

C-E700001

Synchronization signal ports

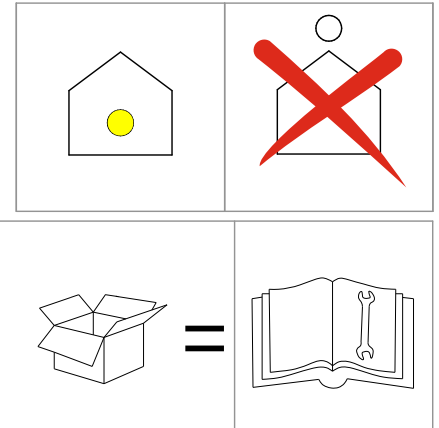
Power input

Master/sub setting switch

LED output

ON: Master

OFF: Sub-controller (factory default)

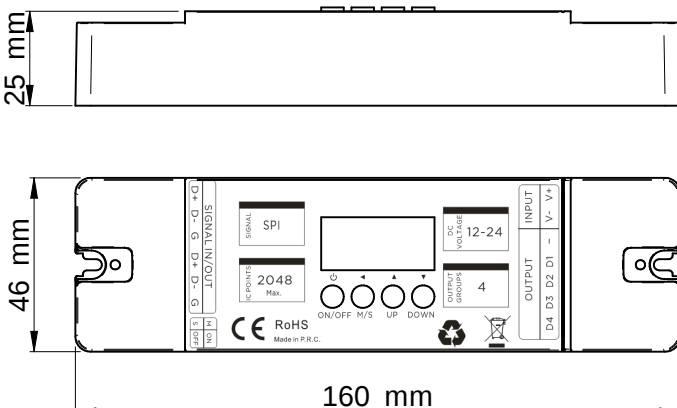


## Features:

1. Four groups of SPI signal output ports, which can control up to 16 meter of Rubber pixel (per channel);
2. With digital tube and control buttons, it can also be used with RF remote control for mode selection, speed and IC point adjustment;
3. With power-off memory storage function;
4. Contains 7 effect static modes, 1 program that contains 127 automatic cycle modes and 1 mode the custom combination mode;

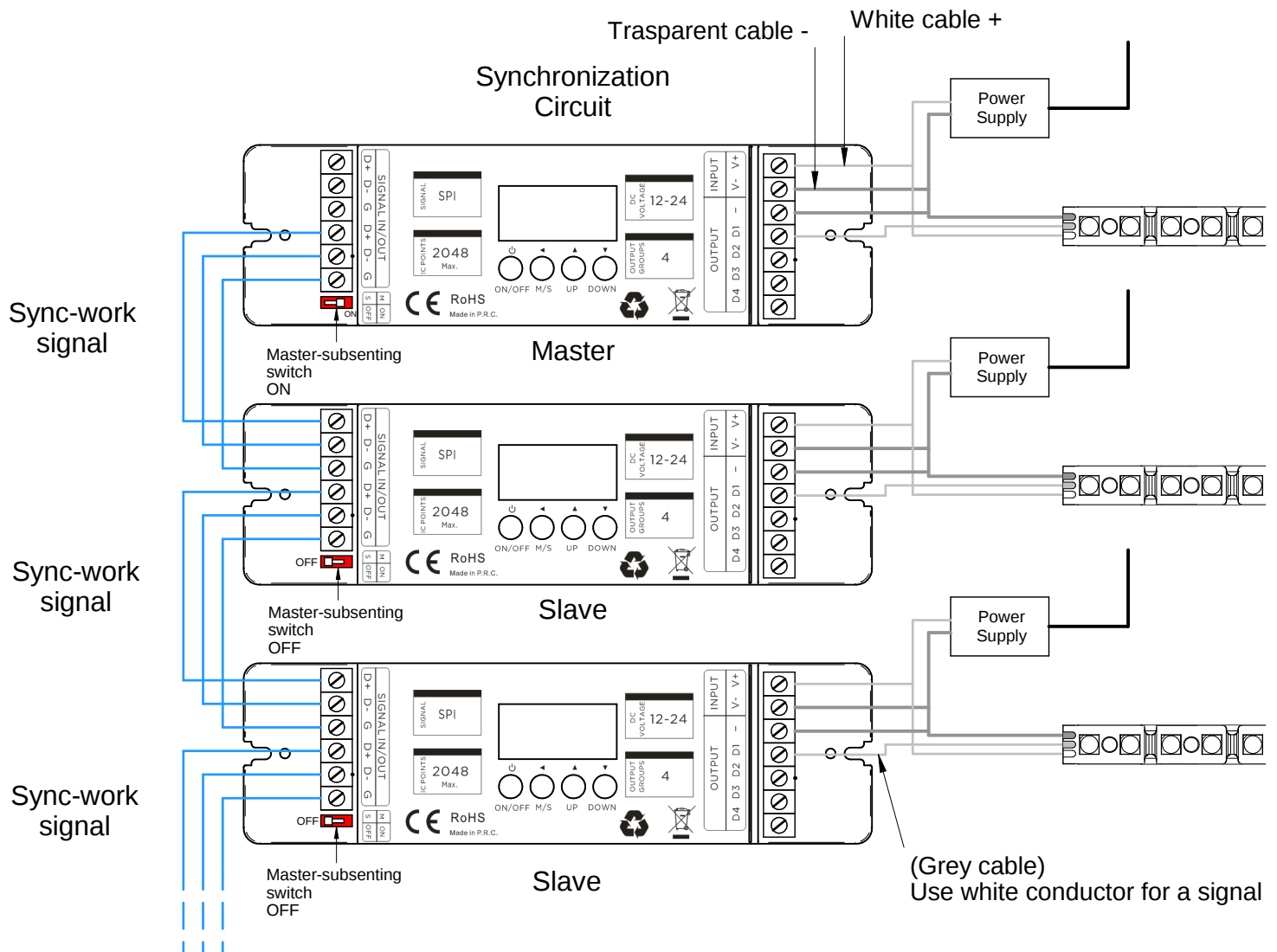
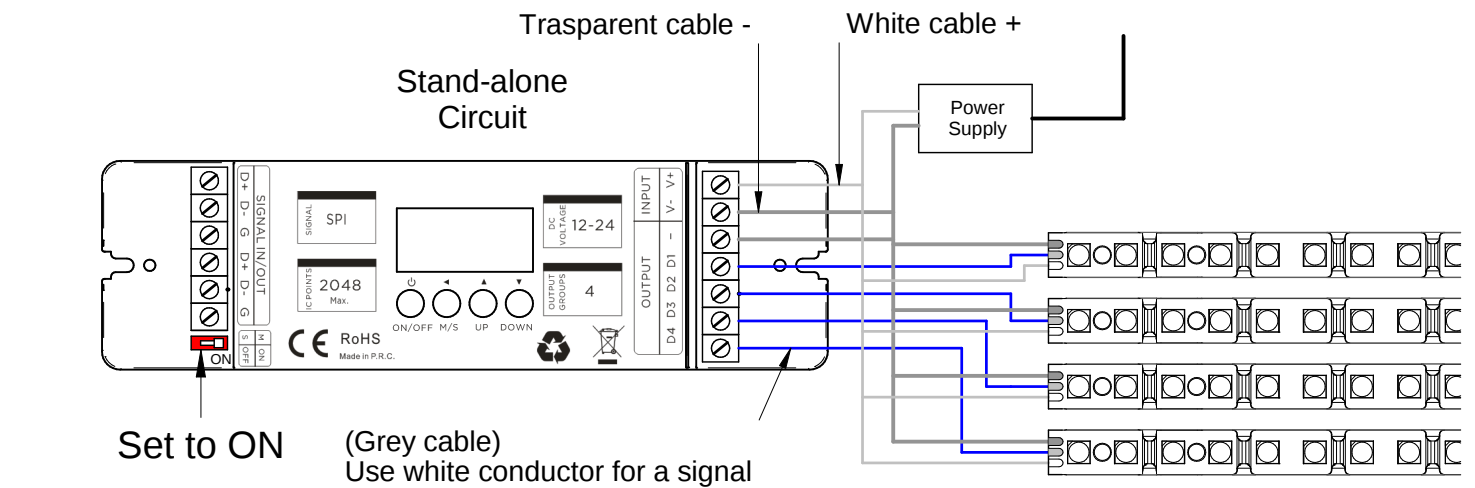
## Technical Parameters

|                           |                          |
|---------------------------|--------------------------|
| Input                     | DC 12-24V                |
| RF frequency              | 2.4GHz                   |
| RF distance               | ≤20m (without obstacles) |
| Output signal             | 4 groups SPI             |
| Gray level                | 256                      |
| Speed level               | 99                       |
| Working temperature       | -20/60°C                 |
| Standby power consumption | <1W                      |
| Sync-work function        | Yes                      |



## Safety information

1. The product shall be installed and serviced by a qualified person.
2. The product is non-waterproof. Please avoid the sun and rain.
3. Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
4. Please check if the output voltage of any power supplies used comply with the working voltage of the product.
5. Ensure all wire connections and polarities are correct and secure before applying power to avoid any damages to the LED lights.
6. If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.



**Note: The first one will be the master, please set the DIP switch to ON position; others from the second one will be the sub-control, please keep the DIP switch in the factory default setting -OFF.**

## Instructions for use

- Determine the controller is the master or the sub-controller, and set the DIP switch at the right position, master-ON, sub-controller- OFF;
- Connecting the load led strip at first, then connect the power input wires; and make sure that there is no short circuit between the connecting wires before powering on;
- The functions of the 4 buttons on the controller are as follows:

| Button | Function description                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ON/OFF | Turn on/off                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| M/S    | Switch Mode/Speed/brightness adjustment functions<br><b>Mode adjustment:</b> digital tube display F***(***)is 000-136,000 is displayed when controlled by the touch ring on the remote control)<br><b>Speed adjustment:</b> the digital tube displays S-**(***is 01-99), the speed adjustment function is only valid for dynamic mode<br><b>Brightness adjustment:</b> the digital tube displays d***(***)is 001-100), the brightness adjustment function is only valid for static mode |
| UP     | Mode+/Speed+/Brightness+, adjust the object according to the setting result of M/S                                                                                                                                                                                                                                                                                                                                                                                                      |
| DOWN   | Mode-/Speed-/ Brightness-, adjust the object according to the setting result of M/S                                                                                                                                                                                                                                                                                                                                                                                                     |

## Control IC number and model setting

In the "OFF" state long press "UP" and "Down", then press the "M/S" key, a number ranging from 010 to 2048 (**IC number**) will appear on the display, Press "UP"/ "DOWN" to increase/reduce the control IC number. After the setting press the "M/S" key, the digital tube displays 1814 or 8904. Press the "UP" and "DOWN" keys to switch the **model of IC** to be controlled:

- 1814: IC type is TM1814B and its compatible IC;
- 8904: IC type is UCS8904B and its compatible IC;

After the setting is completed, press the "ON/OFF" key to save and exit.

### • Custom combination mode settings

This mode is a free combination mode. Choosing 2-20 modes from the 1-134th mode and combine them into a cyclic mode, and each mode can set an independent change speed.

**Step 1:** In the off state, long-press the "M/S" and "Up" buttons at the same time for 2 seconds to enter Custom combination mode settings, the digital tube will light up and display "-\*-", "-\*- " represents the currently edited scene number. Please use the "UP" / "DOWN" keys to select the scene number to be edited. **For example, we will set a custom combination mode with 5 modes.**

**Step 2:** Setting the mode for -01-. Press "M/S" after Step 1 "-01-", the digital tube will display "H\*\*\*".

Please use the "UP" / "DOWN" keys to select the needed mode from 1-134th for "-01-". If the digital tube displays "H000", mean there is no effect was set to current scene.

**Step 3:** Setting the speed for -01-. Press "M/S" after Step 2, the digital tube will display "S-\*\*\*". Please use the "UP" / "DOWN" keys to select the needed speed from 01-99 for "-01-" mode. The status of loading led strips will be changed accordingly.

Press "M/S" after Step 3, the digital tube will display back to "-01-". Please press "UP" / "DOWN" keys to select the next edited scene number, and repeat the operation like step2 and step 3 to finished the all other 5 scenes from 2nd to 6th. And press the "ON/OFF" key to save and exit in the end.

**Important notes:** When there are less than 20 scenes set, the scene should start from -01- the first number (because the 136th mode runs from scene "01"), and the scenes without effect need to be set to "H000". Like example that we set 5 scenes to combinate the 136th mode, enter the edit menu and edit the respective modes and speeds of scenes "-01-" to "-05-" (can be not in order during the editing operation). After editing, please check the mode of scene "-06-" should be "H000", if not, please correct it by the "UP"/"DOWN" keys.

**Step 4:** After setting Custom combination and press the "ON/OFF" key to save and exit in the end, press ON, then press "M/S" the digital tube will display "H\*\*\*", search with "UP/DOWN" the combination 136th, custom combination made are stored here H136.

## Mode table

| No | Mode description                  | No | Mode description                    | No  | Mode description                      | No  | Mode description                      |
|----|-----------------------------------|----|-------------------------------------|-----|---------------------------------------|-----|---------------------------------------|
| 1  | Static Red                        | 35 | Green 5pixel horse race-right       | 69  | Cyan running water I                  | 103 | White double trailing right           |
| 2  | Static Green                      | 36 | Blue 5-pixel horse race-right       | 70  | White running water I                 | 104 | Green double trailing right           |
| 3  | Static Blue                       | 37 | Red and white chasing(right)        | 71  | Orange running water I                | 105 | Yellow double trailing right          |
| 4  | Static Yellow                     | 38 | Red, white, blue chasing(right)     | 72  | Cyan trailing right I                 | 106 | 7-color jumping double trailing right |
| 5  | Static Purple                     | 39 | Orange and purple chasing(right)    | 73  | Cyan trailing right II                | 107 | 7-color queue double trailing right   |
| 6  | Static Cyan                       | 40 | Orange and blank chasing(right)     | 74  | Cyan trailing left                    | 108 | 7-color in turn double trailing right |
| 7  | Static White                      | 41 | Green and white chasing(right)      | 75  | Running back and forth with Cyan      | 109 | 7-color running water III             |
| 8  | 3 color jumping                   | 42 | Blue and white chasing(right)       | 76  | Running back and forth with Purple    | 110 | Blue double trailing on Red           |
| 9  | 7 color jumping                   | 43 | Red and yellow chasing(right)       | 77  | Red running water II                  | 111 | Red double trailing on Blue           |
| 10 | 7 color flashing                  | 44 | Orange and blue chasing(right)      | 78  | Green running water II                | 112 | Green double trailing on Blue         |
| 11 | 7 color fading                    | 45 | Red and blue chasing(right)         | 79  | Blue running water II                 | 113 | Blue double trailing on Green         |
| 12 | Red horse race-right              | 46 | Blue, purple, yellow chasing(right) | 80  | Yellow running water II               | 114 | Red double trailing on Green          |
| 13 | Blue horse race-right             | 47 | Red and green chasing(right)        | 81  | Purple running water II               | 115 | Green double trailing on Red          |
| 14 | Purple horse race-right           | 48 | Blue and green chasing(right)       | 82  | Cyan running water II                 | 116 | White double trailing on Blue         |
| 15 | Orange horse race-right           | 49 | Pink and purple chasing(right)      | 83  | White running water II                | 117 | Double trailing on 7-color            |
| 16 | White horse race-right            | 50 | Yellow and green chasing(right)     | 84  | 7-color running water II              | 118 | 7-color opening brushing              |
| 17 | Cyan horse race-right             | 51 | Red, yellow, green chasing(right)   | 85  | Cyan trails water to the right I      | 119 | 7-color closing brushing              |
| 18 | Cyan horse race-left              | 52 | Yellow chasing(right)               | 86  | Cyan trails water to the right II     | 120 | 7-color open-closing                  |
| 19 | 7 color horse race-right          | 53 | Cyan and white chasing(right)       | 87  | 7-color trails water to the right     | 121 | 7-color closing                       |
| 20 | 7 color horse race 2 direction    | 54 | Cyan and purple chasing(right)      | 88  | Red single trailing right             | 122 | Red closing                           |
| 21 | White 1-pixel horse race-right I  | 55 | Blue, purple, yellow floating       | 89  | Purple single trailing right I        | 123 | Green closing                         |
| 22 | Red 1-pixel horse race-right I    | 56 | Red, green, white floating          | 90  | Blue single trailing right            | 124 | Blue closing                          |
| 23 | Green 1-pixel horse race-right I  | 57 | Orange, yellow, red floating        | 91  | Cyan single trailing right            | 125 | Yellow closing                        |
| 24 | Blue 1-pixel horse race-right I   | 58 | Red, pink floating                  | 92  | White single trailing right           | 126 | Purple closing                        |
| 25 | White 1-pixel horse race-right II | 59 | Red, white floating                 | 93  | Green single trailing right           | 127 | Cyan closing                          |
| 26 | Red 1-pixel horse race-right II   | 60 | Blue, white floating                | 94  | Yellow single trailing right          | 128 | White closing                         |
| 27 | Green 1-pixel horse race-right II | 61 | Green, white floating               | 95  | 7-color jumping single trailing right | 129 | 7-color stacking right                |
| 28 | Blue 1-pixel horse race-right II  | 62 | All color floating                  | 96  | 7-color queue single trailing right   | 130 | 7-color stacking                      |
| 29 | White 3-pixel horse race-right    | 63 | White random twinkle strobe         | 97  | 7-color in turn single trailing right | 131 | 6-color opening stacking              |
| 30 | Red 3-pixel horse race-right      | 64 | Red running water I                 | 98  | Cyan double trailing left             | 132 | 6- color closing stacking             |
| 31 | Green 3-pixel horse race-right    | 65 | Green running water I               | 99  | Red double trailing right             | 133 | 7-color moving                        |
| 32 | Blue 3-pixel horse race-right     | 66 | Blue running water I                | 100 | Purple double trailing right          | 134 | 7-color brushing                      |
| 33 | White 5-pixel horse race-right    | 67 | Yellow running water I              | 101 | Blue double trailing right            | 135 | Auto loop playback (8-134)            |
| 34 | Red 5-pixel horse race-right      | 68 | Purple running water I              | 102 | Cyan double trailing right            | 136 | User-defined combination mode         |

## Malfunctions analysis & troubleshooting

| Malfunctions                             | Causes                                                                                                                              | Troubleshooting                                                                                                                        |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| No light                                 | <ol style="list-style-type: none"> <li>1. No power.</li> <li>2. Wrong connection or insecure.</li> <li>3. Wrong setting.</li> </ol> | <ol style="list-style-type: none"> <li>1. Check the power.</li> <li>2. Check the connection.</li> <li>3. Check the setting.</li> </ol> |
| Out of sync when using the sync function | <ol style="list-style-type: none"> <li>1. Wrong DIP switch setting.</li> <li>2. Wrong connection or insecure.</li> </ol>            | <ol style="list-style-type: none"> <li>1. Check the DIP switch setting.</li> <li>2. Check the connection.</li> </ol>                   |