSX-6 Switch unit setup procedure

3.0: To control the RSX-6 Switch-unit, You first need to be logged in to your NCR-6 Master controller. **(see fig. 3.1)** and **(see fig. 3.2)**

Fig. 3.1

Fig. 3.2

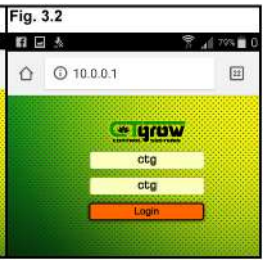


Fig. 3.3

3.1: As soon as the green “DATA” led on the front-side of the RSX-6 Switch-unit is “ON” the RSX-6 Switch-unit is ready for usage. Open your NCR-6 Master controller's main screen **(see fig. 3.3)** Your RSX-6 Switch unit should now be visible on your main screen **(see fig. 3.4)** and will look almost the same as the NCR-6 Outlet switch-unit. If the RSX-6 Switch-unit is not visible you may need to refresh your web-browser or wait for 3 minutes for the browser to automatically refresh itself.

AS SOON AS THE RSX-6 SWITCH-UNIT IS VISIBLE ON THE MAIN SCREEN, IT HAS BEEN INSTALLED SUCCESFULLY AND IS READY FOR OPERATION.

3.2: When you use more than one RSX-6 Switch-unit, they can be identified by their unit name and number **(see fig. 3.4)** The unit name can be changed from the NCR-6 Master Controller's settings menu. **(see fig. 3.8)** To change the RSX-6 unit's name press the **[MENU]** button **(see fig. 3.6)** and then press the **[SWITCH UNITS]** button to enter the general Switch unit menu. **(see fig. 3.7)** This will open the Switch unit menu. **(see fig. 3.8)**

Fig. 3.4

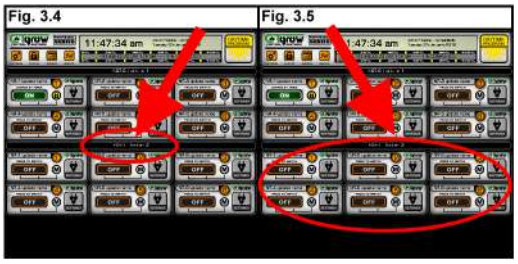


Fig. 3.5

Fig. 3.6

Fig. 3.7

3.3: When you are in the general Switch unit menu, fill out the preferred name for your RSX-6 Switch-unit at the box marked A. **(see fig. 3.8)** and press the [UPDATE] button marked B to store the new name. **(see fig. 3.8)**

Fig. 3.8

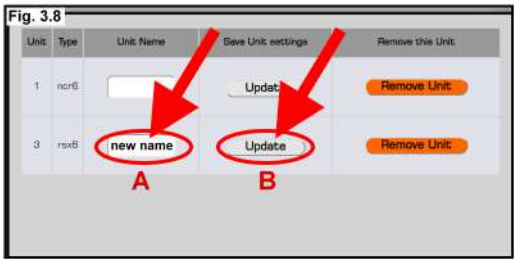
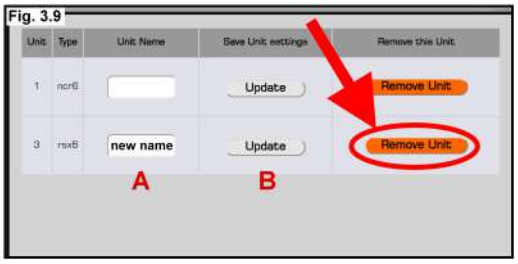


Fig. 3.9



3.3: To remove an external switch-unit form the controller, first disconnect the external switch-unit power cable and CTG-LINK cable. Next go to the general Switch unit menu, **(see fig. 3.3)** and press the **[REMOVE UNIT]** button. **(see fig. 3.9)**
(The unit removal procedure can take up to 30 seconds, please wait until it's done installing.)

WARNING !! MAKE SURE TO DISCONNECT ALL POWER-PLUGS FROM THE SWITCH-UNIT BEFORE REMOVAL !!

4: RSX-6 On-board outlet setup & usage (1)

The RSX-6 controller has 6 computer controlled power outlets that can be independent controlled with the RSX-6 software. The outlets can be controlled in 3 different ways: by hand (**manual mode**), by an attached system sensor (**sensor mode**) or by timer (**timer mode**). Follow the procedure below to setup your outlets for correct operation. This procedure is the same for any of the 6 on-board outlets.

RSX-6 power outlet software (general settings)

4.1A Enter the switch menu by pressing the **[switch menu button] (see fig. 4.1A)** on the corresponding outlet in the software to enter it's settings menu. **(see fig. 4.2A)**

4.2A To change the outlet's name **(see fig. 4.3A)** enter your preferred new name and press the **[SAVE ICON AND NAME]** button. **(this will have no direct effect on the switch mode setting)**

Fig. 4.1A

Fig. 4.2A

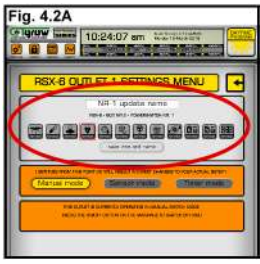
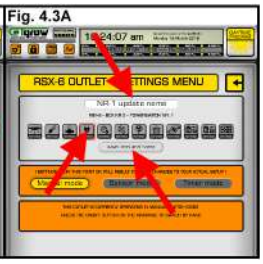


Fig. 4.3A



4.3A To change the outlet's menu icon **(see fig. 4.3A)** select any icon from the list and press the **[SAVE ICON AND NAME]** button. **(this will have no direct effect on the switch mode setting)**

4.4A press the **[BACK-BUTTON]** to leave the outlet settings menu.

RSX-6 power outlet software (manual mode)

4.1B Enter the switch menu by pressing the **[switch menu button] (see fig. 4.1A)** on the corresponding outlet in the software to enter it's settings menu. **(see fig. 4.1B)**

4.2B To set the outlet's power ON/OFF manually, press the **[MANUAL MODE]** button to get in to manual switching **(see fig. 4.1B)** and,press the **[BACK-BUTTON]** to leave the outlet settings menu.

Fig. 4.1B

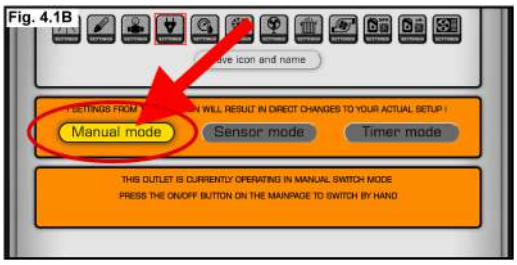


Fig. 4.2B

4.3B The **[ON/OFF]** buttons **(see fig. 4.2B)** from the switch unit(s) can only be switched from the controller's main page when you are in **manual mode**. When the switch is in manual mode a circled **M** icon will be visible on the switch (on the main page) **(see fig. 4.2B) (NOTE!!! if there is a lock symbol instead of the M the switch is locked by either a timer or a sensor setting.)**

WARNING !! WHEN THE SWITCH HAS BEEN SET TO SENSOR OR TIMER MODE YOU CAN NOT MANUALLY CHANGE THE ON/OFF BUTTON ANYMORE UNTIL SET BACK TO MANUAL MODE .

4: RSX-6 On-board outlet setup & usage (2)

RSX-6 power switch software (sensor mode)

NOTE !! (you need at least 1 or more sensor unit's to be connected and pre-programmed for this mode to work)

4.1C Enter the switch menu by pressing the **[switch menu button] (see fig. 4.1C)** on the corresponding outlet in the software to enter it's settings menu. **(see fig. 4.2C)**

Fig. 4.1C

4.2C To switch the corresponding outlet's power ON/OFF by a sensor value, press the SENSOR MODE button to get in to sensor switching mode. **(see fig. 4.2C)**

4.3C Next press the **[ATTACHED SENSOR]** field **(see fig. 4.3C)** this will show you the list of sensors that are connected to the system. select the sensor you want to use by clicking on it.

Fig. 4.2C

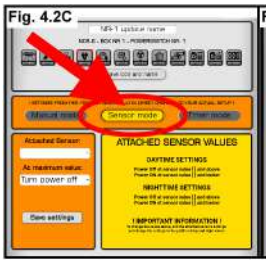


Fig. 4.3C

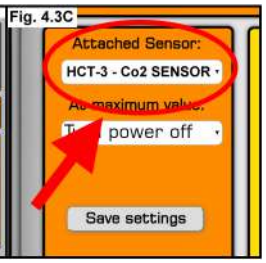


Fig. 4.4C

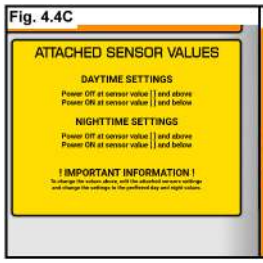
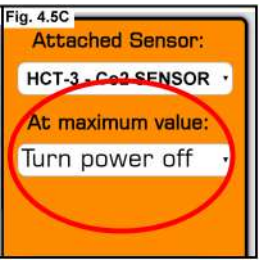


Fig. 4.5C



4.4C Next press the **[AT MAXIMUM VALUE]** field **(see fig. 4.5C)** and select if you want the switch to turn **ON** or **OFF** at the maximum value of the attached sensor. **(see fig. 4.4C)**

4.5C Press the **[SAVE SETTINGS]** button on the bottom left to save your sensor mode switch values.

The system will present the values from the attached sensor on the bottom-right side of the screen. To change these values you need to change the attached sensor's values. **(see your sensor unit's manual)**

WARNING !! WHEN THE SWITCH HAS BEEN SET TO SENSOR MODE YOU CAN NOT MANUALLY CHANGE THE ON/OFF BUTTON ANYMORE UNTIL SET BACK TO MANUAL MODE .

4.4C Press the **[BACK-BUTTON]** to leave the outlet settings menu.

The ON/OFF buttons from the switch unit(s) will be locked from now on and can NOT be switched ON/OFF from the controller's main page. When the switch is in timer mode a circled YELLOW LOCK icon will be visible on the switch (on the main page)

4: RSX-6 On-board outlet setup & usage (3)

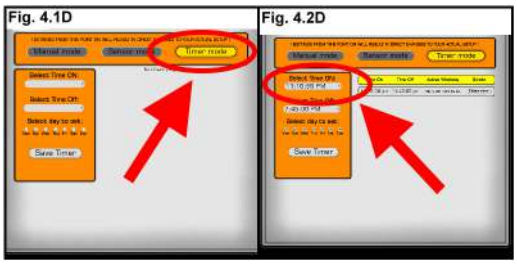
RSX-6 power switch software (timer mode)

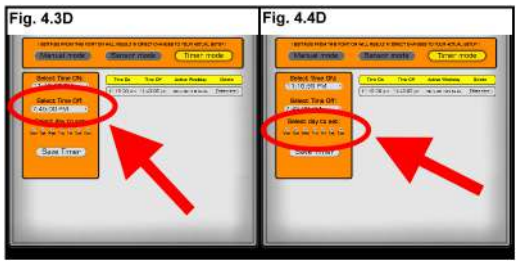
NOTE !! Make sure that before you set any timer, the system time, date and timezone are correct !!

4.1D Enter the switch menu by pressing the **[switch menu button] (see fig. 4.1A)** on the corresponding outlet in the software to enter it's settings menu. **(see fig. 4.1D)**

4.2D To switch the outlet's power **ON/OFF** by timer, press the **[TIMER MODE]** button to get in to timer switching mode. **(see fig. 4.1D)**

4.3D Press the **[SELECT TIME ON]** field **(see fig. 4.2D)** and enter the time you want to turn the switch **ON**.





4.4D Press the **[SELECT TIME OFF]** field and enter the time you want to turn the switch **OFF**. **(see fig. 4.3D)**

4.5D Next select the **[DAY OF THE WEEK] (see fig. 4.4D)** you want to use this timer. (You need to select at least 1 day of the week) (to use the timer every day please select all days of the week) **(see fig. 4.4D)**

4.6D Press the **[SAVE SETTINGS]** button on the bottom left to save your timer mode switch values. **(see fig. 4.5D)**
The system will present the values from the newly set timer on the bottom-right side of the screen. **(see fig. 4.6D)**
(You can set up to 50 timers for every outlet)

WARNING !! WHEN THE SWITCH HAS BEEN SET TO TIMER MODE YOU CAN NOT MANUALLY CHANGE THE ON/OFF BUTTON ANYMORE UNTIL SET BACK TO MANUAL MODE.

4.4D Press the **[BACK-BUTTON]** to leave the outlet settings menu.

The ON/OFF buttons from the switch unit(s) will be locked from now on and can NOT be switched ON/OFF from the controller's main page. When the switch is in timer mode a circled YELLOW LOCK icon will be visible on the switch (on the main page)

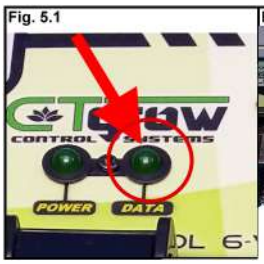
5: Adding an extra (sensor) unit to the RSX-6

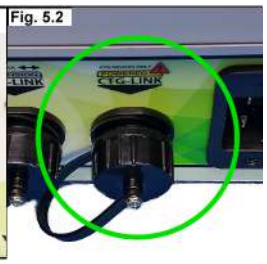
The RSX-6 switch-unit comes with an extra POWERED CTG-LINK port to optionally connect an extra external sensor or switch-unit. (Visit **"www.ctgrow.com"** for more information about our available extra units and parts)

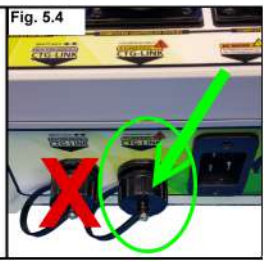
ADDING AN EXTRA SENSOR UNIT TO THE RSX-6 SWITCH-UNIT

5.1: Make sure that the RSX-6 switch-unit is on and that the green DATA LED is also ON. **(see fig. 5.1)**

5.2: Remove the selected **[POWERED CTG-LINK]** port's waterproof protection cap. **(see fig. 5.2)**



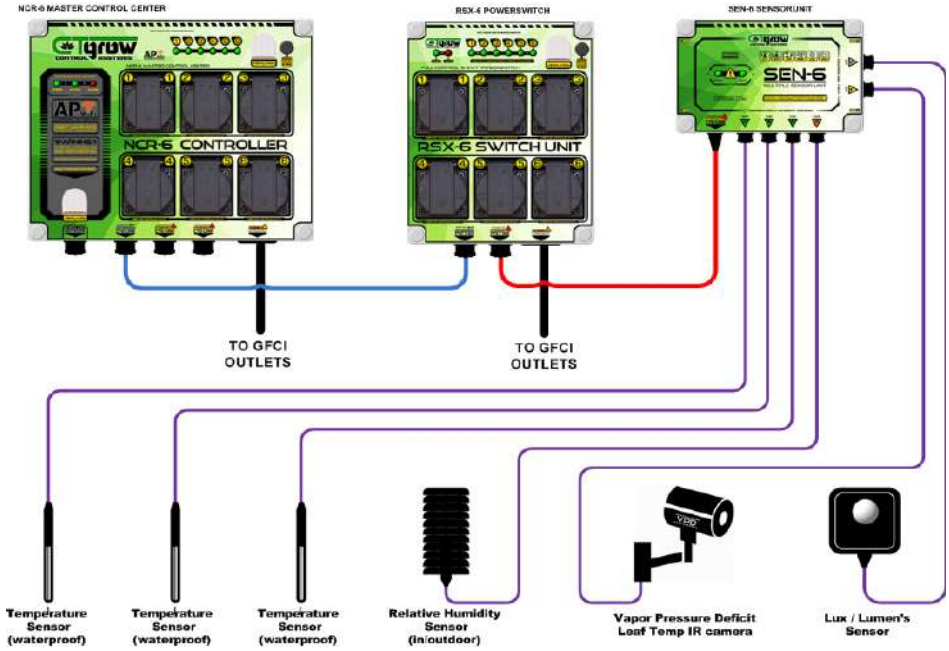




5.3: After mounting your new sensor unit to its proper location **(see the corresponding sensor unit's manual)** you can start to screw the sensor unit's connector **(see fig. 5.3)** in to the **[POWERED CTG-LINK]** port on the Controller. **(see fig. 5.4)**
Always make sure you successfully installed the sensor unit before installing another unit !!

TIP!! Make sure that the (sensor) unit's screw connector is straight on the treads when you start to fasten it. If you cant get the connector straight on to the **[POWERED CTG-LINK]** port, try turning it the opposite direction for a few turns until you feel a soft click, then try to screw it straight back on again!

5.4: When the sensor unit has been connected successfully to the RSX-6, the sensor units power light should come ON! It can take up to 30 seconds before the controller has the sensor unit fully installed. So refresh the controller's main page after about 30 seconds. Or you can wait for the main page to refresh itself (this can take up to 3 minutes)



For further details about your connected sensor or switch-unit and its functions, please see your connected **unit's** user manual.

17: RSX-6 Specifications and Dimensions

RSX-6 unit Specifications:

Unit name / model number	: RSX-6	: RSX-6
Dimensions HxWxD (unit only)	: ± 27.0 x 19.0 x 12.5 CM	: ± 10.65 x 7.5 x 4,8 Inch
On-board power outlets	: 6 (independent controllable)	: 6 (independent controllable)
CTG-LINK PORTS	: 2 (1x EXTENDED) (1x POWERED)	: 2 (1x EXTENDED) (1x POWERED)
EXT. CTG-LINK Cable length	: ± 500 CM	: ± 180 Inch
Power cable length	: ± 100 CM	: ± 39.5 Inch
Working temperature	: -15°C ~ 70°C	: 5°F ~ 158°F
Operating voltage /	: 110v ~ 120v AC / 60Hz	: 110v ~ 120v AC / 60Hz
Power consumption (NO LOAD)	: <10 Watt	: <10 Watt
Maximum Amperage (Outlet)	: <15 A	: <15 A
Total Maximum Amperage	: 15 A	: 15 A
Avg HDS-6 unit lifespan	: >5 years	: >5 years
RSX-6 unit Warranty	: 1 Year (excl. cables & relays)	: 1 Year (excl. cables & relays)