

Proximity Sensor Control

This Bulletin provides explanation of, and field instruction for, using an external input for start and stop operation of an indoor unit when using a 3rd party proximity (magnetic) sensor. For complete I/O use and function, please refer to the applicable Indoor Unit Installation Manual and Design and Technical Manual, D&T.

Items required: (See also 2. Control Circuitry)

- (1) Fujitsu accessory part # UTY—XWZXZD
- (1) 3rd party proximity sensor- Must provide NC (Normally Closed) dry contact

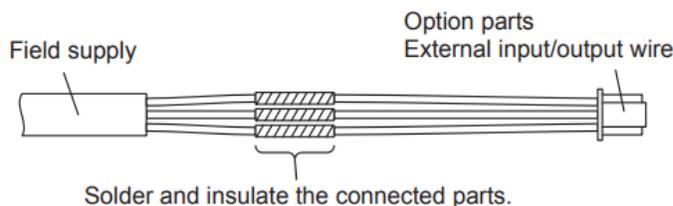
1. External input description

- a. Airstage indoor units provide an external input function that can be used to shut down and restart the indoor unit automatically upon OPEN or CLOSED conditions detected by a 3rd party proximity sensor. This is referred to as the “Operation / Stop” or “Start / Stop” function within the indoor unit Installation Manual and D&T. Proximity sensors may include, but are not limited to:
 - Window sensor
 - Door sensor
- 2. Control circuitry- The 3rd party proximity sensor is wired as an external input to the Airstage indoor unit control board. The 3rd party proximity sensor must be equipped with a set of NC (Normally Closed) dry contacts.
 - a. Fujitsu accessory- An external input accessory wiring harness is required:
 - i. UTY-XWZXZD
 - b. Control signal- The 3rd party proximity sensor NC contacts are wired as an external input to the indoor unit connector, CNA02.

3. External input “Operation / Stop” sequence of operation- The Airstage indoor unit operates until an unoccupied condition is detected by the 3rd party proximity sensor.
 - a. STOP- When the sensors normally CLOSED contacts open, e.g., a window is opened, the indoor unit is turned OFF, and EEV is driven to the fully closed (45P) position.
 - b. START- Indoor unit will resume operation when the sensor contacts close. e.g., the window is closed.

Input signal	Unit Operation
CLOSED	ON
OPEN	OFF

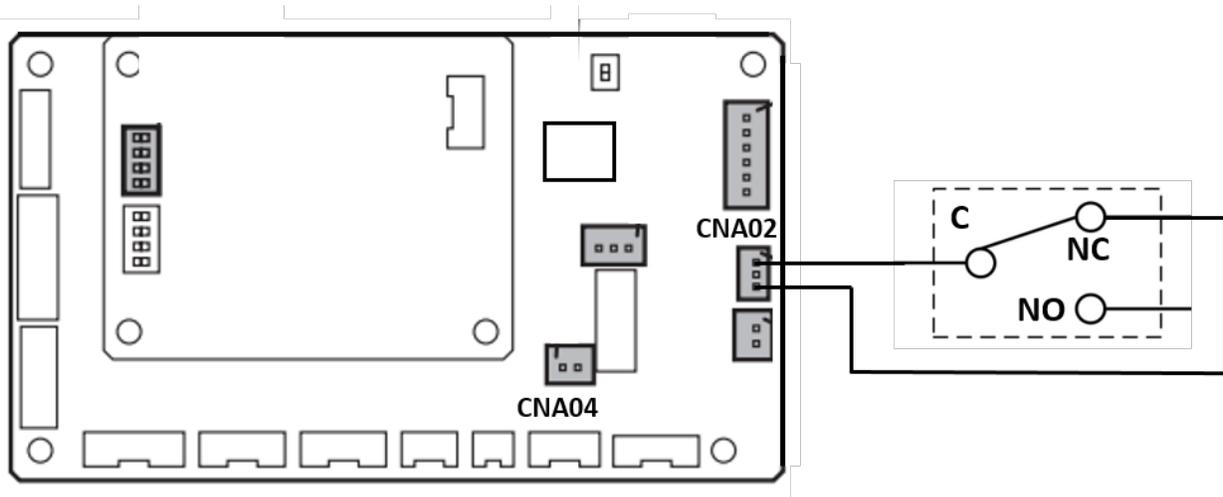
4. 3rd party proximity control wiring- See Fig. 1, page 3.
 - a. Connect Fujitsu accessory UTY- XWZXZD to indoor unit control board connector CNA02 (connector locations may vary upon unit model number)
 - b. Wire the proximity sensor NORMALLY CLOSED contacts to indoor unit connector CNA02 pins 1 and 3.
 - c. Wiring notes:
 - i. Use 22 AWG twisted pair wiring from the indoor unit to the DC relay (“Fujitsu Pink” Honeywell Catalog # 3254 acceptable)
 - ii. Cable maximum length from indoor unit to relay: 492’ (150m)
 - iii. Keep twisted pair wiring separate from line voltage wiring
 - iv. All accessory UTY-XWZXZD connections should be soldered and insulated or made with butt type crimp connectors.
 1. Wire nuts not permitted



S030d

June 2018

Fig. 1



5. Function codes- A function code change is not required to enable the “Start / Stop” feature of the indoor unit, however the setting should be verified.
 - a. Indoor unit function code change may be performed from either:
 - i. Wired Remote control
 - ii. Service Tool
 - b. Function code 46
 - i. Verify setting number to “00” for Start / Stop
 - ii. If setting has to be changed, cycle power at the indoor unit to enable the Function code.

External control	46	00	Start/Stop	○	Allow an external controller to start or stop the system, or to perform an emergency stop. * If an emergency stop is performed from an external controller, all refrigerant systems will be disabled. * If forced stop is set, indoor unit stops by the input to the external input terminals, and Start/ Stop by a remote controller is restricted.
		01	Emergency stop		
		02	Forced stop		



Brought to you by **FUJITSU**

Service

BULLETIN

S030d

June 2018

6. Additional notes:

- a. D&T Manual for complete Operation / Stop set up and use details.
- b. Fujitsu General America is not liable for I/O control circuit design.

7. Additional indoor unit control option references:

Indoor Unit Function	Service Bulletin
Auxiliary Heat Control	S030a
3 rd Party Condensate Pump Shutdown	S030b
Occupancy Sensor Control	S030c
Proximity Sensor Control	S030d
Smoke Detector / Emergency Stop Control	S030e
Fresh Air / Exhaust Interlock	S030f
Indoor Unit External Error Notification	S030g

Application Engineering Bulletin	AE Bulletin
I/O External Input and Output Use	AE030

Please contact your local Airstage Distributor or Fujitsu General America Incorporated for technical assistance:

FGAI Technical Support- (866) 952-8324 8:00 a.m. – 8:00 p.m. EST, Monday - Friday