

## Wired Remote Control Switch (Model: SPWT-A01)

### IMPORTANT:

READ AND UNDERSTAND THIS MANUAL BEFORE USING THIS WIRED REMOTE CONTROL SWITCH. KEEP THIS MANUAL FOR FUTURE REFERENCE.

### IMPORTANT NOTICE:

- No part of this manual may be reproduced without written permission.
- Signal words (DANGER, WARNING, and CAUTION) are used to identify levels of hazard seriousness. Definitions of identifying hazard levels are provided below with their respective signal words.

**⚠ DANGER** : Immediate hazards which WILL result in severe personal injury or death.

**⚠ WARNING** : Hazards or unsafe practices which COULD result in severe personal injury or death.

**⚠ CAUTION** : Hazards or unsafe practices which COULD result in minor personal injury or product or property damage

**NOTE:** Useful information for operation and/or maintenance.

## 1. SAFETY SUMMARY

### ⚠ DANGER

- **DO NOT** pour water into the remote control switch (hereafter called “controller”). This product is equipped with electrical parts. If poured, it will cause a serious electrical shock.

### ⚠ WARNING

- **DO NOT** perform installation work and electrical wiring connection by yourself. Contact your distributor or dealer of C&H and ask them for installation work and electrical wiring by service person.

### ⚠ CAUTION

- **DO NOT** install the indoor unit, outdoor unit, controller and cable at such places :
  1. Where there is oil vapor and the oil is dispersed
  2. Where the hot springs are near (in a sulfuric environment)
  3. Where generation, flowing, staying or leaking of flammable gas is detected
  4. Where the sea is near (in the salty environment)
  5. An acid or alkaline environment
- **DO NOT** install the indoor unit, outdoor unit, controller and cable within approximately 9.84ft.(3m) from strong electromagnetic wave radiators such as medical equipment. In case that the controller is installed in a place where there is electromagnetic wave direct-radiation, shield the controller and cables by covering with the steel box and running the cable through the metal conduit tube.
- In case that there is electric noise at the power source for the indoor unit, provide a noise filter.  
Check the box  after checking.

## 2. Installation Work

### [2.1 Selection of Installation Place]

- 1) Select a suitable place for handling and determine the installation place of the controller with the customer's acceptance. Do not install the controller at a place:
- within the reach of children
  - where the air from the air conditioner is directly discharged

### [2.2 Before Installation]

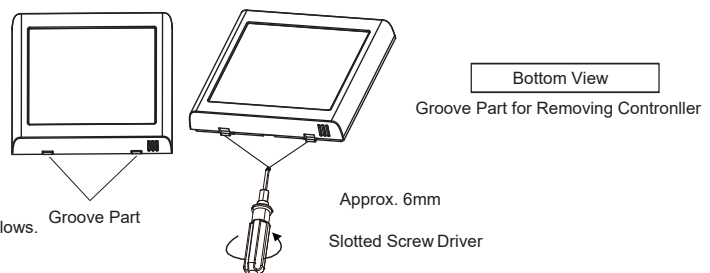
- 1) This packing contains the following parts.

Remote control Switch.....1    Assembling screw M4\*5/8in.(16mm).....2

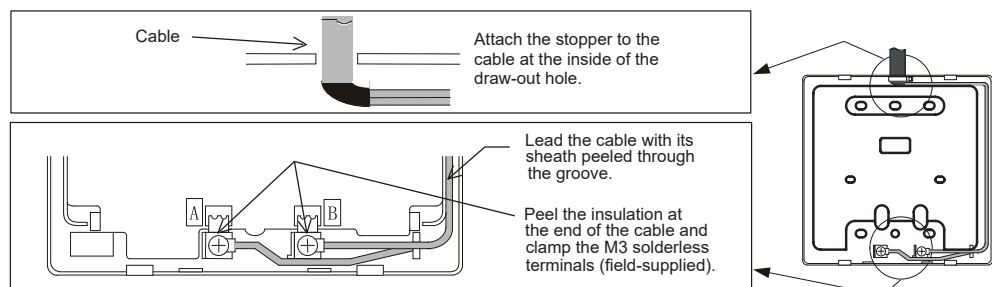
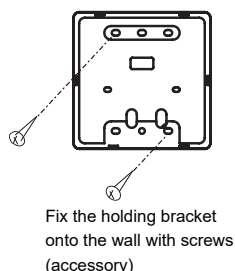
Installation spot check specification.....1

### [2.3 Installation Procedures]

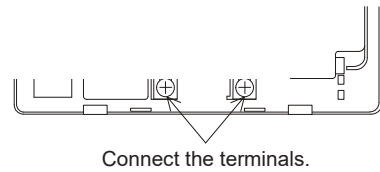
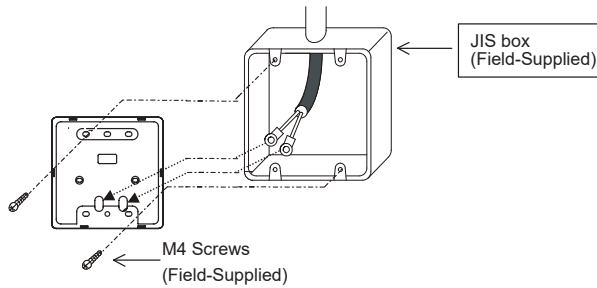
- 1) Insert the edge of the slotted screwdriver into the groove at the bottom of the holding bracket, push and turn the slotted screwdriver and then remove the controller from the holding bracket.
- 2) Attach the controller to the holding bracket and connect the cable as follows.



### A. In Case of Exposing Remote Control Cable



## B. When Using Switch Box

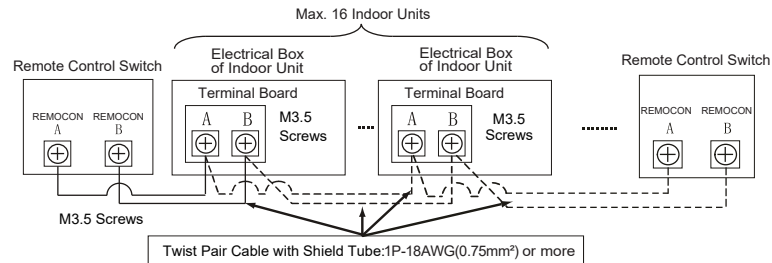


Connect the terminals.

- 3) Attach the remote control switch to the holding bracket. Be careful not to pinch the cable when attaching it.
- 4) Remove the protection film from the liquid crystal display.

## 3. Electrical Wiring

**ATTENTION:** Always make sure to turn off the power of the indoor unit when performing electrical wiring work. Performing electrical wiring work with the power on can damage the circuit boards of the indoor unit and the remote control switch.



### CAUTION

- Use a 22 to 18AWG(0.3 to 0.75mm<sup>2</sup>) cable for connecting. The maximum total cable length is 98.4ft.(30m). If the total cable length exceeds 98.4ft.(30m), use a twist pair cable with shield tube(1P-18AWG(0.75mm<sup>2</sup>) or more). In that case, the maximum total cable length is up to 1640.4ft.(500m). If using in combination with the control timer, the allowable total cable length is up to 328.1ft.(100m). The use of a cable other than specified above can cause of malfunction due to the effects of noise.
- Keep a distance more than 12in.(0.3m) between the transmission line (remote control switch cable and transmission wires) and power source of the indoor units. If not, the air-conditioner may not operate properly or malfunction may occur due to effect of power source noise.
- In case of simultaneously controlling multiple indoor units, set the refrigerant cycle numbers and addresses of the indoor units without overlapping.
- Refer to the Technical Catalog provided with each indoor unit when performing electrical wiring work between the remote control switch and indoor units for setting the refrigerant cycle number and the indoor unit address.
- No gap shall exist between the remote control switch cable and hole of the remote control switch case. If there is a gap, cover the gap with vinyl tape. If not, malfunction may occur due to entrance of water droplets or insects.

## 4. Test Run Mode

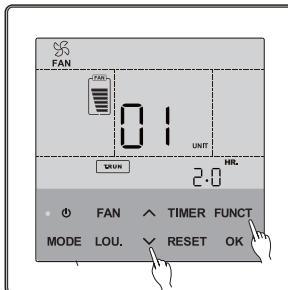
- 1) Turn ON the power supply for all the indoor units.

note

Although a portion of the LCD (liquid crystal display) of the remote control switch may light immediately after the power is turned on, this is not a malfunction.

- 2) For the models with the auto-address function, wait for 3 minutes approximately. The addressing is automatically performed. (There is a case that 5 minutes is required according to the setting condition.)

- 3) Enter running mode



Set the "TEST RUN" mode by pressing the "✓" and "FUNCT" switch simultaneously for more than 5 seconds

- A. "[ 01 ]" is displayed on the LCD.

← Example when 1 indoor unit is connected, max.16 units available.

- B. The total number of the indoor units connected is indicated on the LCD.

- C. In case that the indicated number is not correct, the auto-address function is not performed correctly due to incorrect wiring, the electric noise, etc.

Turn OFF the power supply and correct the wiring after checking the following points; (Do not repeat turning ON and OFF within 10 seconds.)

1. Power supply for indoor unit is not turned on or incorrect wiring.
2. Incorrect connection of connecting cable between indoor units or incorrect connection of controller cable.
3. Incorrect setting of Rotary Switch and Dip Switch (The setting is overlapped.) on the indoor units PCB

- D. Check to ensure that the "TEST RUN" mode is not set.

ATTENTION

UNIT

When "00" is indicated, the auto-address function may be performing. Cancel the "TEST RUN" mode and set it again.

- 4) Canceling "TEST RUN" mode

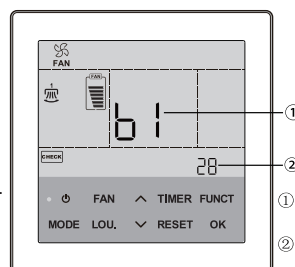
- c 1. When the unit is not operating, press this switch.



- 2. When the unit is operating, press this switch

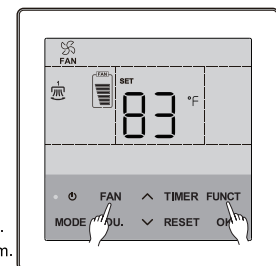
## 5. Check Mode

Normal Mode (When unit is not operating), Press "FUNCT"+"FAN" simultaneously for more than 5 secs. There will display the latest alarming code at ①, and 00 will be displayed when no alarming. And then press "✓" or "∧" to change to CHECK mode.



①

- ① Check item. Initial item is b1.
- ② The value of item.



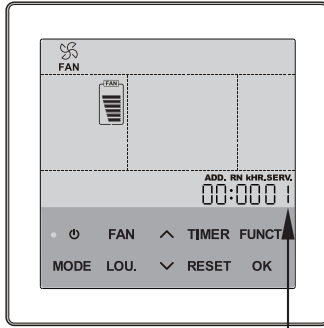
## 6. Optional Setting and Input / Output Setting of Indoor Unit

Normal Mode (When unit is not operating)

### ① Change to the optional setting mode.

Press the "FUNCT" switch and the "▲" switch simultaneously for more than 5 seconds.

### ② Selection of Optional Setting Mode

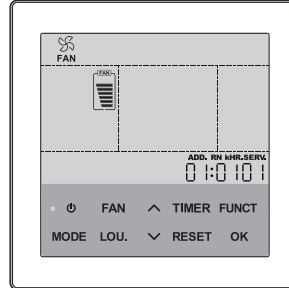


Press the "TEMP." V or ▲ switch and set "01" or "02". Then press the "CHECK" switch.

"SERV." is indicated and the mode number is flashed.

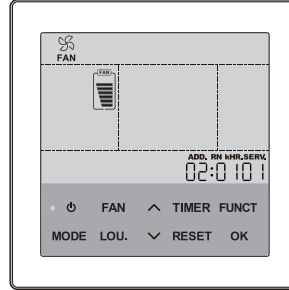
### ③ Selection of Indoor Unit for Optional Setting

"01" or "02" flashes.



The address of the indoor unit (ADD.S) to set and the refrigerant cycle number (RN) are indicated by 0 to 15. (The left figure shows the No.1 cycle and No.1 indoor unit.)

Select the indoor unit to set by pressing the "V" or "▲" switch and press the "OK" switch.

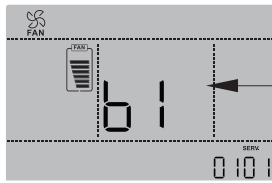


<Example>  
When selecting No.1 cycle and No.2 indoor unit (The address is indicated by 0 to 15.)

NOTES: (1) In case that the both indications of the "ADD.S." and "RN" show "AA", the same setting is performed to all the indoor units.  
(2) The address of indoor unit not connected is not indicated.

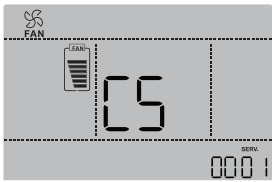
### Optional Setting Mode (Mode Number "01")

#### ④ Selection of Optional Setting Items



Item Code of Optional Setting

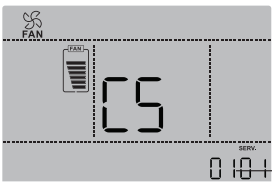
Select the item code by pressing the "V" or "▲" switch



<Example>  
When selecting C5 (Increasing Fan Speed)

In Case of Setting Other Items

#### ⑤ Change of Setting Conditions



The optional setting condition is changed by pressing the "FUNCT" switch.

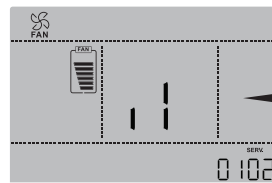
Contents of Optional Setting

<Example> When setting 01 (Increasing Fan Speed 1)

※ Refer to the contents of the setting codes for the Table A of "Optional Setting Items".

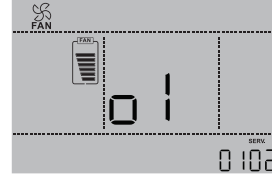
### Input / Output Setting Mode (Mode Number "02")

#### ④ Selection of Input / Output Number



Input / Output Number

Select the item code by pressing the "V" or "▲" switch

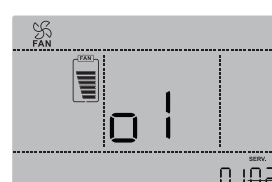


<Example>  
When selecting 01 (Output 1)

※ Refer to Table B (Page 8) for contents of the input / output setting.

In Case of Setting Other Items

#### ⑤ Change of Setting Conditions



The optional setting condition is changed (0→1→2→...) by pressing the "FUNCT" switch.

Contents of Input / Output Setting

<Example> When setting 04 (Output: Thermo-ON for Cooling)

※ Refer to the Table C for the contents of the input / output setting.

Normal Mode

Press the "RESET" switch to cancel the optional setting mode.

Press the "RESET" switch to cancel the input/output setting mode.

● Sheet A Optional Setting Items

Setting item	Name	Individual setting	Setting content	Setting	Setting item	Name	Individual setting	Setting content	Setting
b1	Removal of Heating Temperature Compensation due to Uneven Heat Load	○	00: Standard 01: Removal 02: Set Temp.+35.6°F (2°C) (*1)	F1	Automatic OFF Timer Setting	×	00-24: OFF Timer by 0-24 hours		
b2	Circulator Function at Heating Thermo-OFF	○	00: Not Available 01: Available	F2	Remote Control Main-Sub Setting	○	00: Main 01: Sub		
b3	Enforced 3 Minutes Minimum Operation Time of Compressor	○	00: Not Available 01: Available	F3	Automatic Reset of Setting Temperature	×	00: Not Available 01: Available		
b4	Change of Filter Cleaning Time	○	00~04(*2)	F4	Automatic Reset Time	×	00: 30 min. (Factory-Setting) 01: 15 min. 02: 60 min. 03: 90min.		
b5	Fixing of Operation Mode	×	00: Not Available 01: Available	F5	Automatic Reset Temperature for Cooling	×	19~30:66.2~86°F(19°C~30°C) Factory Setting 77°F(25°C)		
b6	Fixing of Setting Temperature	×	00: Not Available 01: Available	F6	Automatic Reset Temperature for Heating	×	17~30: 62.6~86°F (17°C~30°C) Factory Setting 69.8°F (21°C)		
b7	Fixing of Operation as Exclusive Cooling Unit	×	00: Not Available 01: Available	F8	Lock Function for Operation Mode Selection	×	00: Not Available 01: Available		
b8	Automatic COOL/HEAT Operation	×	00: Not Available 01: Available	F9	Lock Function for Temperature Setting	×	00: Not Available 01: Available		
b9	Fixing of Fan Speed	×	00: Not Available 01: Available	FA	Lock Function for Fan Speed Setting	×	00: Not Available 01: Available		
bb	Cooling Temperature Compensation	○	00: No Compensation 01: Set Temp. 30.2°F (-1°C) 02: Set Temp. 28.4°F (-2°C)	Fb	Lock Function for Swing Louver Operation	×	00: Not Available 01: Available		
C5	Hi Speed	○	00: Not Available 01: Hi Speed 1(*3) 02: Hi Speed 2(*3)	FC	Cooling Lower Limit for Setting Temperature	×	Available set 00~10 (Lower Limit-Set value)		
C6	Hi Speed at Heating Thermo-OFF	○	00: Not Available 01: Available	Fd	Heating Upper Limit for Setting Temperature	×	Available set 00~10 (Upper Limit-Set value)		
C7	Canceling of Enforced 3 Minutes Operation Time of Compressor	○	00: Available 01: Not Available	FF	Lock Function for Operation Timer Selection	×	00: Not Available 01: Available		
C8	Thermistor of Remote Control Switch	○	00: Not Available 01, 02 (*4)	H2	Warm Start Not Displayed	—	00: Not Available 01: Available		
CB	Selection of Forced Stoppage Logic	○	00: A Contact 01: B Contact	J8	Energy-saving operation	×	00: Not Available 01: Available		
CF	Change of Louver Swing Angle	○	00: Standard (7 Steps) 01: Draft Prevention (5 Steps)	P1	Application scope of motion detection	×	00: All are valid 01: Refrigeration & dehumidification is valid 02: Heating is valid 03: Canceled		
d1	The power supply start stop 1	○	00: Not Available 01: Available	P2	Vacancy control mode	×	00: Standby 01: SW OFF 02: Thermo OFF		
d3	Power supply ON/OFF 2	○	00: Not Available 01: Available	P3	Vacancy detection time	×	00: 30min. 01: 60min. 02: 90min. 03: 120min. 04: 180min.		
E1	Ventilation Model	—	00: Automatic Ventilation 01: Ventilation by Total Heat Exchanger 02: Bypass Ventilation (No Total Heat Exchanging)	P4	Meet prediction about change	×	00: Invalid 01: Valid		
E2	Increasing Supply Air Volume	—	00: Not Available 01: Available	P5	Radiation temperature control	×	00: Invalid 01: Valid		
E3	With a humidifier	—	00: Not Available 01: Available	L1	Indoor temperature display	×	00: Invalid 01: Valid		
E4	Time of Precooling and preheating	—	00: Standard 01: 30 minutes 02: 60 minutes	L2	Wired control IR receiver	×	00: Mode A 01: Mode B 02: Invalid		
E6	Indoor Fan Operation Time After Cooling Operation Stoppage	○	00: Standard 01: 60minutes 02: 120 minutes	L3	Run Lamp and backlight brightness	×	00: Low 01: Middle (Factory-Setting)		
E8	Fan Operation Control at Heating Thermo-OFF	○	00: Not Available 01: Available	L5	Health auto start	×	00: Not Available 01: Available 02: Hidden Health		
Eb	Fan Operation Control at Cooling Thermo-OFF	○	00: Not Available 01: LOW 02: SLOW						
EE	Automatic Fan Speed Control	○	00: Not Available 01: Available						

\*1. The "02" setting may not be available according to the type of indoor unit.

\*2. 00: Standard of Indoor Unit 01: 100 hours 02: 1200 hours 03: 2500 hours 04: No Indication.

\*3. In case of RPI models, 00: Increasing fan speed 1 (standard), 01: Increasing fan speed 2 (high static pressure), 02: Standard (low static pressure).

\*4. 01: Control by Thermistor of Remote Control Switch 02: Control by Average Value of Indoor Suction Thermistor and Thermistor of Remote Control Switch.

**NOTES:**

\* After at least 3 minutes after power ON, change the optional setting.

\* The optional settings are different according to the indoor and outdoor unit models. Check to ensure that the unit has the optional setting or not.

\* Record the setting conditions for each optional setting in the "Setting" column of the table.

● Table B Input and Output Number Display and Connectors

● Table C Input and Output Settings and Display Codes

Input number display		Port	Factory Setting		Setting
Input / Output	Indication		Setting Item	Indication	
Input1	11	CN3 1-2	Remote ON/OFF 1 (level)	03	
Input2	12	CN3 2-3	Forbidding Remote Control after Manual Stoppage	06	
Output1	01	CN7 1-2	Operation	01	
Output2	02	CN7 1-3	Alarm	02	
Output3	03	CN8 1-2	Thermo-ON for Heating	06	

Indication	Input	Output
00	Not set	Not set
01	Room Thermostat (for Cooling)	Operation
02	Room Thermostat (for Heating)	Alarm
03	Remote ON/OFF 1 (level)	Cooling
04	Remote ON/OFF 2 (Operation)	Thermo-ON for Cooling
05	Remote ON/OFF 2 (Stoppage)	Heating
06	Forbidding Remote Control after Manual Stoppage	Thermo-ON for Heating
07	Remote Cooling / Heating Change	Total Heat Exchanger
08	Elevating grille input	Elevating Grille output

**NOTES:**

\* After at least 3 minutes after power ON, change the optional setting.

\* The elevating grille input can be set to Input 2 only ("12").

The elevating grille cannot be set to Input 1.

\* The elevating grille output can be set to Output 1 or Output 2 only ("01" or "02").

The elevating grille output cannot be set to Output 3.

\* Do not set the elevating grille for the total heat exchanger.

\* Record the setting conditions for each input and output in the "Setting" column of the table.

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The Company is committed to continuous product improvement. We reserve the right, therefore, to alter the product information at any time and without prior announcement.

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