



EC4-1

EXCHANGE RELAY

User's Manual

RESTRICTIONS ON USE

When using this product in applications that require particular safety or when using this product in important facilities, please pay attention to the safety of the overall system and equipment. Install fail-safe mechanisms, perform redundancy checks and periodic inspections and adopt other appropriate safety measures when it is necessary. This product is rated at Class II

SAFETY PRECAUTION

This manual uses the following symbols to ensure safe operation of this product.

WARNING

Warnings are indicated when mishandling this product might result in death or serious injury to user.

CAUTION

Cautions are indicated when mishandling this product might result in minor injury to the user, or only physical damage to the timer.

WARNING

- Note this incorrect wiring of this product can damage it and lead to other hazards. Make sure the product has been correctly wired before turning the power ON.
- Before wiring, or removing / mounting the product, be sure to turn the power OFF. Failure to do so might cause electric shock.
- Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.
- Do not disassemble the product. Doing so might cause electric shock or faulty operation.

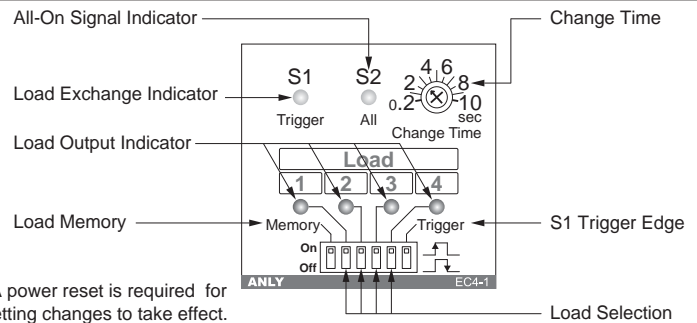
CAUTION

- Use the product within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere and etc.). Failure to do so might cause fire or faulty operation.
- Firmly tighten the wires to the terminal. Insufficient tightening of the wires to the terminal might cause fire.

SPECIFICATIONS

Operating voltage	AC/DC : 100 - 240V
Allowable operating voltage range	85 ~ 110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (Resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 2.3VA
Life	Mechanical : 5,000,000 times / Electrical : 100,000 times
Ambient temperature	-10 ~ +50 °C (without condensation & freezing)
Ambient humidity	MAX 85% RH (without condensation)
Altitude	MAX 2000m
Weight	Approx. 150g

NAMES AND FUNCTIONS OF FACEPLATE



*A power reset is required for setting changes to take effect.

HOW TO USE

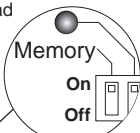
1. Change Time :

Set the desired value for the change time, ranging from 0.2 to 10 sec..



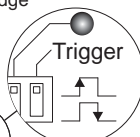
2. Load Memory :

When Memory is On, after a power reset, the running load prior to the reset will resume. When Memory is Off, after a power reset, load sequence will always start from Load 1.



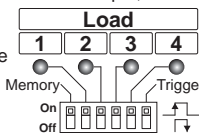
3. S1 Trigger Edge:

When Trigger Edge is On, S1 will respond to a rising-edge signal. When Trigger Edge is Off, S1 will respond to a falling-edge signal.



4. Load Selection:

Select the desired loads to be cycled in the load sequence by turning the desired loads On. For example, when Load 1-3-4 are On. The load sequence will be 1-3-4.



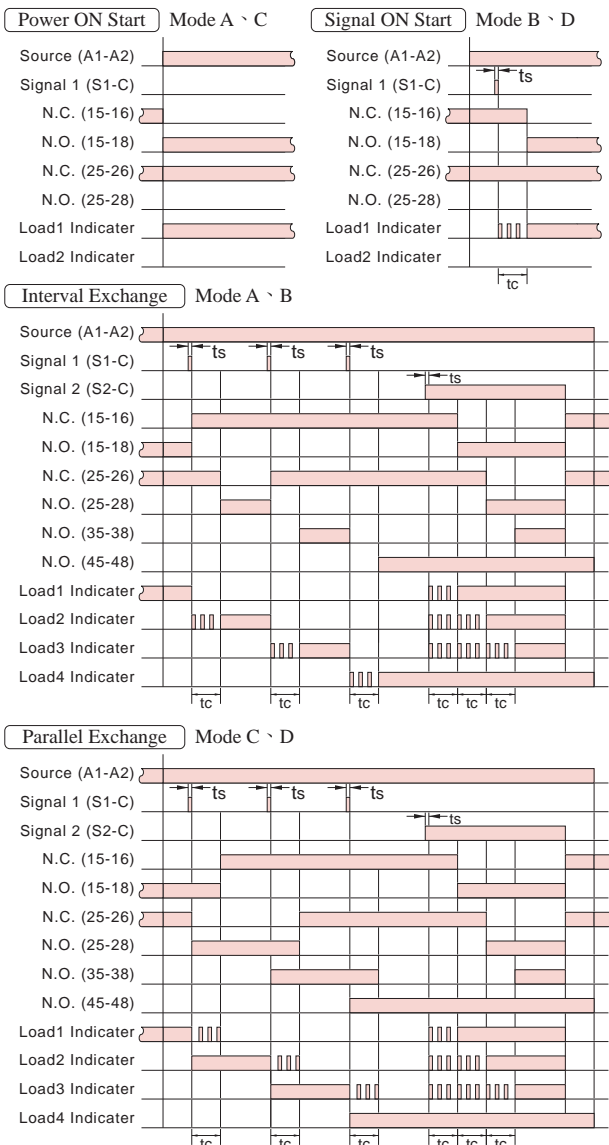
5. S1, Load Exchange Signal:

S1 can be applied by shorting S1 and C. When S1 is applied, Interval Exchange (Mode A,B) or Parallel Exchange will proceed (Mode C,D) according to the Mode specified.

6. S2, All-On Signal:

S2 can be applied by shorting S2 and C. When S2 is applied, all selected loads will start running in sequence with the set Change Time. When S2 is interrupted, only the running load prior to the signal will continue.

TIMING CHART



Mode	A	B	C	D
Power ON Start	○		○	
Signal ON Start		○		○
Interrupted Exchange	○	○		
Parallel Exchange			○	○

ts : Signal time > 200ms tc : Change time

CONNECTION

