Product specification

Uro Checker

Model	URC-50M
Product Classification*	Urinometer, Mechanical
Regulation Number*	876.1800
Regulation Description*	Urine flow or volume measuring system
Measurement method	An urine bag is hung and weighed on a strain gauge load cell to measure the amount of urine output per set time.
Measurement accuracy	± 2 g or less (machine accuracy) * The measurement accuracy depends on the states of installation of the urine bag.
Measurement range	0 to 3,000 g
Interfaces	USB port / Ethernet port / NFC / Wi-Fi (IEEE802.11b/g/n/a) Hemato Check Module connection port
Wireless specification	IP address DHCP/Static Security WPA2-Personal / WPA2-Enterprise / Open
Rated power	Single-phase 120VAC 60Hz 0.3A
Battery	Lithium-ion rechargeable battery Maximum continuous measurement time : 36 hours (Depends on the operation mode) Time to full charge : More than 6 hours or more
External dimensions	W 10.03 × H 6.69 × D 5.11 in (W 255 × H 170 × D 130 mm) (excluding the urine bag hook and the mounting bracket)
Weight of main unit	3.4 lb (1,550 g) or less (excluding the urine bag hook and the mounting bracket)
Use environment	Temperature during use : 41°F to 95°F (+ 5°C to + 35°C) Humidity during use : 10 to 85% RH (No condensation)
Transportation/storage environment	Temperature during transportation/storage : 32°F to 140°F (0°C to + 60°C) Humidity during transportation/storage : 10 to 85% RH (No condensation)
Classification by type of protection against electric shock	When AC power is connected : Class II device When AC power is not connected : Internally powered equipment
Classification of applied part by degree of protection against electric shock	Type BF applied part
Ingress Protection	IP24
Display Setting	Patient ID/name display Display sleep Off/On (15~120 seconds) Clock display 1 item (UO/Hb) / All in 1 display (UO and Hb) UO unit (g or mL: urine specific gravity input)
Notification Setting	Full Bag Notice,High UO Notice, Low UO Notice Restart Reminder, Start Reminder High Hb Notice, Low Hb Notice
Time Setting	Time setting Measurement time (24 hours and two other settings: 1 min/5 min/15 min/30 min/1 hr/2 hr/4 hr/8 hr/12 hrs) Initial time setting
Uro Logger / Vital Logger Setting	Location setting NFC transmission

Hemato Check Module

Model	HCM-50M
Product Classification*	Diazonium Colorimetry, Urobilinogen (Urinary, Non-Quant)
Regulation Number*	862.1785
Regulation Description*	Urinary urobilinogen (nonquantitative) test system
Measurement method	Measure hemoglobin concentration in urine by absorbance spectrophotometry using an optical sensor
Measurement accuracy	Low concentration (0.00 to 0.40 g/dL) : ± (20% + 0.05 g/dL) High concentration (0.40 to 1.20 g/dL) : ± (50% + 0.05 g/dL)
Measurement range	Hemoglobin concentration: 0.00 to 1.20 g/dL
Output scale interval	0.05 g/dL
Interface	Dedicated connection port to the Uro Checker
Power supply voltage	5VDC powered supply from the Uro Checker main unit
Power consumption	0.25 W or less
External dimensions	W 3.74 × H 3.54 × D 2.17 in (W 95 × H 90 × D 55 mm)
Weight of main unit	250 g or less
Use environment	Temperature during use : 41°F to 95°F (+ 5°C to + 35°C) Humidity during use : 10 to 85% RH (No condensation)
Transportation/storage environment	Temperature during transportation/storage : 32°F to 140°F (0°C to + 60°C) Humidity during transportation/storage : 10 to 85% RH (No condensation)
Classification by type of protection against electric shock	Class II device
Classification of applied part by degree of protection against electric shock	Type BF applied part
Ingress Protection	IP24

Uro Logger

Operational environment	OS : LINUX Ubuntu 20.04LTS or later CPU : Intel Core i3 2 Core or equivalent Memory : 8GB or larger Disk capacity : 600GB or larger DB : Postgre SQL Web server : NGINX

Vital Logger

Supported Web browsers	Google Chrome / Apple Safari / Mozilla Firefox

*Information from FDA Device Listing

The information in this catalog is current as of 09 August 2024.
The company name and product name described in this catalog are registered trademarks.
The machine color in this catalog may differ from the actual machine.
The machine appearance and specifications described in this catalog are subject to change without any notification.

ISHIDA

ISHIDA MEDICAL
https://ishidamedical.us

■ Manufacturer

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Distributed by

0824(NS)No.0001

ISHIDA

Automated urine output monitoring and hematuria detection

Urine Measurement and Recording system

# Digital Transformation of Urine Measurement

Ishida is a manufacturer of measuring and testing instruments, and Ishida Medical provides the medical industry with its innovative and state-of-the-art technology. Our urine measurement and recording system automatically monitors urine output and provides real-time accurate measurement data to healthcare professionals.

Our system saves time and labor compared to the conventional manual measurement process. Additionally, it helps reduce the risk of exposure for nurses and the risk of infection for patients.

Before

Nurses manually measure urine output and hematuria → Manually input data into EHR → Physicians check the data and decide on the treatment

Hematuria Scale
I II III IV V

Too busy to consistently and accurately measure urine output

Hygienic concerns with urine contact

Calculating urine output and entering data into EHR is time consuming and allows for manual errors

Would like to accurately monitor IN/OUT volume

Would like to monitor the hematuria level

Would like to see the urine output details over time

After

The Uro Checker measures urine output and hemoglobin concentration over time

Sends the data to the Uro Logger / Vital Logger

Display the urine output data. Physicians can decide on the appropriate treatment based on the data

65 mL

Wi-Fi / Wired LAN
NFC

Uro Logger / Vital Logger

mL

Digitizing the urine output data, which used to be an analog process

1

2

Uro Checker

The Uro Checker uses a mass sensor to measure the amount of urine collected in the urine bag in real time, and displays the urine output during a set amount of time.
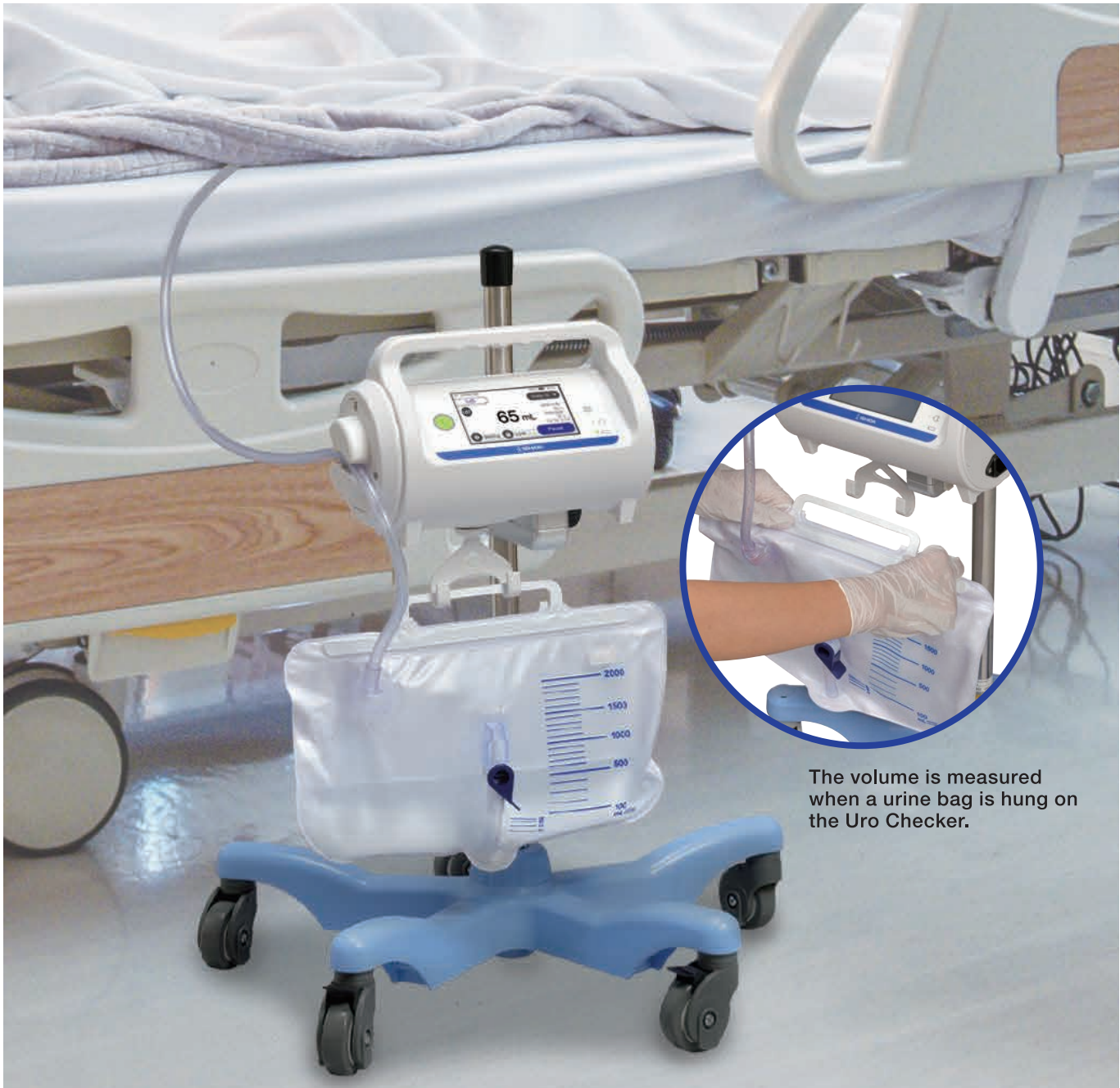
The volume is measured when a urine bag is hung on the Uro Checker.

Portability

Uro Checker is powered by a rechargeable and replaceable battery for easy portability. The device can also be plugged in via AC power.

Versatility

The product is designed to work with a wide range of urine bags and eliminate the need for costly urine meter bags.

Data reference

The Uro Checker measurement data can be transferred to the Uro Logger / Vital Logger on a cloud server via Wi-Fi or wired LAN. It enables remote notifications to staff stations, other locations, and provides a history of urine output status.

Main functions
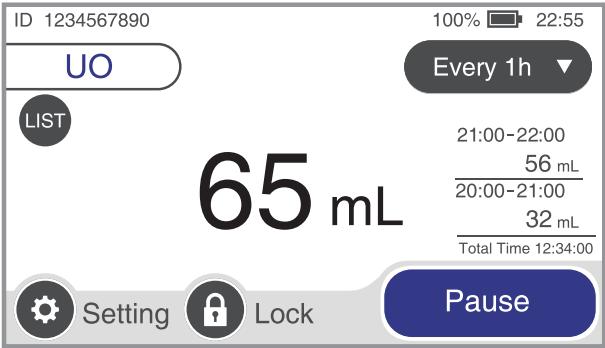
During the measurement screen

Hang the urine bag, then start the measurement. You have the option to choose the time intervals (two-time interval options) aside from 24 hours. The display shows the past two results.
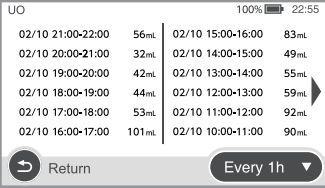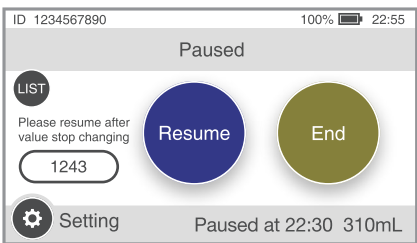
Notification & Alert
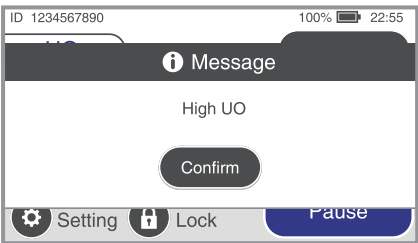
- Urine bag full
- High UO, Low UO
- Start reminder

You will be notified when the measurement is above or below the set thresholds.

Drain urine during the measurement
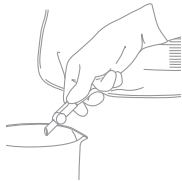
When the urine bag is full, and it is time to discharge, press Pause. When the pause is released after discharging, the measurement resumes from the value before the pause.

Product Benefits

Reduce Workload

Automates the measurement and recording of urine output by nurses and anesthesiologists. Accurate automatic measurement at regular intervals saves labor.

Reduce Risk

Real-time monitoring of urine output allows for early identification of changes in the patient's condition. Reducing the frequency of draining the urine bag it lowers the risk of worker exposure and patient urinary tract infection.

Reduce Costs

Urine meters can be replaced with low cost urine bags. It also reduces the cost of consumables used for infection protection during urine output measurement.
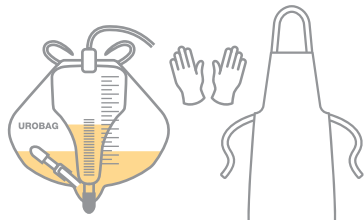
Uro Logger / Vital Logger

Two types of software are available with a subscription service, one is Uro Logger, an on-premise software, and another is Vital Logger, a cloud-based software. It allows users to aggregate urine output data measured by the Uro Checker via Wi-Fi, wired LAN, and NFC for easy-to-read graphs, remote staff notifications, and linkage to other systems.
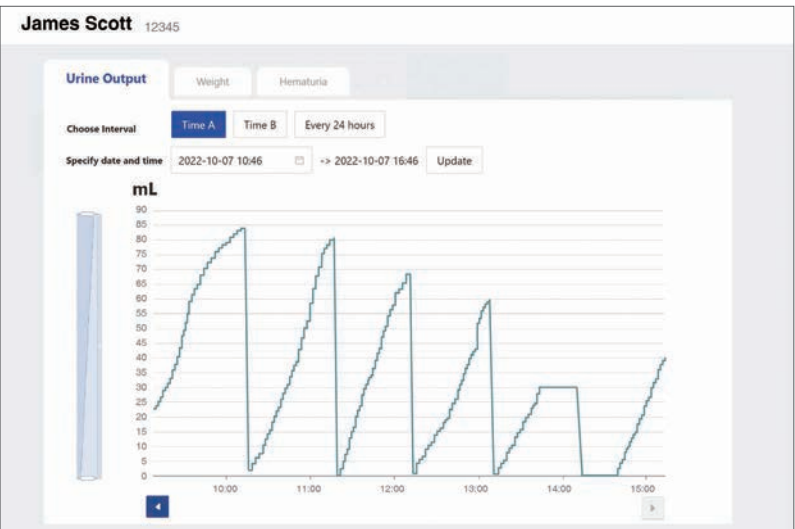
Main functions

1. Reference

Urine output bar graph

The bar graph displays the urine output data, for each scheduled measurement, from the start of the Uro Checker's measurement cycle.


Urine output line graph

The line graph displays real-time urine output data measured by the Uro Checker. It provides a previously invisible "urine output indicator."
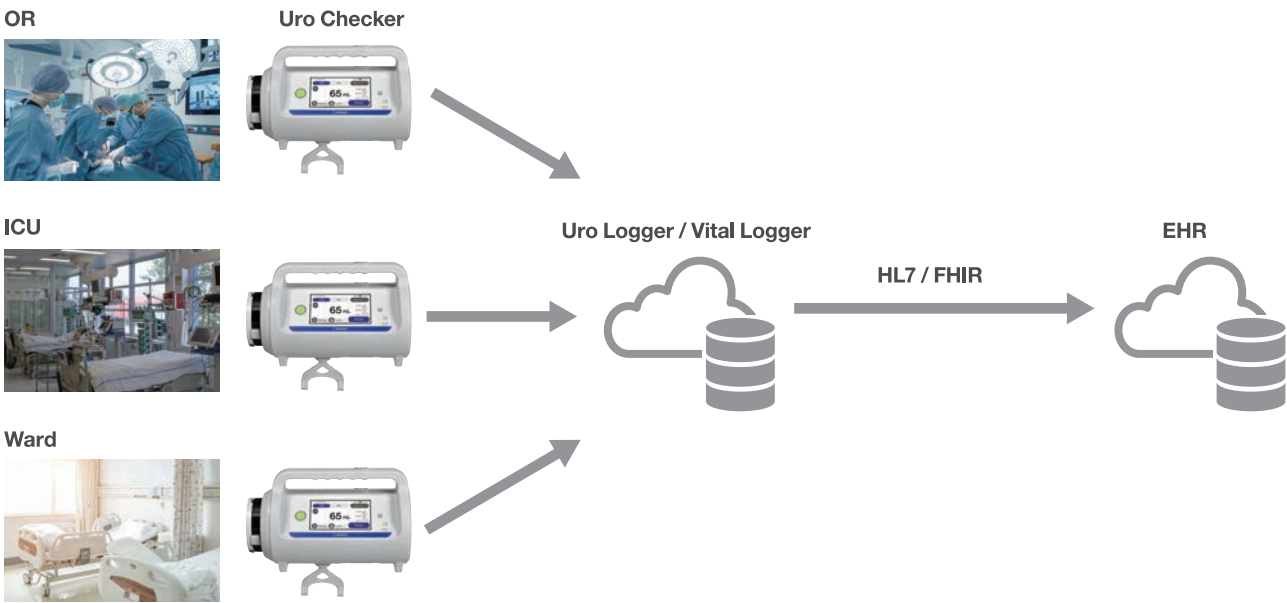

2. Notificaition

Patient list

You can select any Uro Checker to be displayed on the screen.
The system notifies the user when thresholds are exceeded or lowered.
Patient status can be checked remotely at staff stations and other locations.
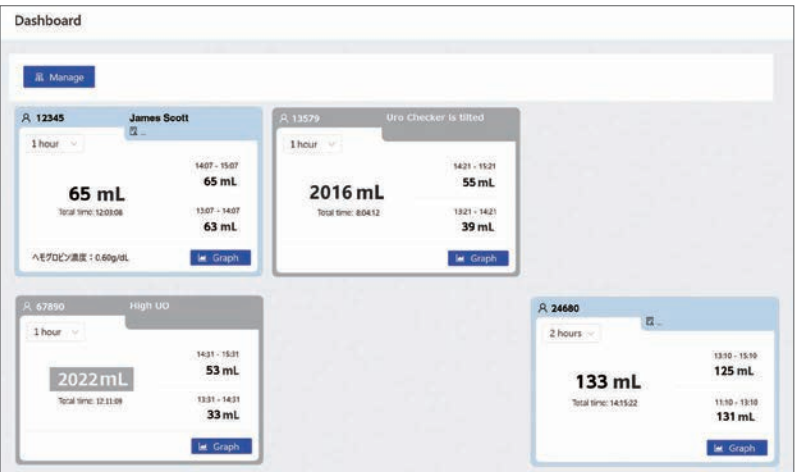
3. Linkage

The Uro Logger / Vital Logger can output and link data. Please consult us for linkage to other systems.
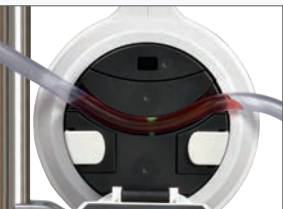

Hemato Check Module

The Hemato Check Module is connected to the Uro Checker and uses an optical sensor to measure the hemoglobin concentration in the urine from the outside of the tube.
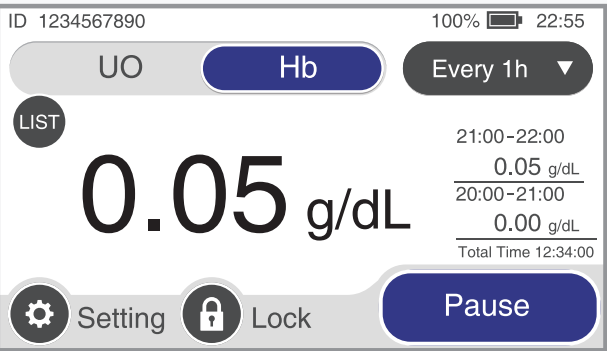
During the measurement screen

The urinary hemoglobin concentration flowing through the urine bag tubing is measured and displayed in g/dL.

It is re-attachable with the Uro Checker

The tubing of the urine bag is clamped in a U-shape, filled with urines, and measured for urinary hemoglobin with an optical sensor.