

# ***Installation and Operation Manual***

*DFS H-Link Gateway*

*Model: DCAHLA*



## **IMPORTANT:**

***READ AND UNDERSTAND THIS  
MANUAL BEFORE USING THE H-  
LINK GATEWAY. KEEP THIS  
MANUAL FOR FUTURE  
REFERENCE.***



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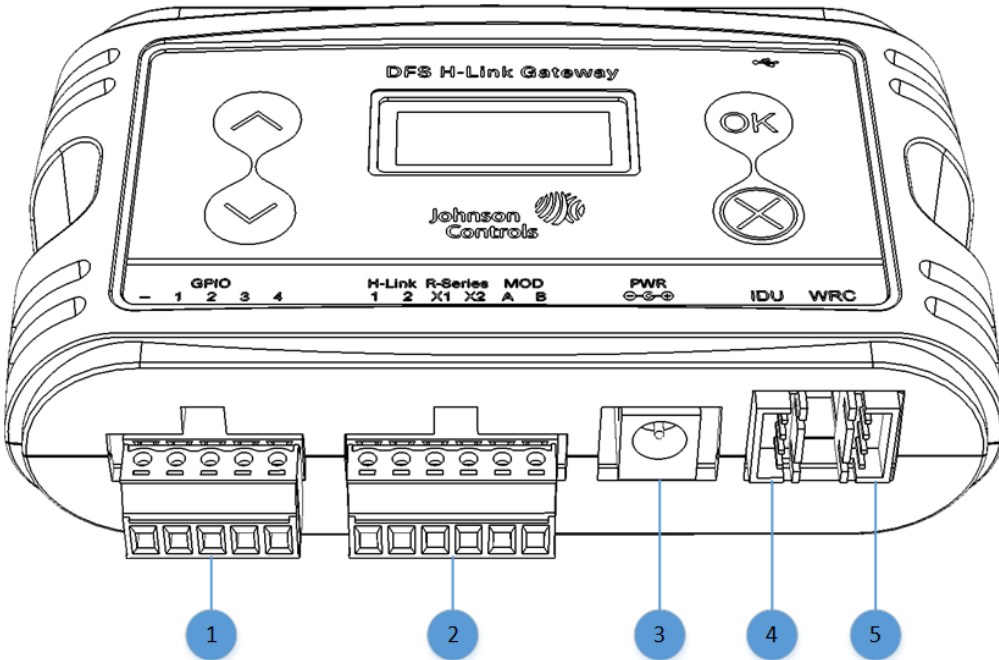
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# 1. Compatibility

DFS Series	Wired Controller Model(Push Button)	Wired Controller Model(Touch Button)	Central Controller Model	Wired Controller Connection
R	DWCR	DWCR2	DCCRMW DCCUNI	2-Wires
M	DWCMW	DWUNI		DCCUNI
W				
P	DWCPX2			
X				

## 2. Layout



### ① - GPIO Terminals

Terminal Name	Function	Direction
-- Ground signal		
1 GPIOA	All ON /All OFF	OUT
2 GPIOB	All ON /All OFF	IN/OUT
3 GPIOC	All ON /All OFF	IN/OUT
4 GPIOD	All ON /All OFF	IN/OUT

Parameter	GPIOA	GPIOB	GPIOC	GPIOD
Input Low Voltage ( $V_{IL}$ )	<1V	<1V	<1V	ADC
Input High Voltage ( $V_{IH}$ )	>2.4V	>2.4V	>2.4V	ADC
Output High Voltage ( $V_{OUT HI}$ )	3.3V	3.3V	3.3V	3.3V
Max Output Current ( $I_{OUT}$ )	20mA	20mA	20mA	20mA
Pull Up	5.6K	5.6K	5.6K	N.A

## ② - Communication Terminals

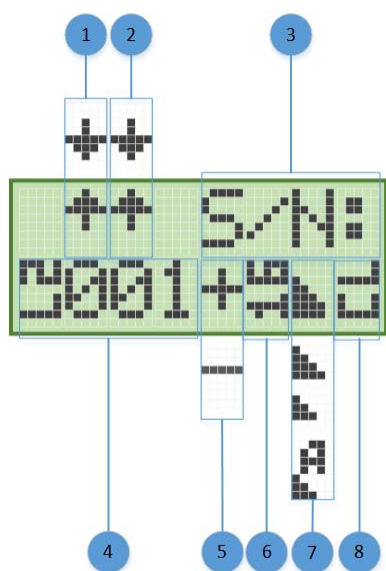
Terminal Name	Function	Polarity
H-Link 1 H-Link 2	H-Link interface	No
R-Series X1 R-Series X2	DFS R-series interface	No
MOD A MOD B	Optional RS485 interface. Not in use	Yes

## ③ - Auxiliary Power Supply Input

④ 4-wires interface for connection to indoor unit

⑤ 4-wires interface for connection to wired controller

## 2.1. LCD Screen



① H-Link communication status

② DFS communication status

③ Device serial number

④ Indoor unit address (L2.001 on this picture)

⑤ Indoor unit status + ON, - OFF

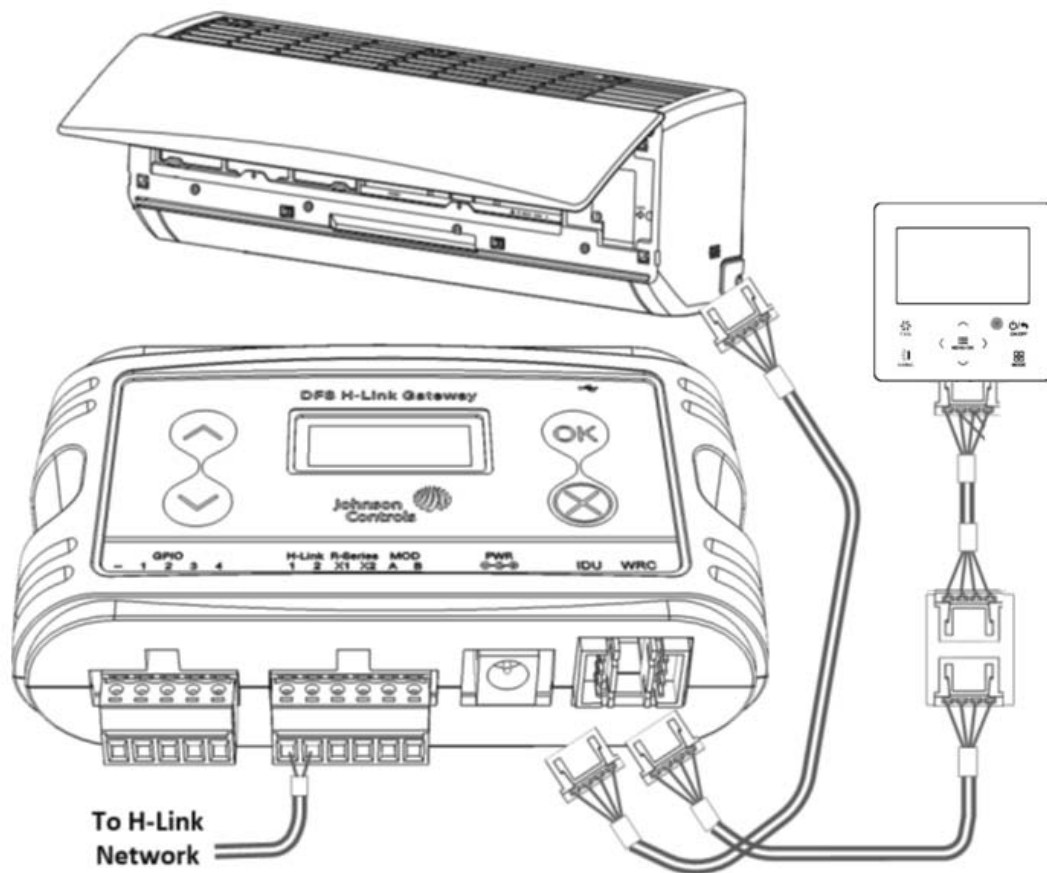
⑥ Indoor unit set temperature (Celsius)

⑦ Indoor unit fan speed

⑧ Indoor unit operation mode:  
**CL**-Cool, **HT**-Heat, **FA**-Fan, **DR**-Dry, **AU**-Auto

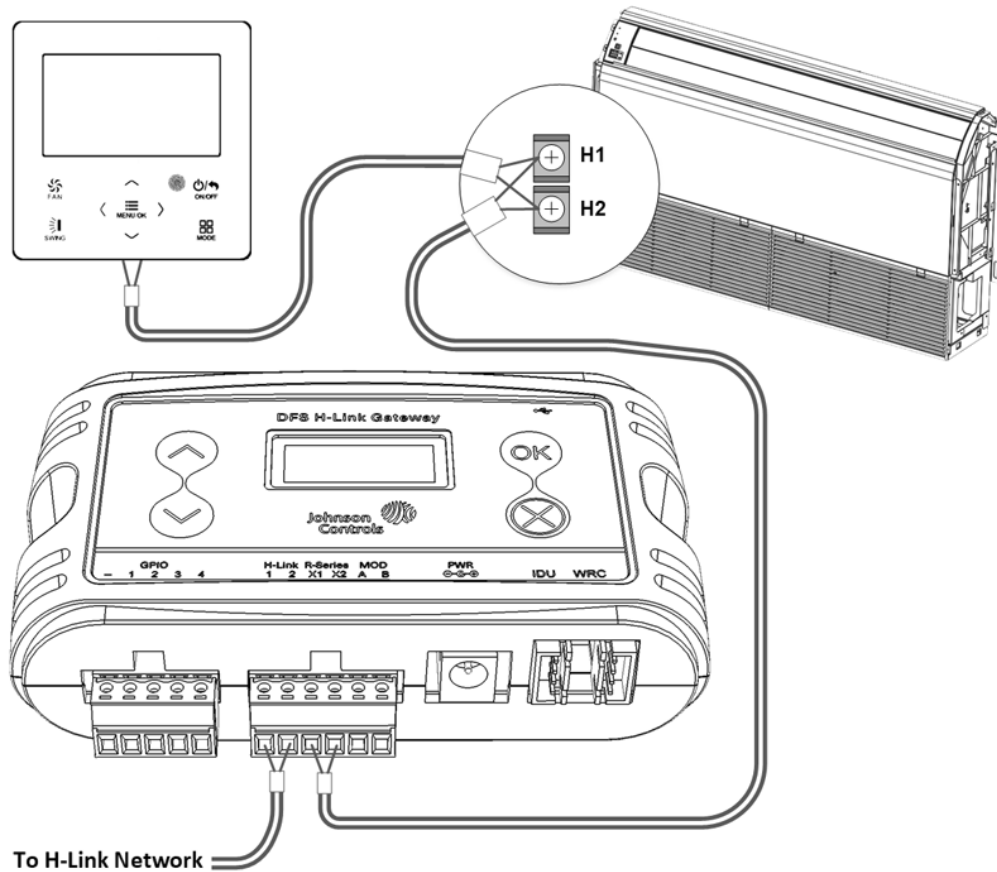
## 3. Connection

### 3.1. M, W, P, X Series





## 3.2. R Series



## 4. Configuration

### 4.1. Initial Setup

- Before connecting DCAHLA to H-Link interface, each DCAHLA unit must be given a unique H-Link address within entire H-Link network. (See [H-Link Address](#)). The default H-Link address is 9-00. Ignoring this step will cause an address duplication and communication issues on H-Link network that will lead to the entire HVAC system becoming inoperable.
- Multi-Split setup of DCAHLA units connected to H-Link network having a same refrigerant cycle number must contain one unit configured as Main (See [Main Unit](#)). This is to guarantee compatibility with CBN01 BACnet adapter, CBN02 VRF Smart Gateway, and other control equipment. By default DCAHLA units are configured as subs.

## 4.2. LCD Menu Interface

Most of the critical configuration parameters of the <%PROD> can be revised and changed with the LCD menu interface controlled by buttons.



Up  
button



OK  
button

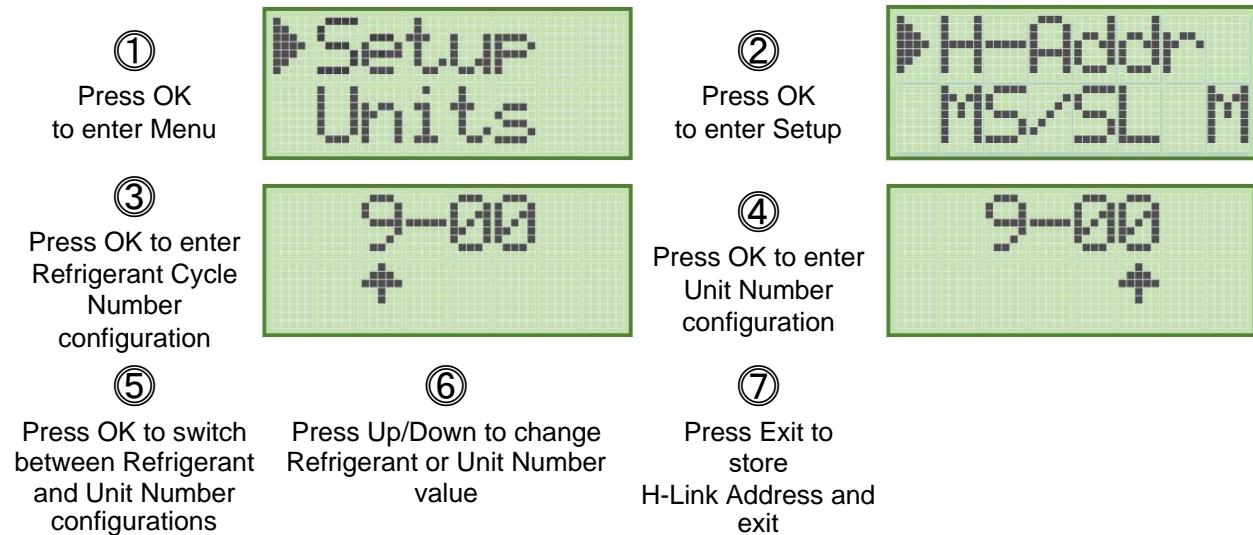


Down  
button



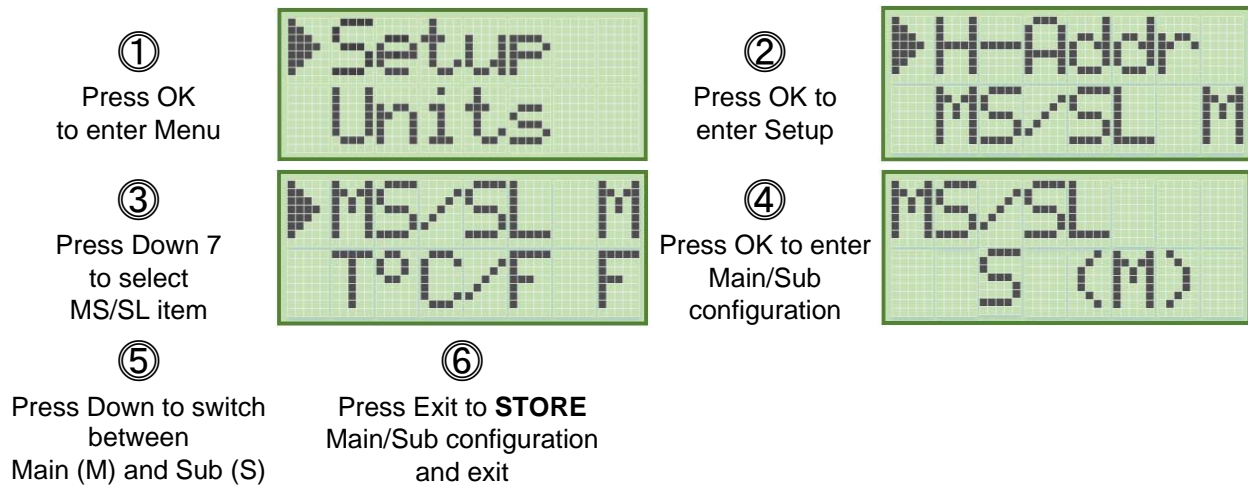
Exit or Cancel  
button

### 4.2.1. H-Link Address



**After changing H-Link address, restart DCAHLA for the new address to become effective.**

### 4.2.2. Main Unit



After changing Main/Sub configuration, DCAHLA must be restarted.

### 4.2.3. Reset

