



# To Use This Product Safely

Be sure to read this before use. For general cylinder information, see Intro 41, and for cylinder switches, see P. 1512.

Individual Precautions: Lightweight clamp cylinder CAC-N32/40 / Lightweight clamp cylinder with drop prevention UCAC-N32/N40

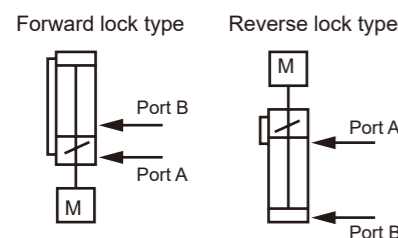
## Design / Selection

### UCAC-N32/N40

#### Warning

Make sure to supply pressure to port B, and before unlocking, check that load is not applied to the lock mechanism.

If pressure is supplied to port A while both ports A and B are exhausted and the piston is locked, the lock may not be released, or the Piston rod may extend suddenly even if the lock is released, which is very dangerous.



If the cylinder is held with pressure applied on the locking mechanism, the lock could be released. Do not use 3-position closed center and 3-position P-A-B connection solenoid valves.

If a back pressure is applied while locked, the lock may be released. Use a discrete solenoid valve for brake release, or use an individual exhaust manifold.

Do not use with the by-pass tube disconnected as lock response could be delayed.

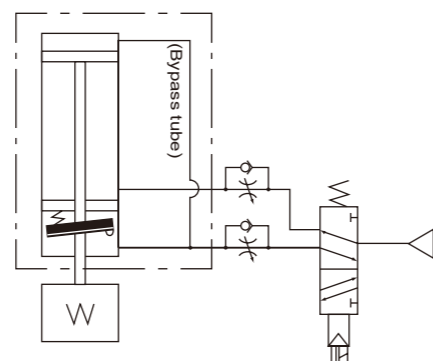
Note that due to the structure, a 1 mm deviation may occur when stopped with the lock.

#### CAUTION

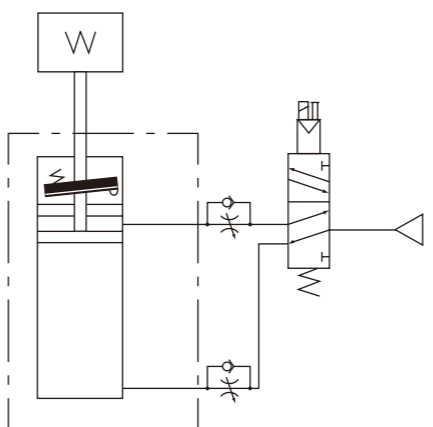
##### Basic Circuit Diagram

If you want to control each speed separately, installation of a speed controller is necessary.

##### Forward Locking F type



##### Backward Locking B type



When an emergency stop or urgent stop is performed, the forward direction lock type will continue to retract, and the reverse direction lock type will continue to advance and return to the home position. (It will stop at that position when residual pressure is gone)

## During Use

### 1. Common

#### CAUTION

Flush the connected pipe sufficiently to prevent foreign materials or cutting chips from entering the cylinder when installing the product.

Be careful not to scratch or dent the Piston Rod sliding part. This can lead to damage to packings and cause air leakage.

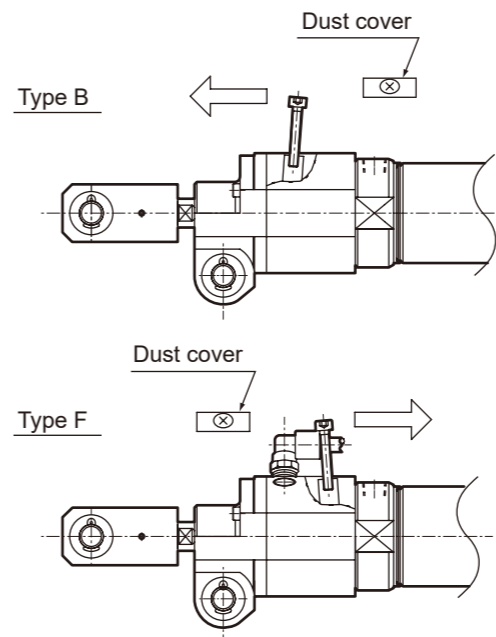
### 2. UCAC-N32/N40

#### Warning

During equipment maintenance, please take separate measures for safety so that the load does not fall due to its own weight. Since the locking force will decrease and it is dangerous, do not apply rotational force (torque) to the rod during lock operation. Also, use with a mechanism that prevents rod rotation.

#### How to unlock manually

1. Remove dust cover A.
2. Hexagon Socket Head Cap Screw in screw hole M4 of lock metal (Length 40 or more recommended) Screw in all the way.
3. Tilt the Hexagon Socket Head Cap Screw in the direction of the arrow to free the rod.



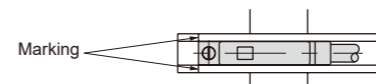
Do not disassemble the unit, as doing so may be dangerous.

### 3. Common (With T-type switch)

#### CAUTION

##### When Moving the Switch Position in the Stroke Direction

- The 1-color indicator switch can be finely adjusted by about ±3 mm from the mounting position at the time of shipment. If the adjustment range exceeds ±3 mm, or if fine-tuning the position of a 2-color indicator switch, move the band position.
- Loosen the switch mounting screw, move the switch along the rail, and tighten at the specified position. For T2, T3, T0, T5, use a flat-head screwdriver (watchmaker's screwdriver, precision screwdriver, etc.) with a grip diameter of 5 to 6 mm, tip shape width of 2.4 mm or less, and thickness of 0.3 mm or less to tighten the switch fixing screw with a tightening torque of 0.1 to 0.2 N·m. For T1, T□C, T2J, T2Y, T3Y, T8, tighten with a tightening torque of 0.5 to 0.7 N·m.
- The switch rail has a marking 4 mm from the end face of the rail. Use it as a guide for mounting position when replacing the switch. The switch rail marking is set to the switch maximum sensitivity position at factory shipment. If the switch type changes or the band is moved, the maximum sensitivity position changes, so adjust the position each time.



## UCAC-N32/N40 Series

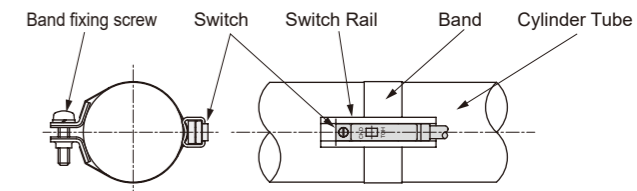
### Specific Precautions

#### When Moving the Switch Position in the Circumferential Direction

- Loosen the band fixing screw, move the switch rail circumferentially, and tighten it at the specified position. The tightening torque is 0.6 to 0.8 N·m.

#### When Moving the Band Position

- Loosen the band fixing screw, move the switch rail and band along the cylinder tube, and tighten them at the specified position. The tightening torque is 0.6 to 0.8 N·m.



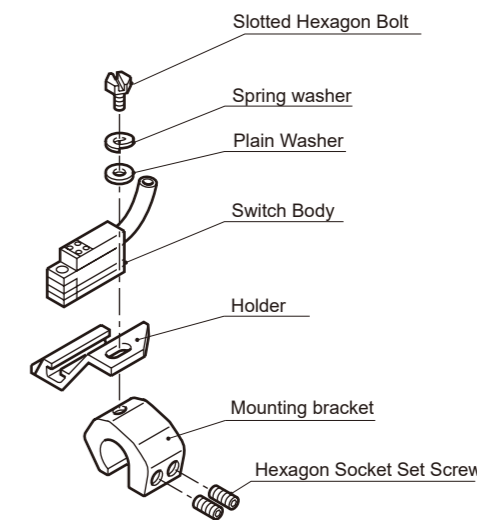
#### Switch mounting and travel method for tie rod mounting (A/C)

##### Mounting method

- 1) Pass a spring washer and flat washer through the slotted Hexagon Bolt and set the holder.
- 2) Fit the mounting bracket onto the cylinder tie rod and tighten the Hexagon Socket Head Cap Screw. Tightening torque is 0.5 to 0.7 N·m.
- 3) Finally, tighten the Hexagon Socket head Set Screw. Tightening torque is 1.7 to 2.0 N·m.

##### Movement method

- 1) Fine adjustment  
Loosen the slotted Hexagon Bolt, move only the switch body, and tighten it at the specified position. Tightening torque is 0.5 to 0.7 N·m.
- 2) Coarse adjustment  
Loosen all slotted Hexagon Bolts and Set Screws, move the entire mounting bracket to the specified position, and then tighten the slotted Hexagon Bolts. Tightening torque is 0.5 to 0.7 N·m. Then, tighten the Set Screw. Tightening torque is 1.7 to 2.0 N·m.



For precautions during mounting, installation, adjustment, use, and maintenance, refer to "During Use" in this catalog and the CKD Components Product website (<https://www.ckd.co.jp/kiki/en/>) -> "Model No." -> "Instruction Manual".