**Introduction**

The RC401G-C Reagent Tank is designed to be used in preparation of reagents for liquid analyzers such as a residual chlorine analyzer and an alkalinity meter. Its large casters allow the tank unit to be moved from a lab, where reagents and deionized water are weighed and mixed, to the field, where the liquid analyzer is installed.

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**CAUTION**

The RC401G-C should be moved carefully and slowly on smooth and level floors with no obstacles to caster wheeling. The tank is not fixed on the cart. When the tank holds a large quantity of reagents, the center of gravity shifts upward and thus the tank unit may topple. Handle with extreme care.

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This manual provides general information on how to handle the RC401G-C Reagent Tank. For procedures for preparing reagents, refer to the user’s manual of your liquid analyzer.

### 1. Components and Their Functions

**Reagent Tank**

A PVC tank (maximum capacity: 120 L) in which a reagent of up to 100 L can be prepared. Equipped with a stirrer handle.

**Hose** (Hose P/N: L9901DF-2m)

Conveys the prepared reagent to an analyzer tank. For easy transfer of reagent, a U-shaped nozzle is attached on the end of the hose of approximately 2 m in length.

**Ball Valve**

Should be opened when draining the tank or taking an aliquot of the prepared reagent as a sample.

**Pump Switch**

Turns on/off power to the pump.

**Power Cord (5 m)**

With a plug with earth pin. Should be plugged into the power supply of 100 V AC, 50/60 Hz.

**Casters**

Two front casters in the figure in the upper right are equipped with stoppers, which should be locked except when moving.

**Figure 1 RC401G-C Reagent Tank Unit Components**
2. Specifications

Dimensions:
Approx. 500 (W) x 1280 (H) x 850 (D) mm

Weight:
Approx. 40 kg (when tank is emptied)

Reagent Tank (with Stirrer Handle and Indicator)
Capacity: 100 L (120 L max.)
Material: Rigid PVC

Cart (with Casters)
Main material: Frame: Steel pipe (SPG30A)
Bracket: Steel plate (SPCC)
Finish: Melamine resin coating, baked finish
Color: Gray

Pump (Seal-less Pump)
Discharge flow rate: 14 to 35 L/min
Wetted part material: Polypropylene resin, Hastelloy, ceramics, fluorine rubber

Power supply: 100 V AC, 50/60 Hz
Power consumption: 65 W
Power cord: 2-core PVC insulated PVC sheathed cable, 5 m

Piping
Material: PVC resin (soft/rigid)

3. Precautions for Storage

• When not in use for a long period of time, the tank should be emptied. If necessary, it should be washed.
• The tank should be stored so that dust and foreign matter do not get into.
• For storage, turn off the pump switch and unplug the power cord from the outlet.
• Two caster stoppers should be locked.

4. Precautions for Reagent Preparation

• First, check that the ball valve is fully closed.
• Make sure that the pump switch is positioned to off before plugging the power cord into the outlet.
Specified power supply is 100 V AC, 50/60 Hz.

⚠️ CAUTION

To prevent possible accidents caused by electric leakage, keep the power cord dry.

• In the final stage of reagent preparation, allow the pump to operate for 2 or 3 minutes, with the hose’s nozzle end put in the reagent tank, to circulate the reagent well for uniform concentration.

5. Precautions When Moving the Tank

• Follow the instructions stated in “Introduction.” When the tank holds a large quantity of reagents, it is recommended that the tank unit should be moved by more than one person to avoid any troubles.

6. Precautions When Sending the Reagent to an Analyzer Tank

• Before plugging the power cord into the outlet with earth pin, make sure that the pump switch is positioned to off. Specified power supply is 100 V AC, 50/60 Hz.
Note: The discharge flow rate of the pump varies depending on the power supply frequency.
• Before sending the reagent, check the volume of the reagent to be put in an analyzer tank.
• Send the reagent while checking the solution level by the indicator on the reagent tank. The scale on the indicator is as a rough guide.

7. Inspection, Maintenance, and Replacement

• Inspection of the power cord
To prevent accidents caused by electric leakage or short-circuit, inspect the insulated sheath of the cable for significant damage from time to time. If the cable needs to be replaced, contact Yokogawa.

• Replacement of the pump
The pump is of seal-less construction (magnet drive type): there is no sealing sections between the pump chamber and the motor chamber. This eliminates the need for maintenance such as periodic replacement of seals.
When the pump life has expired or if abnormal noise or vibration occurs, the pump fails to send the reagent even with the pump powered, or other abnormalities are observed, replace the pump with a new one.